Section 6 Report Review

Attachment to letter dated November 26, 2002

Project: Golden-cheeked warbler habitat use on Kerr WMA/Population biology and habitat selection patterns of golden-cheeked warblers of the BCNWR

Final or interim report? Final

Job #: 43

Reviewer's Station: Austin Ecological Services Field Office

Lead station was contacted and concurs with the following comments:
___ Yes ___ No _X_ Not applicable (reviewer is from lead station)

Interim Report	Final Report
___ is acceptable as is	___ is acceptable as is
___ is acceptable as is, but the comments below need to be addressed in the next report	_X_ is acceptable, but needs minor revision (see comments below)
___ needs revision (see comments below)	___ needs major revision (see comments below)

Comments:

We understand the difficulty in completing this project since the original project investigator has left Texas Parks and Wildlife Department. We appreciate the efforts made by current staff to look at the data that was left behind by the project investigator and realize that due to the nature of the hand written field notes that the original project objectives cannot be met.

The Service will consider this report final when TPWD revises the Significant Deviations section to give a more detailed explanation for why the project could not be completed (including the nature of the data left behind).

FINAL REPORT

As Required by

THE ENDANGERED SPECIES PROGRAM

TEXAS

Grant No. E-1-9

Endangered and Threatened Species Conservation

Project 43: Golden-cheeked Warbler Use of Habitat Patches on the Kerr Wildlife Management Area

Prepared by: Craig Farquhar

TEXAS PARKS & WILDLIFE

John Herron
Program Director, Wildlife Diversity

Robert Cook
Executive Director

June 1, 2002

FINAL REPORT

STATE: Texas **GRANT NO:** E – 1 – 9

PROGRAM TITLE: Endangered and Threatened Species Conservation

PERIOD COVERED: September 1, 1991 – August 31, 1996

PROJECT NUMBER: 43

PROJECT TITLE: Golden-cheeked Warbler Use of Habitat Patches on the Kerr Wildlife Management Area

PROJECT OBJECTIVE:

1. To assess the distribution, density, and quality of Golden-cheeked Warbler territories in relation to woodland margins on the Kerr Wildlife Management Area.
2. To assess the rates of Golden-cheeked Warbler population turnover and/or site fidelity.

PREPARED BY: Craig Farquhar June 1, 2002

APPROVED BY: Neil E. Carter 7/9/02

Neil E. Carter
Federal Aid Coordinator
Texas Parks & Wildlife Department

Date

Significant Deviations

This project was a six-year field study of the behavior and population biology of Golden-cheeked Warblers in their breeding habitat in central Texas. Significant deviations include:

1. Move of the study area from Kerr Wildlife Management Area to Balcones Canyonlands National Wildlife Refuge. Reasons for this move are unclear. It is possible that Golden-cheeked Warbler population sizes were greater at the Refuge facilitating behavioral and population studies. Also, the Balcones Canyonlands National Wildlife Refuge study site was much closer to the principle investigators residence, allowing more intensive day-to-day observations for several years.
2. A final report was not completed by the original principle investigator (Dean Keddy-Hector) or by the subsequent principle investigator (David Hernandez) while either individual worked on this project. The final report includes an overview of the project plus all original data that current TPWD staff have been able to locate.

List of Enclosed Materials

1. Final Report. Prepared by Craig Farquhar, June 1, 2002.

2. Appendix 1. Golden-cheeked Warbler Use of Habitat Patches on the Kerr Wildlife Management Area. Performance Report by Dean Keddy-Hector, November, 30, 1992.

3. Appendix 2. Section 6 Proposal: Population Biology and Habitat Selection Patterns of Golden-cheeked Warblers of the Balcones Canyonlands National Wildlife Refuge. Prepared by Dean Keddy-Hector. Written ca. 1993.

4. Appendix 3. Memo from Dean Keddy-Hector to supervisors. June 14th, 1995.

5. Appendix 4. Nesting Behavior of Golden-checked Warblers in Travis County, Texas. MA thesis by Leila Gass. Southwest Texas State University. May 1996.

6. Appendix 5. Photocopies of maps of Golden-cheeked Warbler banding sites at the Balcones Canyonlands National Wildlife Refuge. 1993.

7. Appendix 6. Spreadsheets of Golden-checked Warbler banding data. 1994 – 1997.

8. Appendix 7. Golden-cheeked Warbler Banding Color Combinations: 1995 – 1996.

9. Appendix 8. Data Forms, 1996, for Golden-checked Warblers at the Balcones Canyonlands National Wildlife Refuge.

10. Appendix 9. Field notes on Golden-cheeked Warblers by Dean Keddy-Hector: November 1992 – September 1995.

FINAL REPORT

Section 6 Project E-1-43

Population biology and habitat selection patterns of Golden-cheeked Warblers of the Balcones Canyonlands National Wildlife Refuge *

* *Original title*: Golden-cheeked Warbler use of habitat patches on the Kerr Wildlife Management Area

Background

Under its original 1992 iteration (see Appendix 1) this project was designed to better understand Golden-cheeked Warbler (GCWA) use of wooded patches; in this case, at the Kerr Wildlife Management Area (WMA). The original impetus for this research (hereafter referred to as the "habitat patches" study) was an attempt to resolve a central dichotomous question in GCWA biology: is this a forest interior or edge species? This was regarded as an important question in light of the fact that habitat fragmentation and degradation was a key component in listing the species as Federally Endangered (USFWS 1990). Additional stimulus for this project stemmed from suggestions, most notably by Kroll (1980), that GCWA was an edge species and, as such, may benefit from habitat fragmentation. Therefore, justification for the proposed work was related consequences of habitat alteration, such as inbreeding depression, nest predation, brood parasitism, interspecific competition, site fidelity, and local extinction.

The focus of research (see Appendix 2) was broadly expanded in 1993 to address many priority research tasks outlined in the GCWA Recovery Plan (USFWS 1992); including,

1.1 Population Biology.

1.11 Determine survivorship, dispersal rates and distances, and reproductive success of the study population and its component territory holders (Priority 1 - color-banding, detections of young, and follow-up mapping of recaptures)

1.12 and 1.13 Use this information to determine population sizes and inter-refuge distances required to insure long-term viability of protected populations (Priority 2- population viability analysis and summarization of dispersal distances).

1.2 Ecology and Behavior

1.21 Study foraging behavior as it relates to the productivity, structure, plant species composition, and past landuse history of each territory (Priority 2 - focal animal sampling, vegetation descriptions, analysis of aerial photography, and landowner interviews).

1.22 Study movements within populations and during the post-breeding season (Priorities 1, 2 or 3 since the information gathered here will be applicable to 1.11, 1.23, 1.32, and 1.33). Determine the characteristics of pre-migration staging areas for adults and young-of-the-year (Color-banding with mapping of recapture sites).

1.23 Study what factors influence the production of young and mating status of Golden-cheeked Warblers (Priority 2 - detection of young and females, vegetation descriptions, land-use histories).

1.24 Determine rates and outcomes of encounters with predators. Determine rates of nest predation as these relate to nest site characteristics, habitat structure, and surrounding landuse activities and landuse history. Attempt to determine sources of nest predators (Priority 2 - nest searches, observations at nests, determination of nesting outcomes, habitat descriptions; landuse histories).

1.25 Determine rates of nest parasitism by cowbirds as these relate to nest site characteristics, habitat structure, surrounding landuse activities and landuse history. Attempt to determine local factors which influence the abundance and distribution of cowbirds within warbler breeding habitat (Priority 2 - same methods as 1.24).

1.3 Habitat Requirements and Availability.

1.31 Determine habitat requirements and habitat selection patterns in the breeding range (Priority 2 - detailed descriptions of perches used for display, feeding, and nesting).

1.32 Study habitat patch size requirements and determine the effects of patch size on territory fidelity, mating success, and reproductive success (Priority 2 - territory mapping, detection of females, young, and nests; determination of woodlot areas now and in the past).

1.33 Determine the effects of urbanization and other landuse practices on GCW abundance (Priority 2 - mapping and description of offsite disturbance, determination of timing and distribution of onsite disturbances).

1.34 Study the dynamics of hardwood regeneration in older mixed-juniper associations (Priority 2 - descriptions of vegetation surrounding GCW perches, analysis of historical photographs, landowner interviews, forestry succession simulation models).

1.36 Determine the current distribution of existing habitat on private and public land in the breeding range (Priority 1 - contribute to success of remote sensing project by using detailed knowledge of territory distribution to classify recent Thematic Mapper imagery for Travis and adjoining counties).

1.37 Determine the availability and placement of the focal areas and associated habitat. Use data generated on the movements and demographics of this population to determine whether it and adjoining portions of the Balcones Canyonlands National Wildlife Refuge will ultimately contain and protect a viable population of Golden-cheeked Warblers (Priority 1). Use information on dispersal patterns to determine the ideal placement. of nearest adjacent goldencheek management areas (colorbanding with mapping of recaptures, population viability analysis).

1.38 Determine the size of buffer zones needed to reduce impacts of urbanization and agricultural activities (Priority 2 - mapping and description of offsite disturbance, description of productivity of GCW territories in relation to proximity of disturbance).

1.39 Study the effects of increasing habitat "edge" within occupied GCW habitat (Priority 2 - mapping of movements of colorbanded GCWs in relation to woodland-grassland interfaces, determination of success of GCWs nests located at different distances from woodland-grassland interfaces).

1.4 Monitoring.

1.41 Develop and refine efficient and unbiased methods for monitoring warbler abundance and productivity. Estimate the conditions required for long-term viability of the study population (Priority 2 - compare spot-mapping counts derived along various route configurations with counts of colorbanded birds, determine correction factors and other

desirable modifications of the spot-mapping technique, counts of fledged young, band recovery data, population viability analysis).

3.0 Management

3.3 Determine rates of and condition which promote regeneration of oak-juniper woodlands in areas previously cleared, thinned or burned (Priority 2 - analysis of aerial photography, habitat descriptions, forestry succession simulation modeling).

3.4 Develop management guidelines for formation of Goldencheeked Warbler habitat. Determine what factors maximize mating success of territorial males and production of warbler young, and minimize rates of nest predation and nest parasitism of recently fledged young (Priority 2 - statistical analysis of habitat variables with productivity and mating success as dependent variables).

3.7 Use information from this study to develop guidelines for assisting landowners in protecting and improving their Golden-cheeked Warbler habitat (Priority 1).

4.0 Public Education and information

4.1 Increase public awareness of the importance of the GCW and natural ecosystems. Actively promote visits to the study site by lay people particularly youth groups), biologists, government officials or any other individuals interested learning more about the Golden-cheeked Warbler (Priority 3 - informal visits by guests, participation by student interns, participation by Conservation Passport or Texas Adventures participants).

4.2 Develop curriculum/media for childhood and adult natural history/endangered species education. In addition to developing management guidelines (3.7), use information from this study to develop accurate curricula for school children, college courses, and public media outlets (Priority 3 - incorporation of project findings into departmental media productions and Endangered Resources Branch educational programs).

The 1993 proposal stated that the following final products would result from this work:

(1) an analysis of the viability of the Balcones Canyonlands National Wildlife Refuge (BCNWR) GCWA population;
(2) information on the extent to which the study population is interconnected with other Central Texas warbler populations by migration;
(3) a detailed description of the habitat used by males, females, and offspring, as this relates to the presence of openings and other non-wooded or disturbed areas within occupied territories;
(4) an improved understanding of the impacts of land clearing and cutting of cedar posts on rates of regeneration of warbler habitat;
(5) an improved understanding of the tolerance of GCWAs for neighboring real estate developments;
(6) management guidelines for managers of GCWAs on public and private lands;
(7) improved educational materials about this songbird; and
(8) a geographic information system (GIS) for a portion of the Balcones Canyonlands NWR.

Study Area

In 1992 the project was conducted at the Kerr Wildlife Management Area, Kerr Co., Texas. In 1993, the study area was moved to the BCNWR; particularly, the Victoria and Webster tracts.

Methods

Segment objectives for the 1992 habitat patches study included,

(1) estimate sizes of GCWA territories on the Kerr WMA,
(2) estimate distance of territories to nearest habitat edge, and
(3) determine densities of territories in specific blocks of habitat on the Kerr WMA.

Specific methodology for the habitat patches study included:

(1) mist-netting territorial males by attracting them with conspecific song playback,
(2) color-banding captured males, identifying age class, taking various morphometric data,
(3) spot-mapping territories belonging to individually marked males,
(4) recording substrate and vertical stratum of perched males,
(5) estimating distances from perched males and territories to nearest habitat edge.

The study area was moved to BCNWR for the 1993 field season where objectives and methodology similar to those for the 1992 habitat patches study on the Kerr was adopted. However, immediately following the 1993 field season, a study approach commensurate with the aforementioned expanded list of research tasks was proposed for work in future years (see Appendix 2):

(1) Intensive color-banding with enough follow-up work in an extensive area to estimate rates of fecundity and survivorship, and patterns of dispersal for male and female warblers and their offspring.

(2) Development of study site geographic information system designed to improve ease of comparing historical photography, mapping warbler locations, estimating dimensions and canopy coverages of individual territories, and developing site specific predictions regarding future habitat conditions (will contribute to all project tasks).

(3) Mapping of all occurrences of Golden-cheeked Warbler adults, young, and nests, as well as occurrences of potential predators and parasites, and determination of nesting outcomes.

(4) Mapping and description of all neighboring forms of human disturbance so that rates of occupancy and productivity in warbler habitat near human disturbance can be determined.

(5) Landowner interviews coupled with analysis of older aerial photographs to determine the past landuse history of areas presently occupied by Golden-cheeked Warblers.

(6) Intensive behavioral observations of males and females and young to determine how patterns of habitat selection vary with respect to sex and age of golden-cheeks, seasonal patterns of insect availability, foraging substrate species identity, and heterogeneity of individual territories with respect to past landuse practices and intensity of nearby human disturbance.

(7) Measurements of woody plant species and size class composition and density within territories and in the vicinity of nest sites, display perches, foraging sites, productive versus unproductive territories, "disturbed" versus relatively "undisturbed" territories, and occupied versus unoccupied habitat.

(8) Statistical analysis of habitat measurements from various classes of warbler perch trees and territories to estimate the importance of measured components of habitat in influencing rates of productivity and occupancy.

(9) Incorporation of data on productivity, population turnover and migration into population viability analyses.

(10) Preparation of Management Guidelines and other educational materials.

Results

The outcome of the original proposed research, "Golden-cheeked Warbler use of habitat patches on the Kerr Wildlife Management Area", was outlined in a 1992 Performance Report (Appendix 1). Twenty-two warblers were color-banded during field work on the Kerr WMA for this portion of the project. Segment objectives (1) and (2) were not specifically addressed, however, two "significant findings" were reported: (1) detection of "floating" males at various locations within the study area, and (2) detection of "non-displaying" males in woodlots not suspected to contain GCWA. Results relating to Segment (3) objectives were that "All except 3 banded warblers were trapped in the southern portion of the WMA in areas where Ladd (1985) had found greatest warbler densities."

Following is a summary of the known written reports related to the BCNWR portion of the project (1993-1997).

I. A memo (Appendix 3) dated 14 June 1995 written by D. Keddy-Hector in response to queries regarding progress on the GCWA project at BCNWR listed the following accomplishments:
(1) ca. 200 birds banded.
(2) 19 nests located.
(3) Habitat characteristics quantified at 10 nest sites.
(4) Preliminary estimates of production of young and rates of cowbird parasitism have been derived for 1993 and 1994.
(5) Two years worth of return rate information collected from the banding study.
(6) ca. 1000+ perch and/or foraging substrates recorded.

II. Two interim reports (Keddy-Hector 1993, 1995) were cited in Ladd and Gass (1999) but are not on file at TPWD and could not be examined for this report.

III. A Master's Thesis, entitled "Nesting behavior of Golden-cheeked Warblers in Travis County, Texas" (Gass 1996; Appendix 4) was generated from work on GCWA at BCNWR during the years 1993-1995. Results from that work suggested (1) females made more trips per hour and spent more time at nest than males, and (2) vocalization rates increased during courtship and while young were being fed.

IV. A manuscript submitted for publication by D. P. Keddy-Hector, D. D. Diamond and D. R. Hernandez, and returned to the authors for revision, contained the following summarized results (from Ladd and Gass 1999): "No significant difference was observed in territory density, age distribution of banded males, pairing success, reproductive success, or brood size in upland, scarp, or canyon habitat landscape positions." To date, this manuscript has not been published.

V. Photocopied maps of banding locations (Appendix 5).

VI. Spreadsheets of banding data (Appendix 6).

VII. 1995-1997 color-band combinations (Appendix 7).

VIII. 1996 raw data forms (Appendix 8).

IX. 1993-1995 field notes photocopied from journals (Appendix 9).

Literature Cited

Gass, L. 1996. Nesting behavior of Golden-cheeked Warblers in Travis County, Texas. Master's thesis, Southwest Texas State Univ., San Marcos, TX.

Keddy-Hector, D. P. 1993. Golden-cheeked Warbler use of habitat patches. Performance report, Proj. E15, Job No. 43. Texas Parks and Wildlife Dept., Austin, TX.

Keddy-Hector, D. P. 1995. Golden-cheeked Warbler use of habitat patches. Performance report, Proj. E2-1, Job No. 43. Texas Parks and Wildlife Dept., Austin, TX.

Kroll, J. C. 1980. Habitat requirements of the Golden-cheeked Warbler: management implications. J. Range Manage. 33:60-65.

Ladd, C., and L. Gass. 1999. Golden-cheeked Warbler (*Dendroica chrysoparia*). In The Birds of North America, No. 420 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

U. S. Fish and Wildlife Service. 1990. Endangered and threatened wildlife and plants; final rule to list the Golden-cheeked Warbler as endangered. Federal Register 55(249): 53153-53160.

U. S. Fish and Wildlife Service. 1992. Golden-cheeked Warbler (*Dendroica chrysoparia*) recovery plan. Albuquerque, NM.

Appendix 1.

Golden-cheeked Warbler Use of Habitat Patches
on the Kerr Wildlife Management Area.
Performance Report by Dean Keddy-Hector, November, 30, 1992.

PERFORMANCE REPORT

As Required by

THE ENDANGERED SPECIES ACT, SECTION 6

TEXAS
Project No: E-1-4

ENDANGERED AND THREATENED SPECIES CONSERVATION

Job No. 43

Golden-cheeked Warbler Use of Habitat Patches on the Kerr Wildlife Management Area

Project Coordinator: Dean P. Keddy -Hector

Principal Investigators: Timothy W. Schumann
Verajean Hatfield
Dean P. Keddy-Hector

Larry D. McKinney, Ph.D.
Director
Resource Protection Division

Andrew Sansom
Executive Director
TX Parks and Wildlife Department

November 30, 1992

ABSTRACT

The 1992 Kerr Wildlife Management Area Golden-cheeked Warbler project primarily involved efforts to color-band the male warblers inhabiting this site. A total of 22 warblers were banded. This total includes 2 females. Most banded birds were captured in the southern portion of the WMA in the Spring and Spring Trap pastures. Additional birds were trapped in the River, East Bobcat, East Buck, and Fawn Pastures; the Rabbit Trap; and the small pasture south of RR1340 in the southeast corner of the WMA. Although the distribution of banded birds supported the findings of Ladd (1985) that the Spring Pasture and Spring Trap support highest densities at this site, warblers were also detected on smaller woodlots. Some of these male warblers warblers had mates and successfully reared young, other males were unmated and/or transient individuals.

PERFORMANCE REPORT

STATE: Texas **PROJECT NO.:** E-1-

PROJECT TITLE: Endangered and Threatened Species Conservation.

PERIOD COVERED: September 1, 1991 - August 31, 1992

JOB NUMBER: 43

JOB TITLE: Golden-cheeked Warbler use of habitat patches on the Kerr Wildlife Management Area.

JOB OBJECTIVES:

1. To assess the distribution, density, and quality of GCW territories in relation to woodland margins on the Kerr Wildlife Management Area.

2. To assess the rates of GCW population turnover and/or site fidelity.

SEGMENT OBJECTIVES:

1. To estimate sizes of GCW territories on the Kerr WMA.

2. To locations of territories with respect to nearest habitat edge.

3. To determine densities of territories in specific blocks of habitat on the Kerr WMA.

ACCOMPLISHMENTS

Summarization of this Spring's data has been delayed pending (1) acquisition of a current aerial photograph of the study site, (2) acquisition of a Geographic Positioning System for use in accurately locating warbler perch trees, and (3) incorporation of both warbler occurrence data and the photograph into a "mini-geographic information system" to be used to calculate territory sizes, distances to nearest habitat discontinuity, and densities of territories. What follows is a sketch of our preliminary findings. Since completion of each segment objective is dependent on completion of the same set of field procedures, the following is not organized by segment numbers (as in other reports).

Our primary objective in the 1992 field work was to colorband as much of the Kerr WMA population of male GCWs as possible. Unfortunately, the efficiency of this work was chronically reduced by the necessity of one of our primary field workers to maintain his regular duties while simultaneously trying to schedule time to trap warblers. This conflict of responsibilities also hampered our efforts to fully survey the Kerr WMA for GCW occurrences, and limited out ability to determine use of space by previously banded birds. Consequently, the 1992 results should not be construed as representing the full distribution of warbler territories on the study site.

The major portion of this field work was undertaken by Tim Schuman of the Texas Parks and Wildlife Department Fish and Wildlife Division, and Vickie Hatfield, an independent consultant hired because of her experience as a bird bander. David Hernandez (TPWD Endangered Species Program) and Shannon Breslin (Texas Natural Heritage Program) also contributed their time to this project.

The banding methodology involved recording the display songs of local male GCWs and using these to attract warblers into a 6 m portable mist net. After capture each bird was equipped with a USFWS numbered bird band, and a set of colored plastic bands selected to give each bird a unique color combination. The sex, age (HY or AHY), and body mass of each bird was recorded. Then the warbler was photographed and released. A pre-numbered metal tag was then affixed to a tree nearest each capture site and the approximate location of each site was described verbally or mapped so that the site could be relocated for later precise locational work with a global positioning system.

On subsequent visits to banding sites an attempt was made to locate displaying males and attempt to identify banded males using band color combinations, if present. This proved to be relatively easy because display can usually be approached rather closely with little discernable effect on display intensity.

Banded warblers were observed to determine behavior within specific types of perch trees, to allow for accurate location of perch sites, and to determine whether a female or fledged young might be present in a given territory.

A total of 22 GCWs was banded this season. This total included 2 female warblers. All except 3 banded warblers were trapped in the southern portion of the WMA in areas where Ladd (1985) had found greatest warbler densities. Early in the season, the effectiveness of the trapping technique was extremely good. At times 3-4 males simultaneously approached the mist net in response to the recorded display song. Numerous subsequent observations of banded warblers will be summarized in next years report. Two significant findings were (1) the detection of "floating" or transient males which moved from location-to-

location within the study area, and (2) the detection of non-displaying males at woodlots thought not to contain GCWs. Floating individuals can comprise a large portion (40-50%) of some songbird populations. That these individuals do not hold territories and produce young does mean they are are unimportant to a population. In fact, their presence insures that productive territories are quickly reoccupied whenever a vacancy occurs. Consequently attention should be directed at improving our ability to estimate the abundance of floating GCWs. Current methods of simply counting displaying males are probably inadequate means to do this.

The approach of accurately locating warbler perches and associating each perch with a perch species category and behavior of the warbler while in that perch is intended to extend the work of Beardmore (unpublished MS) and Sexton (1987) and provide a means for separating characteristics which make a tree a good display perch from characteristics which make a tree a good feeding perch. In my opinion, this sort of behaviorally-based approach is the only way to surmount the limitations of multivariate methods applied blindly to concerns of animal habitat selection. More specifically it provides a means for controlling for the effects of seasonal changes in warbler display intensity, and in insect availability in different kinds of tree species.

The other outcome of this approach will be the production of an accurate map showing the use of space by individual warblers, and the essential features of each warbler territory (territory size, species identity and location of all display and feeding sites, presence of a female, evidence of successful reproduction, evidence of cowbird production, total tree crown surface area and estimated tree crown volume, variability and uniformity of contiguous tree crown coverage, and total area covered by trails, roads, and other right-of-ways). Incorporation of these details into a GIS for this study area (or any study area) will allow for greater ease and accuracy in monitoring changes in territory occupancy by individual birds, shifts in territory bounds or territory size, and annual variability in productivity. This last part is a critical concern in matters of determining the factors which influence territory quality. That is, it is important to have a means such as colorbanding for distinguishing male "quality" (e.g. food provisioning efficiency or nest defense intensity) from territory "quality" (e.g. stability or quantity of insect prey available for capture on substrates suitable for efficient and safe warbler foraging), since some males (and females) may be better than other males at consistently producing offspring despite variability in territory quality.

Our winter field and lab work will involve the following activities: (1) precise location of all "tagged" warbler perches (January-March 1993); (2) incorporation of 1990 aerial photography, local topography, fence boundaries and roadways, and warbler perch locations and band color combinations into a

geographic information system (November 1992-March 1993); and (3) calculation of the essential warbler territory characteristics described above (November 1992-March 1993). When these steps are completed the 1992 results will be available for your review.

Literature Cited

Ladd, C. 1985. Nesting habitat requirements of the Golden-cheeked Warbler. Southwest Texas State University, Unpublished Masters Thesis. i-vii, 65 pp.

Pulich, W. 1976. The Golden-cheeked Warbler. Texas Parks and Wildlife Department, Austin.

Sexton, C. 1987. A comparative analysis of urban and native bird populations in central Texas. University of Texas at Austin, unpublished Doctoral Dissertation. i-xviii, 238 pp.

SIGNIFICANT DEVIATIONS

We have experienced delays in completing segment objectives for the reasons described above. These deviations will be rectified prior to the coming field season.

PREPARED BY: Dean P. Keddy-Hector 24 Nov 1992
Date

Dean P. Keddy-Hector,
Zoologist, Texas Natural Heritage Program
Title

APPROVED BY: 11-24-92
Larry D. McKinney, Ph.D. **Date**
Director, Resource Protection Division

Appendix 2.

Section 6 Proposal: Population Biology and Habitat Selection Patterns of Golden-cheeked Warblers of the Balcones Canyonlands National Wildlife Refuge. Prepared by Dean Keddy-Hector. Written ca. 1993.

Appendix 2

SECTION 6 PROPOSAL: Population Biology and Habitat Selection Patterns of Golden-cheeked Warblers of the Balcones Canyonlands National Wildlife Refuge

Prepared by: Dean P. Keddy-Hector, Zoologist Texas Natural Heritage Program

Justification. The Golden-cheeked Warbler *(Dendroica chrysoparia)* is currently listed "Endangered" at both the state and federal levels (55 FR 18844). The listing of this neotropical migratory songbird is justified because of accelerating destruction of juniper-dominated woodlands in central Texas. Although the most obvious cause for habitat destruction is simply clearing of woodland for homesites and ranching activities, surviving woodland may also be degraded by more subtle impacts caused by fragmentation and isolation of woodland habitat (Saunders et al. 1991, Whitcomb et al. 1977). These potential impacts include: (1) increased likelihood of inbreeding depression and stochastic extinction of populations which have become increasingly isolated (Laude and Barrowclough 1987); and (2) increased rates of nest predation, nest parasitism and interspecific competition in fragmented patches of habitat near urban areas (Gates and Gysel 1978, Brittingham and Temple 1983). Although these impacts are usually considered deleterious, at least one researcher has maintained that habitat fragmentation actually benefits the golden-cheek (Kroll 1980). This study, however, did not determine whether warbler productivity was affected by such fragmentation. Furthermore, nothing is known about the rate at which GCWs recover from past bouts of deforestation, or the extent to which GCW populations have been impacted by various forms of ongoing, but neighboring human-related disturbance. In particular, no study of this endangered species has related rates of pairing and reproductive success to any feature which might affect habitat quality.

The present study attempts to fill this deficiency through the combined use of colorbanding-based mark-recapture work, intensive focal animal habitat selection sampling, historical analysis of aerial photography, landowner interviews, detailed descriptions of habitat and offsite human disturbance, and observations of responses of nesting GCWs to potential predators. A critical feature of this project will be the development and use of a study site geographic information system (GIS) designed to ease storage and summarization of bird movements, territory locations, locations of females and young, inter- and intra-seasonal changes in territory dimensions, locations of predator and nest parasite activity centers, attributes of offsite disturbances, past land disturbance regimes, distributions of plant associations, and digitized images of historical aerial photographs.

The final products of the study will include the following:

(1) an analysis of the viability of the Balcones Canyonlands National Wildlife Refuge GCW population;
(2) information on the extent to which our study population is interconnected with other Central Texas warbler populations by migration;
(3) a detailed description of the habitat used by males, females, and offspring, as this relates to the presence of openings and other non-wooded or disturbed ares within occupied territories;
(4) an improved understanding of the impacts of land clearing and cutting of cedar posts on rates of regeneration of warbler habitat;
(5) an improved understanding of the tolerance of GCWs for neighboring real estate developments;
(6) management guidelines for managers of GCWs on public and private lands;
(7) improved educational materials about this songbird; and
(8) a geographic information system for a portion of the Balcones Canyonlands NWR.

This project will also contribute to the success of three ongoing warbler-related research projects. First, our detailed knowledge of the use of various plant associations at our study sites will prove invaluable in improving the reliability of our GCW remote-sensing project. Second, our project will augment the color-banding data presently being gathered at Ft. Hood. And third, our habitat selection and landuse history data will contribute to the success of Mike Moses's study of central Texas woodland succession.

Objectives. This study is designed to achieve directly or assist indirectly in the achievement of many of the tasks viewed as essential for recovery of the Golden-cheeked Warbler (USFWS 1992). For purposes of clarity, I have used (essentially verbatim) the applicable recovery plan tasks (with their recovery plan task numbers and priority rankings) as the objectives of this project. Applicable methods appear following priority levels.

1.1 Population Biology.

1.11 Determine survivorship, dispersal rates and distances, and reproductive success of the study population and its component territory holders (Priority 1 - color-banding, detections of young, and follow-up mapping of recaptures)

1.12 and 1.13 Use this information to determine population sizes and interrefuge distances required to insure long-term viability of protected populations (Priority 2- population viability analysis and summarization of dispersal distances).

1.2 Ecology and Behavior

1.21 Study foraging behavior as it relates to the productivity, structure, plant species composition, and past landuse history of each territory (Priority 2 - focal animal sampling, vegetation descriptions, analysis of aerial photography, and landowner interviews).

1.22 Study movements within populations and during the post-breeding season (Priorities 1, 2 or 3 since the information gathered here will be applicable to 1.11, 1.23, 1.32, and 1.33). Determine the characteristics of pre-migration staging areas for adults and young-of-the-year (Color-banding with mapping of recapture sites).

1.23 Study what factors influence the production of young and mating status of Golden-cheeked Warblers (Priority 2 - detection of young and females, vegetation descriptions, land-use histories).

1.24 Determine rates and outcomes of encounters with predators. Determine rates of nest predation as these relate to nest site characteristics, habitat structure, and surrounding landuse activities and landuse history. Attempt to determine sources of nest predators (Priority 2 - nest searches, observations at nests, determination of nesting outcomes, habitat descriptions; landuse histories).

1.25 Determine rates of nest parasitism by cowbirds as these relate to nest site characteristics, habitat structure, surrounding landuse activities and landuse history. Attempt to determine local factors which influence the abundance and distribution of cowbirds within warbler breeding habitat (Priority 2 - same methods as 1.24).

1.3 Habitat Requirements and Availability.

1.31 Determine habitat requirements and habitat selection patterns in the breeding range (Priority 2 - detailed descriptions of perches used for display, feeding, and nesting).

1.32 Study habitat patch size requirements and determine the effects of patch size on territory fidelity, mating success, and reproductive success (Priority 2 - territory mapping, detection of females, young, and nests; determination of woodlot areas now and in the past).

1.33 Determine the effects of urbanization and other landuse practices on GCW abundance (Priority 2 - mapping and description of offsite disturbance, determination of timing and distribution of onsite disturbances).

1.34 Study the dynamics of hardwood regeneration in older mixed-juniper associations (Priority 2 - descriptions of vegetation surrounding GCW perches, analysis of historical photographs, landowner interviews, forestry succession simulation models).

1.36 Determine the current distribution of existing habitat on private and public land in the breeding range (Priority 1 - contribute to success of remote sensing project by using detailed knowledge of territory distribution to classify recent Thematic Mapper imagery for Travis and adjoining counties).

1.37 Determine the availability and placement of the focal areas and associated habitat. Use data generated on the movements and demographics of this population to determine whether it and adjoining portions of the Balcones Canyonlands National Wildlife Refuge will ultimately contain and protect a viable population of Golden-cheeked Warblers (Priority 1). Use information on dispersal patterns to determine the ideal placement. of nearest adjacent goldencheek management areas (colorbanding with mapping of recaptures, population viability analysis).

1.38 Determine the size of buffer zones needed to reduce impacts of urbanization and agricultural activities (Priority 2 - mapping and description of offsite disturbance, description of productivity of GCW territories in relation to proximity of disturbance).

1.39 Study the effects of increasing habitat "edge" within occupied GCW habitat (Priority 2 - mapping of movements of colorbanded GCWs in relation to woodland-grassland interfaces, determination of success of GCWs nests located at different distances from woodland-grassland interfaces).

1.4 Monitoring.

1.41 Develop and refine efficient and unbiased methods for monitoring warbler abundance and productivity. Estimate the conditions required for long-term viability of the study population (Priority 2 - compare spot-mapping counts derived along various route configurations with counts of colorbanded birds, determine correction factors and other desirable modifications of the spot-mapping technique, counts of fledged young, band recovery data, population viability analysis).

3.0 Management

3.3 Determine rates of and condition which promote regeneration of oak-juniper woodlands in areas previously cleared, thinned or burned (Priority 2 - analysis of aerial photography, habitat descriptions, forestry succession simulation modeling).

3.4 Develop management guidelines for formation of Goldencheeked Warbler habitat. Determine what factors maximize mating success of territorial males and production of warbler young, and minimize rates of nest predation and nest parasitism of recently fledged young (Priority 2 - statistical analysis of habitat variables with productivity and mating success as dependent variables).

3.7 Use information from this study to develop guidelines for assisting landowners in protecting and improving their Golden-cheeked Warbler habitat (Priority 1).

4.0 Public Education and information

4.1 Increase public awareness of the importance of the GCW and natural ecosystems. Actively promote visits to the study site by lay people particularly youth groups), biologists, government officials or any other individuals interested learning more about the Golden-cheeked Warbler

(Priority 3 - informal visits by guests, participation by student interns, participation by Conservation Passport or Texas Adventures participants).

4.2 Develop curriculum/media for childhood and adult natural history/endangered species education. In addition to developing management guidelines (3.7), use information from this study to develop accurate curricula for school children, college courses, and public media outlets (Priority 3 - incorporation of project findings into departmental media productions and Endangered Resources Branch educational programs).

Methods. The success of this project will depend on successful completion of the following five activities. The recovery plan tasks accomplished or assisted by this activity have been listed following each activity description.

1. Intensive colorbanding with enough follow-up work in an extensive area to estimate rates of fecundity and survivorship, and patterns of dispersal for male and female warblers and their offspring.
   Priority 1 Tasks: 1.11, 1.36, 1.37
   Priority 2 Tasks: 1.12, 1.23, 1.32, 1.38, 1.41
   Priority 3 Tasks: 1.13, 1.22

2. Development of study site geographic information system designed to improve ease of comparing historical photography, mapping warbler locations, estimating dimensions and canopy coverages of individual territories, and developing site specific predictions regarding future habitat conditions (will contribute to all project tasks).

3. Mapping of all occurrences of Golden-cheeked Warbler adults, young, and nests, as well as occurrences of potential predators and parasites, and determination of nesting outcomes.
   Priority 1 Tasks: 1.11, 1.36
   Priority 2 Tasks: 1.21, 1.23, 1.24, 1.25, 1.31, 1.32, 1.33, 1.38, 1.39, 1.41, 1.42, 3.1
   Priority 3 Tasks: 1.13, 1.22

4. Mapping and description of all neighboring forms of human disturbance so that rates of occupancy and productivity in warbler habitat near human disturbance can be determined.
   Priority 1 Tasks: 1.37
   Priority 2 Tasks: 1.12, 1.23, 1.24, 1.25, 1.31, 1.32, 1.33, 1.38, 3.1.

5. Landowner interviews coupled with analysis of older aerial photographs to determine the past landuse history of areas presently occupied by Golden-cheeked Warblers
   Priority 1 Tasks: 1.37, 11311, 3.7
   Priority 2 Tasks: 1.23, 1.31, 1.32, 1.33, 1.34, 1.39, 3.1, 3.4, 3.6

6. Intensive behavioral observations of males and females and young to determine how patterns of habitat selection vary with respect to sex and age of golden-cheeks, seasonal patterns of insect availability, foraging substrate species identity, and heterogeneity of individual territories with respect to past landuse practices and intensity of nearby human disturbance.
   Priority 1 Tasks: 1.36, 3.7
   Priority 2 Tasks: 1.21, 1.31, 1.32, 1.33, 1.38, 1.42, 3.1
   Priority 3 Tasks: 1.22

7. Measurements of woody plant species and size class composition and density within territories and in the vicinity of nest sites, display perches, foraging sites, productive versus unproductive territories, "disturbed" versus relatively "undisturbed" territories, and occupied versus unoccupied habitat.
   Priority 1 Tasks: 1.36, 3.7
   Priority 2 Tasks: 1.21, 1.31, 1.33, 1.34, 3.1, 3.4

8. Statistical analysis of habitat measurements from various classes of warbler perch trees and territories to estimate the importance of measured components of habitat in influencing rates of productivity and occupancy.
   Priority 1 Tasks: 3.7
   Priority 2 Tasks: 1.21, 1.31, 1.33, 1.34, 3.1, 3.4

9. Incorporation of data on productivity, population turnover and migration into population viability analyses.
   Priority 1 Tasks: 1.37
   Priority 2 Tasks: 1.12, 1.32, 1.33, 1.41
   Priority 3 Tasks: 1.13
10. Preparation of Management Guidelines and other educational materials.
   Priority 1 Tasks: 2.11, 3.7
   Priority 2 Tasks: 4.4
   Priority 3 Tasks: 4.1, 4.2

Narrative and Time Table:

We are now setting up a project geographic information system and completing this seasons vegetation measurements. We would also like to conduct interviews with the previous landowners, and then complete study site landuse histories and offsite development descriptions before the beginning of the 1994 field season.

The project GIS will include 1947, 1960, 1970, and 1990 aerial photography, 1992 Thematic Mapper imagery, topography, woodlot bounds, and layers for each field season to contain all warbler, nest, jay and cowbird locations. Associated with the spatial coverages will be standard data matrices containing information on territory and woodlot dimensions, habitat measurements, bird substrate choices, and offsite human disturbance. Once this spatial data managment system is completed we will be able to add and summarize new mapped occurence records and associated data very efficiently. In particular, we will be able to produce graphical displays of how the spatial distribution of warbler territories and territory productivities vary in relation to important features such as plant association type, predator or nest parasite density, off-site human disturbance type, and past land-use type.

The 1994 and subsequent field seasons will begin mid-March with initial surveys to map the distribution of displaying males on both study sites. In particular, we will look for males banded in 1993, and any males banded at Ft. Hood that might be passing through our study areas. This early start will set the stage for monitoring movements of arriving males as they settle on breeding territories, and will allow us to distinguish stable from ephemeral display territories.

As we locate unbanded birds the banding teams will begin trapping and colorbanding activities. This involves use of recorded GCW territorial songs and Screech Owl calls to lure territorial males, females and fledged young into small, portable mist nets. Banding locations will then be the mapped into our project GIS.

We will attempt to relocate each banded bird and conduct follow-up behavioral observations. Often a patient observer can nonintrusively follow foraging and displaying GCWs through a succession of 10 or more perch trees while recording behavior and perch tree species identity. We will conduct a total of 3 rounds of behavioral observations of each banded bird. Although this work will be biased toward detection of displaying males, our major emphasis is on foraging habitat. Since so much of the behavior of male songirds is dominated by territorial and mate attraction displays, female GCWs may provide a better way of assaying use of habitat for pure foraging purposes. In this regard, we will try to accumulate observations of foraging females and measuring the habitat used by females. Like Pulich (1976) we have been able to locate many female GCWs by being attentive to the sharp "chip" calls females produce when

foraging or following predatory animals Routes of foraging individuals will also be mapped relative to important features such as territory boundaries roads, trails and clearings; and offsite disturbance.

The display perches of colorbanded males will be mapped so as to allow for estimation of the approximate bounds and total area of each territory. By separating out the mapped occurrences of male display perches, male foraging perches, and female foraging perches we can determine the extent to which the male display "arena" and associated physiognomy coincides with the area within which adults forage.

During the process of following banded birds, we will mark all perch trees for later habitat measurements. This effort will measure size and species identity of the perch relative to that of neighboring perches, as well as the density of woody vegetation in the understory, midstory and overstory. These data will be incorporated into models of woodland succession (Verner et al. 1984 describes various applicable modeling approaches) so as to predict the future composition and structure of the woodlands now occupied by GCW in our study areas. In addition, these data will be compared with measurements collected from a random sample of perch trees from within the same territory, and from within unoccupied GCW habitat. By linking focal animal work to more traditional correlative analyses of habitat we focus attention more on features of habitat actually of importance to GCWs. At the end of this study, we will also attempt to determine statistically which features of GCW territories influence reproductive success or pairing success. This will allow us to make improved causal inferences about what are the most important habitat features for GCWs, and thereby predict future impacts of current landuse practices.

One emphasis of focal animal observations and vegetation measurements will be the impact of past disturbance on use of space by GCWs. This will be possible because most of both study areas have been cleared or burned at some time within the last 40-50 years. Analysis of aerial photography, signs of past posting and clearing (felled trees, uprooted stumps, sawed off side branches, etc.), and interviews with past landowners will allow us to determine times of past habitat alteration and destruction, and thereby incorporate this information into a GIS layer representing spatial distribution of disturbance intensity and type in relation to the distribution of extant GCW territories. We can then examine the influence of past disturbance on the distribution of the GCW on the study areas, and by extrapolation, throughout its breeding distribution, while at the same time estimating rates of habitat regeneration, and studying the impact of past disturbance within individual territories. Regarding this last point, many of the 1993 territories showed evidence of posting activity within the last 10 years. An attempt will be made, therefore, to determine the extent to which GCWs use these areas of recent localized posting, relative to neighboring but less recently disturbed areas within the same territory.

We will monitor warbler reproductive activity by locating GCW nests and fledged young. During 1993 we found 5 nests and over 50 fledged young. Our hope is that with more people and a season's worth of experience we can improve on these totals. When nests are found, we will monitor the progress of the nesting attempt closely using daily observations and regular spot-checks of the nest contents. When nests fail an attempt. will be made to determine the cause of failure, and conduct follow-up measurements of the vegetation surrounding each nest. Detection of fledged young is relatively easy within productive territories since fledged young are noisy and attracted to recordings of male territorial songs.

Throughout the reproductive period we will attempt to observe interactions between GCWs and potential predators such as Scrub Jays, Blue Jays, and Fox Squirrels. All occurrences of these species will be mapped into our GIS so that as these data accumulate, we can develop a map of highrisk and low-risk areas, and then overlay this with accumulated GCW productivities and pairing success rates.

We have already noticed a tendency of female warblers near nests and fledged young to follow such potential predators. Consequently, these encounters may assist us in our nest finding efforts, as well as in our efforts to understand the relationship between GCWs and their predators. Similarly, we have noticed the tendency of male GCWs to stop singing in the aftermath of scolding bouts by both jay species.

Consequently, in future years we will score more systematically the responses of singing males as well as female GCWs to the presence and calls of jays, squirrels, or any other animal likely to pose a threat to GCW eggs or young. Ultimately we would like to initiate side-projects in which we use radiotelemetry to locate cowbirds and jays to monitor nest-searching and foraging paths of each of these species relative to warbler behavior, warbler nest locations, woodland bounds, offsite development and agricultural activity, and any other relevant landscape feature.

While conducting this project I will also use it as public relations tool intended to improve general appreciation and understanding of this species. In this regard, I have and will continue to encourage and arrange visits to our study site by anyone interested in learning more about this species. This past year our study site was visited by individuals from Canada, Mexico, Colorado, Texas Department of Transportation, and other members of my department interested in learning more about GCWs. In addition, two of our summer interns regularly assisted us in the field and our use of summer interns as field assistants will continue in future seasons. For the 1994 season, several high-school groups will visit the site, and I am investigating the feasibility of using our new Texas Adventures and Conservation Passport Tours Programs to increase the educational benefits of this project.

Expected Results or Benefits. This project will generate information essential to the recovery of the Golden-cheeked Warbler. Although the study focusses on the birds inhabiting our study site in western Travis Co., the project will produce information applicable throughout the breeding distribution of this species. Information on dispersal distances and population turnover will assist in determining the maximum spacing and minimum size of warbler refugia. Estimates of territory quality, including estimates of territory fidelity, analyzed in relation to characteristics of each territory, will increase our confidence in predictions about effects of current land-use practices. A key feature of this analysis will be the use of information on impacts of past landuse practices on the present quality of warbler territories. In particular, we will be able to use information gleaned from landowner interviews and inspection of aerial photographs to infer rates of habitat regeneration for at least one portion of this songbirds breeding distribution. Furthermore, information of rates of habitat restoration coupled with information on how warblers actually use their territories will allow us to extrapolate the long-term impacts of various forms of management or disturbance on our study populations. A critical prerequisite for this last benefit, is the collection of detailed behavioral notes on the substrate preferences of Goldencheeked Warblers. Only by gathering this information will we have any idea of what constitutes the essential features of a territory during various stages of the reproductive cycle.

Location. Both of our study sites are located on the southern portion of the Balcones Canyonlands National Wildlife Refuge near the town of Lago Vista. The Webster Tract is a 3300 ac former ranch enclosing the upper portions of one watershed. Over 900 of this tract has been cleared at some time within the last 50 years. Compared to our other study site, the Webster tract is heavily disturbed and contains highly fragmented habitat. Currently GCWs occupy the woodland surviving on steeper slopes, but also occur in a bottomland hardwood forest, and upland oak savanna and shin-oak associatons on the adjacent property. The southeast end of the tract adjoins a low density real estate development. Because of past juniper control work on the steep slopes of Webster it is possible to find GCWs in woodlands cleared at intervals of 10, 20 and 40 years before 1993. Essentially all woodlands at this site show evidence of past cutting of juniper posts.

The Victoria Tract is our second study site and covers only 570 acres. This site is more heavily wooded than Webster and may contain as many GCWs as the other site. This tract has also been heavily disturbed. A local airport crosses diagonally through one corner of the property. Four GCW territories adjoin the runway right-of-way. The north fence line borders a low-density real estate development, and the south fence line adjoins a nearly defunct real estate development which contains mostly roads, but few

houses. Approximatey 8 GCW territories adjoin the northern real estate development. Both sites have Blue Jays, Scrub Jays, loose dogs, fire ants and numerous Brown-headed Cowbirds. One canyon containing a pair of GCWs appears to be regularly used as a golf driving range by a neighbor to the north.

Both sites are in various stages of recovery from past landuse practices, while possibly deteriorating due to increasing development of surrounding lands. In short, these are ideal study sites for gauging the impact of future development surrounding patches of GCW habitat located elsewhere within the breeding distribution.

We are also in the process of expanding the project to include one of the nearby LCRA properties which is adjacent to centers of human disturbance. LCRA has offered to contribute a field crew for this portion of the project and follow our methodolgy. Addition of this third site and field crew will improve sample sizes of banded birds, nests, and territories. This will also increase the odds of detecting movements of GCWs between distant study populations.

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Appendix 3.

Memo from Dean Keddy-Hector to Supervisors. June 14th, 1995.

TO: David Diamond, Lee Ann Linam and Gary GrahamLarry McKinney
FROM: Dean P. Keddy-Hector
SUBJECT: Research Projects
DATE: 14 JUNE 1995

This is a response to the requested information on the GCW project:

ACCOMPLISHMENTS

1. ca. 200 birds banded.
2. 19 nests located.
3. Habitat characteristics quantified at 10 nest sites.

4. Preliminary estimates of production of young and rates of cowbird parasistism have been derived for 1993 and 1994.

5. Two years worth of return rate information collected from the banding study.

6. ca. 1000+ perch and/or foraging substrates recorded.

DEFICIENCIES

1. Additional years of return rates and productivities at both sites so has to provide reliable estimates of interannual variability in return rates.

2. Additional productivity estimates from territories and regions within study sites to set stage for statistical comparisons of qualities of peripheral vs. interior territories.

3. Production of detailed landuse histories for each site and each woodlot and territory within each site.

COMMENTS

The primary orientation of this project has always been the collection of data on movements of birds as well as territory-specific rates of population turnover and productivity. Knowledge of the variability and magnitude of these factors sets the stage for long-term monitoring of the viability of these study populations, and sets the stage for statistical analysis of the potential impacts of urbanization and fragmentation. Five years is an absolute minimum for such a study. Two years of return rates and productivities provide little reliable information about the population biology of this or any other species.

Appendix 4.

Nesting Behavior of Golden-cheeked Warblers in Travis County, Texas.
MA thesis by Leila Gass.
Southwest Texas State University. May 1996.

NESTING BEHAVIOR OF GOLDEN-CHEEKED WARBLERS IN TRAVIS COUNTY, TEXAS

THESIS

Presented to the Graduate Council
of Southwest Texas State University
in Partial Fulfillment of the Requirements
for the degree of

Master of Arts

by

Leila Rachel Gass

Austin, Texas
May 1996

NESTING BEHAVIOR OF GOLDEN-CHEEKED WARBLERS
IN TRAVIS COUNTY, TEXAS

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ABSTRACT

The energy invested in offspring is expected to be proportional to the certainty of paternity or maternity, both of which are relatively high in monogamous birds, though the latter may be higher. Parental investment and nesting behaviors of Golden-cheeked Warblers (*Dendroica chrysoparia*) were studied from 1993 to 1995. The relative contributions of males and females to the rearing of young were measured in terms of number of trips to the nest or to fledgling per hour, amount of time spent at the nest, and number of vocalizations per hour. Females made more trips per hour and spent more time at the nest than males until nestlings hatched. Vocalization rates varied over the course of the nesting cycle, and were highest during courtship, and while young were being fed. Nest failures, predators, parasites, and habitat were also analyzed, and Golden cheeked-Warbler nesting behaviors are compared to those of other *Dendroica* species.

INTRODUCTION

The Golden-cheeked Warbler (*Dendroica chrysoparia*) is an endangered species (listed at federal and state levels in 1990 and 1991, respectively) whose breeding range occurs only in Texas, and includes the Edwards Plateau and areas north of the plateau, where Ashe juniper (*Juniperus ashei*) occurs. Available estimates of population size are based on "suitable habitat", and are variable and dependent on judgment of habitat suitability, occupation of suitable habitat, and other factors. Pulich (1976) estimated a population size of 18,486 pairs in 1962 and 14,750 pairs in 1970. Wahl et al. (1990) estimated a population size between 4,822 and 16,016 pairs in 1990. Intensive clearing of juniper woodlands by ranchers and developers in Texas has reduced the already restricted breeding range of this bird, and habitat destruction in Central America poses further threats for the Golden-cheeked Warbler on its wintering grounds. Knowledge of this species' habitat and behavior is needed in order to protect it from extinction, and maintain a stable, viable population.

Some species of New World warblers have been studied intensively over long periods of time, while others have received little attention. At least some basic nesting behavior data has been collected for most North American warblers, however many studies involved only a few nests, and often did not span the full nesting period or include data on fledgling behavior. Little is known about the nesting behavior of Golden-cheeked Warblers. Pulich (1976) conducted a long-term study of the species in the 1960s and early 1970s. He spent a few hours making behavioral observations at four nests, but devoted most of his time to characterizing habitat and life history. Other researchers have

investigated habitat requirements (i.e., Kroll 1980, Ladd 1985, and Beardmore 1994), but most of these studies have focused on descriptions of habitat and habitat use, and not on nesting behavior.

The objectives of my study were to fill in gaps in our knowledge of the nesting behaviors of Golden-cheeked Warblers, and to answer the following questions: (1) What are the relative contributions of the male and female to the production and rearing of young, and do conflicts arise between "family" members? (2) Are there any correlations between behavior, habitat, predators or parasites, and nesting success? and (3) How do Golden-cheeked Warblers compare to other warbler species in nesting behaviors? I used number of trips per hour to the nest and to fledglings, and vocalization rates near the nest and fledglings, to compare the investment of the female to the male, and to look at potential conflicts among family members. Successes and failures of nesting attempts, correlated with nest habitat and behaviors, may be helpful in determining habitat requirements and management practices for the preservation of these birds. I also describe the range of behaviors observed, and compare life history variables and behaviors such as feeding and attentiveness, to other *Dendroica* species. Data gathered in this study will thus contribute to the conservation of Golden-cheeked Warblers, and to the general knowledge of warbler behavior.

Female Golden-cheeked Warblers are secretive, and their nests are cryptic. Therefore, I was unable to find and watch a large number of nests. Although my sample size is small relative to studies of passerines whose nests are more readily found, I observed behaviors at more nests than in previous studies of Golden-cheeked Warblers, and many other wood warbler species.

METHODS

Study Sites and General Methods

This study was conducted at the Victoria and Webster tracts of the Balcones Canyonlands National Wildlife Refuge (United States Fish and Wildlife Service), in northwestern Travis County (30°31'N, 97°58'E; 366 m elevation), and on private property in western Travis County (Shellburg site, 30°26'N, 97°52'E; 275 m elevation). These sites are at the eastern edge of the Edwards Plateau and include canyon and upland areas. Parts of the uplands have been cleared and grazed, but woodland areas where Golden-cheeked Warbler nests were found included both canyons and uplands where mature juniper and hardwoods occurred. Aerial photographs of my study sites, with nest locations, are presented in Appendices A through C.

I collected preliminary data during the breeding season (mid-March through July) of 1993, and continued the study during the breeding seasons of 1994 and 1995. I recorded date, location, weather, substrate, sex, age, bands, and changes in plumage (especially in the young), in addition to behavioral data and vocalizations. I and a video camera were concealed by a portable blind (perforated camouflage tarp), during periods of observation and data collection. Nesting behavior data collected by researchers employed by the Texas Department of Transportation (TxDOT) are also included in my analyses. These researchers collected data similar to mine, but they used no method of

concealment, and sat on a platform in a nearby tree (approximately 6.5 m from the nest) at one nest.

I obtained quantitative behavioral data over three years and for 17 nests, including eight during building, 12 during incubation, 11 with nestlings, and three with fledglings. I also have qualitative data on four more nests, and quantitative data on approximately 10 groups of fledglings of unknown age and territory of origin. Some of the birds in my study, mostly adult males, were banded by another research team, but I did not handle any birds for my study.

Observation Methods

In order to reduce disturbance of birds and researcher effects, I did not look directly into nests (except the Loop nest, the first season, see "Failures" in the discussion section), nor did I observe them every day. I used continuous focal sampling for collecting behavioral data. In general, I observed nests for up to 2 h per session, two to four times per week per nest, I observed fledglings opportunistically, for up to 1 h per session. Observation sessions at nests were alternated between morning and afternoon, and specific times were varied within morning and afternoon periods. I recorded trips to the nest, feedings, other obvious behaviors including responses to potential predators, and vocalizations of adults and offspring. For nest observations I used a spotting scope, sitting on the ground, at a distance of 10 to 20 m from the nest tree. I used binoculars to

observe family groups with fledglings, and remained as far away as possible, while still being able to sex and age individuals. I also obtained descriptions of all nest sites, including tree species, tree height, nest height, terrain, and a general description of the area. The TxDOT researchers (five people) recorded similar observations, but sat about 6 m from nests, and observed them for up to 14.5 h per day, almost every day, from brooding to fledging.

Data Analysis

Means and standard errors were calculated for selected behaviors for each nest and for all nests. Differences between males and females, and differences between nesting stages, were analyzed using Mann-Whitney *U* and Kruskal Wallace ANOVA. Mean start date of nesting was derived from the first day of nest building when it was observed, and from estimated start dates based on a 30-day nesting period for nests that were found after initiation.

Nesting periods were defined as follows:

- Nest Building: The period during which the female was bringing nesting material to the nest, before the onset of incubation.
- Laying: The period between nest building and the onset of incubation, when I observed no activity at the nest.
- Incubation: The period after laying during which the female sat in the nest for extended periods, and no indication of nestlings (i.e., male and female bringing food to the nest, or direct observation of fledglings) was detected.

- Brooding: The first nestling stage, during which the female sat in the nest for more than five minutes at a time, for several bouts during the observation period. The start of this stage is determined by the onset of feeding of young by adults.
- Nestling: The period from brooding to fledging. I divided this period into three parts, in order to make comparisons between early (brooding, or stage 1), middle (stage 2), and late (the last two days, or stage 3) behaviors.
- Fledgling: From fledging to independence. This period was divided into three parts: 1) recently fledged young, with short tails, fuzzy down, no yellow, and low mobility (about 0 to 11 days out of the nest); 2) young with tails about 3 cm to 5 cm, slight yellow behind bill, mobile and vocal (about 12 to 19 days out of the nest); and 3) young with yellow faces, looking almost like scruffy adult females, very mobile and vocal, able to forage (more than 19 days out of the nest).

Because I was not observing nests every day or looking directly into them, I was not able to obtain data for exact lengths of all nesting periods for all nests. I, therefore, report the longest periods that I observed, as estimates of lengths of those nesting periods. Also, I was not able to collect data on feeding rates for stage 3 fledglings, because they were too mobile for me to keep track of them and take reliable notes for more than a few minutes at a time.

RESULTS

I collected a total of 195.8 h of quantifiable observations at 17 nests, and 16.45 quantifiable h of fledgling observations. Mean total observation time per nest was 13.1 (s = 10.3) h. The mean length of fledgling observations was 0.75 (s = 0.36) h. The TxDOT data yielded an additional 124.9 h of nest observations; 71.9 h at one nest and 52.9 h at the other. Descriptions and summary data for each nest are given in Appendices D through F. Timing of nesting periods for each nest are shown in Fig. 1.

Life History

The earliest start date of nests I observed in this study was 25 March, and the latest was 17 May. The mean start date was 13 April. Some later nests may have been second attempts, but I was not able to determine whether this was the case. The length of the nesting cycle from start of nest building to fledging, was 30 to 31 days (based on longest periods documented).

Building: The longest building periods observed were five days (n = 4), and six days (n = 1). Eight nests were observed for 27.35 h ($\bar{X}$ = 3.42 [s = 2.91]), over one to three days per nest.

Laying: I did not observe any females laying eggs. The shortest period between the last day of building and the first day of incubation that I observed was four days. Five nests were observed for 15.95 h ($\bar{X}$ = 3.19, s = 1.54) over one to three days per nest.

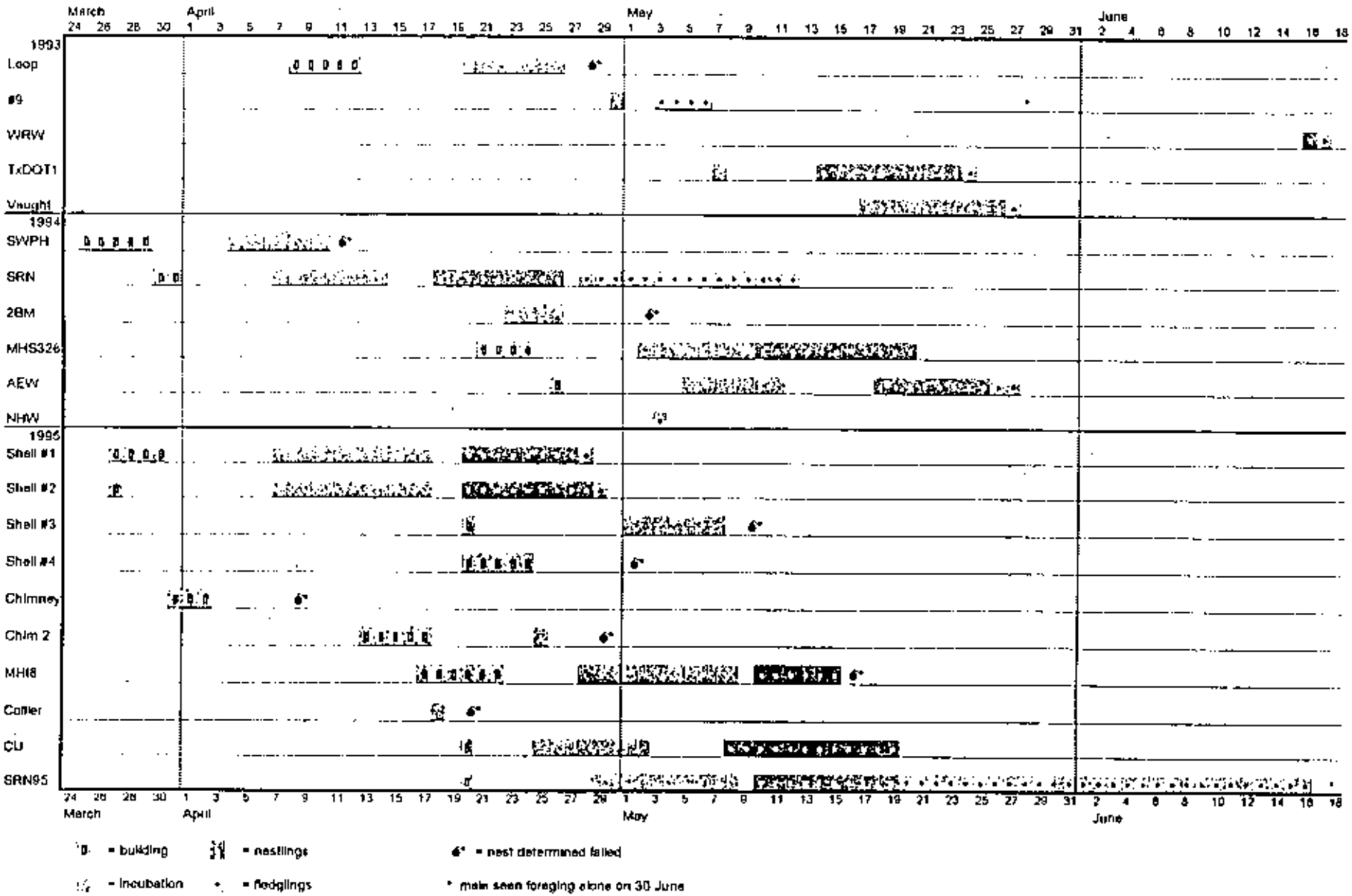

Figure 1 Golden-cheeked Warbler nesting activity, 1993 to 1995 Bars span first through last day that each nesting period was observed

Incubation: The longest incubation periods were 11 days ($n = 3$), and 10 days ($n = 1$). Twelve nests were observed for 88.80 h (per nest, $\bar{X} = 7.26$, $s = 3.94$), over one to six days per nest.

Brooding: The longest brooding periods were five days ($n = 1$), four days ($n = 2$), and three days ($n = 1$). Nine nests were observed for 80.69 h, over one to five days per nest. I watched seven of those nests for 26.46 h ($\bar{X} = 3.78$, $s = 2.79$), and TxDOT biologists watched two nests for 54.23 h ($\bar{X} = 27.12$, $s = 11.08$).

Nestlings: This section includes brooding, nestling 2, and nestling 3 stages. The longest nestling periods were 12 days ($n = 1$), and 11 days ($n = 1$). Three other nests had nestlings for at least 10 days. Eleven nests were observed for 190.24 h, over one to 10 days per nest. I watched nine of those nests for 65.38 h ($\bar{X} = 7.26$, $s = 5.48$), and TxDOT biologists watched two nests for 124.86 h ($\bar{X} = 62.43$, $s = 13.44$).

Fledglings: I observed the SRN95 male feeding fledglings 28 days after fledging, and saw the male foraging alone 41 days after fledging. I also saw other fledglings, who looked older than the 28-day-olds, being fed by adults, so the dependent period for fledglings is probably greater than 28 days. Most of my observation periods were an hour or less, and these were total observation times for the unknown (unbanded) family groups, as I never located any of them more than once. Of the family groups whose nests I had observed (one adult banded), I have 1 h of data for the #9 family group, 2.89 h for the SRN group, and 6.29 h for the SRN95 group. Data for each observation period were treated independently, and then all observations of an age class were pooled. I observed adults with fledglings for a total of 16.47 h ($\bar{X} = 0.75$, $s = 0.36$).

I observed and noted general changes in appearance and behaviors of fledglings, as they aged. Table 1 gives descriptions of plumage and behavioral changes for two cohorts of known-age fledglings.

Most of the life history parameters I measured in Golden-cheeked Warblers were similar to those of other *Dendroica* species. Table 2 shows results of my study compared with Pulich's (1976) study of Golden-cheeked Warblers, and various other studies of *Dendroica* species.

Parental Investment

Attentiveness: Females incubated eggs for a mean of 37.46 (± 4.59 SE) min, and were away from the nest for a mean of 13.04 (± 1.27 SE) min. Females brooded young for a mean of 15.21 (± 2.58 SE) min, and were away for a mean of 18.50 (± 3.84 SE) minutes. In order to include observations of incomplete attendance cycles in the analysis, and give an additional measure of attentiveness, percent of total time in attendance during observations were also calculated. Females incubated for a mean of 73.77 % (± 2.54 SE) of the time they were observed, and brooded for 47.97 % (± 6.26 SE) of the time. I did not observe any males incubating or brooding, though males brought food to the nest occasionally during incubation, and regularly during brooding and the rest of the nestling period.

Trips to the nest: Males were only very occasionally seen at the nest during construction, and were never seen to bring materials. Males did, however help to shape

Table 1. Observations of plumage development in two cohorts of fledgling Golden-cheeked Warblers. Both cohorts were from nests of the SRN banded male.

Age*	Date	Plumage and behavior
2	29 Apr 94	dark grey on top, light breast and belly, grey streaks on edges of breast, white wing bars, black primaries, downy body, tail very short, black and white tail feathers, pinkish legs, broad pink beak; not very mobile, beg when adult approaches.
8	5 May 94	same as 2 days, but tail about 2 cm long, beak is light brown. loud and mobile, foraging.
13	10 May 94	fuzzy, grey, adult-length tail, beak still slightly pink, very mobile.
0	19 May 95	dark grey on top, light breast and belly, grey streaks on edges of breast, white wing bars, downy body, tail very short, black and white tail feathers, pinkish legs, broad pink beak. don't move much, beg when adult approaches.
5	24 May 95	fuzzy, dark grey on top, light grey breast and belly, wing bars, short tail, broad dark-grey and tan beak
7	26 May 95	fuzzy, no yellow, 1.5 cm tail
12	31 May 95	wing bars, no yellow, long tail**. beak is narrow by this age. constant chipping, forage.
14	2 June 95	no yellow, long tail. forage, hover forage.
19	7 June 95	yellow behind beak and under wings. very mobile.
24	12 June 95	half yellow face (beak to back of eye), yellow under wings, light throat, some mottling down to breast; very active.
28	16 June 95	faces are yellow to back of eye, and below and behind eye to back of cheek
		Older juveniles similar to adult females, but juvenile males have mottled black throats, juvenile females have clear throats with black streaks on the sides; may have bits of fuzzy down at the backs of cheeks, and above the eye. Birds with this plumage have been seen being fed by adults.

* days since fledging
**"long" tail = adult length

Table 2. Life history and behavioral variables for selected *Dendroica* species.

Species	Mating system*	Length of period (days) building	inc	nestling	fledgling	Mean nest height (m)	Number of eggs	Incubation periods (min) at nest	away	Feeding rate/hour nestlings	/fledg	Ref.
D. chrysoparia	m?	5-6	10-11	10-12	>28	7.1	3-4***	34	12	8	15	1
D. chrysoparia	m & s	4	12	8-9	28-45	4.6	3-4	32**	18**	3.81	no data	2
D. virens	m & s	4-8	12	8-10	<29	3	4-5	50	15	10	9	3
D. caerulescens	m & p	3-5	12	9	<28	1.3	3-5	35	no data	3-10		4
D. fusca	m & s	3-6	11-13	no data	no data	13	3-5	22	5.5	5	no data	5
D. kirtlandii	m & p	4-8	13-15	9-10	44	0	3-6	39	9	2-8		6
D. discolor	m & p	4-7	11-14	9-10	41	2.3	3-5	38	13	no data	12	7
D. petechia	m		11	9-12			3-6					8

*m = monogamy, p = polygyny, s = sneak
**longest period observed
***Inferred from number of young

1. Gass, L. (unpublished data); 2. Pulich (1976); 3. Morse (1993); 4. Holmes (1994); 5. Morse (1994); 6. Mayfield 1992; 7. Nolan (1978); 8. Curson, et al. (1994).

the nests by moving their bodies in the nest the same way females did.

I never saw an adult at a nest between building and incubation. This was assumed to be the laying period. During the incubation period, females visited their nests to sit on eggs, and males occasionally brought food. Males gave this food to the female if she was there, or eventually ate it if the female was not there.

During the first few days after hatching, females stayed to brood the young after feeding them, and males began visiting the nest on a regular basis. During and after the brooding period, males and females made similar numbers of trips to the nest.

Because I was not able to see into most nests, I was not able to determine if nestlings were fed each trip, or how many nestlings were fed per trip. Thus, I made comparisons between males and females, and between nesting periods, based on number of trips to the nest per hour. However, I could often see food and fecal sacs in adults' beaks as they approached and left their nests, and at those nests where I could see the food actually being delivered to nestlings, most trips resulted in at least one nestling being fed.

Females made significantly more trips to the nest than males during the building, incubation, and nestling 3 periods (Mann-Whitney U-test: building, $P[U_{0.05(2),8,8} \leq 1.0] = 0.0010$; incubation, $P[U_{0.05(2),12,12} \leq 2.0] < 0.0001$; nestling 3, $P[U_{0.05(2),10,9} \leq 19.0] = 0.0338$). However, when the female that was feeding young without assistance from a male, and the female that was feeding two nestlings while the male was feeding the first fledgling, are excluded from the analysis, there was no significant difference between males and females for the nestling 3 period ($P[U_{0.05(2),8,9} \leq 19.0] = 0.1019$). Number of

trips to the nest by males and females were not significantly different for the brooding and nestling 2 periods (brooding, $P[U_{0.05(2),8,8} \leq 31.5] = 0.9581$; nestling 2, $P[U_{0.05(2),9,9} \leq 29.0] = 0.3089$). Both males and females varied significantly in the number of trips they made to the nest during different nesting periods (Kruskal-Wallis ANOVA: for males, $P[\chi^2_{0.05(1),4} \geq 33.695] < 0.0001$; for females, $P[\chi^2_{0.05(1),4} \geq 29.369] < 0.0001$). Mean number of trips to the nest per hour for males and females, for each nesting period, are shown in Fig. 2. There was no significant difference in the feeding rates at nests with and without Brown-headed Cowbird (*Molothrus ater*) nestlings (Spearman rank correlation; $P[(r_s)_{0.05(2),11} < 0.000] = 1.000$).

Feeding fledglings: Because observation lengths were short compared to a full day, and because I located family groups by vocalizations associated with feeding, the fledgling feeding rate data is probably positively biased. However, comparisons can still be made between males and females, and between fledgling age classes (stages). Feeding rates of males and females were not significantly different for either stage (Mann-Whitney *U*-test: fledgling 1, $P[U_{0.05(2),5,7} \leq 17.5] = 1.00$; fledgling 2, $P[U_{0.05(2),5,5} \leq 7.0] = 0.2492$), and feeding rates were not different between stages for either sex (females, $P[U_{0.05(2),5,5} \leq 7.0] = 0.2492$; males, $P[U_{0.05(2),7,5} \leq 14.0] = 0.5698$). Mean number of feedings/fledgling/hour by adult males and females, for fledgling stages one and two are shown in Fig. 3. I observed one male Golden-cheeked Warbler feeding a Brown-headed Cowbird fledgling on two occasions, but was not able to collect feeding rate data from them.

Vocalizations: Vocalizations of males and females within 15 m of the nest were analyzed, and comparisons were made between males and females, and between nesting

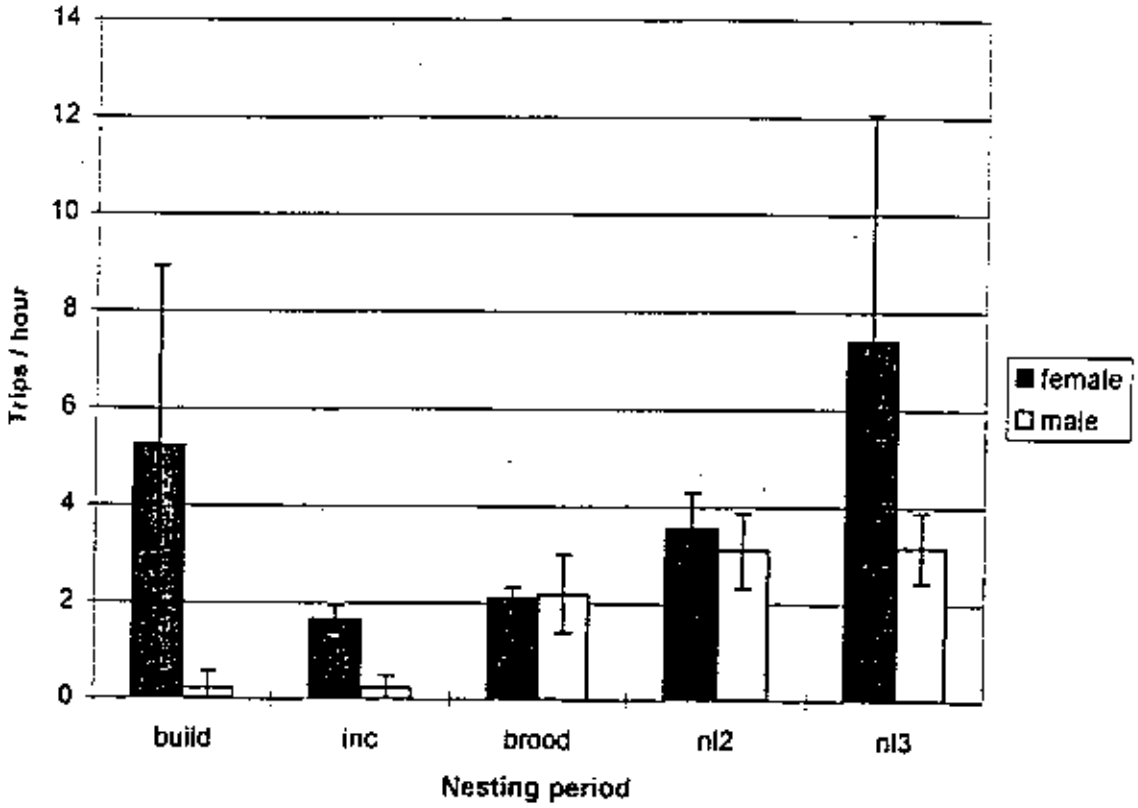

Fig. 2. Mean number of trips to nests by male and female Golden-cheeked Warblers, by nesting period. Nesting periods are: building (build; $n = 8$), incubation (inc; $n = 12$), brooding (brood; $n = 9$), nestling 2 (nl2; $n = 9$), and nestling 3 (nl3; females: $n = 10$, males: $n = 9$). Males were significantly different from females during building, incubation, and nestling 3. Error bars are 95% confidence intervals.

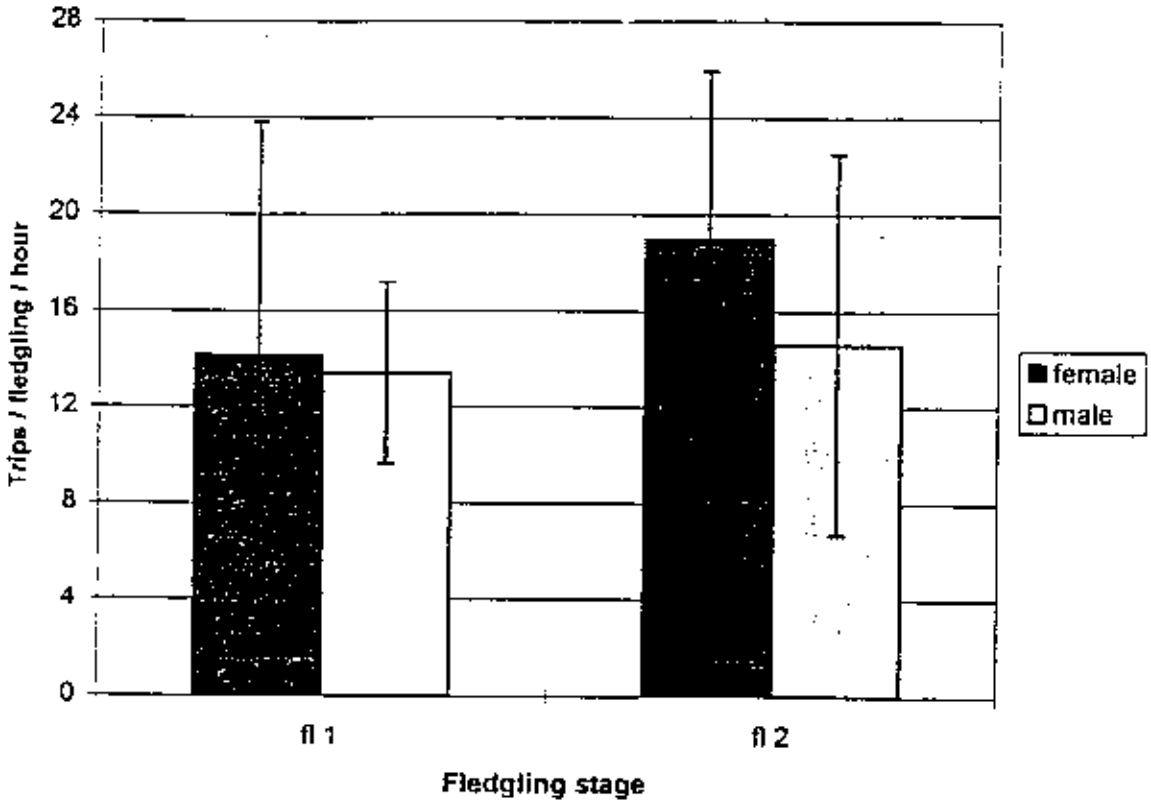

Fig. 3. Mean number of feeding trips by male and female Golden-cheeked Warblers, by fledgling stage. Fledgling stages are: fledgling 1 (fl1; females: $n = 5$, males: $n = 7$) and fledgling 2 (fl2; females: $n = 5$, males: $n = 5$). Error bars are 95% confidence intervals.

periods. I used only vocalizations near the nest in my analyses, because I could not be sure which bird was producing vocalizations heard at greater distances. Also, vocalizations near the nest would be more likely to be relevant to interactions within the family group. Males vocalized near the nest more frequently than females during brooding and nestling 2 periods (Mann-Whitney U-test: brooding, $P[U_{0.05(2),9,9} \leq 9.5] = 0.0053$; nestling 2, $P[U_{0.05(2),9,9} \leq 7.0] = 0.0031$). During other nesting periods, rates of male and female vocalizations were not different (building, $P[U_{0.05(2),8,8} \leq 28.5] = 0.7122$; incubation, $P[U_{0.05(2),12,12} \leq 43.0] = 0.0932$; nestling 3, $P[U_{0.05(2),10,9} \leq 34.5] = 0.3902$). Vocalization rates of males (all vocalizations combined) and females changed over the course of the nesting period (Kruskal-Wallis ANOVA: for males, $P[\chi^2_{0.05(1),4} \geq 10.34] = 0.0350$; for females, $P[\chi^2_{0.05(1),4} \geq 16.05] = 0.0030$). Rates of male chips, and primary and secondary songs did not differ between nesting periods (Kruskal-Wallis ANOVA: for chips, $P[\chi^2_{0.05(1),4} \geq 6.63] = 0.1569$; for primary songs, $P[\chi^2_{0.05(1),4} \geq 3.25] = 0.5176$; for secondary songs, $P[\chi^2_{0.05(1),4} \geq 4.89] = 0.2993$). For the whole nesting period up to fledging, males gave primary songs more frequently than secondary songs, when they were within about 15 m of the nest (Mann-Whitney U-test; $P[Z_{0.05(2)47,47} \leq -2.77] = 0.0056$). Mean number of vocalizations per hour for males and females, for each nesting period, are shown in Fig. 4.

I did not collect data on nestling vocalization rates, but once I heard them start vocalizing, they vocalized almost every time an adult approached the nest. Nestlings were heard vocalizing at nine nests (the MHt8 nest was depredated before I heard those nestlings vocalize) At four nests, I first heard the nestlings vocalizing during the nestling 2 period, and at two more, at the beginning of the nestling 3 period. At the other three nests, I first

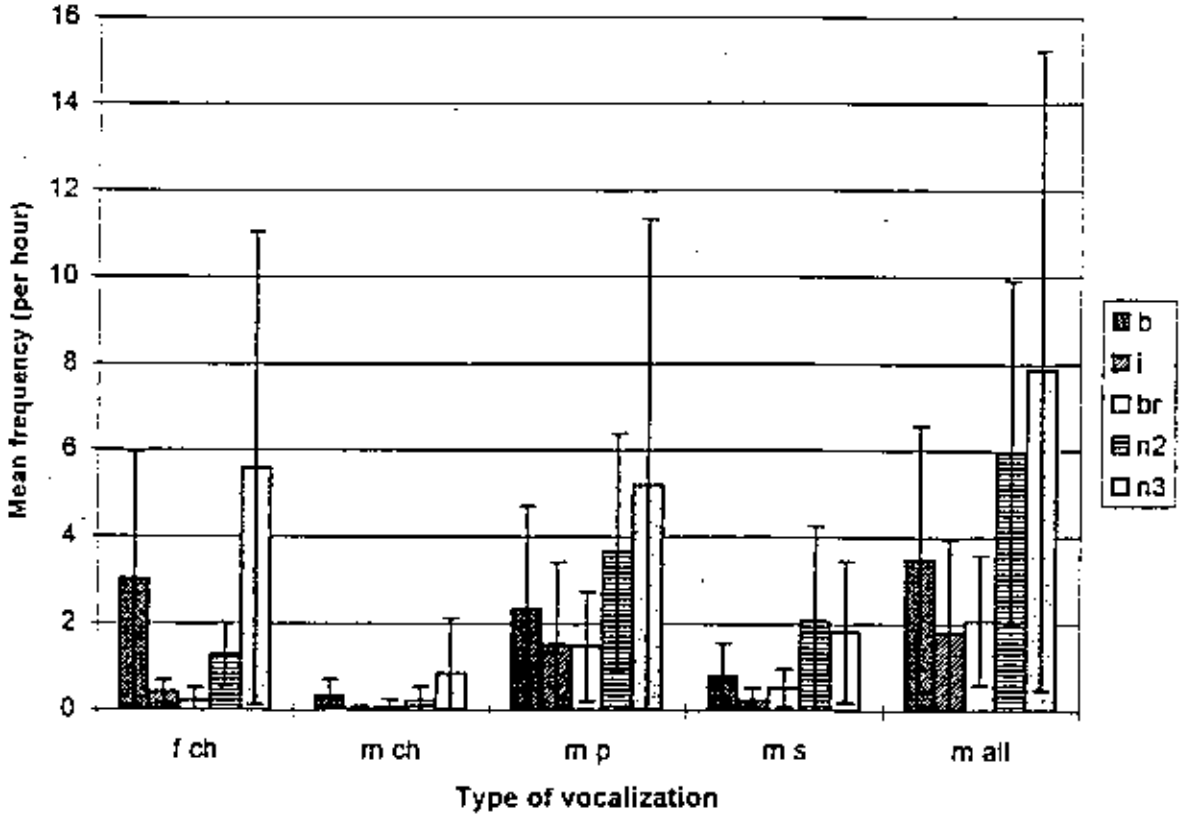

Fig. 4. Mean frequency of adult Golden-cheeked Warbler vocalizations within 15 m of the nest, by nesting period. Vocalizations are: female chip (f ch), male chip (m ch), male primary song (m p), male secondary song (m s), and all male vocalizations combined (m all). Nesting periods are: building (b; $n = 8$), incubation (i; $n = 12$), brooding (br; $n = 9$), nestling 2 (n2; $n = 9$), and nestling 3 (n3; females: $n = 10$, males: $n = 9$). Males (m all) vocalized significantly more than females during the brooding and nestling 2 periods, rates for both sexes changes over the course of nesting, and males sang more primary than secondary songs over the course of nesting. Error bars are 95% confidence intervals.

heard the nestlings vocalize at the middle or end of the nestling 3 period, but had not observed the nest for several days prior to that time.

Vocalizations near fledglings were analyzed in the same manner as those near nests, except that fledgling vocalizations were also quantified. Males vocalized more frequently near fledglings than females did during the first fledgling stage (Mann-Whitney U-test: $P[U_{0.05(2),5,7} \leq 5.0] = 0.0424$), but not during the second fledgling stage ($P[U_{0.05(2),5,7} \leq 7.5] = 0.0824$). Females and males (all male vocalization types combined) both vocalized more during the first fledgling stage than the second (for females, $P[U_{0.05(2),5,5} \leq 1.0] = 0.0132$; for males, $P[U_{0.05(2),7,7} \leq 8.0] = 0.0342$). Rates of male chips, and primary and secondary songs did not differ between fledgling stages (chips, $P[U_{0.05(2),7,5} \leq 13.0] = 0.4618$; primary songs, $P[U_{0.05(2),7,6} \leq 13.5] = 0.2598$; secondary songs, $P[U_{0.05(2),7,6} \leq 13.5] = 0.2773$), and males did not sing one song more than the other during both fledgling stages combined ($P[U_{0.05(2),13,13} \leq 73.5] = 0.5614$). Fledgling vocalization rates did not change significantly from the first stage to the second ($P[U_{0.05(2),12,10} \leq 31.0] = 0.0558$). Mean number of vocalizations per hour for males and females, and mean number of vocalizations per fledgling per hour, for each fledgling stage, are shown in Fig. 5.

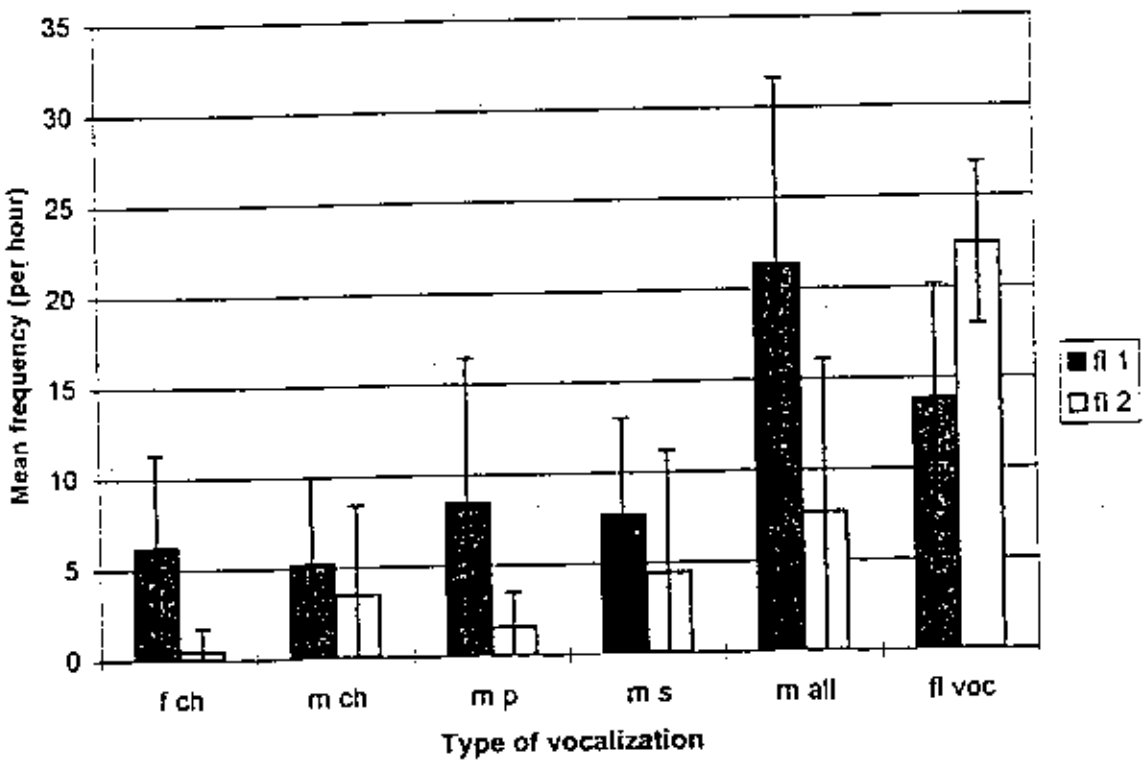

Fig. 5. Mean frequency of Golden-cheeked Warbler vocalizations within 15 m of fledglings, by fledgling stage. Vocalizations are: female chip (f ch), male chip (m ch), male primary song (m p), male secondary song (m s), all male vocalizations combined (m all), and fledgling vocalizations (fl voc). Fledgling stages are: fledgling 1 (fl1; female: n = 5, male: n = 7) and fledgling 2 (fl2; female: n = 5, male: n =5). Vocalization rates of both females and males (m all) significantly decreased, and rates for fledglings showed a trend toward a higher rate, from fledgling 1 to fledgling 2. Error bars are 95% confidence intervals.

Failures, Predators and Parasites

Nine nests out of 23 found (43%), or 21 observed (47%), failed during the nesting period. At two more I was unable to locate fledglings after 11 and 12 day (presumably complete) nestling periods, but assumed that they fledged successfully. Eight nests failed during incubation, and one nest (MHt8) failed during the nestling period. Circumstances and possible causes for nest failures are shown in Table 3. Using the Mayfield (1975) method, survival for the building period was 1.00; for incubation, 0.42; and for the nestling period, 0.89.

Predators and Brown-headed Cowbirds were observed near most nests. Predators included Blue Jays (*Cyanocitta cristata*), Scrub Jays (*Aphelocoma coerulescens*), Yellow-billed Cuckoos (*Coccyzus americanus*), hawks, fox squirrels (*Sciurus niger*), and feral cats and dogs. Other predators observed or heard in Golden-cheeked Warbler territories included snakes, Eastern Screech Owls (*Otus asio*), ringtails (*Bassariscus astutus*), raccoons (*Procyon lotor*), gray foxes (*Urocyon cinereoargenteus*), and opossums (*Didelphis virginiana*).

In 1993, TxDOT researchers chased Scrub Jays from near (about 0.6 m) a nest and from near a fledgling. In 1995, a TPWD employee observed predatory activity of a Scrub Jay at the MHt8 nest. The Scrub Jay came to the nest shortly after the observer arrived. The jay ate a Brown-headed Cowbird nestling and a Golden-cheeked Warbler nestling, and picked up and replaced an egg that was also in the nest. The jay carried the nestlings

Table 3. Descriptions of failed Golden-cheeked Warbler nests, 1993 to1995.

Nest	Probable cause	Level of concealment	Condition	Notes
Loop	predator	nest not concealed	nest damaged, branch hanging down	nest checked with mirror previous day
SWPH	predator	nest not concealed	nest slightly damaged	
2BM	unknown	nest fairly concealed	no damage seen	
Shell#3	unknown	nest fairly concealed	no damage seen	
Shell#4	unknown	nest fairly concealed	no damage seen	
Chimney	predator	nest somewhat concealed	hole through middle of nest	
Chim2	unknown	nest somewhat concealed	no damage seen	
Collier	predator or hail	nest somewhat concealed	nest slightly damaged	hail storm previous day
MHt8	predator	nest not concealed	nest damaged, then fell down to tree	nest watched and filmed previous day, Scrub Jay seen eating nestlings, egg

to the ground to eat them. One of the Golden-cheeked Warbler adults did a wing flutter display while the jay was at the nest. Although there were no nestlings left in the nest, the Golden-cheeked Warbler adults continued to bring food to the nest after the jay left the area, and the female ate a fecal sac. Feeding rates declined over the five hours that the nest was observed. The adults eventually ate the food that they brought to the nest, after looking in the nest. Near the end of the observation period, a Scrub Jay came to the nest and ate the egg (J. Petick, pers. comm.).

At least three nests that I observed had Brown-headed Cowbird nestlings in them. Adult Brown-headed Cowbirds were heard around most nest sites. A pair (male and female) of Brown-headed Cowbirds was seen within 10 m of the Mht8 nest, while it was being built. A female Brown-headed Cowbird sat on the rim of the SRN95 nest and looked in the nest, near the end of the incubation period (8 May). I did not see her deposit an egg, and she was at the nest for less than half a minute. Both of these nests had Brown-headed Cowbird nestlings.

There was no statistically correlation between nest outcome (fledged, or failed prior to fledging) and terrain (canyon or upland), relative height of the nest in the tree, tree type (juniper or hardwood), number of nestlings, presence of Brown-headed Cowbird nestling, percent attendance time during incubation, feeding rate (male and female combined), number of hours the nest was observed, or whether the nest was early (before mean start date) or late (after mean start date). There also was no correlation between the total vocalization rate for males and females combined and nest outcome, or the combined vocalization rate during the incubation period (when most failures occurred) and nest

outcome. However, terrain (Spearman Correlation, $P[(r_s)_{0.05(2),21} \geq 0.3347] = 0.138$, for successful nests correlated with canyon sites) and number of nestlings ($P[(r_s)_{0.05(2),13} \geq 0.4468] = 0.126$) show trends which may become more significant with larger sample sizes. Also, when I changed nest outcomes to show that the nest from which a Scrub Jay was driven had failed, more nestlings and a higher feeding rate were correlated with successful nests (for number of nestlings, $P[(r_s)_{0.05(2),13} \geq 0.6122] = 0.026$; for feeding rate, $P[(r_s)_{0.05(2),11} \geq 0.6708] = 0.024$), and the significance of the relationship between successful nests and canyon sites increased ($P[(r_s)_{0.05(2),21} \geq 0.3920] = 0.079$).

DISCUSSION

Parental Investment

Parental investment of both males and females has been investigated in a number of species of birds and other animals. Investing in offspring increases the survival of offspring, but reduces chances for additional matings (Westneat and Sherman 1993). The amount of energy invested is expected to be proportional to the certainty of paternity or maternity, and to depend on the cost to the parent and the benefit to the offspring. However, certainty of paternity does not always predict the level of investment of the male (Westneat 1995, Dale 1995). In most vertebrates, females have less doubt as to the certainty of their maternity, than males do of their paternity, even when multiple matings

occur. Brood parasitism also reduces certainty of relatedness to offspring, for both parents.

Both parents participate to some degree in the care of young in over 90% of birds species. Wesolowski (1994) claimed that this system of biparental care probably evolved from paternal care in primitive birds, which in turn evolved from reptiles with no post-ovipositional care. Possibly in conflict with this claim, McKitrick (1992) stated that biparental incubation in birds arose from no incubation. However, in most species of crocodiles, the reptiles most closely related to birds, females attend and defend their nests, and males and females may carry and defend their young (Shine 1988). Further investigation may clarify the origin of parental care in birds.

Wesolowski (1994) hypothesized that as parental care in birds developed, it first consisted of egg-guarding by males, with large eggs and precocial young. As care for young evolved and increased, egg size decreased, and young became more altricial. This coevolution of egg properties with parental care led to biparental care, as the young became more and more dependent on care, and constant presence of a parent became necessary for development. However, participation of both parents does not mean equal and identical participation, and thus there is opportunity for role specialization.

Most birds, and most wood warblers, have historically been thought of as monogamous. However, recent studies have shown that monogamy is more of a tendency than a rule, and alternative mating strategies abound within the various mating systems (see Mock 1983). This should be kept in mind when discussing mating systems and relative parental investment in birds.

In birds where only females incubate, conflict between males and females peaks at the onset of incubation, when females are obligated to stay on the nest most of the time (Morse 1989). At this time males are free to obtain additional matings, albeit with some potential costs, such as the consequences of failing to protect his primary mate, which may result in disturbance of or predation on the female or young, or cuckoldry. Male Golden-cheeked Warblers showed at least some fidelity during this stage, by continuing to display in the territory, and by occasionally feeding the female on the nest (see Fig. 2, incubation).

Females are generally the primary caregivers in birds, but recent studies have looked at the relative importance of the male's investment in the young. Silver et al. (1985) used correlation analysis to model the ecological correlates of male involvement in parenting in birds. They found that the most important predictors of male parental behavior were mode of development (altricial vs. precocial young), mating system, habitat characteristics, and clutch weight as a percentage of female body weight. They suggested that the model could be used to predict behavior in taxonomic groups that are not well studied.

Feeding rates are important because reproductive success in birds can be limited by the rate at which food is delivered to the young (Krebs and Davies 1987). Males are expected to feed more frequently (invest more) in mostly monogamous systems, and less frequently in polygynous systems. In a study of Yellow Warblers (monogamous), Biermann and Sealy (1982) found that males fed nestlings more (overall weight of food and number of trips) than females did. However, Nolan (1978) found that in Prairie Warblers (polygyny and monogamy) females made slightly more feeding trips than males. Kendeigh (1945) studied 12 species of wood warblers in New York state, and found that

males fed at least as often, and sometimes more often, than females. Presumably all his study subjects were monogamous pairs. Pitelka (1940) reported that in Black-throated Green Warblers (monogamous), the female fed the young more often than the male, but the male brought more food per visit. Males also brought more food per visit in Myrtle and Black-throated Blue Warblers, as reported by Nice (1930a and 1930b). In Kirtland's Warblers (mostly monogamous), the male brings food to the nestlings more often than the female (Mayfield 1992). Wittingham and Robertson (1994) found that males fed more often in poor habitat, and less often in good habitat, and that male parental investment was less important in good habitat.

Golden-cheeked Warblers seem to be mostly monogamous, and males of this species actively care for nestlings and fledglings. Males probably do not ever incubate or brood, and as mentioned above, they participate in nest building only in a ritualized manner as part of courtship (Lockwood, unpubl. manuscript), if at all. Feeding rates of male and female Golden-cheeked Warblers were measured through all stages of offspring dependence, and these data were used to determine the relative investment of the two parents. I found no difference in visitation rates of males and females during most of the time they were feeding their offspring. Females did visit the nest more frequently than males during the nestling 3 stage, however this was due to the inclusion of two females with unusually high visitation rates (one was caring for the young without the help of a male, and the other was feeding two nestlings, while the male was feeding the first fledgling). Pulich (1976) noted that in Golden-cheeked Warblers, as in a number of other passerines (Skutch 1976), each parent takes exclusive care of a portion of the brood after fledging. My observations of males and females feeding partial broods support this

hypothesis. Pulich claimed that this behavior increases the chances for survival of the young (though this has not been demonstrated), which in turn implies that male effort continues to be important at this stage of development of the young.

Male removal studies have shown different effects on female behavior and nesting success for different species. Meek and Robertson (1994) studied the effects of male removal on nesting behavior and reproductive success of female bluebirds. They found that unaided females were not able to feed nestlings at the same rate as females with male assistance (control females), and had a higher rate of nest failure. Wright and Cotton (1994) manipulated European starlings and found that a reduction in certainty of paternity resulted in a reduced rate of nestling feeding by experimental males, but female feeding rates increased to compensate for the reduction in male investment. At one of the nests I observed (#9), the male was never seen feeding nestlings or fledglings, and the female fed at a much higher rate than other females I watched. This nest was found near the end of the nestling stage, the nestlings had fallen out of the nest prematurely and the fledglings were only observed for a few days, so I'm unable to fully assess the male's contribution. However, even if the current nest does not fail, females who must work much harder than usual to feed their offspring are no doubt reducing their own survival and their lifetime reproductive success.

Winkler (1987) developed a model to predict the potential importance of a number of factors that determine parental care by males and females in biparental monogamous species. From the model, he predicted optimal effort in response to parent-offspring relatedness; optimal response to variation in age and number of offspring, and effort of mate; and optimal response to condition of parent and time of breeding season; all of

which are related to environmental conditions and species specific parameters. Two of the predictions resulting from the model are: 1) that a parent will usually decrease effort when the mate increases effort, and 2) that parental effort will generally increase with age of offspring. I was not able to test the first prediction, but the second was true for Golden-cheeked Warblers (see Fig. 2 and 3), as it was for Black-throated Blue Warblers (Holmes 1994) and Prairie Warblers (Nolan 1978).

Males may also invest in their mate and offspring in a more indirect manner by vocalizing around the territory in order to protect it from competitors, and communicating with their mate and offspring. The latter form of investment was focused on in this study. Communication between males and their mates and offspring may strengthen bonds and facilitate feeding of offspring, and may help the offspring to learn and recognize their species' vocalizations (i.e., Morse 1967 and Spector 1992). Males vocalized around their nests and offspring through all nesting and fledgling periods that I studied, and they vocalized more frequently than females during brooding, nestling 2 and fledgling 1 stages. When the female is brooding and nestlings are young, male vocalizations may help to coordinate feeding efforts, but I do not know why males should vocalize more than females while feeding fledglings, when the brood is split between the two parents.

Many wood warbler species have song systems which include two male songs, as is the case for Golden-cheeked Warblers. These have been described with a number of different terms, which have not been standardized. My choice of terminology has no basis in preference for a particular system of nomenclature, but my use of "primary" and "secondary" is equivalent to "accented ending" and "unaccented ending", or "first category" and "second category", "type B" and "type A", respectively (Spector 1992).

During nesting (until fledgling), I found that males sang the primary song near the nest more frequently than the secondary song, but this difference was not detected for the time that males were feeding fledglings. The former finding is in accordance with other studies that describe the primary song as being associated with mate attraction and contact, while the secondary song is sung more frequently in aggressive male-male interactions (Spector 1992, Morse 1967, Morse 1970, and Weary et al. 1994).

Parent-Offspring Conflict

Parent-offspring conflict has been studied in birds, as well as in a number of other animals, and in plants. Robert Trivers introduced the idea of parent-offspring conflict in 1974. He suggested that when the relationship between parent and offspring is looked at from both points of view, the two parties will be expected to disagree on the amount and extent of parental investment. The offspring will always attempt to obtain more investment than the parent is selected to give (Trivers 1985). Also, conflict will be expected to increase over the period of care, as the benefit to the offspring decreases and the cost to the parent increases. Trivers claimed that the conflict over parental feeding during the fledgling period could be explained by this theory. He suggested that juvenile birds solicit feedings by reverting to behaviors characteristic of an earlier stage, when the benefit to the offspring was greater (Trivers 1974). Although additional feedings may be beneficial to the offspring, the effects of this conflict may have negative impacts on parents. For example, if demands placed on parents are too high, the possibility of a second brood may be eliminated (Morse 1989). Harper (1986) developed a model which

assumed that differences in begging intensities represent communication between parents and offspring, and predicted young should vary their begging rates in response to fluctuations in investment, and that absolute levels of begging may be high due to sibling competition, even though conspicuous begging may be costly to the offspring. Nilsson and Svensson (1993) investigated fledging (leaving the nest) in Marsh Tits and Pied Flycatchers, and found that the first young leaves the nest when it reaches a threshold size and is able to actively approach the parents and beg for food. This indicates both sibling competition for food, and an escalation of parent-offspring conflict by the offspring in an attempt to obtain more food. Elliott (1969) also described parent-offspring conflict in the Red Warbler by characterizing the fledglings as "vociferous", while adults were silent.

I observed a trend from no begging or vocalizing right after hatching, to vocalizing and begging as adults approached the nest or fledgling, to periods of almost constant vocalizing and begging as fledglings approached adults. This indicates that in Golden-cheeked Warblers there is a trend toward a higher rate and intensity of begging with increased age of young, and this trend can also be seen in my fledgling vocalization data (see Fig. 5). At the same time, adults increased their vocalizations rates near the young as the young aged, until the fledgling 2 stage, at which point they reduced their vocalization rates (Fig. 4 and 5). At this stage, the parents have not reduced their feeding rates. This may indicate that the fledgling 2 stage is the point at which conflict between parents and offspring peaks, after which the parental investment declines. Fledglings also retained begging behaviors characteristic of nestlings, even after they were able to move and forage independently, which may be an indication of signaling of false information (see Trivers 1974). However, it is possible that the begging young are actually communicating

accurate information, which could in fact be beneficial to both parents and offspring (Godfray 1991). Further investigation of parent-fledgling interactions may clarify this subject.

Predation and Parasitism

Although I could find no significant correlations between a number of different variables and actual nest outcome, these results may be due to the small sample size, or to interference by researchers. When nest outcome was adjusted to account for researcher influence (nest from which Scrub Jay was chased changed to "failed"), two variables became significantly correlated with nest success, so additional factors associated with nest outcome may emerge with a larger sample size, and less disturbance.

The two factors that were associated with (adjusted) nesting success were number of nestlings, and feeding rate. A higher feeding rate is indicative of greater attentiveness at the nest by the parents, and is thus expected to be correlated with success, because the more time adults spend at the nest, the better they can protect it, and be sure that the nestlings are nourished. Adults will probably feed more frequently at a nest with more nestlings (this was not tested), so this factor may be correlated with success due to its relationship to feeding rate.

I was not able to quantify Golden-cheeked Warbler responses to predators or parasites, as I only saw predators near nests when adults were present twice. I saw a Scrub Jay pass below a nest while the female was incubating, and she became very still, but the jay gave no indication that it was aware of the nest. On another occasion, I saw a

Blue Jay pass below another nest while that female was incubating, but I was not able to see the female, and again, the jay did not give any indication of being aware of the nest. A TxDOT researcher saw a female Golden-cheeked Warbler give a wing-flutter display towards, and then attack in mid-air, a male Northern Cardinal that had approached to within 1 m of her nest. J. Petick's (pers. comm.) observations of the predation of a nest indicate that the Golden-cheeked Warbler adults were aggressive toward the Scrub Jay, while it was at their nest. I never saw cowbirds approach nests when Golden-cheeked Warbler adults present (but see anecdotal notes below). There is indication from the literature that at least some warblers do behave aggressively towards cowbirds. Female Hooded Warblers were found to behave aggressively toward cowbird models, and they were more aggressive toward the cowbird model than toward a Veery model (Mark and Stutchbury 1994).

Conservation

A number of researchers have attempted to describe the nesting habitat of Golden-cheeked Warblers, with varying results. Pulich (1976) reported that three species of *Juniperus* occur in the range of Golden-cheeked Warblers: *Juniperus ashei*, *J. pinchotii*, and *J. virginiana*. Other dominant woody vegetation included oaks (*Quercus virginiana*, *Q. texana*, and *Q. sinuata*), elms, hackberries, ash, persimmon, bumelia, redbud, various sumacs, escarpment cherry, and various vines, but all in a Juniper-Oak association. Warblers were found in woods with 14 to 85% juniper, with thick or open understories. Kroll (1980) found that Golden-cheeked Warblers are equally dependent on juniper and

oaks, prefer to forage in hardwood species, and prefer to nest in habitat with juniper that is 40 years old or more, with a ratio of juniper to oak of 1.35 to 1. Ladd (1985) investigated nesting habitat requirements at the Kerr Wildlife Management Area in western Kerr County, and found that juniper was the dominant woody species, with Texas oaks being the second most important. Also, Golden-cheeked Warbler territories had higher importance values for juniper than control areas. Beardmore (1994) described the vegetation in Golden-cheeked Warbler territories in Travis County, and correlated foraging behavior with microhabitat type and microhabitat availability. She found that Golden-cheeked Warblers forage mostly in live oaks, and in the upper canopy in the early part of the breeding season, and mostly in juniper, and at lower levels, in the latter part of the breeding season. The Texas Department of Transportation is currently conducting a study of the vegetation surrounding specific nest sites throughout most of the nesting range of the Golden-cheeked Warbler.

Another measure of habitat quality may be length of nestling period. The intraspecific variation in the length of the nestling period results primarily from variation in the amount of food nestlings receive, which in turn depends on factors such as weather, seasonal fluctuations in food supply, and number of nestlings (Skutch 1976). Food supply is also a measure of habitat quality. Although the nests I studied had similar numbers of young to those that Pulich (1976) studied, nestling periods for my nests were about three to four days longer than his. Although this difference may be due to small sample sizes in both studies, it may also reflect poorer habitat quality where the present study was done. Measurement of the length of nestling periods in various parts of the Golden-cheeked Warbler breeding range may confirm this possibility.

It is difficult to describe optimal habitat based on current information, partly because of the range of habitat types that Golden-cheeked Warblers inhabit, and because of the different methods and measurements used. However, it is important to try to characterize optimal habitat because factors such as habitat loss and predation on the breeding range (as opposed to the wintering range) may be the primary threats to the Golden-cheeked Warbler (Vidal et al. 1994, and Bohning-Gaese et al. 1993). Information from comparisons of the vegetation and other habitat features in areas around successful and unsuccessful nest sites, combined with data from the habitat studies mentioned above, may allow us to better describe optimal habitat, and its correlation with other factors such as parasitism, predation, and interspecific competition (see Holmes, et al. 1992; Mark and Stutchbury 1994; and Morse 1985).

Qualitative/Anecdotal Observations

I observed many behaviors which I did not quantify, either because I could not collect consistent enough data on them, or because I only saw the behaviors once or a few times. Many of these behaviors have been observed in other birds, and are described in publications such as *The Birds of North America* (i.e., Morse 1993 and Skutch 1976).

- The SRN male exhibited site fidelity by using the same territory for at least two years in a row (1994 and 1995). This male was banded in 1994. The female was not banded either year, so I could not determine if it was the same female both years. The

1995 nest was in the same woodlot as the 1994 nest, about 40 m away. This was the only male for which we found two nests.

- The nests that I observed being built were constructed by the females. Although I saw males come to the nest during the building stage at three of eight nests, none seemed to contribute much to the process. Males would sit in the nest and move their bodies in the same manner as the females, but I never saw males bring nesting materials to the nests, and they came to the nest infrequently.

- Although previous reports failed to find evidence of Golden-cheeked Warblers foraging on the ground, both males and females were observed (by myself and the TxDOT researchers) foraging on the ground several times.

- Seven out of 12 males were observed bringing food to the nests during incubation. Most of the time the female was in the nest and the food was given to her. However, the SRN male brought food to the nest once while the female was away. He hopped around the nest and perched on the rim several times, and sang the primary song before finally leaving with the food about two minutes later. This occurred during the first half of the incubation period. The feeding of the incubating female by the male may be directed more at the young than at the female (although she benefits from it). This "anticipatory feeding" (Skutch 1976) may ensure that the male is ready to feed the young soon after they hatch, by allowing him to check the nest contents (to see if the eggs have hatched) and "practice" bringing food to the nest.

- On warm days females were often seen breathing quickly and deeply with their beaks open, and standing over eggs or young with wings spread. Females also stood, with wings spread, over nestlings when it was raining. These are common thermoregulatory behaviors among birds (Skutch 1976).

- Although males and females made trips to nests at similar rates during the nestling period, some behaviors were observed that indicate that females may still be the primary caregivers at this stage of nesting. At several nests, and on several occasions, I observed the male passing food to the female, which she then gave to the young. This occurred almost all the time, both when the female was brooding the young, and when both adults arrived at the nest at the same time.

- The TxDOT crew observed a male that looked like a second year bird apparently learning to feed young. On what I assume was the first day after hatching (14 May), the TxDOT1 male (without food) followed the female (with food) to the nest. The male perched about 0.5 m above the nest, and looked toward the female as she fed the young. The female then sat in the nest and the male flew away. This was the only time the male was seen approaching the nest during seven hours of observations on that day. Similar events were observed on 15 May, and on 17 May the male was seen in the nest tree with food, but did not go to the nest. The male was not seen feeding the young until 18 May. This is in contrast to other males who began feeding within a day of hatching.

- Adults were observed several times regurgitating food which they then gave to the nestlings. Pulich (1976) did not observe this behavior.

- Fledging was observed at two nests (SRN95 and Vaught), young left a nest after a female was inadvertently banded near a nest (WRW), and young were seen exhibiting pre-fledging behaviors on the day of, or prior to, fledging at three more nests (Shell #1, TxDOT1, and Vaught). At the WRW nest, fledglings left the nest shortly after the nest was discovered, and immediately segregated from one another into separate trees. There were three or four fledglings from this nest, and the male fed two, while the female fed one or two young. These fledglings were never located again. At Shell #1, TxDOT1 and Vaught nests, nestlings were seen moving around frequently in the nest, scratching themselves, preening, stretching their wings, and perching on the rim of the nest. They also occasionally perched on branches within 0.5 m of the nest, and then returned to the nest. Perching on the nest rim and on branches were observed only in the last day before fledging. At the Vaught nest, two fledglings were out of the nest, one of which was about 7 m from the nest, at the beginning of the observation period, at 0642 h on 27 May. Both male and female fed at the nest, and the female was feeding one fledgling. At 0705 h the third fledgling left the nest, and flew 4.5 m away. Both fledglings that were detected continued to move away from the nest, as the female fed them. The third fledgling was never found, and the male was not re-sighted after feeding at the nest a 0646 h. At the SRN95 nest, the two Golden-cheeked Warbler and one Brown-headed Cowbird nestlings were all in the

nest at the beginning of the observation period, at 0951 h on 19 May. At 1003 h a Golden-cheeked Warbler fledgling flew 5 m to an adjacent tree, and the male began feeding it there. The female continued to feed regularly at the nest, and the male fed at the nest two more times before the other two young fledged. Both remaining nestlings perched on the rim, then got back in the nest twice. Then at 1139 h the Brown-headed Cowbird nestling perched on the rim of the nest, and stayed there till 1202 h, when it hopped on to the branch next to the nest, and then back on to the rim at 1203 h. At 1210 h it moved from the rim to the branch near the nest, then continued to move away from the nest. At 1213 h the Golden-cheeked warbler nestling moved to the rim, then to the branch, and moved away from the nest in the same direction as the Brown-headed cowbird. No apparent urging was observed from the adults at either of these nests.

- At both the SRN and SRN95 nests, the adults divided the brood when the young fledged. The SRN adults were both seen feeding young. The male usually fed two fledglings, while the female fed one, however on one day the entire family group appeared to be together, and the female was feeding more than one fledgling. The SRN95 female was never seen after fledging, however her mate was seen several times, feeding two Golden-cheeked Warbler juveniles. It is possible that the female fed the cowbird young after fledging. Reasons for dividing the brood after fledging may include the following: 1) fledglings may avoid one another to reduce impacts of predation; and 2) the parents may be able to forage and feed the young more efficiently when the brood is divided (Skutch 1976).

- Brown-headed Cowbirds were seen once at each of two nests. On 8 May 1995, about two minutes after the female Golden-cheeked Warbler left the SRN95 nest, a female Brown-headed Cowbird perched near and on the nest, looked in the nest, and then flew away. This was during incubation. On 10 May 1995, a female Brown-headed Cowbird hopped through an adjacent juniper, then into the nest tree, and perched 0.3 m below the CU nest. It then flew away without actually reaching the nest. There were nestlings in the nest at that time, but no adult Golden-cheeked Warblers were present.

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APPENDIX A

Aerial photograph of the Victoria Tract of the Balcones Canyonlands National Wildlife Refuge, in northwestern Travis County, Texas, with Golden-cheeked Warbler nest locations. Scale is approximately 1cm = 125 m. Nests locations are indicated by numbers: 1 = Loop, 2 = #9, 3 = SWPH, 4 = SRN, 5 = 2BM, 6 = MHS326, 7 = Chimney, 8 = Chim 2, 9 = MHt8, 10 = Collier, 11 = CU, 12 = SRN95.

N
12
4
2
1
7
8
10
11
6
9
5
3

APPENDIX B

Aerial photograph of the Webster Tract of the Balcones Canyonlands National Wildlife Refuge, in northwestern Travis County, Texas, with Golden-cheeked Warbler nest locations. Scale is approximately 1 cm = 125 m. Nest locations are indicated by numbers: 1 = WRW, 2 = AEW, 3 = NHW.

③
②
①

APPENDIX C

Aerial photograph of the Shellburg site (private property) in western Travis County, Texas, with Golden-cheeked Warbler nest locations. Scale is approximately 1 cm = 125 m. Nest locations are indicated by numbers, corresponding to Shell #1, Shell #2, Shell #3, and Shell #4.

N
1
2
3
4

APPENDIX D

Appendix D. Summary and description of Golden-cheeked Warbler nests, 1993 to 1995.

Nest	Year	Site	Est. start date	No. young	Outcome	Terrain	Tree species	Tree ht (m)	Nest ht (m)	Relative nest ht**
Loop	1993	Victoria	7 Apr	4 eggs	failed	canyon	*Quercus texana*	7.4	4.5	0.61
#9	1993	Victoria	2 Apr	3	fledged	upland	*Juniperus ashei*	4.6	?	
WRW	1993	Webster	17 May	4	fledged	upland	*Quercus sinuata*	7.0	?	
TxDOT1	1993	Shellburg	24 Apr	1	fledged	canyon	*Juniperus ashei*	9.5	7.0	0.74
Vaught	1993	Vaught	28 Apr	3	fledged	canyon	*Juniperus ashei*	6.5	4.2	0.65
SWPH	1994	Victoria	25 Mar		failed	canyon	*Juniperus ashei*	9.8	?	
SRN	1994	Victoria	28 Mar	3	fledged	upland	*Juniperus ashei*	8.0	6.7	0.84
2BM	1994	Victoria	10 Apr		failed	canyon	*Juniperus ashei*	8.0	7.2	0.90
MHS326	1994	Victoria	21 Apr	?+bhcb*	?	canyon	*Juglans microcarpa*	10.0	?	
AEW	1994	Webster	25 Apr	2	fledged	canyon	*Ulmus americana*	16.0	14.0	0.88
NHW	1994	Webster	3 Apr	3	fledged	canyon	*Juniperus ashei*	7.5	6.2	0.82
Shell #1	1995	Shellburg	26 Mar	1?	fledged	canyon	*Juniperus ashei*	5.7	4.4	0.77
Shell #2	1995	Shellburg	26 Mar	2?	fledged	canyon	*Juniperus ashei*	8.5	8.1	0.95
Shell #3	1995	Shellburg	19 Apr		failed	canyon	*Juniperus ashei*	6.5	6.3	0.97
Shell #4	1995	Shellburg	20 Apr		failed	upland	*Juniperus ashei*	5.8	5.3	0.91
Chimney	1995	Victoria	30 Mar		failed	canyon	*Celtis sp.*	17.0	14.0	0.82
Chim 2	1995	Victoria	13 Apr		failed	canyon	*Celtis sp.*	15.0	12.0	0.80
MHI8	1995	Victoria	17 Apr	1+bhcb	failed	canyon	*Juniperus ashei*	4.5	3.2	0.71
Collier	1995	Victoria	11 Apr		failed	canyon	*Juniperus ashei*	5.9	4.5	0.76
CU	1995	Victoria	18 Apr	?	fledged	upland	*Juniperus ashei*	7.0	6.4	0.91
SRN95	1995	Victoria	19 Apr	2+bhcb	fledged	upland	*Juniperus ashei*	7.7	6.0	0.78
Mean								8.5	7.1	0.81
Standard Deviation								3.5	3.3	0.10
Totals					9 failed 10 fledged	15 canyon 6 upland	15 juniper 6 hardwood			

*bhcb = Brown-headed Cowbird chick

**nest height ÷ tree height

APPENDIX E

Appendix E. Number of trips per hour made by Golden-cheeked Warblers to the nest, mean attendant and inattendant periods for females (incubation and brooding), and number of days and hours nests were observed.

	Building				Laying		Incubation						Brooding			
# of nests	8				5		12						9			
Nest	days obs	hrs obs	female trips/hr	male trips/hr	days obs	hrs obs	days obs	hrs obs	female trips/hr	male trips/hr	mean f atten	mean f away	hrs obs	female trips/hr	male trips/hr	mean f atten
Loop	3	8.43	8.18	0.71	1	1.80	4	16.53	1.88	0.12	28.97	11.37				
#9	0				0		0									
WRW	0				0		0									
TxDOT1	0				0		0						34.95	2.60	0.20	8.37
Vaught	0				0		0						19.28	2.18	2.18	10.63
SWPH	3	7.75	3.23	0.13	2	3.43	5	11.03	1.45	0.00	35.88	7.77				
SRN	1	1.88	2.65	1.06	3	5.85	3	5.97	1.01	0.34	75.00	20.00	6.58	1.82	3.04	19.00
2BM	0				0		2	3.63	1.93	0.00	32.67	8.20				
MHS326	1	1.98	2.52	0	2	2.00	6	9.07	1.88	0.11	30.28	13.20	8.70	2.30	1.95	20.55
AEW	0				0		4	7.30	1.51	0.00	48.75	20.38	1.80	1.67	2.78	13.62
Shell#1	0				0		4	5.48	2.01	0.00	20.95	12.70	1.53	1.96	1.30	8.33
Shell#2	0				0		4	6.60	1.97	0.00	20.62	16.22	1.55	1.94	3.23	32.50
Shell#4	1	1.02	0.98	0	0		0									
Chimney	2	2.20	14.55	0	0		0									
Chim2	2	2.02	6.45	0	0		1	2.07	1.94	0.48	42.00	10.33				
MHt8	2	2.07	3.39	0	0		5	8.30	1.93	0.12	33.42	11.27	3.12	2.25	1.60	11.53
CU	0				0		2	2.83	0.71	1.41						
SRN95	0				2	3.07	5	8.30	1.69	0.24	43.50	12.10	3.18	2.20	3.46	12.37
Total.	15	27.4	5.74	0.33	10	18	45	87.1	1.70	0.15	32.62	12.65	80.7	2.33	1.41	10.88
Mean	0.83	3.42	5.24	0.24	0.56	3.19	2.50	7.26	1.66	0.24	37.48	13.05	8.97	2.10	2.19	15.21
Std Dev	1.10	2.91	4.42	0.41	0.98	1.54	2.18	3.94	0.42	0.40	15.22	4.22	11.27	0.28	1.08	7.75

APPENDIX F

Appendix E (continued).

# of nests	Nestling 2 9			Nestling 3 10			Nestling (all) 11					
nest	hrs obs	female trips/hr	male trips/hr	hrs obs	female trips/hr	male trips/hr	days obs	hrs obs	female trips/hr	male trips/hr		total hours obs
Loop												26.76
#9				1.98	20.17		1	1.98	20.17			1.98
WRW												
TxDOT1	28.60	2.69	2.20	8.38	5.49	3.22	10	71.93	2.97	1.35		71.93
Vaught	18.40	3.75	3.48	15.25	5.57	3.67	8	52.93	3.70	3.06		52.93
SWPH												22.21
SRN	3.63	3.58	4.68	3.98	3.51	3.01	7	14.20	2.75	3.45		27.70
2BM												3.63
MHS326	5.32	2.63	2.82	4.07	1.97	3.93	9	18.08	2.32	2.85		31.13
AEW	0.00			1.77	5.09	1.13	3	3.57	3.36	1.98		10.87
Shell#1	1.55	3.87	1.94	2.00	5.50	3.00	3	5.08	3.93	2.16		10.56
Shell#2	1.02	1.97	1.97	2.32	2.59	3.88	4	4.88	2.25	3.28		11.48
Shell#4												1.02
Chimney												2.20
Chim2												4.09
MHt8	1.75	5.14	2.86				3	4.87	3.29	2.05		15.24
CU	2.58	3.87	3.48	0.97	5.17	4.14	4	3.55	4.23	3.66		6.38
SRN95	3.60	4.44	4.44	2.38	18.88	2.52	5	9.17	7.42	3.60		20.54
Total	66.45	3.25	2.92	43.1	6.24	3.2	57	190	3.54	2.34	Total	320.65
Mean	6.65	3.55	3.10	4.31	7.39	3.17	5.18	17.29	5.13	2.72	TxDOT	124.88
Std dev	9.32	0.98	1.01	4.38	6.53	0.93	2.89	23.24	5.18	0.81	L. Gass	195.79

Appendix F. Number of adult Golden-cheeked Warbler vocalizations per hour, by nest, nesting period, and type of vocalization.

# of nests	Building 8					Incubation 12					Brooding 9				
Nest	female chip	male chip	male prim	male sec	male total	female chip	male chip	male prim	male sec	male total	female chip	male chip	male prim	male sec	male total
Loop	2.61	0.00	3.20	1.07	4.27	0.12	0.06	0.85	0.54	1.45					
#9															
WRW															
TxDOT1															
Vaught											0.43	0.11	0.49	0.40	1.00
SWPH	0.77	0.39	0.26	0.52	1.16	0.36	0.00	0.00	0.18	0.18	0.05	0.05	1.14	1.61	2.80
SRN	1.59	1.06	1.06	0.00	2.12	0.34	0.00	1.34	0.00	1.34					
2BM						1.10	0.00	0.55	0.55	1.10	0.00	0.00	0.91	0.00	0.91
MHS326	0.50	0.00	0.00	0.00	0.00	1.21	0.00	0.11	0.11	0.22					
AEW						0.27	0.00	0.41	0.00	0.41	0.46	0.00	0.57	0.46	1.03
Shell#1						0.00	0.00	0.00	0.00	0.00	1.11	0.00	2.22	0.00	2.22
Shell#2						0.00	0.00	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.00
Shell#4	1.97	0.00	0.00	0.00	0.00						0.00	0.65	0.65	0.65	1.94
Chimney	6.82	0.91	4.09	1.82	6.82										
Chim2	9.92	0.50	1.98	0.50	2.98	0.48	0.00	10.65	1.45	12.10					
MHI6	0.00	0.00	8.23	2.42	10.65	0.36	0.12	0.96	0.12	1.20	0.00	0.00	5.45	1.28	6.74
CU						0.00	0.35	2.47	0.00	2.82					
SRN95						0.84	0.00	0.72	0.00	0.72	0.00	0.00	1.88	0.31	2.20
Total	2.52	0.29	2.23	0.84	3.36	0.41	0.03	0.84	0.21	1.08	0.27	0.07	0.97	0.68	1.72
mean	3.02	0.36	2.35	0.79	3.50	0.42	0.04	1.53	0.25	1.82	0.23	0.09	1.48	0.52	2.09
std dev	3.50	0.44	2.82	0.91	3.68	0.42	0.10	2.95	0.43	3.33	0.38	0.21	1.64	0.58	1.94

Appendix F (continued).

	Nestling 2					Nestling 3					Nestling (all)				
# of nests			9					10					11		
Nest	female chip	male chip	male prim	male sec	male total	female chip	male chip	male prim	male sec	male total	female chip	male chip	male prim	male sec	male total
Loop															
#9						11.09					11.09				
WRW															
TxDOT1	0.56	0.03	3.22	1.68	4.93	2.74	0.24	3.58	1.67	5.49	0.75	0.10	1.93	1.06	3.09
Vaught	0.16	0.00	1.03	3.26	4.29	0.59	0.13	3.02	2.49	5.64	0.25	0.08	1.64	2.44	4.14
SWPH															
SRN	0.00	1.10	2.20	0.00	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.99	0.00	1.27
28M															
MHS326	1.88	0.19	0.19	0.38	0.75	0.00	0.74	5.90	0.98	7.62	0.77	0.22	1.66	0.55	2.43
AEW						7.36	0.57	0.57	0.00	1.13	4.21	0.28	1.40	0.00	1.68
Shell#1	1.29	0.00	2.58	0.00	2.58	1.00	0.00	0.00	1.00	1.00	0.79	0.00	0.79	0.39	1.18
Shell#2	1.97	0.00	0.00	4.92	4.92	5.18	0.00	0.00	3.88	3.88	2.87	0.20	0.20	3.07	3.48
Shell#4															
Chimney															
Chim2															
MHt8	1.14	0.00	9.14	0.00	9.14						0.41	0.00	6.78	0.82	7.60
CU	1.94	0.77	9.29	8.13	18.19	3.10	5.17	24.83	0.00	30.00	2.25	1.97	13.52	5.92	21.41
SRN95	2.78	0.00	5.28	0.28	5.56	24.76	0.84	8.81	6.29	15.94	7.53	0.22	5.02	1.85	7.09
Total	0.75	0.12	2.75	2.06	4.94	3.32	0.35	3.39	1.90	5.64	1.13	0.15	2.14	1.44	3.73
mean	1.30	0.23	3.66	2.07	5.96	5.58	0.85	5.19	1.81	7.86	2.81	0.33	3.39	1.61	5.34
std dev	0.93	0.41	3.54	2.86	5.13	7.63	1.65	7.97	2.12	9.59	3.55	0.58	4.10	1.83	6.07

Appendix 5.

Photocopies of maps of Golden-cheeked Warbler banding sites at the Balcones Canyonlands National Wildlife Refuge. 1993.

1972

Victoria	L	R	Bands
1	SM	B	1790-91822
2	M	SW	23
3	SW	M	24
4	WS	M	25
5	M	SB	26
6	M	BS	27
7	SB	M	28
8	BS	M	29
9	OS	M	30
10	SO	M	31
11	SW	O	32
12	WS	O	33
13	O	SW	34
14	BS	Y	35
15	WS	Y	36
16	SW	Y	37
17	BS	G	38
18	SB	G	39
19	G	OS	40
20	G	SB	41 } pair
38	GS	O	59
44	YS	G	65

#38 on Victoria

#44 on Victoria

WQ injured + rehab

Webster	L	R	Bands
21	WS	G	1790-91842
22	SW	G	43
23	Y	WS	44
24	WS	O	45
25	SB	Y	46
26	Y	BS	47
27	Y	SB	48
28	BS	O	49
29	Y	SW	50
30	G	WS	51
31	G	SW	52
32	SB	O	53
33	SW	O	54
34	OS	Y	55
35	OS	G	56
36	O	BS	57
37	Y	SB	58
39	MS	Y	60
40	O	SB	61
41	SM	Y	62
42	SO	G	63
43	SO	Y	64
45	GS	Y	66
46	MS	G	1910-09901
47	SG	Y	67
48	MS	O	1910-09902

		Webster L.	R.	
	49	O	MS	1910-09903
	50	YS	O	04
	51	O	YS	05
	52	Sm	O	06
	53	no color bands	S only	07
J♀ injured & Rehab	54	" "	" "	08
J♀ injured & Rehab.	55	" "	" S on L only	1790-91868

Began catching birds 4-12-93
ended 6-22-93

are returned to exact location of injury at banding time.

#38 ad ♀ injured in net	6-1-93	Released in good cond.	6-14-93
#54 J♀ injured in net	6-17-93	"	6-29-93
#55 J♀ "	6-22-93	"	7-5-93

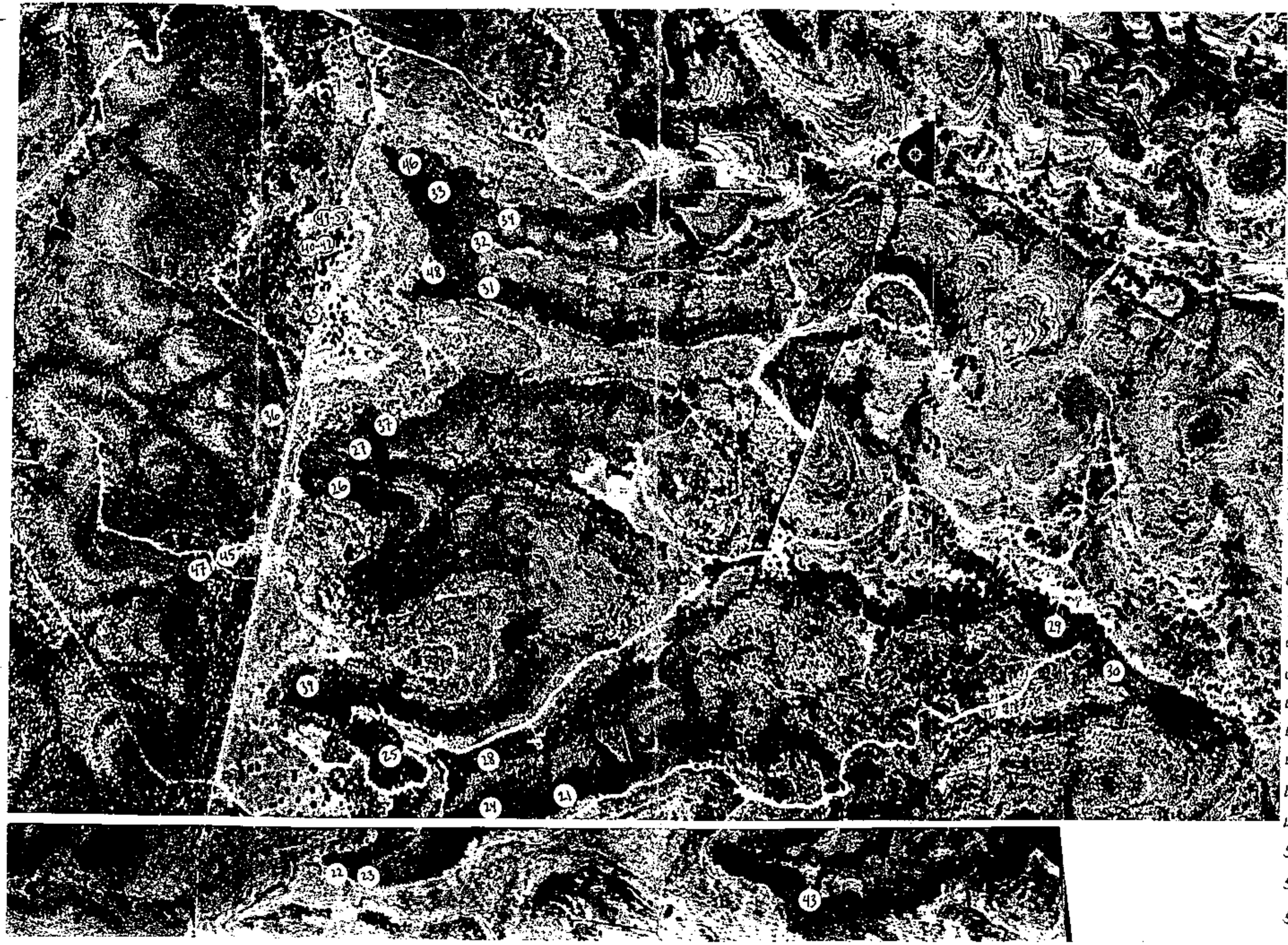
Rehabilitators: Mr & Mrs Paul Kyle

VICTORIA
1993 Banded Birds

1. SM/B ♂
2. M/SW ♂
3. SW/M ♂
4. WS/M ♂
5. M/SB
6. M/BS
7. SB/M
8. BS/M
9. OS/M
10. SO/M
11. SW/O
12. WS/O
13. O/SW
14. BS/Y
15. WS/Y
16. SW/Y ♀
17. BS/G ♀
18. SB/G
19. G/BS ♀
20. G/SB
38. GS/O ♀
44. YS/G

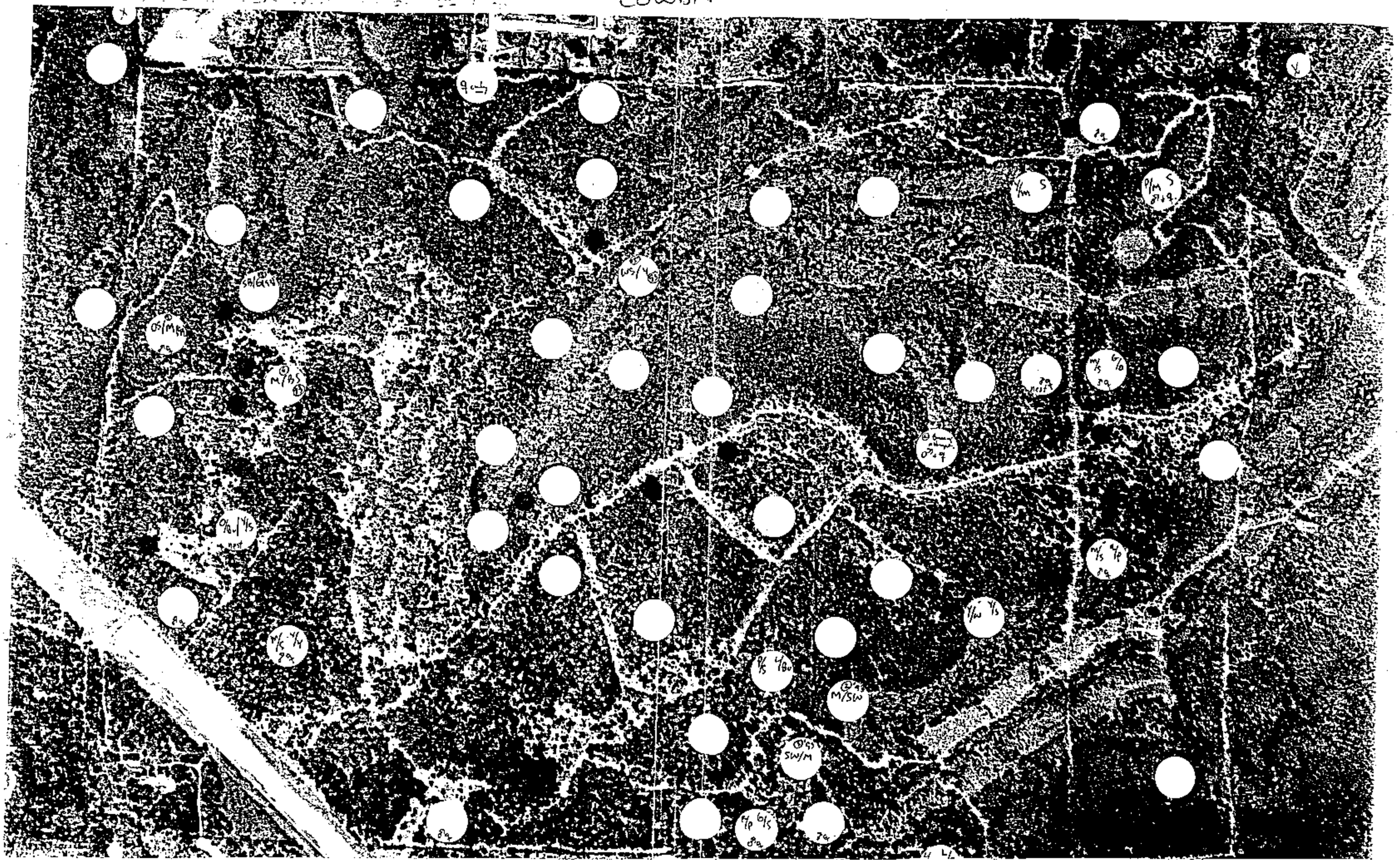
WEBSTER
1993
Banding Site.
L/1 R.

53- 09507
54 09508
55 09509?



21- WS/G
22- SW/G
23- Y/WS
24- WS/O
25- SB/Y
26- Y/BS
27- Y/SB
28- BS/O
29- Y/SW
30- G/WS
31- G/SW
32- SB/O
33- SW/O
34- OS/Y
35- OS/G
36- O/BS
37- Y/SB
39- MS/Y
40- O/SB
41- SM/Y
42- SO/G
43- SO/Y
45- GS/Y
46- MS/G
47- SG/Y
48- MS/O
49- O/MS
50- YS/O
51- O/YS
52- SM/O

Cowbird Locations



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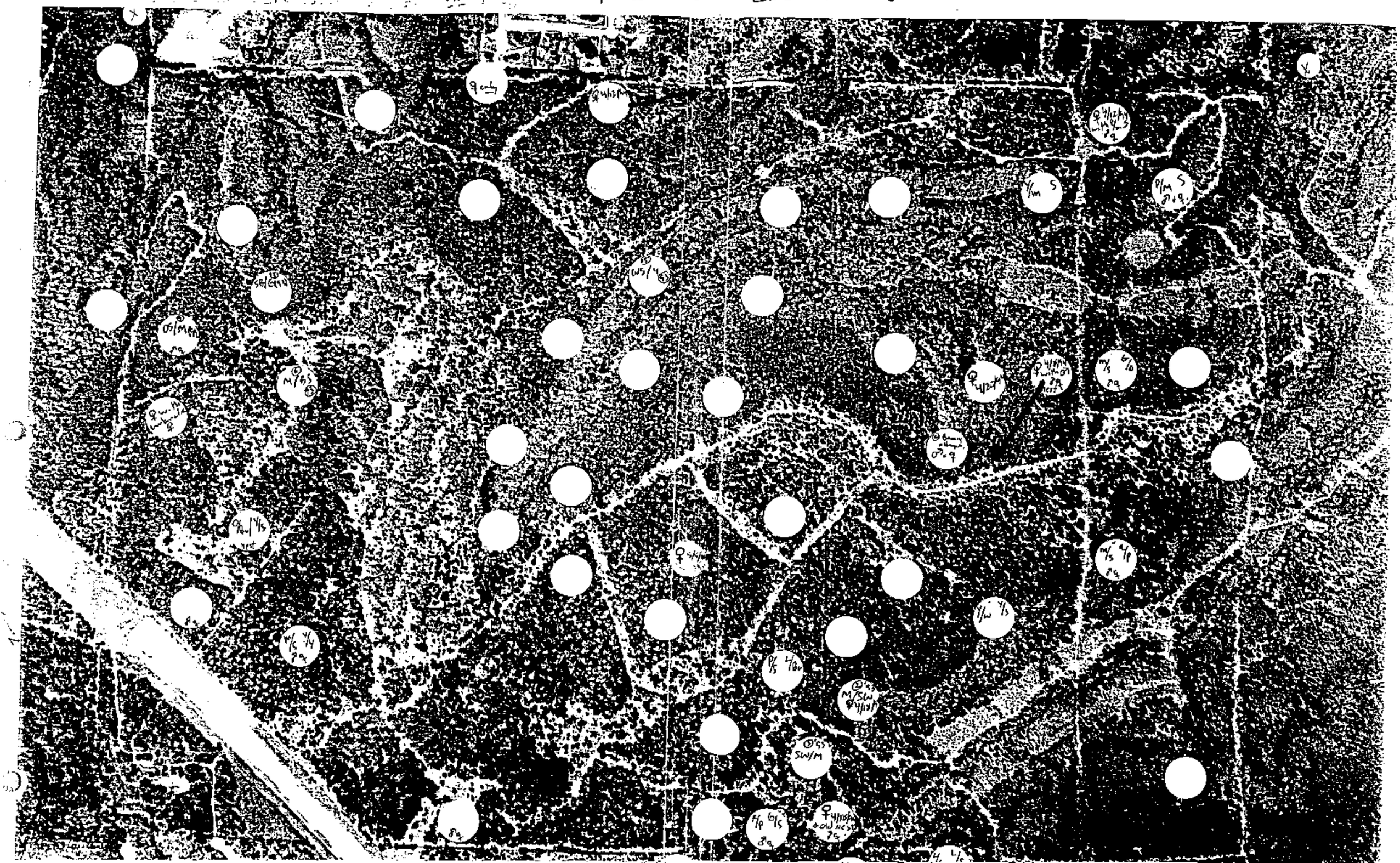
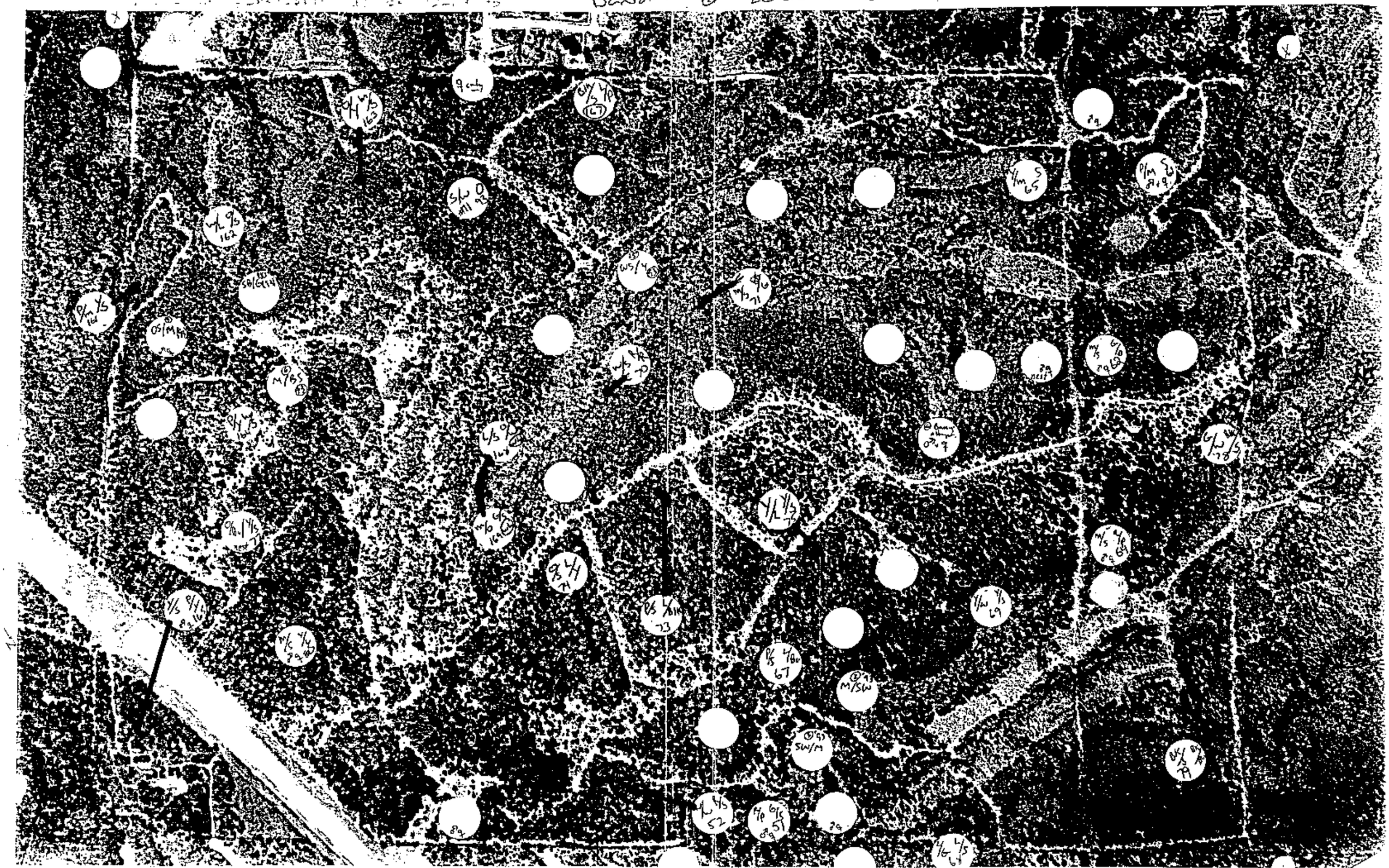
♀ GCW Locations



Banded Locations



Appendix 6.

Spreadsheets of Golden-cheeked Warbler banding data. 1994 – 1997.

color	1994 BAND COMBINATIONS				
NUMBER	BAND	DATE	AGE	SEX	BANDS
51	1910-1074	7/4/94	SY	M	R/P-S
52	1910-10705	7/4/94		M	W/W-R/S
61	1910-10751	8/4/94	ASY	M	P/M-S
62	1910-10752	8/4/94	SY	M	M/S-G/O
64	1910-10753	8/4/94	ASY	M	M/S-R/P
65	1910-10703	7/4/94	ASY	M	Y/M-S
67	1910-10754	12/4/94	SY?	M	P/S-L/B
68	1910-10755	12/4/94	SY	M	L/G-L/S
69	1910-10756	15/4/94	SY	M	Y/W-Y/S
70	1910-10757	19/4/94	SY	M	W/S-R/R
71	1910-10758	19/4/94	ASY	M	M/S-BK/G
73	1910-10759	3/594	SY	M	P/S-L/BK
74	1910-10760	3/5/94	ASY	M	O/S-L/Y
75	1910-10761	3/5/94	SY	M	Y/L-Y/S
77	1910-10702	5/4/94	ASY	M	O/B-Y/S
78	1910-10762	3/5/94	ASY	M	G/W-BK/S
79	1910-10773	3/5/94	ASY	M	BK/S-BK/BU
80	1910-11070	5/4/94	SY	M	M/S-Y/Y
161	1910-10764	6/5/94	SY	M	P/M-Y/S
162	1910-10765	6/5/94	ASY	M	W/L-O/S
163	1910-10766	9/5/94	SY	M	O/Y-M/S
164	1910-10767	10/5/94	SY	M	P/Y-W/S
165	1910-10771	24/6/94		M	Y/S-P/Y
167	1910-10768	10/5/94	SY	M	BK/S-L/P
168	1910-10769	11/5/94	ASY	M	L/S-O/W
169	1910-10770	11/5/94	SY	M	M/O-G/S
1993 GCW returns to Victoria					
2				M	M-S/W
3				M	S/W-M
6				M	M-B/S
9				M	O/S-M
11				M	S/W-O
15				M	W/S-Y
18				M	S/B-G
	BK orBLK - BLACK				
	BU or BLU - BLUE				
	G - GREEN				
	L - LAVENDER				
	M - MAGENTA				
	O - ORANGE				
	P - PINK				
	R - RED				
	S - SILVER				
	W - WHITE				
	Y - YELLOW				

95BANDCF

color band #	USFWS #	cap. date	site	loc w/in site	sex	age	color comb.
518	1880-47611	24-Apr-95	VIC	N/A	M	ASY	P/S : L/L
519	1880-47612	24-Apr-95	VIC	N/A	M	SY	G/K : R/S
520	1880-47613	25-Apr-95	WEB	-------	M	ASY	W/S : P/G
531	1880-47614	25-Apr-95	WEB	-------	M	SY	O/S : B/Y
532	1880-47615	25-Apr-95	WEB	-------	M	SY	M/S : W/L
533	1880-47616	27-Apr-95	WEB	-------	M	SY	L/S : Y/R
534	1880-47617	27-Apr-95	WEB	-------	M	SY	Y/M : Y/S
535	1880-47618	1-May-95	VIC	N/A	M	SY	R/S : L/L
536	1880-47619	2-May-95	WEB	-------	M	SY	L/S : P/M
537	1880-47620	3-May-95	VIC	N/A	M	ASY	R/P : P/S
538	1880-47621	3-May-95	VIC	N/A	M	SY	R/W : L/S
539	1880-47622	4-May-95	VIC	N/A	M	ASY	O/S : B/O
540	1880-47623	5-May-95	VIC	N/A	M	ASY	W/G : M/S
651	1880-47624	5-May-95	WEB	-------	M	SY	S : O/M
652	1880-47625	5-May-95	WEB	-------	M	ASY	W/G : K/S
653	1880-47626	5-May-95	WEB	-------	M	SY	G/S : K/L
654	1880-47627	5-May-95	VIC	N/A	M	SY	M/S : M/L
655	1880-47628	10-May-95	WEB	-------	M	SY	G/S : G
656	1880-47629	12-May-95	WEB	-------	M	SY	Y/P : R/S
658	1880-47630	12-May-95	WEB	-------	M	SY	W/L : K/S
657	1880-47631	12-May-95	WEB	-------	M	SY	M/S : L/M
659	1880-47632	12-May-95	WEB	-------	M	ASY	P/S : W/M
660	1880-47633	24-May-95	VIC	N/A	M	SY	M/K : O/S
661	1880-47634	24-May-95	VIC	N/A	M	SY	K/S : K/Y
662	1880-47635	30-May-95	WEB	-------	M	ASY	W/S : G/Y
663	1880-47636	31-May-95	WEB	-------	M	ASY	K/S : W/W
664	1880-47637	31-May-95	WEB	-------	M	ASY	B/B : L/S
665	1880-47638	31-May-95	WEB	-------	M	SY	B/S : W/M
666	1880-47639	2-Jun-95	WEB	-------	M	ASY	W/S : P/M
667	1880-47640	16-Jun-95	VIC	N/A	F	HY	L/S : M
668	1880-47641	16-Jun-95	VIC	N/A	M	HY	O/S : P/Y
669	1880-47642	20-Jun-95	VIC	N/A	M	HY	P/S : G
670	1880-47643	21-Jun-95	VIC	N/A	F	HY	W/Y : B/S
731	1880-47644	21-Jun-95	VIC	N/A	M	HY	W/S : L/G
732	1880-47645	21-Jun-95	VIC	N/A	M	HY	K/S : Y/B
733	1880-47646	21-Jun-95	VIC	N/A	M	HY	M/R : R/S
734	1880-47647	22-Jun-95	VIC	N/A	M	ASY	S : B/R
735	1880-47648	23-Jun-95	VIC	N/A	M	HY	Y/L : P/S
736	1880-47649	23-Jun-95	VIC	N/A	M	HY	P/S : G/K
737	1880-47650	26-Jun-95	VIC	N/A	M	HY	P/S : P
738	1880-47657	5-Jan-00	VIC	N/A	M	HY	O/S : P/L
740	1880-47658	28-Jun-95	WEB	-------	M	HY	L/S : R/M
751	1880-47659	28-Jun-95	WEB	-------	M	HY	M/R : B/S
752	1880-47660	28-Jun-95	WEB	-------	M	HY	B/S : W/L
753	1880-47661	29-Jun-95	VIC	N/A	M	HY	W/S : M/P
756	1880-47662	29-Jun-95	WEB	-------	M	HY	R/M : S
757	1880-47663	29-Jun-95	WEB	-------	F	HY	O/O : G/S
758	1880-47664	29-Jun-95	WEB	-------	M	HY	M/S : B/R
759	1880-47665	29-Jun-95	WEB	-------	M	HY	S : L/K
949	1880-47666	3-May-96	WEB	EAST	M	SY	P/L : W/S

831	1880-47668	15-Jul-95	VIC	N/A	F	HY	K/R : K/S
861	1880-47669	29-Mar-96	BCHP	N/A	M	SY	M/S : /P
862	1880-47670	29-Mar-96	BCHP	N/A	M	SY	P/S : P/G
840	1880-47671	25-Apr-96	WEB	WEST	M	ASY	Y/S : L/P
760	1880-47673	1-Apr-96	VICTORIA	N/A	M	SY	L/S : W/L
827	1880-47674	17-Apr-96	VICTORIA	N/A	F	SY	/S : Y/G
754	1880-47675	3-Apr-96	VICTORIA	N/A	M	SY	K/Y : M/S
821	1880-47676	4-Apr-96	VICTORIA	N/A	F	ASY	K/S : G/W
822	1880-47677	4-Apr-96	VICTORIA	N/A	M	SY	K/S : Y/Y
824	1880-47678	4-Apr-96	VICTORIA	N/A	F	ASY	G/P : W/S
825	1880-47679	9-Apr-96	VICTORIA	N/A	F	ASY	O/W : G/S
828	1880-47680	9-Apr-96	VICTORIA	N/A	M	SY	L/B : L/S
823	1880-47681	10-Apr-96	VICTORIA	N/A	M	ASY	K/M : G/S
739	1880-47682	15-Apr-96	VICTORIA	N/A	F	SY	M/S : W/Y
829	1880-47683	16-Apr-96	WEB	EAST	M	SY	W/S : M/O
830	1880-47685	17-Apr-96	VICTORIA	N/A	M	SY	M/W : K/S
941	1880-47686	23-Apr-96	WEB	WEST	M	ASY	/S : P/Y
961	1880-47687	26-Apr-96	BCHP	N/A	M	ASY	W/B : K/S
950	3510-69650	30-Apr-96	WEB	WEST	M	ASY	O/B : G/S
867	3510-89601	4-Apr-96	BCHP	N/A	M	SY	Y/P : P/S
868	3510-89602	9-Apr-96	VICTORIA	N/A	M	ASY	G/K : K/S
870	3510-89603	9-Apr-96	VICTORIA	N/A	M	SY	B/S : B/Y
873	3510-89604	10-Apr-96	BCHP	N/A	M	SY	P/M : B/S
875	3510-89605	10-Apr-96	BCHP	N/A	M	SY	O/S : /W
863	3510-89606	11-Apr-96	WEB	EAST	M	SY	L/S : W/G
865	3510-89607	11-Apr-96	WEB	EAST	M	SY	L/Y : O/S
876	3510-89608	15-Apr-96	BCHP	N/A	M	ASY	B/S : W/P
879	3510-89609	16-Apr-96	WEB	EAST	M	SY?	O/L : /S
880	3510-89610	16-Apr-96	WEB	EAST	M	SY?	B/S : M/W
866	3510-89611	10-Apr-96	BCHP	N/A	M	SY	L/S : W/K
877	3510-89612	16-Apr-96	WEB	EAST	M	SY	P/K : /S
832	3510-89613	17-Apr-96	BCHP	N/A	M	SY	P/O : /S
833	3510-89614	18-Apr-96	WEB	EAST	M	SY	P/S : K/W
835	3510-89615	19-Apr-96	WEB	EAST	M	SY	K/S : /B
837	3510-89616	19-Apr-96	WEB	EAST	M	ASY	O/S : L/K
838	3510-89618	24-Apr-96	BCHP	N/A	M	SY?	W/P : /S
839	3510-89619	24-Apr-96	BCHP	N/A	M	ASY	B/S : L/K
834	3510-89620	18-Apr-96	WEB	EAST	M	ASY	/S : O/G
962	3510-89645	26-Apr-96	BCHP	N/A	M	ASY	B/S : M/B
963	3510-89646	4/26/1996	BCHP	N/A	M	ASY	Y/S : K/W
966	3510-89647	30-Apr-96	WEB	WEST	M	SY	P/S : K/O
942	3510-89648	30-Apr-96	WEB	WEST	M	ASY	W/S : B/K
947	3510-89649	30-Apr-96	WEB	WEST	M	ASY	W/S : Y/Y
967	3510-89651	30-Apr-96	WEB	WEST	M	ASY	Y/S : G/K
968	3510-89652	30-Apr-96	WEB	WEST	M	ASY	/B : P/S
969	3510-89653	2-May-96	WEB	EAST	M	SY	Y/S : Y/L
946	3510-89654	1-May-96	VICTORIA	N/A	M	SY	W/S : K/G

GBAND96

NUMBER	USFWS #	DATE 96	SITE	SIDE	SEX	AGE	COLOR COMBO	
739	1880-47682	15-Apr	VICTORIA	N/A	F	SY	M/S : W/Y	
754	1880-47675	3-Apr	VICTORIA	N/A	M	SY	B/Y : M/S	
760	1880-47673	1-Apr	VICTORIA	N/A	M	SY	L/S : W/L	
821	1880-47676	4-Apr	VICTORIA	N/A	F	ASY	K/S : G/W	
822	1880-47677	4-Apr	VICTORIA	N/A	M	SY	B/S : Y/Y	
823	1880-47681	10-Apr	VICTORIA	N/A	M	ASY	B/M : G/S	
824	1880-47678	4-Apr	VICTORIA	N/A	F	ASY	G/P : W/S	
825	1880-47679	9-Apr	VICTORIA	N/A	F	ASY	O/W : G/S	
827	1880-47674	17-Apr	VICTORIA	N/A	F	SY	/S : Y/G	
828	1880-47680	9-Apr	VICTORIA	N/A	M	SY	L/B : L/S	
829	1880-47683	16-Apr	WEB	EAST	M	SY	W/S : M/O	
830	1880-47685	17-Apr	VICTORIA	N/A	M	SY	M/W : K/S	
832	3510-89613	17-Apr	BCHP	N/A	M	SY	P/O : /S	
833	3510-89614	18-Apr	WEB	EAST	M	SY	P/S : B/W	
834	3510-89620	18-Apr	WEB	EAST	M	ASY	/S : O/G	
835	3510-89615	19-Apr	WEB	EAST	M	SY	K/S : /B	
837	3510-89616	19-Apr	WEB	EAST	M	ASY	O/S : L/K	
838	3510-89618	24-Apr	BCHP	N/A	M	SY?	W/P : /S	
839	3510-89619	24-Apr	BCHP	N/A	M	ASY	B/S : L/K	
840	1880-47671	25-Apr	WEB	WEST	M	ASY	Y/S : L/P	
861	1880-47665	29-Mar	BCHP	N/A	M	SY	M/S : /P	
862	1880-47670	29-Mar	BCHP	N/A	M	SY	P/S : P/G	
863	3510-89606	11-Apr	WEB	EAST	M	SY	L/S : W/G	
865	3510-89607	11-Apr	WEB	EAST	M	SY	L/Y : O/S	
866	3510-89611	10-Apr	BCHP	N/A	M	SY	L/S : W/B	
867	3510-89601	4-Apr	BCHP	N/A	M	SY	Y/P : P/S	
868	3510-89602	9-Apr	VICTORIA	N/A	M	ASY	G/B : B/S	
870	3510-89603	9-Apr	VICTORIA	N/A	M	SY	B/S : B/Y	
873	3510-89604	10-Apr	BCHP	N/A	M	SY	P/M : B/S	
875	3510-89605	10-Apr	BCHP	N/A	M	SY	O/S : /W	
876	3510-89608	15-Apr	BCHP	N/A	M	ASY	B/S : W/P	
877	3510-89612	16-Apr	WEB	EAST	M	SY	P/B : /S	
879	3510-89609	16-Apr	WEB	EAST	M	SY?	O/L : /S	
880	3510-89610	16-Apr	WEB	EAST	M	SY?	B/S : M/W	
941	1880-47686	23-Apr	WEB	WEST	M	ASY	/S : P/Y	
942	3510-89648	30-Apr	WEB	WEST	M	ASY	W/S : B/K	
946	3510-89654	1-May	VICTORIA	N/A	M	SY	W/S : B/G	
947	3510-89649	30-Apr	WEB	WEST	M	ASY	W/S : Y/Y	
949	1880-47666	3-May	WEB	EAST	M	SY	P/L : W/S	
950	3510-89650	30-Apr	WEB	WEST	M	ASY	O/B : G/S	
951	1820-62551	7-May	BCHP	N/A	M	ASY	G/S : R/L	
952	1820-62552	7-May	BCHP	N/A	M	ASY	M/W : R*/S	
953	1820-62554	9-May	BCHP	N/A	M	SY	O/L : P/S	
954	1820-62555	9-May	BCHP	N/A	M	ASY	GS/ :W/G	"FRED"
955	1820-62553	8-May	BCHP	N/A	M	ASY	Y/S : W/P	
956	1820-62507	3-May	WEB	EAST	M	SY	/S : P/B	
957	1820-62508	7-May	WEB	WEST	M	ASY	P/S : PK	
958	1820-62509	7-May	WEB	WEST	M	SY	L/S : P/P	
959	1820-62510	7-May	WEB	WEST	M	SY	K/S : G/O	

960	1820-62511	8-May	WEB	WEST	M	ASY	M/P : B/S	
961	1880-47687	26-Apr	BCHP	N/A	M	ASY	W/B : B/S	
962	3510-89645	26/4	BCHP	N/A	M	ASY	B/S : M/B	
963	3510-89646	26-Apr	BCHP	N/A	M	ASY	Y/S : B/W	
966	3510-89647	30-Apr	WEB	WEST	M	SY	P/S : B/O	
967	3510-89651	30-Apr	WEB	WEST	M	ASY	Y/S : G/B	
968	3510-89652	30-Apr	WEB	WEST	M	ASY	/B : P/S	
969	3510-89653	2-May	WEB	EAST	M	SY	Y/S : Y/L	
1011	1820-62556	10-May	BCHP	N/A	M	SY	Y/S : Y/K	
1012	1820-62557	10-May	BCHP	N/A	M	SY	B/M : W/S	
1013	1820-62562	11-May	BCHP	N/A	M	ASY	O/S : W/M	
1014	1820-62558	10-May	BCHP	N/A	M	ASY	L/P : R/S	
1015	1820-62564	22-May	WEB	EAST	M	SY	R/S : M/L	
1016	1820-62563	21-May	BCHP	N/A	F	SY	B/S : L/O	
1017	1820-62560	11-May	BCHP	N/A	M	SY	K/S : L/R	
1018	1820-62559	11-May	BCHP	N/A	M	ASY	/M : Y/S	
1019	1820-62561	11-May	BCHP	N/A	M	SY	P/S : O/P	
1020	1820-62565	23-May	BCHP	N/A	M	ASY	R/M : O/S	
1021	1820-62573	6-Jun	BCHP	N/A	M	ASY	R/P : B/S	
1022	1820-62566	28-May	BCHP	N/A	M	AHY	K/S : B/O	
1023	1820-62567	28-May	BCHP	N/A	M	ASY	G/S : K/P	
1025	1820-62568	30-May	BCHP	N/A	M	ASY	L/L : B/S	
1026	1820-62569	30-May	BCHP	N/A	M	ASY	G/M : /S	
1027	1820-62570	31-May	VIC	N/A	M	SY	L/S : K/P	
1028	1820-62571	4-Jun	BCHP	N/A	M	SY	M/S : L/P	
1030	1820-62572	6-Jun	BCHP	N/A	M	AHY(ASY)	G/S : W/O	
1031	1820-62513	13-May	VIC	N/A	M	SY	Y/P :K/S	
1032	1820-62514	14-May	WEB	WEST	M	SY	L/S : Y/B	
1033	1820-62515	14-May	WEB	WEST	M	SY	W/S : P/W	
1035	1820-62516	14-May	WEB	WEST	M	SY	O/M : Y/S	
1036	1820-62517	20-May	WEB	EAST	M	SY	O/S : B	
1037	1820-62518	29-May	VIC	N/A	M	SY	G/W : G/S	
/	1820-62520	24-Jun	VIC	N/A	M	HY	: S	
/	1820-62521	24-Jun	VIC	N/A	M	HY	: S	
1039	1820-62522	24-Jun	VIC	N/A	F	HY	K/S : L/L	
1040	1820-62519	31-May	VIC	N/A	M	ASY(tail)	K/S : Y/L	
1081	1820-62574	11-Jun	BCHP	N/A	M	ASY	L/L : /S	
1083	1820-62575	13-Jun	BCHP	N/A	M	ASY	W/O : M/S	
1084	1820-62577	13-Jun	BCHP	N/A	M	ASY	Y/O : M/S	
1085	1820-62579	21-Jun	BCHP	N/A	M	HY	B/L : /S	"PETER"
1086	1820-62580	21-Jun	BCHP	N/A	M	HY	Y/S : O/M	"PAUL"
1087	1820-62578	18-Jun	BCHP	N/A	M	SY	G/S : L/K	
1088	1820-62576	13-Jun	BCHP	N/A	M	SY	G/Y : M/S	
1090	1820-62581	21-Jun	BCHP	N/A	F	HY	B/Y : W/S	"MARY"
1091	1820-62582	25-Jun	BCHP	N/A	M	SY	M/S : P/O	
1092	1820-62583	27-Jun	BCHP	N/A	M	ASY	K/L : K/S	
1094	1820-62585	2-Jul	BCHP	N/A	M	HY	L/S : K/K	
1095	1820-62586	2-Jul	BCHP	N/A	M	HY	S : L/W	
1100	1820-62584	27-Jun	BCHP	N/A	M	ASY	W/L : P/S	
1103	1820-62523	26-Jun	VIC	N/A	M	HY	G/S : Y/O	
1104	1820-62524	27-Jun	VIC	N/A	F	ASY	S : P/M	

	B = BLUE							
	G = GREEN							
	K = BLACK							
	L = LAVENDER							
	M = MAGENTA							
	O = ORANGE							
	P = PINK							
	R = RED							
	R* = OLD MAGENTA							
	S = SILVER							
	W = WHITE							
	Y = YELLOW							

COUNT	ID NUMBER ??	LEFTTOP	LEFTBOT	RIGHTTOP	RIGHTBOT	USFWS	cap.date	TRACT	SETTING	LOCATION1	LOCATION2	LOCATION3	LOCATION4	SEX	ENCOUNTER TYPE
1	VH1	S	M		B	179091822	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE		M	CAPTURE
2	VH2		M	S	W	179091823	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	CAPTURE
3	VH2		M	S	W	179091823	12-Apr-94	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	RESIGHTING
3	VH2		M	S	W	179091823	12-Apr-95	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	RESIGHTING
4	VH3	S	W		M	179091824	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	SOUTH SIDE	M	CAPTURE
5	VH3	S	W		M	179091824	12-Apr-94	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	SOUTH SIDE	M	RESIGHTING
6	VH4	W	S		M	179091826	15-Apr-94	Victoria	UPLAND	SW FENCE	BETWEEN NEW GATE AND HORSE TRAIL			M	CAPTURE
7	VH6		M	S	B	179091826	15-Apr-93	Victoria	UPLAND	SOUTH CENTRAL	between horsetrail and Central Sendero.			M	CAPTURE
8	VH6		M	B	S	179091827	15-Apr-93	Victoria	UPLAND	Straight road south				M	CAPTURE
9	VH6		M	B	S	179091827	15-Apr-94	Victoria	UPLAND	MUD NORTH				M	RESIGHTING
10	VH6		M	B	S	179091827	16-Jun-95	Victoria	UPLAND	MUD NORTH				M	RECAPTURE
11	VH6		M	B	S	179091827	16-Apr-96	Victoria	UPLAND	MUD NORTH				M	RESIGHTING
12	VH7	S	B		M	179091828	20-Apr-93	Victoria	UPLAND	CENTRAL SOUTH	NEAR WELL			M	CAPTURE
13	VH8	O	S		M	179091829	20-Apr-93	Victoria	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPPOSITE CHIMNEY		M	CAPTURE
14	VH9	O	S		M	179091830	22-Apr-93	Victoria	UPLAND	Pauls Alley	North			M	CAPTURE
15	VH9	O	S		M	179091830	22-Apr-94	Victoria	UPLAND	Pauls Alley	North			M	RESIGHTING
16	VH9	O	S		M	179091830	22-Apr-95	Victoria	UPLAND	Pauls Alley	North			M	RECAPTURE
17	VH10	S	O		M	179091831	22-Apr-93	Victoria	HOLLOW	MASON HOLLOW	SOUTH SLOPE	at chimney.		M	CAPTURE
18	VH11	S	W		O	179091832	23-Apr-93	Victoria	HOLLOW	Golfball hollow				M	CAPTURE
19	VH11	S	W		O	179091832	23-Apr-94	Victoria	UPLAND	NORTH CENTRAL	GOLFBALL HOLLOW RD.			M	RESIGHTING
20	VH12	W	S		O	179091833	26-Apr-93	Victoria	HOLLOW	MASON HOLLOW	north slope	west of powerline		M	CAPTURE
21	VH13		O	S	W	179091834	27-Apr-93	Victoria	UPLAND	Horse triangle				M	CAPTURE
22	VH14	B	S		Y	179091835	1-May-93	Victoria	HOLLOW	Mason Hollow	north slope	west of powerline 200 300 m.		M	CAPTURE
23	VH15	W	S		Y	179091836	3-May-93	Victoria	HOLLOW	Mason Hollow	north slope	T8		M	CAPTURE
24	VH15	W	S		Y	179091836	3-May-94	Victoria	HOLLOW	Mason Hollow	north slope	T5-T6		M	RESIGHTING
25	VH16	S	W		Y	179091837	4-May-93	Victoria	UPLAND	Straight Road	South.			F	CAPTURE
26	VH17	B	S		G	179091838	4-May-93	Victoria	UPLAND	Pauls Alley	north.			F	CAPTURE
27	VH18	S	B		G	179091839	10-May-93	Victoria	UPLAND	Sinkhole territory				M	CAPTURE
27	VH18	S	B		G	179091839	10-May-94	Victoria	UPLAND	Sinkhole territory				M	RESIGHTING
28	VH19		G	B	S	179091840	11-May-93	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	CAPTURE
28	VH19		G	B	S	179091840	11-May-94	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	RESIGHTING

28	VH19		G	B	S	179091840	11-May-95	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	RESIGHTING
29	VH20		G	S	B	179091841	11-May-93	Victoria	HOLLOW	Mason Hollow	south slope	ST7		F	CAPTURE
30	VH21	W	S		G	179091842	13-May-93	Webster	HOLLOW	Hawks Nest Hollow	South slope.			M	CAPTURE
30	VH21	W	S		G	179091842	13-May-93	Webster	BOTTOM	Hawks Nest Hollow	THICKET OF DOOM			M	RESIGHTING
31	VH22	S	W		G	179091843	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Fork.			M	CAPTURE
32	VH23		Y	W	S	179091844	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Fork			M	CAPTURE
33	VH24	W	S		O	179091845	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	CAPTURE
33	VH24	W	S		O	179091845	14-May-94	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	RESIGHTING
33	VH24	W	S		O	179091845	18-May-95	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	RECAPTURE
34	VH25	S	B		Y	179091846	17-May-93	Webster	HOLLOW	Hawks Nest Hollow	Hanging Rock Spring.			M	CAPTURE
35	VH26		Y	B	S	179091847	18-May-93	Webster	HOLLOW	East Middle Hollow	North Fork	South Slope.		M	CAPTURE
36	VH27		Y	S	B	179091848	18-May-93	Webster	HOLLOW	East Middle Hollow	North Fork	North Slope.		M	CAPTURE
37	VH28	B	S		O	179091849	20-May-93	Webster	HOLLOW	Hawks Nest Hollow	Thicket of Doom.			M	CAPTURE
38	VH29		Y	S	W	179091850	21-May-93	Webster	BOTTOM	Hawks Nest Hollow	Bottomland Harwood Forest	Upstream from road.		M	CAPTURE
39	VH30		G	W	S	179091851	21-May-93	Webster	BOTTOM	Hawks Nest Hollow	Bottomland Harwood Forest	Downstream from road.		M	CAPTURE
40	VH31		G	S	W	179091852	24-May-93	Webster	HOLLOW	Barnes Hollow	South Slope.			M	CAPTURE
41	VH32	S	B		O	179091853	25-May-93	Webster	HOLLOW	Barnes Hollow	JCT. of Forks @ CK.			M	CAPTURE
42	VH33	S	W		O	179091854	25-May-93	Webster	HOLLOW	Barnes Hollow	North Fork	North Slope		M	CAPTURE
42	VH33	S	W		O	179091854	25-May-96	Webster	HOLLOW	Barnes Hollow	North Fork	North Slope		M	RESIGHTING
43	VH34	O	S		Y	179091855	26-May-93	Webster	HOLLOW	Barnes Hollow	North Slope			M	CAPTURE
43	VH34	O	S		Y	179091855	26-May-94	Webster	HOLLOW	Barnes Hollow	North Slope			M	RESIGHTING
44	VH35	O	S		G	179091856	27-May-93	Webster	UPLAND	POST OAK RIDGE	at hardwood savanna.			M	CAPTURE
45	VH36		O	B	S	179091857	28-May-93	Webster	UPLAND	POST OAK RIDGE	between central hollows	West of fence.		M	CAPTURE
46	VH37		Y	S	B	179091858	28-May-93	Webster	HOLLOW	East Central Hollow	North Fork	North Slope.		F	CAPTURE
47	VH38	G	S		O	179091859	1-Jun-93	VICTORIA	HOLLOW	North Hollow	South Slope.			F	CAPTURE
47	VH38	G	S		O	179091859	24-Apr-95	VICTORIA	HOLLOW	North Hollow	South Slope.			F	RESIGHTING
48	VH39	M	S		Y	179091860	3-Jun-93	WEBSTER	HOLLOW	Hawks nest hollow	North Fork	North Slope.		M	CAPTURE
49	VH40		O	S	B	179091861	6-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE

50	VH41	S	M		Y	179091862	6-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
50	VH41	S	M		Y	179091862	6-Jun-94	WEBSTER	HOLLOW	BARNES HOLLOW	WEST SLOPE			M	RESIGHTING
51	VH42	S	O		G	179091863	7-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
52	VH43	S	O		Y	179091864	8-Jun-93	WEBSTER	HOLLOW	SOUTH HOLLOW	SOUTH SLOPE.			M	CAPTURE
52	VH43	S	O		Y	179091864	8-Jun-94	WEBSTER	HOLLOW	SOUTH HOLLOW	SOUTH SLOPE.			M	RESIGHTING
53	VH44	Y	S		G	179091865	9-Jun-93	VICTORIA	HOLLOW	NORTH HOLLOW	EAST CORNER			M	CAPTURE
54	VH45	G	S		Y	179091866	16-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD.		F	CAPTURE
55	VH47	S	G		Y	179091867	16-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD.		M	CAPTURE
56	VH46	M	S		G	191009901	17-Jun-93	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH FORK	NORTH SLOPE.		F	CAPTURE
57	VH48	M	S		O	191009902	17-Jun-93	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH FORK	WEST SLOPE.		F	CAPTURE
58	VH49		O	M	S	191009903	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
59	VH50	Y	S		O	191009904	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			M	CAPTURE
60	VH51		O	Y	S	191009905	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			M	CAPTURE
61	VH52	S	M		O	191009906	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
62	VH53					191009907	17-Jun-93	WEBSTER	UPLAND	NORTH HARDWOOD SAVANNA.				M	CAPTURE
63	VH54					191009908	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
64	VH55					179091868	22-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
65	FH80	M	S	Y	Y	191011070	5-Apr-94	VICTORIA	UPLAND	STRAIGHT ROAD SOUTH.				M	CAPTURE
66	FH51	R	PK	G	S	191010704	6-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH FORK	NORTH SLOPE.		M	CAPTURE
67	FH52	W	W	R	S	191010705	6-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE.		M	CAPTURE
67	FH52	W	W	R	S	191010705	11-May-95	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE.		M	RESIGHTING

68	FH66	Y	M		S	191010703	7-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	WEST OF POWERLINE.		M	CAPTURE
69	FH53	BK	S	PK	W	191010706	8-Apr-94	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD		M	CAPTURE
70	FH61	PK	M		S	191010751	8-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	EAST OF POWERLINE.		M	CAPTURE
70	FH61	PK	M		S	191010751	1-May-95	VICTORIA	HOLLOW	MASON HOLLOW	N. SLOPE	EAST POWERLINE		M	RECAPTURE
71	FH62	M	S	G	O	191010752	8-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINE		M	CAPTURE
72	FH64	M	S	R	PK	191010753	8-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	EAST OF POWERLINE		M	CAPTURE
72	FH64	M	S	R	PK	191010753	9-May-95	VICTORIA	BOTTOM	HOLLOW	NORTH SLOPE	EAST OF POWERLINE		M	RESIGHTING
73	FH54	G	S	BK	W	191010707	12-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	HEAD	WEST SLOPE.		M	CAPTURE
74	FH55	BK	S	O	M	191010708	12-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
75	FH67	PK	S	L	B	191010754	12-Apr-94	VICTORIA	UPLAND	SOUTH CENTRAL UPLAND	WEST END	HORSETRAIL		M	CAPTURE
76	FH68	L	G	L	S	191010755	12-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	SOUTH SLOPE		M	CAPTURE
77	FH56	B	S	G	PK	191010709	13-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH SLOPE			M	CAPTURE
78	FH57	B	W	L	S	191010710	13-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH SLOPE			M	CAPTURE
79	FH58	R	L	G	S	191010711	13-Apr-94	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	ABOVE WEST CENTRAL HOLLOW		M	CAPTURE
80	FH59	L	S	L	B	191010712	15-Apr-94	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	BOTTOMLAND HARDWOODS	NEAR 94 COOPERS HAWK NEST.		M	CAPTURE
81	FH69	Y	W	Y	S	191010756	15-Apr-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	WEST OF POWERLINE		M	CAPTURE
82	FH60	B	S	G	BK	191010713	18-Apr-94	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	BOTTOMLAND HARDWOODS	NEAR 93 COOPERS HAWK NEST.		M	CAPTURE
83	FH81	L	S	W	O	191010714	18-Apr-94	WEBSTER	HOLLOW	HAWKS NEST	BOTTOM	DOWNSTREAM FROM ROAD.		M	CAPTURE
84	FH70	W	S	R	R	191010757	19-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	BOTTOM BELOW CHIMNEY			M	CAPTURE
84	FH70	W	S	R	R	191010757	19-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	BOTTOM BELOW CHIMNEY			M	RESIGHTING

85	FH71	M	S	BK	G	191010758	19-Apr-94	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	CAPTURE
85	FH71	M	S	BK	G	191010758	19-Apr-95	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	RESIGHTING
85	FH71	M	S	BK	G	191010758	19-Apr-96	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	RESIGHTING
86	FH83	M	L	Y	BK	191010715	20-Apr-94	WEBSTER	HOLLOW	EAST CENTRAL	NORTH FORK	NORTH SLOPE		F	CAPTURE
86	FH83	M	L	Y	BK	191010715	26-May-95	WEBSTER	HOLLOW	CENTRAL EAST	BOTTOM			F	RESIGHTING
87	FH85	BK	S	R	L	191010717	21-Apr-94	WEBSTER	HOLLOW	HAWKS NEST	SOUTH SLOPE	NEAR RD. JCT.		M	CAPTURE
88	FH86	W	BK	PK	S	191010718	22-Apr-94	WEBSTER	HOLLOW	NORTHWEST	SOUTHEAST SLOPE.			M	CAPTURE
89	FH73	PK	S	L	BK	191010759	3-May-94	VICTORIA	UPLAND	CENTRAL CENTRAL	NORTH CORNER			M	CAPTURE
90	FH74	O	S	L	Y	191010760	3-May-94	VICTORIA	UPLAND	CENTRAL WEST	SOUTHEAST CORNER			M	CAPTURE
90	FH74	O	S	L	Y	191010760	3-May-95	VICTORIA	UPLAND	CENTRAL WEST	SOUTHEAST CORNER			M	RESIGHTING
91	FH75	Y	L	Y	S	191010761	3-May-94	VICTORIA	UPLAND	CENTRAL SOUTH	NEAR SE SENDERO.			M	CAPTURE
92	FH76	G	W	BK	S	191010762	3-May-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	SE FENCE.		M	CAPTURE
93	FH79	BK	S	BK	B	191010763	3-May-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	EAST OF POWERLINE		M	CAPTURE
94	FH88	W	S	G	G	191010720	3-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE.			M	CAPTURE
95	FH90	G	S	Y	W	191010721	3-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE.			M	CAPTURE
96	FH77	O	B	Y	S	191010702	4-May-94	VICTORIA	UPLAND	STRAIGHT ROAD	NORTHEAST.			M	CAPTURE
96	FH77	O	B	Y	S	191010702	4-May-95	VICTORIA	UPLAND	STRAIGHT ROAD	NORTHEAST.			M	RESIGHTING
97	FH82	M	S	R	L	191010723	4-May-94	WEBSTER	HOLLOW	NORTHWEST	NW SLOPE			M	CAPTURE
98	FH89		S	M	G	191010722	4-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE			M	CAPTURE
99	FH151	Y	BK	R	S	191010719	6-May-94	WEBSTER	HOLLOW	HAWKS NEST	NORTH SLOPE.			M	CAPTURE
100	FH161	PK	M	Y	S	191010764	6-May-94	VICTORIA	HOLLOW	NW HOLLOW	LOOP ROAD.			M	CAPTURE
101	FH162	W	L	O	S	191010765	6-May-94	VICTORIA	BOTTOM	NORTH BOTTOM	BELOW LOOP RD.			M	CAPTURE
102	FH163	O	Y	M	S	191010766	9-May-94	VICTORIA	HOLLOW	GOLFBALL HOLLOW.				M	CAPTURE
102	FH163	O	Y	M	S	191010766	9-May-95	VICTORIA	HOLLOW	GOLFBALL HOLLOW.				M	RESIGHTING
103	FH164	PK	Y	W	S	191010767	10-May-94	VICTORIA	UPLAND	SECOND GROWTH	WEST BETWEEN PAULS ALLEY AND STRAIGHT ROAD.PAULS			M	CAPTURE
104	FH167	BK	S	L	PK	191010768	11-May-94	VICTORIA	HOLLOW	NORTH HOLLOW	NE FENCE			M	CAPTURE

105	FH168	L	S	O	W	191010769	11-May-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	CAPTURE
105	FH168	L	S	O	W	191010769	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	T6			M	RECAPTURE
106	FH169	M	O	G	S	191010770	11-May-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	CAPTURE
106	FH169	M	O	G	S	191010770	11-May-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	RESIGHTING
107	FH152	PK	S	R	PK	191010724	25-May-94	WEBSTER	UPLAND	POST OAK RIDGE	NORTHWEST HOLLOW	NEAR RIMROCK.		M	CAPTURE
108	FH153	R	PK	M	S	191010725	26-May-94	WEBSTER	HOLLOW	NORTH SLOPE	WEST OF FENCE	WEST OF RD.		M	CAPTURE
108	FH153	R	PK	M	S	191010725	26-May-95	WEBSTER	HOLLOW	NORTH SLOPE	WEST OF FENCE	WEST OF RD.		M	RECAPTURE
109	FH156		S	L	O	191010726	15-Jun-94	WEBSTER	HOLLOW	SOUTHWEST HOLLOW	NORTH SLOPE.			M	CAPTURE
110	FH157	O	S	M	B	191010727	15-Jun-94	WEBSTER	HOLLOW	SOUTHWEST HOLLOW	NORTH SLOPE.			F	CAPTURE
111	FH158	O	S	L	W	191010728	20-Jun-94	WEBSTER	HOLLOW	WEST CENTRAL HOLLOW	SOUTH SLOPE.			F	CAPTURE
112	FH165	Y	S	PK	Y	191010771	24-Jun-94	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
112	FH165	Y	S	PK	Y	191010771	20-Apr-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	RECAPTURE
113	FH191	O	BK	PK	S	191010730	13-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NT5-NT6		M	CAPTURE
114	FH192	M	M	O	S	191010731	13-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NT6-NT7		M	CAPTURE
115	FH193	Y	G	PK	S	191010732	14-Mar-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
116	FH194	W	PK	B	S	191010733	17-Mar-95	WEBSTER	HOLLOW	SOUTHWEST HOLLOW	WEST SLOPE			M	CAPTURE
117	FH195	R	R	PK	S	191010734	20-Mar-95	VICTORIA	HOLLOW	SINKHOLE HOLLOW	SOUTH RIMROCK			M	CAPTURE
118	FH196	M	Y		S	191010735	21-Mar-95	WEBSTER	HOLLOW	NW HOLLOW	EAST SLOPE			M	CAPTURE
119	FH197	BK	S	R	R	191010736	21-Mar-95	WEBSTER	HOLLOW	NW HOLLOW	SE SLOPE			M	CAPTURE
120	FH198	L	S		R	191010737	22-Mar-95	VICTORIA	UPLAND	CENTRAL EAST				M	CAPTURE
121	FH199	Y	S	PK	L	191010738	22-Mar-95	VICTORIA	UPLAND	STRAIGHT ROAD SOUTH				M	CAPTURE
122	FH200	O	M	O	S	191010739	23-Mar-95	VICTORIA	HOLLOW	NORTH HOLLOW				M	CAPTURE
123	FH361	BK	Y	B	S	191010740	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
124	FH362	L	S	BK	Y	191010741	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
125	FH363	G	S	B	W	191010742	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
126	FH365	W	G	PK	S	191010743	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
127	FH364	G	S	M	M	191010744	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				F	CAPTURE
128	FH366	O	S	O	M	191010745	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
129	FH367		S	B	B	191010746	27-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW	EAST SLOPE		M	CAPTURE
130	FH368	W	M	Y	S	191010747	30-Mar-95	VICTORIA	HOLLOW	NW HOLLOW	LOOP ROAD			M	CAPTURE
131	FH369	W	S	BK	W	191010748	30-Mar-95	VICTORIA	UPLAND	CENTRAL CENTRAL				M	CAPTURE
132	FH370	BK	BK	PK	S	191010749	3-Apr-95	WEBSTER	HOLLOW	SW HOLLOW	NORTH SLOPE	SOUTH SOUTH ROAD		M	CAPTURE

133	FH374	L	BK	L	S	191010772	3-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE HOLLOW	EAST OF HAWKS NEST HOLLOW ROAD			M	CAPTURE
134	FH371	Y	S	M	BK	191010774	4-Apr-95	VICTORIA	UPLAND	CENTRAL SOUTH	ABOVE HORSETRAIL			M	CAPTURE
135	FH372		S	M	BK	191010775	6-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINES		F	CAPTURE
136	FH373	M	S	PK	Y	191010776	6-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINES		M	CAPTURE
137	FH375	G	S	B	Y	191010777	6-Apr-95	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	WEST OF POWERLINE		M	CAPTURE
138	FH376	L	G	Y	S	191010778	6-Apr-95	VICTORIA	UPLAND	CENTRAL WEST	OLD MAIN GATE VICINITY			M	CAPTURE
139	FH377	W	M	BK	S	191010779	6-Apr-95	VICTORIA	UPLAND	CENTRAL SOUTH	ABOVE HORSETRAIL			M	CAPTURE
140	FH378	PK	S		Y	191010781	7-Apr-95	WEBSTER	HOLLOW	CENTRAL EAST	NORTH SLOPE			F	CAPTURE
141	FH379	M	M	W	S	191010782	7-Apr-95	WEBSTER	HOLLOW	CENTRAL EAST	NORTH SLOPE			M	CAPTURE
142	FH380	BK	S	L	M	191010783	8-Apr-95	3M	UNK					M	CAPTURE
143	FH521	W	S	M	B	191010784	10-Apr-95	VICTORIA	UPLAND	STRAIGHT ROAD SOUTH	ALONG RD TO WELL			M	CAPTURE
144	FH522	L	M	G	S	191010785	11-Apr-95	WEBSTER	UPLAND	WEST PLATEAU	SW QUARTER			M	CAPTURE
145	FH523	W	G	W	S	191010786	12-Apr-95	VICTORIA	UPLAND	AT WELL				M	CAPTURE
146	FH524	M	M	R	S	191010787	12-Apr-95	VICTORIA	UPLAND	STRAIGHT SOUTH	ALONG RD. TO WELL			F	CAPTURE
147	FH525	B	S	BK	PK	191010788	12-Apr-95	VICTORIA	UPLAND	MASON HOLLOW SOUTH CENTRAL				M	CAPTURE
148	FH526	Y	S	B	PK	191010789	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	AT HANGING ROCK SPRINGS			M	CAPTURE
149	FH528	W	PK	O	S	191010790	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	NORTH SLOPE	NORTH FORK		M	CAPTURE
150	FH529	L	W	G	S	191010791	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	HANGING ROCK SPRING	ABOVE RD. JCT		M	CAPTURE
151	FH527	Y	S	L	O	191010792	15-Apr-95	3M	UNK					M	CAPTURE
152	FH530	O	PK	O	D	191010793	15-Apr-95	3M	UNK					M	CAPTURE
153	FH511	O	S	G	R	191010794	17-Apr-95	WEBSTER	HOLLOW	NW HOLLOW	NW SLOPE			M	CAPTURE
154	FH513	PK	W	M	S	191010795	17-Apr-95	WEBSTER	HOLLOW	NW HOLLOW	EAST SLOPE			M	CAPTURE
155	FH515	L	R	O	S	191010796	18-Apr-95	VICTORIA	BOTTOM	COLLIER HOLLOW BOTTOM	NEAR POND			M	CAPTURE
156	FH512	B	S	G	O	191010797	19-Apr-95	WEBSTER	HOLLOW	CENTRAL WEST	EAST SLOPE			M	CAPTURE
157	FH514	O	S	L	G	191010798	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	NT8		M	CAPTURE
158	FH516	W	PK	G	S	191010799	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	NT7		M	CAPTURE

159	FH84	M	L	PK	S	191010716	20-Apr-95	WEBSTER	HOLLOW	EAST CENTRAL	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
160	FH517	O	S	O	L	191010900	21-Apr-95	VICTORIA	HOLLOW	COLLIER HOLLOW	SOUTH SLOPE			M	CAPTURE
161	FH518	PK	S	L	L	188047611	24-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	HEAD OF HOLLOW		M	CAPTURE
162	FH519	G	BK	R	S	188047612	24-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	CHIM TRANSECT		M	CAPTURE
163	FH520	W	S	PK	G	188047613	25-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
164	FH531	O	S	B	Y	188047614	25-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE	W RD JCT			M	CAPTURE
165	FH532	M	S	W	L	188047615	25-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE HOLLOW	EAST SLOPE			M	CAPTURE
166	FH533	L	S	Y	R	188047616	27-Apr-95	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	UPSTREAM FROM RD XING			M	CAPTURE
167	FH534	Y	M	Y	S	188047617	27-Apr-95	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	UPSTREAM FROM RD XING.			M	CAPTURE
168	FH535	R	S	L	L	188047618	1-May-95	VICTORIA	UPLAND	STRAIGHT RD. SOUTH	NEAR WELL RD.			M	CAPTURE
169	FH536	L	S	PK	M	188047619	2-May-95	WEBSTER	HOLLOW	SW HOLLOW	EAST SLOPE			M	CAPTURE
170	FH537	R	PK	PK	S	188047620	3-May-95	VICTORIA	HOLLOW	COLLIER HOLLOW	N SLOPE	NEAR SE FENCE		M	CAPTURE
171	FH538	R	W	L	S	188047621	3-May-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW			M	CAPTURE
171	FH538	R	W	L	S	188047621	3-May-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW			M	RESIGHTING
172	FH539	O	S	B	O	188047622	4-May-95	VICTORIA	UPLAND	SOUTH CORNER				M	CAPTURE
173	FH540	W	G	M	S	188047623	4-May-95	VICTORIA	UPLAND	SOUTH CORNER				M	CAPTURE
174	FH651		S	O	M	188047624	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	NORTH SLOPE		M	CAPTURE
175	FH652	W	G	BK	S	188047625	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
176	FH653	G	S	BK	L	188047626	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
177	FH654	M	S	M	L	188047627	9-May-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NEAR SE FENCE		M	CAPTURE
178	FH655	G	S		G	188047628	10-May-95	WEBSTER	UPLAND	NORTH UPLAND	SW SECTION	WEST OF FENCE		M	CAPTURE
179	FH657	M	S	L	M	188047631	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
180	FH656	Y	PK	R	S	188047629	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
181	FH658	W	L	BK	S	188047630	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
182	FH659	PK	S	W	M	188047632	16-May-95	WEBSTER	HOLLOW	NW HOLLOW	N SLOPE			M	CAPTURE
183	FH660	M	BK	O	S	188047633	24-May-95	VICTORIA	HOLLOW	GOLFBALL	SOUTH SLOPE			M	CAPTURE
184	FH661	BK	S	BK	Y	188047634	24-May-95	VICTORIA	UPLAND	NORTH CENTRAL				M	CAPTURE
186	FH662	W	S	G	Y	188047635	30-May-95	WEBSTER	UPLAND	NW PLATEAU	NORTH GATE			M	CAPTURE
186	FH663	BK	S	W	W	188047636	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
187	FH664	B	B	L	S	188047637	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
188	FH665	B	S	W	M	188047638	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
189	FH666	W	S	PK	M	188047639	2-Jun-95	WEBSTER	BOTTOM	WEST CENTRAL	AT CK.			M	CAPTURE
190	FH667	L	S		M	188047640	16-Jun-95	VICTORIA	UPLAND	STRAIGHT ROAD	STRAIGHT RD MEADOW			F	CAPTURE
191	FH668	O	S	PK	Y	188047641	16-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	EAST END			M	CAPTURE

192	FH669	PK	S		G	188047642	20-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	EAST END			M	CAPTURE
193	FH670	W	Y	B	S	188047643	21-Jun-95	VICTORIA	MEADOW	SINKHOLE CLEARING				F	CAPTURE
194		W	S	L	G	188047644	21-Jun-95	VICTORIA	MEADOW	SINKHOLE CLEARING				M	CAPTURE
195		BK	S	Y	B	188047645	21-Jun-95	VICTORIA	MEADOW	SINKHOLE CLEARING				M	CAPTURE
196		M	R	R	S	188047646	21-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	NE WOODLOT			M	CAPTURE
197			S	B	R	188047647	22-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
198		Y	L	PK	S	188047648	23-Jun-95	VICTORIA	UPLAND	SINKHOLE RD.				F	CAPTURE
199		PK	S	G	BK	188047649	23-Jun-95	VICTORIA	UPLAND	SINKHOLE RD.				M	CAPTURE
200		PK	S		PK	188047650	26-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
201		O	S	PK	L	188047657	26-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
202		L	S	R	M	188047658	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
203		M	R	B	S	188047659	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
204		B	S	W	L	188047660	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
205		W	S	M	PK	188047661	29-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
206		R	M		S	188047662	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
207		O	O	G	S	188047663	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			F	CAPTURE
208		M	S	B	R	188047664	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
209			S	L	BK	188047665	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
210					S	188047666	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
211					S	188047667	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			UNK	CAPTURE

212		BK	R	BK	S	188047668	17-Jul-95	VICTORIA	HOLLOW	COLLIER	HEAD	NORTH SLOPE		F	CAPTURE

NUMBER	USFWS #	DATE 96	SITE	SIDE	SEX	AGE	COLOR COMBO			
821	1880-47676	4-Apr	VICTORIA	N/A	F	ASY	K/S : G/W		23 banded	
824	1880-47678	4-Apr	VICTORIA	N/A	F	ASY	G/P : W/S		7 f 16 m	
825	1880-47679	9-Apr	VICTORIA	N/A	F	ASY	O/W : G/S		4 asy 3 asy	
1104	1820-62524	27-Jun	VICTORIA	N/A	F	ASY	S : P/M		1hy 3 hy	
1039	1820-62522	24-Jun	VICTORIA	N/A	F	HY	K/S : L/L		2 sy 10 sy	
739	1880-47682	15-Apr	VICTORIA	N/A	F	SY	M/S : W/Y			
827	1880-47674	17-Apr	VICTORIA	N/A	F	SY	/S : Y/G			
868	3510-89602	9-Apr	VICTORIA	N/A	M	ASY	G/B : B/S			
823	1880-47681	10-Apr	VICTORIA	N/A	M	ASY	B/M : G/S			
1040	1820-62519	31-May	VICTORIA	N/A	M	ASY(tail)	K/S : Y/L			
/	1820-62520	24-Jun	VICTORIA	N/A	M	HY	: S			
/	1820-62521	24-Jun	VICTORIA	N/A	M	HY	: S			
1103	1820-62523	26-Jun	VICTORIA	N/A	M	HY	G/S : Y/O			
760	1880-47673	1-Apr	VICTORIA	N/A	M	SY	L/S : W/L			
754	1880-47675	3-Apr	VICTORIA	N/A	M	SY	B/Y : M/S			
822	1880-47677	4-Apr	VICTORIA	N/A	M	SY	B/S : Y/Y			
828	1880-47680	9-Apr	VICTORIA	N/A	M	SY	L/B : L/S			
870	3510-89603	9-Apr	VICTORIA	N/A	M	SY	B/S : B/Y			
830	1880-47685	17-Apr	VICTORIA	N/A	M	SY	M/W : K/S			
946	3510-89654	1-May	VICTORIA	N/A	M	SY	W/S : B/G			
1031	1820-62513	13-May	VICTORIA	N/A	M	SY	Y/P :K/S			
1037	1820-62518	29-May	VICTORIA	N/A	M	SY	G/W : G/S			
1027	1820-62570	31-May	VICTORIA	N/A	M	SY	L/S : K/P			
834	3510-89620	18-Apr	WEB	EAST	M	ASY	/S : O/G		30 banded	
837	3510-89616	19-Apr	WEB	EAST	M	ASY	O/S : L/K		15 east	
941	1880-47686	23-Apr	WEB	WEST	M	ASY	/S : P/Y		15 west	
840	1880-47671	25-Apr	WEB	WEST	M	ASY	Y/S : L/P		100% males	
942	3510-89648	30-Apr	WEB	WEST	M	ASY	W/S : B/K		11 asy	
947	3510-89649	30-Apr	WEB	WEST	M	ASY	W/S : Y/Y		19 sy	
950	3510-69650	30-Apr	WEB	WEST	M	ASY	O/B : G/S			
967	3510-89651	30-Apr	WEB	WEST	M	ASY	Y/S : G/B			
968	3510-89652	30-Apr	WEB	WEST	M	ASY	/B : P/S			

957	1820-62508	7-May	WEB	WEST	M	ASY	P/S : PK			
960	1820-62511	8-May	WEB	WEST	M	ASY	M/P : B/S			
863	3510-89606	11-Apr	WEB	EAST	M	SY	L/S : W/G			
865	3510-89607	11-Apr	WEB	EAST	M	SY	L/Y : O/S			
829	1880-47683	16-Apr	WEB	EAST	M	SY	W/S : M/O			
877	3510-89612	16-Apr	WEB	EAST	M	SY	P/B : /S			
833	3510-89614	18-Apr	WEB	EAST	M	SY	P/S : B/W			
835	3510-89615	19-Apr	WEB	EAST	M	SY	K/S : /B			
966	3510-89647	30-Apr	WEB	WEST	M	SY	P/S : B/O			
969	3510-89653	2-May	WEB	EAST	M	SY	Y/S : Y/L			
949	1880-47666	3-May	WEB	EAST	M	SY	P/L : W/S			
956	1820-62507	3-May	WEB	EAST	M	SY	/S : P/B			
958	1820-62509	7-May	WEB	WEST	M	SY	L/S : P/P			
959	1820-62510	7-May	WEB	WEST	M	SY	K/S : G/O			
1032	1820-62514	14-May	WEB	WEST	M	SY	L/S : Y/B			
1033	1820-62515	14-May	WEB	WEST	M	SY	W/S : P/W			
1036	1820-62517	20-May	WEB	EAST	M	SY	O/S : B			
1015	1820-62564	22-May	WEB	EAST	M	SY	R/S : M/L			
879	3510-89609	16-Apr	WEB	EAST	M	SY?	O/L : /S			
880	3510-89610	16-Apr	WEB	EAST	M	SY?	B/S : M/W			
1035	1820-62516	14-May	WEB	WEST	M	SY	O/M : Y/S			
	B = BLUE									
	G = GREEN									
	K = BLACK									
	L = LAVENDER									
	M = MAGENTA									
	O = ORANGE									
	P = PINK									
	R = RED									
	R* = OLD MAGENTA									
	S = SILVER									
	W = WHITE									
	Y = YELLOW									

SHEET #	DATE (mm/dd/yy)	OBS INITIALS	TRACT (WEB, VIC, BCHP)	SUBUNIT	MAP ATTACHED? (Y OR N)	WEATHER: TEMP	WIND	CLOUD	PPT	OBSERVATION PERIOD: START (H:MM)	END (H:MM)	TAPE USED (SC,LC, "KERR TAPE", ESO)	DECOY USED (Y OR N).	SETTING:(1) TOPO, (HS, B, U, R=RIMROCK).	(2) SUCCESSIONAL STAGE-(MT,SG,SO,G)	(3) DOMINANT TREE TYPE--(H,J,M)	(4) CANOPY COVERAGE (0, 20, 50,100, 200, 500)	(5)FOREST-GRASSLAND MARGIN (0,20,50,100,200,500)	(6) NEAREST WATER (0,20,50,100,200,500)	CAPTURED, OBSERVED OR HEARD BIRDS. (C,O,H).	SPECIES (ABBREV)
1	4/15/96	TS,SH,CC	VIC	COLLIER HOLLOW-NW CORNER	Y	11	8	0		851	900	SC,LC	Y	B	SG	M	C	0	2	C	GCWA
2	4/16/96	TS, CC	WEB	SOUTH ROAD	Y	18	8	0		1039	1105	SC,LC	Y	HS	MT	M	C	1	2	C	GCWA
2																				O	GCWA
3	4/8/96	TS, SH, DRH, CC	WEB	HANGING ROCK SPRINGS	N		8	0		1245	1308	SC,LC	Y	HS	MT	M	C	2	1	O	GCWA
4	4/10/96	TS, SH, CC	VIC	MASON HOLLOW POWERLINE	N	18	8	0		1012	1023	SC,LC	Y	R	MT	M	C	1	2	O	GCWA
5	4/1/96	TS, SH, DRH	VIC	COLLIER HOLLOW	Y		16	0		1300		SC,LC	Y	HS	MT	M	C	0	1	C	GCWA
6	1/2/96	TS, SH, DRH, CC	VIC	COLLIER HOLLOW POWERLINE	N	14	8	5		835	856	SC,LC	Y	HS	MT	M	C	1	2	O	GCWA
7	4/2/96	TS, SH, DRH, CC	VIC	PAUL'S ALLEY	N	21	16	95		1135		SC,LC	UNK	U	SG	J	SO	1	3	O	GCWA
8	4/16/96	TS, CC	WEB		N	60	8	0		843	905	SC,LC	Y	U	MT	M	C	1	2	D	GCWA
9	4/15/96	YS, SH ,CC	VIC	NW FENCELINE	N	15	16	0		1434	1444	SC,LC	Y	U	SG	J	C	0	2	O	GCWA
10	4/4/96	TS, CC	VIC	COLLIER HOLLOW	N	21	0	90		837	849	SC,LC	Y	HS	MT	H	C	2	3	O	GCWA
11	4/13/96	TS, SH, DRH,CC	VIC	MASON HOLLOW	N	24	8	75		1418	1433	SC,LC	Y	HS	MT	M	C	1	1	O	GCWA
12	4/3/96	TS, SH, DRH, CC	VIC	CENTRAL UPLANDS	N	15	8	100		945	957	SC,LC	Y	U	SG	M	SO	1	2	O	GCWA
13	4/3/96	TS, SH, DRH, CC	VIC	MASON HOLLOW-CHIMNEY	N		0	100		847	903	SC,LC	Y	U	SG	J	C	1	1	O	GCWA
14	4/2/96	TS, SH, DRH, CC	VIC	MASON HOLLOW-CHIMNEY	N		8	100		1320		SC,LC,ESO	Y	U	SG	J	C	1	1	O	GCWA
15	4/4/96	TS, CC	VIC	COLLIER HOLLOW	N	21	0	100		938	953	SC,LC	N	HS	MT	H	C	2	2	O	GCWA

16	4/9/96	TS, SH ,CC	VIC	PAUL'S ALLEY	N	15	8	0		904	914	SC,LC	Y	U	SG	M	SO	1	2	D	GCWA
17	4/9/96	TS, SH, CC	VIC	ENTRANCE GATE	N	13	0	0		814	824	SC, LC	Y	U	SG	M	C	0	2	D	GCWA
18	4/1/96	TS, SH, DRH	VIC		N		16	0		1200	1217	SC,LC	Y	U	SG	J	C	1	3	O	GCWA
19	4/3/96	TS, CC	VIC	UPLAND ALONG STRAIGHT ROAD	Y	15	0	100		1144	1158	SC,LC	Y	U	SG	M	C	0	3	C	GCWA
20	4/9/96	TS,SH,CC	VIC		Y	24	8	0		1059	1105	SC,LC	Y	HS	MT	M	C	1	2	C	GCWA
21	4/15/96	TS,SH,DRH,CC	VIC	ENTRANCE GATE	Y	10	8	0		752	805	SC,LC	Y	U	SG	M	C	0	2	O	GCWA
22	4/12/96	SH, CC	WEB	HANGING ROCK SPRINGS	N	18	5	100	Y	823	850	SC,LC	Y	HS	MT	M	C	2	2	O	GCWA
23	4/10/96	TS,SH,DRH,CC	VIC	CENTRAL UPLANDS	Y	32	8	0		1150	1158	SC,LC	Y	U	SG	M	C	0	2	O	GCWA
24	4/5/96	TS,SH,CC	VIC	HEART LOOP-NORTH FENCE	Y	15	8	0		947	956	SC,LC	Y	HS	SG	M	C	1	2	C	GCWA
25	4/4/96	TS,CC	VIC	COLLIER HOLLOW	Y	21	0	100		1038	1108	SC,LC,ESO	N	HS	MT	J	C	1	2	C	GCWA
25																				O	GCWA
26	4/4/96	TS,SH,DRH,CC	VIC	MASON HOLLOW	Y		0	0		1504	1518	SC,LC	Y	R	SG	J	C	1	2	C	GCWA
26																				C	GCWA
27	4/10/96	TS,SH,DH,CC	VIC	CENTRAL UPLANDS	Y	32	8	0		1223	1238	SC,LC	Y	U	SG	M	C	0	1	C	GCWA
28	4/3/96	TS,SH,DRH,CC	VIC	CENTRAL UPLANDS	Y	14	0	100		823	828	SC,LC	Y	U	SG	M	SO	0	3	C	GCWA
29	4/10/96	TS,SH,CC	VIC	MASON HOLLOW	N	17	0	0		905	920	SC,LC,ESO	Y	HS	MT	M	SO	2	2	O	GCWA
30	4/8/96	TS,SH,DRH,CC	WEB	NORTH HOLLOW	N	23	0	0		1109	1126	SC,LC	Y	U	MT	M	C	1	3	O	GCWA
31	4/8/96	SH,CC	WEB	WEST ROAD OFF MAIN ROAD	N	18	0	0		935	953	SC,LC,ESO	Y	HS	SG	M	C	1	3	O	GCWA
32	4/9/96	TS,SH,CC	VIC	NE CORNER	N		8	0		1405	1421	SC,LC,ESO	Y	U	SG	J	C	1	2	O	GCWA
33	4/15/96	TS,SH,CC	VIC	COLLIER HOLLOW POWERLINE	Y	20	16	0		1120	1140	SC,LC	Y	HS	MT	M	C	2	2	O	GCWA
34	4/15/96	TS,SH,CC	VIC	COLLIER HOLLOW UNDER POWERLINE	N	13	32	0		1009	1024	SC,LC	Y	HS	MT	M	SO	0	2	O	GCWA

35	4/16/96	DKH	WEB	NW HOLLOW SE SLOPE	Y	20	8	0		1210	1219	SC,LC	N	HS	MT	J	C	2	0	O	GCWA
36	4/17/96	DKH,KT	BCHP	SWEETWATER HILLTOP	Y	20	5	30		1015	1025	SC,LC	N	U	SG	J	SO	3	2	C	GCWA
37	4/18/96	DKH,SH	WEB	HAWK'S NEST HOLLOW-BOTTOM AT 100M	Y	22	5	0		920	1011	SC,LC	N	B	M	H	C	2	0	O	GCWA
38	4/18/96	DKH,SH	WEB	HAWK'S NEST HOLLOW-DOWNSTREAM OF OAK GROVE	Y	30	5	0		1214	1245	LC	N	HS	MT	M	C	1	1	C	GCWA
39	4/18/96	DKH,SH	WEB	HAWK'S NEST HOLLOW-BOTTOM AT EAST FENCE	Y	32	5	0		1305	1342	SC,LC	N	B	MT	M	C	2	1	C	GCWA
40	4/19/96	DKH	WEB	SOUTH HOLLOW-SOUTH SLOPE NEAR FENCE	Y	24	10	10		938	1004	SC,LC	N	HS	M	J	C	2	0	C	GCWA
41	4/19/96	DKH	WEB	SOUTH HOLLOW-SOUTH SLOPE NEAR FENCE	Y	35	10	0		1345	1413	SC,LC	N	HS	MT	J	C	1	2	C	GCWA
42	4/13/96	DKH, TS	WEB	SOUTHWEST HOLLOW	Y	14	10	0		1015	1040	SC,LC	Y	HS	MT	J	C	0	2	C	GCWA
43	4/24/96	DKH, SH	BCHP	CENTRAL EAST TRIBUTARY NEAR RIMROCK	Y	14	5	0		849	911	SC	N	B	MT	M	C	2	0	C	GCWA
44	4/24/96	DKH	BCHP	SWEETWATER - CENTRAL CREEK BEFORE JUNCTION	Y	14	10	0		1016	1032	SC,LC	N	B	MT	M	C	2	0	C	GCWA
45	4/25/96	DKH, TS	WEB	NW SLOPE	Y	18	15	0		905	917	SC,LC	N	U	MT	M	C	2	2	C	GCWA
46	4/26/96	DKH	BCHP	SWEETWATER CENTRAL CREEK BELOW LENDER AND SYCAMORE	Y	22	5	50		900	922	SC,LC	N	HS	M	J	C	2	1	C	GCWA
47	4/20/96	DKH	BCHP	SWEETWATER EAST TRIBUTARY-CENTRAL DCL	Y	28	10	10		1030	1109	SC,LC	N	HS	MT	M	C	2	0	C	GCWA
48	4/17/96	TS,SH,CC	VIC	NE CORNER AT FENCE	Y		16	30		1122	1138	SC,LC	Y	HS	SG	M	C	1	2	C	GCWA
48																				C	GCWA
49	4/18/96	TS,CC	VIC	SINKHOLE	Y	16	8	25		816	830	SC,LC	Y	U	SG	J	C	0	2	O	GCWA
50	4/18/96	TS,DRH,CC	VIC	PAUL'S ALLEY	Y		6	5		925	950	SC,LC	Y	U	MT	M	C	0	2	O	GCWA
51	4/23/96	SH,CC	WEB	EAST OF MAIN ROAD	Y	13	8	0		853	905	SC,LC	N	HS	MT	M	C	2	2	O	GCWA
52	4/22/96	TS,SH,CC	WEB		N	21	0	100		839	852	SC,LC	N	HS	MT	J	C	2	2	O	GCWA

53	4/24/96	TS,SH	VIC	BETWEEN POWERLINES AND SE FENCE	N	21	16	0	1124	1150	SC,LC,ESO	Y	U	SG	M	C	2	2	D	GCWA
54	4/24/96	TS,SH	VIC	COLLIER HOLLOW JUST WEST OF POWER LINES	Y	15	8	0	815	849	SC,LC	Y	U	SG	J	SO	1	2	C	GCWA
55	4/23/96	SH,CC	WEB	NW HOLLOW-WEST OF MAIN ROAD	Y	14	8	0	1035	1037	SC,LC	N	HS	SG	M	C	1	2	C	GCWA
56	4/23/96	SH,DRH,CC	WEB	HANGING ROCK SPRINGS	N	22	8	0	1420	1435	SC,LC	N	HS	SG	M	C	1	1	O	GCWA
57	4/19/96	SH,DRH,CC	WEB	SOUTH HOLLOW	Y	24	0	0	936	956	SC,LC,ESO	Y	HS	SG	J	C	1	2	O	GCWA
57																			D	GCWA
58	4/19/96	SH, DRH, CC	WEB		Y	29	0	0	1155	1206	SC,LC	N	HS	SG	M	C	2	2	O	GCWA
59	4/23/96	SH,DRH,CC	WEB	SE HOLLOW	Y	21	0	0	1217	1247	SC,LC,ESO	N	HS	SG	M	C	2	1	O	GCWA
60	4/30/96	TS,SH,DKH,CC	WEB	FIRST HILL UP FROM ENTRANCE	Y	10	0	0	750	753	SC,LC	N	U	SG	M	SO	0	2	C	GCWA
61	4/30/96	DKH,SH	WEB	WEST PLATEAU-SOUTH RIM AT ROAD	Y	16	10	0	1000	1030	SC,LC	N	R	MT	M	SO	2	2	C	GCWA
61																			O	GCWA
62	4/30/96	DKH,SH	WEB	WEST PLATEAU-SW HOLLOW, NW SLOPE	Y	27	10	0	1230	1320	SC,LC	N	HS	MT	H	C	2	2	O	GCWA
63	4/30/96	DKH,SH	WEB	WEST PLATEAU-NW QUARTER, NW HOLLOW, N. SLOPE	Y	25	10	0	1545	1600	SC,LC	N	HS	MT	H	C	2	0	C	GCWA
64	5/2/96	DKH,SH	WEB	BARNES HOLLOW-NORTH SLOPE	Y	20	10	100	1025	1040	SC, LC, KERR,ESO	N	HS	MT	M	C	2	2	O	GCWA
65	5/2/96	DKH,CC	WEB	NORTH WOODLOT, HEAD OF HAWK'S NEST HOLLOW, N. TRIBUTARY	Y	25	10	100	1230	1259	SC,LC	N	B	MT	M	SO	0	2	C	GCWA
66	5/2/96	DKH,SH	WEB	BARNES HOLLOW, SOUTH SLOPE, MIDDLE	Y	25	15	100	500	1532	SC,LC	N	HS	MT	H	C	2	2	O	GCWA
67	4/16/96	DKH,SH	WEB	NW ROAD-WEST HOLLOW	Y	20	5	0	1207	1215	LC	N	HS	MT	H	C	2	2	C	GCWA
68	4/16/96	DKH,SH	WEB	NW HOLLOW-UPLAND	Y	20	5	0	1109	1111	SC,LC	N	U	MT	J	C	2	2	C	GCWA

69	4/16/96	DKH,SH	WEB	NW SLOPE-EAST OF NORTH ROAD	Y	23	5	0		945	1000	LC	N	HS	MT	M	C	2	2	C	GCWA
69																				O	GCWA
70	4/15/96	DKH,PK,GK	BCHP	VIREO HILL CREEK	Y	12	10	0		833	910	SC,LC	N	B	SG	M	SO	2	0	C	GCWA
71	4/11/96	DKH	WEB	BARNES HOLLOW, NORTH SLOPE, EAST TRIBUTARY NEAR NORTH FENCELINE	Y	24	15	50		1307	1326	SC,LC	N	HS	MT	M	C	2	2	C	GCWA
72	4/16/96	DKH, DRH,SH	WEB	NW SLOPE AT NORTH ROAD	Y	14	0	0		850	905	SC,LC	N	R	MT	J	SO	2	2	C	GCWA
73	4/11/96	DKH,SH,CC	WEB	BARNES HOLLOW, N-S FENCELINE JUNCTION	Y	21	10	30		1025	1101	SC,LC	N	HS	MT	J	C	2	0	O	GCWA
74	4/11/96	DKH,SH,CC	WEB	BARNES HOLLOW, WEST SLOPE	Y	19	10	100		843	856	SC,LC	N	HS	MT	J	C	1	2	C	GCWA
75	4/10/96	DKH,KT	BCHP	UPLAND-TRAV. HOLLOW	Y	21	5	0		1146	1214	SC,LC	N	B	MT	H	C	1	2	C	GCWA
76	4/10/96	DKH	BCHP	CEDAR BRAKE-FIRST TRIBUTARY	Y	23	0	0		939	1019	LC	Y	R	MT	J	C	2	2	C	GCWA
77	4/9/96	DKH,DB	VIC	MASON HOLLOW-NORTH SLOPE AT 78	Y	29	5	0		1228	1307	SC,LC	N	HS	MT	J	C	1	2	C	GCWA
78	4/9/96	DKH,DB	VIC	NORTH HOLLOW	Y	25	5	0		1024	1050	SC,LC	N	HS	MT	M	C	2	1	C	GCWA
79	4/4/96	DKH	BCHP	CEDAR BRAKE EAST-N-S FENCELINE	Y	22	5	100		1138	1213	SC,LC	Y	R	MT	J	C	2	2	C	GCWA
80	4/4/96	DKH	BCHP	UPLAND-S. TRIBUTARY TO CREEK NEAR	Y	21	0	100		1024	1050	SC,LC	N	HS	MT	M	C	2	2	O	GCWA
81	4/4/96	DKH	BCHP	UPLANDS-FIELDS ALONG CREEK NEAR OFFICE	Y		0	100		923	947	SC,LC	N	B	MT	M	SO	0	2	O	GCWA
82	4/4/96	DKH	BCHP	UPLANDS-CREEK DOWNSTREAM OF DAM AT OFFICE	Y	22	5	100		839	950	SC,LC	N	B	MT	H	SO	0	0	O	GCWA
83	4/3/96	DKH,SH	VIC	COLLIER-SE CORNER	Y		5	100		1230		SC,LC	N	HS	SG	J	SO	2	1	O	GCWA

84	4/3/96	DKH,SH	VIC	COLLIER-SE CORNER	Y		5	100		1045	1100	SC,LC	N	HS	SG	J	C	0	2	O	GCWA
85	3/29/96	DKH,KD	BCHP	UPLANDS-VIREO HILL BOTTOM	Y	12	0	100		1029	1051	SC,LC	N	B	MT	J	C	2	0	C	GCWA
86	3/29/96	DKH,KD	BCHP	UPLANDS	Y	15	5	100		1231	1253	SC,LC	N	B	MT	J	C	2	0	C	GCWA
87	4/1/96	DKH	BCHP	UPLANDS-VIREO HILL, WEST CREEK	Y	15	5	0		1047	1112	SC,LC	N	B	MT	M	C	2	0	O	GCWA
88	5/15/96	DKH,SH	BCHP	NE CORNER AT FENCELINE AND TRACT. FALLS	Y	30	10	35		1300	1400			HS	MT	J	C	0	0	O	GCWA
89	5/13/96	DKH,SH	WEB	WEST SLOPE-CENTRAL HOLLOW, NW CORNER	Y	30	10	35		1530	1549	SC,LC	N	HS	MT	J	C	1	0	C	GCWA
89																				O	GCWA
90	5/11/96	DKH	BCHP	UPLANDS-OFFICE SLOPE TO THE EAST	Y	28	5	60		1345	1421	SC,LC	N	B	MT	H	SO	0	2	C	GCWA
91	5/11/96	DKH	BCHP	UPLANDS-VIREO HILL HOLLOW JUST DOWN FROM THE BRIDGE	Y	26	5	10		1230	1244	SC,LC	N	B	MT	M	SO	1	0	C	GCWA
92	5/11/96	DKH	BCHP	UPLANDS-TRAVIS LOOK ROAD	Y	25	5	100		1100	1130	SC,LC	N	U	SG	J	SO		2	C	GCWA
93	5/10/96	DKH	BCHP	UPLANDS SLOPE SOUTH OF BARTON CREEK. EAST SLOPE TRAIL AND SWIMMING WOMAN HOLLOW	Y	25	5	100		1200	1212	SC,LC	N	HS	MT	H	C	0	2	C	GCWA
94	5/10/96	DKH	BCHP	UPLANDS-SWIMMING WOMAN HOLLOW-N. LEG AT STREAM	Y	24	5	100		1030	1103	SC,LC	N	B	MT	H	C	2	0	C	GCWA
95	5/10/96	DKH	BCHP	UPLANDS-NE CORNER OF SWIMMING WOMAN HOLLOW	Y	24	5	100		900	911	SC,LC	N	B	SG	J	SO	2	0	C	GCWA
96	5/9/96	DKH,SH	BCHP	NE CORNER AT CREEK AND RTHA NEST	Y	25	10	60				SC,LC	N	B	MT	H	C	2	2	C	GCWA

97	5/8/96	DKH	BCHP	UPLANDS-TRAV. HOLLOW AT POINT	Y	26	10	60		1030	1045	SC,LC	N	HS	MT	H	C	2	2	C	GCWA
97																				O	GCWA
98	5/7/96	DKH	BCHP	UPLANDS-TRAV HOLLOW -S. BEND AT BARTON CREEK	Y	26	10	35		1500	1522	SC,LC	N	HS	MT	M	C	2	0	C	GCWA
99	5/7/96	DKH	BCHP	UPLANDS-TRAV. HOLLOW, SOUTH FORK	Y	26	5	100		1130	1145	SC	N	U	SG	J	SO	0	2	C	GCWA
100	5/9/96	DKH,SH	BCHP	UPLANDS-NE CORNER AT WATERFALL	Y	24	5	70		1015	1038	SC,LC	N	HS	MT	J	SO	2	0	C	GCWA
101	5/21/96	DKH,SH	BCHP	TRAV. HOLLOW, SOUTH FENCE	Y	33	5	0		1259		SC	N	HS	MT	J	C	2	0	C	GCWA
101																				C	NOCA
102	5/20/96	DKH,SH	WEB	BARNES HOLLOW-SOUTH SLOPE	Y	30	10	90		1150		SC,LC	N	HS	SG	M	C	2	2	O	GCWA
103	5/20/96	DKH,SH	WEB	BARNES HOLLOW-SOUTH SLOPE	Y	30	10	35		1020		SC,LC	N	HS	SG	M	C	2	2	O	GCWA
103																				O	GCWA
104	4/25/96	DRH,CC	WEB	WEST PLATEAU	N	29	24	0		1215	1241	SC,LC	N	U	SG	M	C	0	2	O	GCWA
105	4/25/96	DRH,CC	WEB	WEST PLATEAU	N	23	24	0		919	959	SC,LC	N	U	SG	M	C	0	2	O	GCWA
105	5/10/96	DRH,CC	VIC	CHIMNEY UPLAND ALONG THE ROAD	Y	26	16	100		1125	1141	SC,LC	Y	U	SG	M	C	0	2	O	GCWA
106																				O	GCWA
106																				O	GCWA
107	5/10/96	DRH,CC	VIC	ENTRANCE GATE	N	24	0	100		816	832	SC,LC	Y	U	SG	M	SO	0	2	O	GCWA
108	5/1/96	TS,SH,CC	VIC	NORTH FENCE-EAST OF RUNWAY	N	26	16	0		1129	1149	SC,LC	Y	HS	MT	M	C	0	2	O	GCWA
109	5/1/96	TS,SH,CC	VIC	SINK HOLE	Y	15	15	0		827	835	SC,LC	Y	HS	MT	M	C	1	2	C	GCWA
110	5/3/96	DRH,CC	WEB	HANGING ROCK SPRINGS	Y	20	8	100	0.01	905	923	SC,LC	Y	HS	SG	M	C	2	2	C	GCWA

111	5/3/96	DRH,CC	WEB	EAST OF HANGING ROCK	Y	20	0	100		1015	1043	SC,LC,ESO	Y	HS	SG	M	C	2	2	O	GCWA
112	5/2/96	DRH,CC	WEB	CENTRAL HOLLOW NORTH	N	25	10	100		1341	1401	SC,LC	N	HS	SG	M	C	1	2	O	GCWA
113	5/2/96	DRH,CC	WEB	CENTRAL HOLLOW NORTH-NORTH BRANCH	N	25	16	100		903	923	SC,LC	N	HS	SG	M	C	2	2	O	GCWA
114	4/30/96	TS,CC	WEB	WEST PLATEAU	Y	28	8	0		1236	1240	SC,LC	Y	U	MT	M	C	1	2	C	GCWA
115	4/30/96	TS,CC	WEB	WEST PLATEAU	Y	28	8	0		1150	1155	SC,LC	Y	U	MT	M	C	1	2	C	GCWA
116	4/30/96	TS,CC	WEB	WEST PLATEAU	Y	21	8	0		1050	1055	SC,LC	N	U	SG	M	C	0	2	C	GCWA
117	5/8/96	TS,CC	WEB	NW HOLLOW-UPLAND WEST OF HARDWOOD GROVE	Y	24	0	100		815	820	SC,LC	Y	U	SG	M	SO	0	2	C	GCWA
118	5/30/96	TS,CC	WEB	EAST OF HANGING ROCK	Y	26	16	60		930	944	SC,LC	Y	U	SG	J	SO	1	2	O	GCWA
119	5/21/96	TS,CC	VIC	COLLIER HOLLOW-NORTH SLOPE	Y	32	16	0		1218	1230	SC,LC	Y	HS	SG	M	C	2	2	O	GCWA
120	5/7/96	TS,CC	WEB	NW HOLLOW-UPLAND AREA	Y	28	16	50		1245	1255	SC,LC	Y	U	MT	M	C	2	2	C	GCWA
121	5/7/96	TS,CC	WEB	NORTH HOLLOW, SOUTH FORK	N	26	8	100		930	945	SC,LC	Y	HS		M	SO		2	O	GCWA
122	5/13/96	SH,SRH,CC	VIC	MASON HOLLOW-EAST END UNDER POWERLINE	Y		8	80		1037	1054	SC,LC,ESO	Y	HS	SG	H	C	1	2	C	GCWA
123	5/14/96	DRH,CC	WEB	ROAD EAST OF WEST PLATEAU ROAD	Y	29	16	60		1145	1145	SC,LC	Y	HS	MT	M	C	0	1	C	GCWA
124	5/14/96	DRH,CC	WEB	ROAD EAST OF WEST PLATEAU ROAD	Y	32	16	60		1230	1230	SC	Y	HS	MT	M	C	1	2	C	GCWA
125	5/14/96	DRH,CC	WEB	ROAD EAST OF WEST PLATEAU ROAD	Y	32	16	60		1312	1334	SC,LC	Y	HS	SG	J		0	2	C	GCWA
125																				O	GCWA
126	5/17/96	SH,DRH,CC	WEB	NW HOLLOW	N		16	50		940		SC,LC	Y	U	SG	J	C	1	2	O	GCWA
127	5/20/96	TS,CC	WEB	SOUTH HOLLOW	Y	32	8	10		1215	1225	SC,LC	Y	8	SG	J	C	2	2	C	GCWA
128	5/7/96	TS,CC	WEB	NW HOLLOW UPLAND	Y	29	16	50		1315	1322	SC,LC	Y	U	SG	J	SO	2	2	C	GCWA
129	5/7/96	TS,CC	WEB	NW HOLLOW UPLAND	Y	31	16	50		1355		SC,LC	Y	U	SG	J	C	2	2	C	GCWA

130	5/7/96	TS,CC	WEB	NW HOLLOW UPLAND	Y	26	16	50		1200	1230	SC,LC	Y	U	MT	J	C	1	2	O	GCWA
131	5/22/96	DAH,CC	WEB	WEST PLATEAU	N	26	16	0		948	1008	SC,LC,ESO	Y	U	SG	J	C	0	2	O	GCWA

GCW: AGE	GCW: SEX	BAND STATUS	COLOR BAND COMBO:TOP LEFT	COLOR BAND COMBO: BOTTOM LEFT	COLOR BAND COMBO: TOP RIGHT	COLOR BAND COMBO: BOTTOM RIGHT	BAND POSITIONS DEFINITE?	USFWS#	PLUMAGE WEAR	TOTAL GCWs CAPTURED	UNBANDED AD MALE GCWs OBSERVED BUT NOT CAPTURED	UNBANDED AD FEMALE GCWs OBSERVED BUT NOT CAPTURED	UNBANDED HY GCWs OBSERVED BUT NOT CAPTURED	UNK GCWs OBSERVED BUT NOT CAPTURED	GCWS HEARD ONLY	OTHER SPECIES DETECTED BUT NOT CAPTURED	OTHER COMMENTS
SY	F	UB	M	S	W	Y	Y	188047682	HEAVY	1	1	0	0	0	1		
SY	M	UB	W	S	M	O	Y	188047663	HEAVY	1	0	1	0	0	0		ACROSS THE ROAD FROM KKP5 WHO WAS SEEN EARLIER THIS AM
ASY	M	9S	K	K	P	S	Y	191010749	UNK								
SY	M	9S			S		Y	UNK	UNK	0	1	0	0	1	0		MALE WAS BANDED WHEN A HY
UNK	M	UB							UNK	0	0	1	0	0	0		
SY	M	UB	M	S	K	W	Y	188047673	HEAVY	1	0	0	0	0	0		DOUBLE CHECK THE FWS BAND NUMBER ON THE ORIGINAL. NUMBER IS NOT 47674
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	9S	M	S	K	W	Y	188047668	UNK	0	0	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	1	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		

UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	1	0	0	0		
UNK	M	UB							UNK	0	0	1	0	0	0		FEMALE MAY HAVE BEEN BGWA
SY	M	UB	K	Y	M	S	Y	188047675	HEAVY	1	0	0	0	0	0		
SY	M	UB	L	B	L	S	Y	188047680	HEAVY	1	0	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
SY	M	95			S		Y		UNK	0	1	1	0	0	0		MALE WAS BANDED WHEN A HY
UNK	M	95	W	M	K	S	Y	191010779	UNK	0	1	0	0	0	0		
ASY	F	UB	O	W	G	S	Y	188047679	LIGHT	1	1	0	0	0	0		
ASY	F	UB	K	S	G	W	Y	188047676	LIGHT	1	0	0	0	0	0		
ASY	M	UNK	M		S		N		UNK								
SY	M	UB	B	S	Y	Y	Y	188047677	LIGHT	2	0	0	0	0	0		
ASY	F	UB	G	P	W	S	Y	188047678	LIGHT								
ASY	M	UB	K	M	G	S	Y	188047681	LIGHT	1	0	0	0	0	0		
SY	M	UB	L	S	W	L	Y	188047674	HEAVY	1	0	0	0	0	0		
UNK	M	UB							UNK	0	0	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	1	0		
UNK	M	UB							UNK	0	0	0	0	1	0		
ASY	M	95	G	S	B	Y	Y	191010777	UNK	0	0	1	0	0	0		UB MALE IN THIS AREA NOT PRESENT
UNK	M	UB							UNK	0	0	0	0	0	0		

UNK	M	UNK	P		S		Y	UNK	UNK	0	1	0	0	0	0	NAWA	BANDED MALE HAD ONLY 2 BANDS
SY	M	UB	P	O	S		Y	351089613	HEAVY	1	0	0	0	0	0		
ASY	M	94	L	S	L	B	Y	191010712	UNK	0	0	1	0	0	0	SUTA,NOCA	
SY	M	UB	P	S	B	W	Y	351089614		1	0	1	0	0	0	CEWA,RCKI,NOCA	
ASY	M	UB	S		O	G	Y	351089620		1	0	0	0	0	0		
SY	M	UB	K	S	B		Y	351089615	HEAVY	1	1	0	0	0	1		
ASY	M	UB	O	S	L	K	Y	351089616	LIGHT	1	0	0	0	0	0		
ASY	M	UB					Y	351089617	LIGHT	1	0	1	0	0	0	RCKI, BEWR, NAWA, RTHA	BIRD ESCAPED BEFORE COLOR-BANDED
SY	M	UB	W	P	S		Y	351089618	LIGHT	1	0	0	0	0	0		
ASY	M	UB	B	S	L	K	Y	351089619	LIGHT	1	2	0	0	0	0		
ASY	M	UB	Y	S	L	P	Y	188047671	LIGHT	1	0	0	0	0	2		
ASY	M	UB	W	K	K	S	Y	188047687	LIGHT	1	0	1	0	0	2		
ASY	M	UB	B	S	M	B	Y	351089646	LIGHT	1	0	1	0	0	0	BEWR,WEVI,NAWA	
SY	M	UB	M	W	K	S	Y	188047685	HEAVY	2	0	0	0	0	0		
SY	F	UB	S		Y	G	Y	188047684	HEAVY								WATCHED HER GATHERING NESTING MATERIAL FROM THE GROUND
UNK	M	UB							UNK	0	0	0	0	0	0		
ASY	M	93	M		B	S	Y	175091827	UNK	0	0	0	0	0	0		
ASY	M		Y	K	G	S	N		UNK	0	0	1	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		

UNK	M	UB							UNK	0	0	1	0	0	0	SCMA,BWWA,NAWA,TUTI	
SY	M	95	L	S	W	L	Y	188047674	UNK	1	1	1	0	0	0		MALE WAS BANDED NEAR ENTRANCE ON4/3/96
ASY	M	UB	S		P	Y	Y	188047686	HEAVY	1	0	1	0	0	1		
SY	M	95			S		Y		UNK	0	1	1	1	1	1		
ASY	M	95	W	S	P	G	Y	188047613	UNK	0	0	0	0	0	0		
SY	M	95			S		Y		UNK								MALE BANDED IN 95 WHEN A HY
ASY	M	96	K	S	B		Y	351069615	UNK	0	0	0	0	0	0		
ASY	M	95	W	S	P	G	Y	188047613	UNK	0	0	0	0	0	0	SUTA,NAWA,YRWA,BWWA	
SY	M	UB	P	S	K	O	Y	351089647	HEAVY	1	0	1	0	0	0		
ASY	M	UB	Y	S	G	K	Y	351089651	LIGHT	1	0	1	0	0	0	BWWA	
UNK	M	UNK	G	S			N		UNK								
UNK	M	96	W	S	B	K	N	351089648	UNK	0	1	1	0	0	0	BGGN,TUTI,CACH	
ASY	M	UB	B		P	S	Y	351089652	LIGHT	1	0	0	0	0	0		
UNK	M	UB							UNK	0	1	0	0	0	0		
SY	M	UB	Y	S	Y	L	Y	351089653	HEAVY	1	0	0	0	0	2	NOCA,CACH,CEWA	
UNK	M	UB							UNK	0	2	1	0	0	0		
SY	M	UB	P	K	S		Y	351089612	HEAVY	1	0	0	0	0	0		
SY	M	UB	L	S	W	B	Y	351089611	HEAVY	1	0	0	0	0	0		

SY	M	UB	B	S	M	W	Y	351089610	HEAVY	1	0	0	0	1	0		
ASY	M	94	R	P	M	S	N	191010725	UNK							ORIGINALLY THOUGHT THIS BIRD WAS RPMS BUT ASSUMMING MS DUE TO 94 MAP	COMBO POSSIBLY RWMS
ASY	M	UB	B	S	W	P	Y	351089608	UNK	1	0	0	0	0	0	BCHU,OCWA,RCKI,DGGN,LBWO	MALE SINGING SC AT 919
SY	M	UB	L	Y	O	S	Y	351089607	HEAVY	1	0	0	0	0	0		
SY	M	UB	O	L	S		Y	351089609	LIGHT	1	0	0	0	0	2		MALE SINGING NEARBY AT 911
UNK	M	UB							UNK	0	1	0	0	0	0	BGGN	
SY	M	UB	L	S	W	G	Y	351089606	UNK	1	0	0	0	0	1		
SY	M	UB	O	S	W		Y	351089605	UNK	1	0	0	0	0	0		
SY	M	UB	P	M	B	S	Y	351089604	HEAVY	1	0	0	0	0	0	TUTI,BCHU,WASP	
SY	M	UB	B	S	B	Y	Y	351089603	HEAVY	1	0	0	0	0	0		
ASY	M	UB	G	B	B	S	Y	351089602	LIGHT	1	0	0	0	0	0		
SY	M	UB	Y	P	P	S	Y	351089601	LIGHT	1	1	1	0	0	0	BLJA,SCJA	
UNK	M	UB							UNK	0	1	0	0	0	0		
UNK	M	UB							UNK	0	1	0	0	0	0	BCHU,BWWA	
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		

UNK	M	UB							UNK	0	0	0	0	0	0	CACH,COBU,RCKI,BGGN,COWA,HOWA,TUTI	
ASY	M	UB	M	S	P		Y	188047665	SLIGHT	1	0	0	0	0	0	RCKI,COHA,BLVU,	
ASY	M	UB	P	S	P	G	Y			1	1	0	0	0	0	RCKI,PLTI,CEWA,ROBIN	
UNK	M		M	S	P		Y		UNK	0	1	0	0	0	0		
SY	M	96	O	L	P	S	Y	182062554	UNK	0	0	1	4	0	0		NEST FOUND WITH 1-2 HYS STILL IN AND 2 HY FLEDGED WITHIN 8M OF NEST. SEE SHEET FOR MORE EXTENSIVE NOTES.
ASY	M	UB	Q	S	W	M	Y	182062562	LIGHT	1	0	0	0	0	0		
ASY	M	95	W	L	K	S	Y	188047839	UNK								
SY	M	UB	P	S	DG	P	Y	182062561	HEAVY	1	0	0	0	0	0	WEVI,NOCA	DARK GREEN BAND WAS USED IN PLACE OF ORANGE
SY	M	UB	K	S	L	DG	Y	182062560	HEAVY	1	0	0	0	0	1	WEVI	DARK GREEN BAND WAS USED IN PLACE OF RED.
ASY	M	UB	M		Y	S	Y	182062559	LIGHT	1	0	0	0	0	0		
ASY	M	UB	L	P	R	S	Y	182062558	LIGHT	1	0	0	0	0	0	REVI,WEVI,YBCU,PABU,NOCA,CAWR	
SY	M	UB	B	M	W	S	Y	182062557	HEAVY	1	0	0	0	0	0	NOCA,WEVI,CAWR	
SY	M	UB	Y	S	Y	K	Y	182062556	HEAVY	1	1	1	0	0	0	CAWR,NOCA	
ASY	M	UB	G	S	R	L	Y	182062555		1	1	0	0	0	0	WEVI	

ASY	M	UB	Y	S	W	P	Y	182062553	LIGHT	1	2	1	0	0	0		BIRD HIT THE NET HARD BUT WAS SEEN AFTER RELEASE.
ASY	M	UB	M	W	R	S	Y	182062552	LIGHT								
ASY	M	96	M	W	R	S	Y	182062552	LIGHT	1	0	0	0	0	0		
ASY	M	UB	G	S	W	G	Y	182062551	LIGHT	1	0	0	0	0	1		
SY	M	UB	O	L	P	S	Y	182062554	HEAVY	1	0	0	0	0	0	BWWA,PABU,NOCA, CAWR	
SY	F	UB	B	S	L	O	Y	182062563		1	1	1	0	1	0	BWWA,WEVI	UNK MALE HAD A WHITE BAND ON THE RIGHT LEG.
AHY	M	UB															
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	1	0	0	0	CACH,TUTI,NOCA	
UNK	M	UNK	Y	S	O	W	N		UNK								
UNK	M	UB							UNK	0	0	0	0	1	0		
UNK	M	UB							UNK	0	0	0	0	0	0		MALE BOUNCED OUT OF THE NET
UNK	M	UB							UNK	0	0	0	0	0	0		THIS BIRD MAY HAVE BEEN A BLACK-THROATED GREEN WARBLER.
ASY	M	95	P	S	L	L	Y	168047611	UNK								
UNK	M	96	K	M	G	S	Y		UNK								
UNK	M	UB							UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	0	0	0	0		
SY	M	UB	W	S	K	G	Y	351089654	HEAVY	1	0	0	0	0	0		
SY	M	95	P	L	W	S	Y	168047600	HEAVY	1	0	0	0	0	0		BIRD ALREADY HAD A SILVER BAND-HY FROM 1995.

ASY	M	UNK	W	S			Y		UNK	0	0	1	0	0	0		MALE HAD BANDS ONLY ON HIS LEFT LEG.
UNK	M								UNK	0	0	0	0	0	0		
UNK	M	UB							UNK	0	0	1	0	1	0		
ASY	M	UB	O	B	G	S	Y	351089650	LIGHT	1	0	0	0	0	0		
ASY	M	UB	W	S	Y	Y	Y	351089649	LIGHT	1	0	0	0	0	0		
ASY	M	UB	W	S	B	K	Y	351089648	LIGHT	1	0	0	0	0	0		
ASY	M	UB	M	P	B	S	Y	187062511	LIGHT	1	0	0	0	0	0		
ASY	M	UNK	W	S			Y		UNK	0	0	0	0	1	0		
ASY	M	95	G	S	B	Y	Y	191010777	UNK	0	1	0	0	0	0		
ASY	M	UB	P	S	P	K	Y	187062508	LIGHT	1	0	0	0	0	0		
UNK	M	UNK	Y	Y	R	S	N		UNK	0	0	0	0	0	0		MALE WAS HOLDING LEFT LEG CLOSE TO BODAY
SY	M	UB	Y	P	K	S	Y	182062513	HEAVY	1	0	0	0	0	0		TAIL WAS ASY PLUMAGE
SY	M	UB	L	S	Y	B	Y	182062514	HEAVY	1	0	0	0	0	0		MALE MAY BE OFF THE PROPERTY.
SY	M	UB	W	S	P	W	Y	182062515	HEAVY	1	0	0	0	0	0		MALE MAY BE OFF THE PROPERTY
SY	M	UB	O	M	Y	S	Y	182062516	HEAVY	1	0	0	0	0	0		MALE MAY BE OFF THE PROPERTY
SY	M	96	W	S	P	W	Y	182062515	HEAVY								
UNK	M	UB							UNK	0	0	0	0	0	0	BWWA,TUTI,MOWA	
SY	M	UB	O	S	B		Y	182062517	HEAVY	1	0	0	0	0	0		
SY	M	UB	L	S	P	P	Y	182062509	HEAVY	1	0	0	0	0	0		
SY	M	UB	K	S	G	O	Y	182062510	HEAVY	1	0	1	0	0	0		

UNK	M	UB						UNK	0	2	0	0	0	0		
UNK	M	UB						UNK	0	0	0	0	1	0		

COUNT	ID NUMBER	LEFT TOP	LEFT BOT	RIGHT TOP	RIGHT BOT	USFWS	DATE	TRACT	SETTING	LOCATION1	LOCATION2	LOCATION3	LOCATION4	SEX	ENCOUNTER TYPE
1	VH1	S	M		B	179091822	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE		M	CAPTURE
2	VH2		M	S	W	179091823	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	CAPTURE
3	VH2		M	S	W	179091823	12-Apr-94	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	RESIGHTING
3	VH2		M	S	W	179091823	12-Apr-95	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	NORTH SIDE	M	RESIGHTING
4	VH3	S	W		M	179091824	12-Apr-93	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	SOUTH SIDE	M	CAPTURE
5	VH3	S	W		M	179091824	12-Apr-94	Victoria	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	HORSE TRAIL	SOUTH SIDE	M	RESIGHTING
6	VH4	W	S		M	179091825	15-Apr-94	Victoria	UPLAND	SW FENCE	BETWEEN NEW GATE AND HORSE TRAIL			M	CAPTURE
7	VH5		M	S	B	179091826	16-Apr-93	Victoria	UPLAND	SOUTH CENTRAL	between horsetrail and Central Sendero.			M	CAPTURE
8	VH6		M	B	S	179091827	15-Apr-93	Victoria	UPLAND	Straight road south				M	CAPTURE
9	VH6		M	B	S	179091827	15-Apr-94	Victoria	UPLAND	MUD NORTH				M	RESIGHTING
10	VH6		M	B	S	179091827	16-Jun-95	Victoria	UPLAND	MUD NORTH				M	RECAPTURE
11	VH6		M	B	S	179091827	16-Apr-96	Victoria	UPLAND	MUD NORTH				M	RESIGHTING
12	VH7	S	B		M	179091828	20-Apr-93	Victoria	UPLAND	CENTRAL SOUTH	NEAR WELL			M	CAPTURE
13	VH8	O	S		M	179091829	20-Apr-93	Victoria	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPPOSITE CHIMNEY		M	CAPTURE
14	VH9	O	S		M	179091830	22-Apr-93	Victoria	UPLAND	Pauls Alley	North			M	CAPTURE
15	VH9	O	S		M	179091830	22-Apr-94	Victoria	UPLAND	Pauls Alley	North			M	RESIGHTING
16	VH9	O	S		M	179091830	22-Apr-95	Victoria	UPLAND	Pauls Alley	North			M	RECAPTURE
17	VH10	S	O		M	179091831	22-Apr-93	Victoria	HOLLOW	MASON HOLLOW	SOUTH SLOPE	at chimney.		M	CAPTURE
18	VH11	S	W		O	179091832	23-Apr-93	Victoria	HOLLOW	Golfball hollow				M	CAPTURE
19	VH11	S	W		O	179091832	23-Apr-94	Victoria	UPLAND	NORTH CENTRAL	GOLFBALL HOLLOW RD.			M	RESIGHTING
20	VH12	W	S		O	179091833	26-Apr-93	Victoria	HOLLOW	MASON HOLLOW	north slope	west of powerline		M	CAPTURE
21	VH13		O	S	W	179091834	27-Apr-93	Victoria	UPLAND	Horse triangle				M	CAPTURE
22	VH14	B	S		Y	179091835	1-May-93	Victoria	HOLLOW	Mason Hollow	north slope	west of powerline 200-300 m.		M	CAPTURE
23	VH15	W	S		Y	179091836	3-May-93	Victoria	HOLLOW	Mason Hollow	north slope	T8		M	CAPTURE
24	VH15	W	S		Y	179091836	3-May-94	Victoria	HOLLOW	Mason Hollow	north slope	T5-T6		M	RESIGHTING
25	VH16	S	W		Y	179091837	4-May-93	Victoria	UPLAND	Straight Road	South.			F	CAPTURE
26	VH17	B	S		G	179091838	4-May-93	Victoria	UPLAND	Pauls Alley	north.			F	CAPTURE
27	VH18	S	B		G	179091839	10-May-93	Victoria	UPLAND	Sinkhole territory				M	CAPTURE
27	VH18	S	B		G	179091839	10-May-94	Victoria	UPLAND	Sinkhole territory				M	RESIGHTING
28	VH19		G	B	S	179091840	11-May-93	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	CAPTURE
28	VH19		G	B	S	179091840	11-May-94	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	RESIGHTING

28	VH19		G	B	S	179091840	11-May-95	Victoria	HOLLOW	Mason Hollow	south slope	ST7		M	RESIGHTING
29	VH20		G	S	B	179091841	11-May-93	Victoria	HOLLOW	Mason Hollow	south slope	ST7		F	CAPTURE
30	VH21	W	S		G	179091842	13-May-93	Webster	HOLLOW	Hawks Nest Hollow	South slope.			M	CAPTURE
30	VH21	W	S		G	179091842	13-May-93	Webster	BOTTOM	Hawks Nest Hollow	THICKET OF DOOM			M	RESIGHTING
31	VH22	S	W		G	179091843	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Fork.			M	CAPTURE
32	VH23		Y	W	S	179091844	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Fork			M	CAPTURE
33	VH24	W	S		O	179091846	14-May-93	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	CAPTURE
33	VH24	W	S		O	179091845	14-May-94	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	RESIGHTING
33	VH24	W	S		O	179091845	18-May-95	Webster	HOLLOW	Hawks Nest Hollow	South Slope			M	RECAPTURE
34	VH25	S	B		Y	179091846	17-May-93	Webster	HOLLOW	Hawks Nest Hollow	Hanging Rock Spring.			M	CAPTURE
35	VH26		Y	B	S	179091847	18-May-93	Webster	HOLLOW	East Middle Hollow	North Fork	South Slope.		M	CAPTURE
36	VH27		Y	S	B	179091848	18-May-93	Webster	HOLLOW	East Middle Hollow	North Fork	North Slope.		M	CAPTURE
37	VH28	B	S		O	179091849	20-May-93	Webster	HOLLOW	Hawks Nest Hollow	Thicket of Doom.			M	CAPTURE
38	VH29		Y	S	W	179091850	21-May-93	Webster	BOTTOM	Hawks Nest Hollow	Bottomland Harwood Forest	Upstream from road.		M	CAPTURE
39	VH30		G	W	S	179091851	21-May-93	Webster	BOTTOM	Hawks Nest Hollow	Bottomland Harwood Forest	Downstream from road.		M	CAPTURE
40	VH31		G	S	W	179091852	24-May-93	Webster	HOLLOW	Barnes Hollow	South Slope.			M	CAPTURE
41	VH32	S	B		O	179091853	25-May-93	Webster	HOLLOW	Barnes Hollow	JCT. of Forks @ CK.			M	CAPTURE
42	VH33	S	W		O	179091854	25-May-93	Webster	HOLLOW	Barnes Hollow	North Fork	North Slope		M	CAPTURE
42	VH33	S	W		O	179091854	25-May-96	Webster	HOLLOW	Barnes Hollow	North Fork	North Slope		M	RESIGHTING
43	VH34	O	S		Y	179091855	26-May-93	Webster	HOLLOW	Barnes Hollow	North Slope			M	CAPTURE
43	VH34	O	S		Y	179091855	26-May-94	Webster	HOLLOW	Barnes Hollow	North Slope			M	RESIGHTING
44	VH35	O	S		G	179091856	27-May-93	Webster	UPLAND	POST OAK RIDGE	at hardwood savanna.			M	CAPTURE
45	VH36		O	B	S	179091857	28-May-93	Webster	UPLAND	POST OAK RIDGE	between central hollows	West of fence.		M	CAPTURE
46	VH37		Y	S	B	179091858	28-May-93	Webster	HOLLOW	East Central Hollow	North Fork	North Slope.		F	CAPTURE
47	VH38	G	S		O	179091859	1-Jun-93	VICTORIA	HOLLOW	North Hollow	South Slope.			F	CAPTURE
47	VH38	G	S		O	179091859	24-Apr-96	VICTORIA	HOLLOW	North Hollow	South Slope.			F	RESIGHTING
48	VH39	M	S		Y	179091860	3-Jun-93	WEBSTER	HOLLOW	Hawks nest hollow	North Fork	North Slope.		M	CAPTURE
49	VH40		O	S	B	179091861	6-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE

60	VH41	S	M		Y	179091862	6-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
50	VH41	S	M		Y	179091862	6-Jun-94	WEBSTER	HOLLOW	BARNES HOLLOW	WEST SLOPE			M	RESIGHTING
51	VH42	S	O		G	179091863	7-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
52	VH43	S	O		Y	179091864	8-Jun-93	WEBSTER	HOLLOW	SOUTH HOLLOW	SOUTH SLOPE.			M	CAPTURE
52	VH43	S	O		Y	179091864	8-Jun-94	WEBSTER	HOLLOW	SOUTH HOLLOW	SOUTH SLOPE.			M	RESIGHTING
53	VH44	Y	S		G	179091865	9-Jun-93	VICTORIA	HOLLOW	NORTH HOLLOW	EAST CORNER			M	CAPTURE
54	VH45	G	S		Y	179091866	16-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD.		F	CAPTURE
55	VH47	S	G		Y	179091867	16-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD.		M	CAPTURE
56	VH46	M	S		G	191009901	17-Jun-93	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH FORK	NORTH SLOPE.		F	CAPTURE
57	VH48	M	S		O	191009902	17-Jun-93	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH FORK	WEST SLOPE.		F	CAPTURE
58	VH49		O	M	S	191009903	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
59	VH50	Y	S		O	191009904	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			M	CAPTURE
60	VH51		O	Y	S	191009905	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			M	CAPTURE
61	VH52	S	M		O	191009906	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
62	VH53					191009907	17-Jun-93	WEBSTER	UPLAND	NORTH HARDWOOD				M	CAPTURE
63	VH54					191009908	17-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
64	VH55					179091868	22-Jun-93	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA.			F	CAPTURE
65	FH80	M	S	Y	Y	191011070	5-Apr-94	VICTORIA	UPLAND	STRAIGHT ROAD				M	CAPTURE
66	FH51	R	PK	G	S	191010704	6-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH FORK	NORTH SLOPE.		M	CAPTURE
67	FH52	W	W	R	S	191010705	6-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE.		M	CAPTURE
67	FH52	W	W	R	S	191010705	11-May-95	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	NORTH SLOPE.		M	RESIGHTING

68	FH65	Y	M		S	191010703	7-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	WEST OF POWERLINE.		M	CAPTURE
69	FH53	BK	S	PK	W	191010706	8-Apr-94	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	SOUTH ROAD		M	CAPTURE
70	FH61	PK	M		S	191010751	8-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	EAST OF POWERLINE.		M	CAPTURE
70	FH61	PK	M		S	191010761	1-May-95	VICTORIA	HOLLOW	MASON HOLLOW	N. SLOPE	EAST POWERLINE		M	RECAPTURE
71	FH62	M	S	G	O	191010752	8-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINE		M	CAPTURE
72	FH64	M	S	R	PK	191010753	8-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	EAST OF POWERLINE		M	CAPTURE
72	FH64	M	S	R	PK	191010753	9-May-95	VICTORIA	BOTTOM	HOLLOW	NORTH SLOPE	EAST OF POWERLINE		M	RESIGHTING
73	FH54	G	S	BK	W	191010707	12-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	HEAD	WEST SLOPE.		M	CAPTURE
74	FH55	BK	S	O	M	191010708	12-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
75	FH67	PK	S	L	B	191010754	12-Apr-94	VICTORIA	UPLAND	SOUTH CENTRAL	WEST END	HORSETRAIL		M	CAPTURE
76	FH68	L	G	L	S	191010755	12-Apr-94	VICTORIA	HOLLOW	COLLIER HOLLOW	HEAD	SOUTH SLOPE		M	CAPTURE
77	FH56	B	S	G	PK	191010709	13-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH SLOPE			M	CAPTURE
78	FH57	B	W	L	S	191010710	13-Apr-94	WEBSTER	HOLLOW	BARNES HOLLOW	NORTH SLOPE			M	CAPTURE
79	FH58	R	L	G	S	191010711	13-Apr-94	WEBSTER	UPLAND	POST OAK RIDGE	WEST SLOPE	ABOVE WEST CENTRAL HOLLOW		M	CAPTURE
80	FH59	L	S	L	B	191010712	15-Apr-94	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	BOTTOMLAND HARDWOODS	NEAR 94 COOPERS HAWK NEST.		M	CAPTURE
81	FH69	Y	W	Y	S	191010756	15-Apr-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	WEST OF POWERLINE		M	CAPTURE
82	FH60	B	S	G	BK	191010713	18-Apr-94	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	BOTTOMLAND HARDWOODS	NEAR 93 COOPERS HAWK NEST.		M	CAPTURE
83	FH81	L	S	W	O	191010714	18-Apr-94	WEBSTER	HOLLOW	HAWKS NEST	BOTTOM	DOWNSTREAM FROM ROAD.		M	CAPTURE
84	FH70	W	S	R	R	191010757	19-Apr-94	VICTORIA	HOLLOW	MASON HOLLOW	BOTTOM BELOW CHIMNEY			M	CAPTURE
84	FH70	W	S	R	R	191010757	19-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	BOTTOM BELOW CHIMNEY			M	RESIGHTING

85	FH71	M	S	BK	G	191010758	19-Apr-94	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	CAPTURE
85	FH71	M	S	BK	G	191010758	19-Apr-95	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	RESIGHTING
85	FH71	M	S	BK	G	191010758	19-Apr-96	VICTORIA	HOLLOW	MASON	SOUTH SLOPE	NORTH OF EAST SENDERO.		M	RESIGHTING
86	FH83	M	L	Y	BK	191010715	20-Apr-94	WEBSTER	HOLLOW	EAST CENTRAL	NORTH FORK	NORTH SLOPE		F	CAPTURE
86	FH83	M	L	Y	BK	191010715	26-May-95	WEBSTER	HOLLOW	CENTRAL EAST	BOTTOM			F	RESIGHTING
87	FH85	BK	S	R	L	191010717	21-Apr-94	WEBSTER	HOLLOW	HAWKS NEST	SOUTH SLOPE	NEAR RD. JCT.		M	CAPTURE
88	FH86	W	BK	PK	S	191010718	22-Apr-94	WEBSTER	HOLLOW	NORTHWEST	SOUTHEAST SLOPE.			M	CAPTURE
89	FH73	PK	S	L	BK	191010759	3-May-94	VICTORIA	UPLAND	CENTRAL CENTRAL	NORTH			M	CAPTURE
90	FH74	O	S	L	Y	191010760	3-May-94	VICTORIA	UPLAND	CENTRAL WEST	SOUTHEAST CORNER			M	CAPTURE
90	FH74	O	S	L	Y	191010760	3-May-95	VICTORIA	UPLAND	CENTRAL WEST	SOUTHEAST CORNER			M	RESIGHTING
91	FH75	Y	L	Y	S	191010761	3-May-94	VICTORIA	UPLAND	CENTRAL SOUTH	NEAR SE SENDERO.			M	CAPTURE
92	FH78	G	W	BK	S	191010762	3-May-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	SE FENCE.		M	CAPTURE
93	FH79	BK	S	BK	B	191010763	3-May-94	VICTORIA	HOLLOW	COLLIER	NORTH SLOPE	EAST OF POWERLINE		M	CAPTURE
94	FH88	W	S	G	G	191010720	3-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE.			M	CAPTURE
95	FH90	G	S	Y	W	191010721	3-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE.			M	CAPTURE
96	FH77	O	B	Y	S	191010702	4-May-94	VICTORIA	UPLAND	STRAIGHT ROAD	NORTHEAST.			M	CAPTURE
96	FH77	O	B	Y	S	191010702	4-May-95	VICTORIA	UPLAND	STRAIGHT ROAD	NORTHEAST.			M	RESIGHTING
97	FH82	M	S	R	L	191010723	4-May-94	WEBSTER	HOLLOW	NORTHWEST	NW SLOPE			M	CAPTURE
98	FH89		S	M	G	191010722	4-May-94	WEBSTER	HOLLOW	NORTHWEST	EAST SLOPE			M	CAPTURE
99	FH151	Y	BK	R	S	191010719	6-May-94	WEBSTER	HOLLOW	HAWKS NEST	NORTH SLOPE.			M	CAPTURE
100	FH161	PK	M	Y	S	191010764	6-May-94	VICTORIA	HOLLOW	NW HOLLOW	LOOP ROAD.			M	CAPTURE
101	FH162	W	L	O	S	191010765	6-May-94	VICTORIA	BOTTOM	NORTH BOTTOM	BELOW LOOP RD.			M	CAPTURE
102	FH163	O	Y	M	S	191010766	9-May-94	VICTORIA	HOLLOW	GOLFBALL				M	CAPTURE
102	FH163	O	Y	M	S	191010766	9-May-95	VICTORIA	HOLLOW	GOLFBALL				M	RESIGHTING
103	FH164	PK	Y	W	S	191010767	10-May-94	VICTORIA	UPLAND	SECOND GROWTH	WEST BETWEEN PAULS ALLEY AND STRAIGHT ROAD,PAULS			M	CAPTURE
104	FH167	BK	S	L	PK	191010766	11-May-94	VICTORIA	HOLLOW	NORTH HOLLOW	NE FENCE			M	CAPTURE

105	FH168	L	S	O	W	191010769	11-May-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	CAPTURE
105	FH168	L	S	O	W	191010769	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	T6			M	RECAPTURE
106	FH169	M	O	G	S	191010770	11-May-94	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	CAPTURE
106	FH169	M	O	G	S	191010770	11-May-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	OPP. CHIM.		M	RESIGHTING
107	FH152	PK	S	R	PK	191010724	25-May-94	WEBSTER	UPLAND	POST OAK RIDGE	NORTHWEST HOLLOW	NEAR RIMROCK.		M	CAPTURE
108	FH153	R	PK	M	S	191010725	26-May-94	WEBSTER	HOLLOW	NORTH SLOPE	WEST OF FENCE	WEST OF RD.		M	CAPTURE
108	FH153	R	PK	M	S	191010725	26-May-95	WEBSTER	HOLLOW	NORTH SLOPE	WEST OF FENCE	WEST OF RD.		M	RECAPTURE
109	FH156		S	L	O	191010726	15-Jun-94	WEBSTER	HOLLOW	SOUTHWEST	NORTH SLOPE.			M	CAPTURE
110	FH157	O	S	M	B	191010727	15-Jun-94	WEBSTER	HOLLOW	SOUTHWEST	NORTH SLOPE.			F	CAPTURE
111	FH158	O	S	L	W	191010728	20-Jun-94	WEBSTER	HOLLOW	WEST CENTRAL	SOUTH SLOPE.			F	CAPTURE
112	FH165	Y	S	PK	Y	191010771	24-Jun-94	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
112	FH165	Y	S	PK	Y	191010771	20-Apr-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	RECAPTURE
113	FH191	O	BK	PK	S	191010730	13-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NT5-NT6		M	CAPTURE
114	FH192	M	M	O	S	191010731	13-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NT6-NT7		M	CAPTURE
115	FH193	Y	G	PK	S	191010732	14-Mar-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
116	FH194	W	PK	B	S	191010733	17-Mar-95	WEBSTER	HOLLOW	SOUTHWEST	WEST SLOPE			M	CAPTURE
117	FH195	R	R	PK	S	191010734	20-Mar-95	VICTORIA	HOLLOW	SINKHOLE HOLLOW	SOUTH RIMROCK			M	CAPTURE
118	FH196	M	Y		S	191010735	21-Mar-95	WEBSTER	HOLLOW	NW HOLLOW	EAST SLOPE			M	CAPTURE
119	FH197	BK	S	R	R	191010736	21-Mar-95	WEBSTER	HOLLOW	NW HOLLOW	SE SLOPE			M	CAPTURE
120	FH198	L	S		R	191010737	22-Mar-95	VICTORIA	UPLAND	CENTRAL EAST				M	CAPTURE
121	FH199	Y	S	PK	L	191010738	22-Mar-95	VICTORIA	UPLAND	STRAIGHT ROAD				M	CAPTURE
122	FH200	O	M	O	S	191010739	23-Mar-95	VICTORIA	HOLLOW	NORTH HOLLOW				M	CAPTURE
123	FH361	BK	Y	B	S	191010740	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
124	FH362	L	S	BK	Y	191010741	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
125	FH363	G	S	B	W	191010742	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
126	FH365	W	G	PK	S	191010743	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
127	FH364	G	S	M	M	191010744	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				F	CAPTURE
128	FH366	O	S	O	M	191010745	24-Mar-95	WEBSTER	UPLAND	WEST PLATEAU				M	CAPTURE
129	FH367		S	B	B	191010746	27-Mar-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW	EAST SLOPE		M	CAPTURE
130	FH368	W	M	Y	S	191010747	30-Mar-95	VICTORIA	HOLLOW	NW HOLLOW	LOOP ROAD			M	CAPTURE
131	FH369	W	S	BK	W	191010748	30-Mar-95	VICTORIA	UPLAND	CENTRAL CENTRAL				M	CAPTURE
132	FH370	BK	BK	PK	S	191010749	3-Apr-95	WEBSTER	HOLLOW	SW HOLLOW	NORTH SLOPE	SOUTH SOUTH ROAD		M	CAPTURE

133	FH374	L	BK	L	S	191010772	3-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE HOLLOW	EAST OF HAWKS NEST HOLLOW ROAD			M	CAPTURE
134	FH371	Y	S	M	BK	191010774	4-Apr-95	VICTORIA	UPLAND	CENTRAL SOUTH	ABOVE HORSETRAIL			M	CAPTURE
135	FH372		S	M	BK	191010775	6-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINES		F	CAPTURE
136	FH373	M	S	PK	Y	191010776	6-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH SLOPE	EAST OF POWERLINES		M	CAPTURE
137	FH375	G	S	B	Y	191010777	6-Apr-95	VICTORIA	HOLLOW	COLLIER HOLLOW	NORTH SLOPE	WEST OF POWERLINE		M	CAPTURE
138	FH376	L	G	Y	S	191010778	6-Apr-95	VICTORIA	UPLAND	CENTRAL WEST	OLD MAIN GATE VICINITY			M	CAPTURE
139	FH377	W	M	BK	S	191010779	6-Apr-95	VICTORIA	UPLAND	CENTRAL SOUTH	ABOVE HORSETRAIL			M	CAPTURE
140	FH378	PK	S		Y	191010781	7-Apr-95	WEBSTER	HOLLOW	CENTRAL EAST	NORTH SLOPE			F	CAPTURE
141	FH379	M	M	W	S	191010782	7-Apr-95	WEBSTER	HOLLOW	CENTRAL EAST	NORTH SLOPE			M	CAPTURE
142	FH380	BK	S	L	M	191010783	8-Apr-95	3M	UNK					M	CAPTURE
143	FH521	W	S	M	B	191010784	10-Apr-95	VICTORIA	UPLAND	STRAIGHT ROAD SOUTH	ALONG RD TO WELL			M	CAPTURE
144	FH522	L	M	G	S	191010785	11-Apr-95	WEBSTER	UPLAND	WEST PLATEAU	SW QUARTER			M	CAPTURE
145	FH523	W	G	W	S	191010786	12-Apr-95	VICTORIA	UPLAND	AT WELL				M	CAPTURE
146	FH524	M	M	R	S	191010787	12-Apr-95	VICTORIA	UPLAND	STRAIGHT SOUTH	ALONG RD. TO WELL			F	CAPTURE
147	FH525	B	S	BK	PK	191010788	12-Apr-95	VICTORIA	UPLAND	MASON HOLLOW SOUTH CENTRAL				M	CAPTURE
148	FH526	Y	S	B	PK	191010789	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	AT HANGING ROCK SPRINGS			M	CAPTURE
149	FH528	W	PK	O	S	191010790	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST	NORTH SLOPE	NORTH FORK		M	CAPTURE
150	FH529	L	W	G	S	191010791	14-Apr-95	WEBSTER	HOLLOW	HAWKS NEST HOLLOW	HANGING ROCK SPRING	ABOVE RD. JCT		M	CAPTURE
151	FH527	Y	S	L	O	191010792	15-Apr-95	3M	UNK					M	CAPTURE
152	FH530	O	PK	O	D	191010793	15-Apr-95	3M	UNK					M	CAPTURE
153	FH511	O	S	G	R	191010794	17-Apr-95	WEBSTER	HOLLOW	NW HOLLOW	NW SLOPE			M	CAPTURE
154	FH513	PK	W	M	S	191010795	17-Apr-95	WEBSTER	HOLLOW	NW HOLLOW	EAST SLOPE			M	CAPTURE
155	FH515	L	R	O	S	191010796	18-Apr-95	VICTORIA	BOTTOM	COLLIER HOLLOW	NEAR POND			M	CAPTURE
156	FH512	B	S	G	O	191010797	19-Apr-95	WEBSTER	HOLLOW	CENTRAL WEST	EAST SLOPE			M	CAPTURE
157	FH514	O	S	L	G	191010798	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	NT8		M	CAPTURE
158	FH516	W	PK	G	S	191010799	20-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	NT7		M	CAPTURE

159	FH84	M	L	PK	S	191010716	20-Apr-95	WEBSTER	HOLLOW	EAST CENTRAL	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
160	FH517	O	S	O	L	191010800	21-Apr-95	VICTORIA	HOLLOW	COLLIER HOLLOW	SOUTH SLOPE			M	CAPTURE
161	FH518	PK	S	L	L	188047611	24-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	HEAD OF HOLLOW		M	CAPTURE
162	FH519	G	BK	R	S	188047612	24-Apr-95	VICTORIA	HOLLOW	MASON HOLLOW	N SLOPE	CHIM TRANSECT		M	CAPTURE
163	FH520	W	S	PK	G	188047613	25-Apr-95	WEBSTER	HOLLOW	HAWKS NEST	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
164	FH531	O	S	B	Y	188047614	25-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE	W RD JCT			M	CAPTURE
165	FH532	M	S	W	L	188047615	25-Apr-95	WEBSTER	HOLLOW	SOUTH SLOPE	EAST SLOPE			M	CAPTURE
166	FH533	L	S	Y	R	188047616	27-Apr-95	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	UPSTREAM FROM RD XING			M	CAPTURE
167	FH534	Y	M	Y	S	188047617	27-Apr-95	WEBSTER	BOTTOM	HAWKS NEST HOLLOW	UPSTREAM FROM RD XING.			M	CAPTURE
168	FH535	R	S	L	L	188047618	1-May-95	VICTORIA	UPLAND	STRAIGHT RD.	NEAR WELL			M	CAPTURE
169	FH536	L	S	PK	M	188047619	2-May-95	WEBSTER	HOLLOW	SW HOLLOW	EAST SLOPE			M	CAPTURE
170	FH537	R	PK	PK	S	188047620	3-May-95	VICTORIA	HOLLOW	COLLIER HOLLOW	N SLOPE	NEAR SE FENCE		M	CAPTURE
171	FH538	R	W	L	S	188047621	3-May-95	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW			M	CAPTURE
171	FH538	R	W	L	S	188047621	3-May-96	VICTORIA	HOLLOW	MASON HOLLOW	SOUTH HOLLOW			M	RESIGHTING
172	FH539	O	S	B	O	188047622	4-May-95	VICTORIA	UPLAND	SOUTH CORNER				M	CAPTURE
173	FH540	W	G	M	S	188047623	4-May-95	VICTORIA	UPLAND	SOUTH CORNER				M	CAPTURE
174	FH651		S	O	M	188047624	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	NORTH SLOPE		M	CAPTURE
175	FH652	W	G	BK	S	188047625	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
176	FH653	G	S	BK	L	188047626	5-May-95	WEBSTER	HOLLOW	CENTRAL EAST	SOUTH FORK	SOUTH SLOPE		M	CAPTURE
177	FH654	M	S	M	L	188047627	9-May-95	VICTORIA	HOLLOW	MASON HOLLOW	NORTH SLOPE	NEAR SE FENCE		M	CAPTURE
178	FH655	G	S		G	188047628	10-May-96	WEBSTER	UPLAND	NORTH UPLAND	SW SECTION	WEST OF FENCE		M	CAPTURE
179	FH657	M	S	L	M	188047631	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
180	FH656	Y	PK	R	S	188047629	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
181	FH658	W	L	BK	S	188047630	12-May-95	WEBSTER	HOLLOW	BARNES HOLLOW	SOUTH SLOPE			M	CAPTURE
182	FH659	PK	S	W	M	188047632	16-May-95	WEBSTER	HOLLOW	NW HOLLOW	N SLOPE			M	CAPTURE
183	FH660	M	BK	O	S	188047633	24-May-95	VICTORIA	HOLLOW	GOLFBALL	SOUTH SLOPE			M	CAPTURE
184	FH661	BK	S	BK	Y	188047634	24-May-95	VICTORIA	UPLAND	NORTH CENTRAL				M	CAPTURE
185	FH662	W	S	G	Y	188047635	30-May-95	WEBSTER	UPLAND	NW PLATEAU	NORTH GATE			M	CAPTURE
186	FH663	BK	S	W	W	188047636	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
187	FH664	B	B	L	S	188047637	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
188	FH665	B	S	W	M	188047638	31-May-95	WEBSTER	HOLLOW	SOUTH SLOPE				M	CAPTURE
189	FH666	W	S	PK	M	188047639	2-Jun-95	WEBSTER	BOTTOM	WEST CENTRAL	AT CK.			M	CAPTURE
190	FH667	L	S		M	188047640	16-Jun-95	VICTORIA	UPLAND	STRAIGHT ROAD	STRAIGHT RD MEADOW			F	CAPTURE
191	FH668	O	S	PK	Y	188047641	16-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	EAST END			M	CAPTURE

192	FH669	PK	S		G	188047642	20-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	EAST END			M	CAPTURE
193	FH670	W	Y	B	S	188047643	21-Jun-95	VICTORIA	MEADOW	SINKHOLE				F	CAPTURE
194		W	S	L	G	188047644	21-Jun-95	VICTORIA	MEADOW	SINKHOLE				M	CAPTURE
195		BK	S	Y	B	188047645	21-Jun-95	VICTORIA	MEADOW	SINKHOLE				M	CAPTURE
196		M	R	R	S	188047646	21-Jun-95	VICTORIA	UPLAND	STRAIGHT RD.	NE WOODLOT			M	CAPTURE
197			S	B	R	188047647	22-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
198		Y	L	PK	S	188047648	23-Jun-95	VICTORIA	UPLAND	SINKHOLE RD.				F	CAPTURE
199		PK	S	G	BK	188047649	23-Jun-95	VICTORIA	UPLAND	SINKHOLE RD.				M	CAPTURE
200		PK	S		PK	188047650	26-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
201		O	S	PK	L	188047657	26-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
202		L	S	R	M	188047658	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
203		M	R	B	S	188047659	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
204		B	S	W	L	188047660	28-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
205		W	S	M	PK	188047661	29-Jun-95	VICTORIA	UPLAND	HORSE TRIANGLE				M	CAPTURE
206		R	M		S	188047662	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
207		O	O	G	S	188047663	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			F	CAPTURE
208		M	S	B	R	188047664	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
209			S	L	BK	188047665	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
210					S	188047666	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			M	CAPTURE
211					S	188047667	29-Jun-95	WEBSTER	UPLAND	POST OAK RIDGE	NORTH HARDWOOD SAVANNA			UNK	CAPTURE

212		BK	R	BK	S	188047668	17-Jul-95	VICTORIA	HOLLOW	COLLIER	HEAD	NORTH SLOPE		F	CAPTURE

SITE	REGION	POINT	LOCATION DESCRIPTION	DATE	TIME	OBSERVERS	EVENT	TEMP F	WIND MPH	CLOUD %	PRECIP MM	HUMIDITY %	OBSERVATION PD START	OBSERVATION PD END	SET TING	VEGETATION	CANOPY DATA DOM NANCE	COVER	SHARP	CLEARING	WATER	MARGIN	WATER	TOT.MALE GOW	BAND COMBO MALE	YEAR BANDED	#	USFWS #	TOT.FEMALE GOW	BAND COMBO FEMALE	YEAR BANDED	#	USFWS #	TOT HY GPS/DIST
Victoria	MHN	8	NNE of Mason Hollow	12/3/97	1400	KR,KT	2	70	10	20	0		1410	1405	3	1	3	1	1	2	4	3	3	1	KS/YL	1990		1820-02519						
Victoria	Pauls Alley	5	on W. side of alley	24/3/97	740	DH,DS,KR	2	80	5-10	95	TRACE		730	740	3	1	3	1	4	1	UNK	3	UNK	1	YS/YL	1995	196	1910-10738	0	NA				
Victoria	Straight Road	5,6	south side	24/3/97	827	DS,KR,DH	2,3	62	7	00%	TRACE		750	830	3	1	3	2	3	1	UNK	3	UNK	1	KY/AMgS	*1995	704	1820-47675	1	UB				
Victoria	Hour-shaped road		at bottom of hill/road-territory on other side of fence	24/3/97	905	DH,KR,DS	2	65	10	00%	TRACE		850	905	2	1	3	3	1	1	1	3	3	1	WL/US	1964	102	1910-10765	0					
Victoria	Dell hall Hollow		Uplands to the south	24/3/97	955	DH,KR,DS	2	65	10	85%	TRACE		950	1000	3	1	3	2	2	2	UNK	2	UNK	1	WL/US	1964		1910-10765	0					
Victoria	Sinkhole Upland	2,3	at sinkhole	24/3/97	1154	KR,DS,DH	1	77	5-10	20	TRACE		1125	1200	3	1	3	2	1	3	UNK	2	UNK	2	YS/O-RO-G	1997		1820-62526	0	NA				
Victoria	Collin's Hollow	1	North rim	24/3/97	1043	DH,DS,KR	1	60	15-20	20	TRACE		1335	1350	4	1	3	1	1	1	2	2	3	2	OD-GN/OR + UNK	1997		1820-62527	0	NA				
Victoria	Mason Hollow South	8	in large wide drainage to Mason	20/3/97	800	KR,DS	1,3	63	5 TO 10	5	40-50		750	800	4	1	3	1	1	2	2	1,8-known times	3	2	RO-R/WS	1997		1820-62526	1	UB				
Victoria	Mason Hollow South	9	end of Mason Hollow (beneath power lines just east of access road)	26/3/97	1113	DS,KR	1	85	10 TO 15	5	40-50		1100	1115	4,5-first sited on carry on slope, not up net on ascep	1	3	1	1	1	2	3	3	1	RO-R/WS	1997		1820-62529	0					
Victoria	Mason Hollow South	6	south-facing slope, mid Mason Hollow	26/3/97	1010	KR,DS	6	70	5	10	40-50		940	1045	1,4	1	3	2	1	1	1	2	3	1	UB	NA								
Victoria	Mason Hollow South	6	small hollow to south, at mid Mason	26/3/97	1050	KR,DS	7-observation of male	70-72	5 TO 10	15	40-50		1025	1055	1,4	1	3	1	1	3	2	2	3	1	UNK	NA								
Victoria	Mason Hollow South	1	upper Mason Hollow, NW facing slope	26/3/97	1207	KR,DS	1	72	10 TO 15	15	40-50		1215	1237	1,4	1	3	2	1	2	2	2	3	1	YS/WG	1997		1820-02530						
Victoria	Mason Hollow South	1	upper Mason Hollow, N. facing slope	26/3/97	1320	KR,DS	1	73	15 GUSTI NG	15	40-50		1314	1328	4	1	3	2	1	2	2	3	3	1	D-OS/WD-G	1997		1820-02531	0					
Victoria	Mason Hollow North	1	mouth of Mason Hollow	26/3/97	1419	KR,DS	6	75	10	20	40-50		1400	1430	3	1	3	2	1	1	3	2	3	1	UB	NA								
Victoria	S.Central Upland	8	middle Mason road-west side	26/3/97	1440	KR,DS	7-direction of male	75	10	25	40		1430	1432	3	1	3	2	2	1	4	3	2	1	UNK	NA								
Victoria	Collier Head/Horse Trail	3,4	in clearing/canyon heads on north facing slope	31/3/97	845	DS,KR	2,3	68	5	100	0		810	845	1,2	2	3	3	1	1	1	2	3	1	OK/PS	1995		1910-10730	1	UB				
Victoria	Collier Head	7	on north-facing slope close to fence, at head of clearing beginning on south-facing side	31/3/97	941	KR,DS	1	70	5 TO 10	100	0		912	931	1,2	3	3	1	1	2	2	3	2	YS/OG	1997		1820-62532	0					
Victoria	South Corner	5	first cyn. SW fence S of rd. on N-facing slope	31/3/97	1027	KR,DS	2	72	5	90	0		1015	1027	1	1	3	2	1	1	1	3	3	1	GS/YO	1996	1100	1820-62523	0					
Victoria	South Upland	8	along SW fence, end of Collier Hollow, north-facing slope	31/3/97	1211	DS,KR	2,8	83	10	100	0		1121	1138	4	1	3	1	1	1	2	2	3	4	RP/PB; UB	1996		1820-47620	0					
Victoria	Mason North	11	powerlines eastern corner at intersection with norm mason road	31/3/97	1400	KR,DS	1	70	5 TO 10	100	0		1345	1405	1	1	3	3	3	1	3	3	3	1	UB	NA			0					
Victoria	Pauls Alley	2	NNE of point 2	7/4/97	901	KR, DS	1	60	15	75			1400	901	1	1	3	2	1	1	2	3	3	1	UB	NA			1	UB				
Victoria	Hour-shaped road	hour 3	next to fence/territory outside of property to NNE	7/4/97	940	KR,DS	3,6	70	5 TO 10	50			940	1010	1	1,2	3	2	1	1	UNK	3	UNK	1	UB	NA			1	UB				
Victoria	Straight Road	4		7/4/97	1201	KR,DS	3,6	75	7	15	0		1140	1201	3	1	3	2	4	1	6	2	3	1	UB	NA			1	UB				
Victoria	Mason Hollow North	2	rim of clearing (NNW of canyon)	7/4/97	840	KR,DS	3,6	60	<5	100	drizzle		840	905	3	1	3	3	1	1	1	2	3	2	UB	NA			1	UB				
Victoria	Mason Hollow North	8	N. facing slope next to waterfall	7/4/97	1220	KR,DS	1	70	10	100	drizzle		1157	1220	1	1	3	1	1	3	3	3	3.5-water fall	1	D-OS/O-GP	1997		1820-62533	0					
Victoria	Mason Hollow North	12/13	side trail off main EW trail, between 12 and 13	7/4/97	1400	KR,DS	3,6	68	<5	100	drizzle		1318	1400	1	1	3	2	1	1	3	4	3	2	UB	NA			1	UB				
Victoria	Mason South	11	along NS fence	7/4/97	1425	KR,DS	6	68	<5	100	fence		1415	1450	3	1	3	2	1	1	4	3	3	1	UB	NA			0					

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Victoria	S.Upland/N Collier	7	right past powerlines on S side of road	8/4/97	949	KR,DS	6	52	5-10	100	trace		920	859	3	1	3	2	4	1	UNK	3	UNK	1	UB	NA			0		
Victoria	N.Hollow/Golfball	7/8	W side of road	9/4/97	1149	KR,DS	2	50	5-10	100	0		1121	1145	1	1	3	1	1	1	1	3	3	1	Mg/W/KS	1996	839	1830-47585	0		
Victoria	N.Hollow/Golfball	3/8	scarp facing south next to road	9/4/97	1417	KR,DS	3,6	60	<5	100	0		1320	1415	4	1	3	1	1	1	3	3	3	1	UB	NA			1	UB	
Victoria	Old Main Gate		cleared woods to right (E) just before gutted out part of road and barn (S of barn)	10/4/97	800	KR,DS	3,6	55	7	100	minimal		750	810	3	1	3	1	5	1	1	2	S-puddle in road where jeep drives through	1	UB	NA			1	UB	
Victoria	Straight Road	7	NNE of sampling point 7	10/4/97	843	KR,DS	3,6	55	5-10	100	0		821	846	3	1	3	2	6	1	6	3	3	2	UB	NA			1	UB	
Victoria	Mason North	3	NNE of 3/ south of road	10/4/97	1057	KR,DS	2,3	63	10-15	100	minimal		1021	1063	4	1	3	1	1	1	3	3	3	1	YS/WY	1996	822	1820-47677	1	UB	
Victoria	N. Collier	3/4	-	10/4/97	1258	KR,DS	2,3	64	15	100	minimal		1240	1280	3	1	3	3	3	1	6	2	3	1	YS/D-BD-G	1997		1820-62528	1	UB	
Victoria	S.Upland/N.Collier	2/3	between 2 and 3	14/4/97	1440	KR,DS	2	72	3	10	0		1415	1495	3	1	2	1	1	2	4	2	3	1	DS/WO	1996	843	1810-10608	0		
Victoria	S.Upland/N.Collier	2	between point 2 and point 9 (old Main Gate)	14/4/97	1520	KR,DS	1						1445	1515	3	1	3	1	3	2	4	2	3	1	KD-B/WD-GS	1997		1820-62534	0		
Victoria	Mason South	5	just very small side drainage-canyon where it fork/turns dramatically	15/4/97	938	KH,DS,RS MT	2	54	0	70	0		915	933	4	1	3	1	1	5	2	3	3	1	YS/WQ	1997		1820-62530	0		
Victoria	MHS	3		15/4/97	1024	KR,DS,RS,MT	2	58	<5	70	0		1000	1024	1	1	3	1	1	4	3	3	3	1	WF/GS	1996		1810-10709	0		
Victoria	MHS	3		15/4/97	1036	KR,DS,RS,MT	2	56	<5	70	0		1030	1066	1	1	3	1	1	5	3	3	3	1	DMg/OS	1995	200	1810-10739	0		
Victoria	MHS	10		16/4/97	1306	KR,DS,RS,MT	2	66	6	90	0		1250	1306	1	1	3	1	1	3	4	2,3	3	1	PD_B/WS	1997		1820-62527	0		
Victoria	MHS	10		16/4/97	1306	KR,DS,RS,MT	3,6	67	5-10	90	0		1245	1300	1	1	3	2	2	4	4	at powerlines	3	1	UB	NA		NA	1	UB	
Victoria	MHS	11		16/4/97	720	KR,DS	2,6	62	4	30	0		720	810	4	1	3	1	1	1	4	3	3	2	PD-B/WS; UB	1997		1820-62526	0		
Victoria	Collier's Hollow	5	close to 3 on scarp facing SSE	16/4/97	833	KR,DS	6	63	3	0	0		815	830	4	1	3	1	1	3	UNK	2	UNK	1	UB	NA		NA	0		
Victoria	Cliff	5-6	see comments	16/4/97	930	KR	2,3	65	4	30	0		930	1155	1	1,2	2	1	1	2	3	1	3	1	HP/PS	1995		1830-47520	1	UB	
Victoria	Collier Hollow	5	slope of scarp b Upland/e.Collier	16/4/97	1156	KR,DS	3	63	12	20-30	0		1145	1156	1	1	1	2	1	2	2	2	3	0	NA	NA		NA	1	UB	
Victoria	Cliff	7	beneath powerlines	16/4/97	1230	KR,DS	3	70	10	20	0		1215	1230	4	1	1	2	1	1	4	4,5–powerlines	3	0	NA	NA	NA	NA	1	UB	
Victoria	Paul's Alley	1	entire N facing scarp	13/5/97	814	KR,DS,RS	2	60.7	5	10	Y		814	914	4	1	3	1	1	2	1,3	1	4	1	YS/D-DD-G	1997		1820-62526	0		
Victoria	Paul's Alley	1		13/5/97	926	KR,DS,RS	1	62.7	0	0	N		858	908	3	1	3	2	2	1	3	2	3	1	MvD-G/KS	1997		1820-62540	0		
Victoria	Paul's Alley	4	intersection of fenced rd & rd that blocks Paul's Alley	13/5/97	1005	KR,DS,RS	2	64.0	5	0	N	67%	1000	1005	3	1	3	2	3	1	3	3	5	2	YS/PL, MvD-G/KS	1995	169	1810-10738	0		
Victoria	Paul's Alley	3,4	W side of road right next to fence and scarp	13/5/97	1233	KR,DS,RS	5	72	0	0	Y	54%	1045	1205	4	1,2	3	2	1	1	3	3	3	1	UB	NA		NA	0		
Victoria	Paul's Alley	6		13/5/97	1425	KR,DS,RS	5	77.1	0	0	Y		1300	1425	3	1	3	1	4	1	3	3	4	2	UB	NA		NA	0		
Victoria	N Upland	3	just W of 3 on upland close to NE & SE running scarp	14/5/97	1030	KR,DS	6	78.4	5 TO 10	100	N	57%	1015	1035	3	1	2	1	1	5	3	3	1	1	UB	NA		NA	0		
Victoria	Straight Road	3		15/5/97	921	KR,DS	6	72.8	0	100	N	75%	905	941	3	1,2	3	2	4	4	3	3	5	1	UB	NA		NA	0		
Victoria	MHN/Golfball	4	next to road crossing road to pt 5 of Golfball	16/5/97	750	KR,RS	2,3,5,6	72.8	3	90	Y	64%	745	816	3,4	1	3	2	1	1	3	3	2	1	GK/RS, UB	1995	818	1830-47012	1	UB	2
Victoria	MHN	5	where scarp hits road W of MHN perpendicular to Y-shaped road	18/5/97	900	KR,RS	1,2	70	5	100	Y	70%	830	1120	1,3	1	3	1	1	1	3	3	2	2	MvB/D-BS; GK/RS	1997		1820-62547	0		
Victoria	MHN	1	just to NW of bend in road in N of fence	18/5/97	1453	KR,RS	1	84	<5	100	Y	62%	1430	1600	4	2	3	2	1	1	3	4	6	3	KGy/D-BS; YS/D-ND-G; UB	1997		1820-62548	0		
Victoria	Collier Upland ?		**ASK DAVE**	19/5/97	830	DH	5			90			820	830	3	1	2	1	4	2	UNK	2	6	1	KD-B/D-GS	1997		1820-62534	1	UB	1
Victoria	S. Central Upland		**ASK DAVE**	19/5/97	816	DH	8			95					3	1	2		5	3	3	3	UNK	1	UB	NA		NA	0		1
Victoria	MHN	8,11	just E of power lines about 7 M away	19/5/97	1120	KR,RS,JT	1	73.0	5 TO 10	100	0	63%		1125	1	1	3	1	1	3	3	3	1	2	WS/GyGy; UNK	1997		1820-62549	0		
Victoria	MHN	6		19/5/97	1340	KR,RS,JT	6	80.1	<5	70	N	59%	1315	1339	1	1,2	2	2	3	4	3	3	1	1	UB	NA		NA	0		
Victoria	Hopewell	1	N side of road near SP 1 before bend in rd.	21/5/97	855	KR,DS,JT	3,5,6	73.2		5-100	Y	72%	905	1001	3	1,2	3	2	2	1	3	3	3	2	2 UB	NA		NA	1	UO	1
Victoria	MHN	b/w 1&2	west of scarp close to SP 2	22/5/97	807	KR,DS	1	87.8	5	100	Y	82	749	804	3,4	1,2	3	3	1	1	2	2	3	1	KY/MS	1997		1820-62550	0		1

Victoria	MHN	5	knowledge of 5	22/5/97	950	KR,DS	2,5	72	5	100	Y	80	930	1015	1	1	DATA SH97	1	1	3	3	3	3	5	WP/WS;MgMg/OS;UB;2UNK	1996		1910-10726, 1910-10731	0						3
Victoria	South Corner		from creek W of power lines to E of power lines and up ridge	27/5/97	818	KR,DS,RS	2,5	79.8	0	100	Y	70	749	815	1	1,2	3	1,2	2	1	3	6–powerlines	3	1	OG/YS	1997		1520-12722	0						1
Victoria	South Corner	4	area w. of trail out far north SF fence	27/5/97	940	DS,KR,RS	3,5,6	83.3	<5	100	Y	77	915	940	1,5–next to fence	1	2	1	2	1	5	4–fenceline	3	2	both UB's	NA		NA	1	DS/GW7	UNK		UNK		3
Victoria	Collier Hollow	4	west of fence SF fence (off property); under deer blind	27/5/97	1100	KR	5,6	66	<5	80	Y	70	1110	1130	1	1	3	1	1	1	3	3,4,5–fence moves southwards to under deer blind	3	1	UB	NA		NA	0						3
Victoria	Horseball	4	mining rd. and downhill down scarp to south. At top of scarp	28/5/97	1300	KR,DH	2	85.1	7	30	144 (fortuitous)	58	1300	1310	4	1	3	1	1	1	1	3	3	1	OK/PS	1995		1940-10730	0						
Victoria	Horseball	3	at E edge of Horseball hoardsay w/Collier–next to SP3. N. side of Collier along scarp	28/5/97	1350	KR,DH	2,3,5	84.8	7	30	144	57	1310	1340	4	1	3	1	1	2	3	2	3	1	MgS/KW	1995		1840-47673	1	UB					2
Victoria	MHS	4		29/5/97	840	KR,DS,JT	2	80	5	100	0		735	840	3	1	3	1	2	1	2	3	5–pokite	1	D-RS/RV	1997		info w/Dawn	0						
Victoria	MHS	5	E. of SP5 on scarp	28/5/97	810	KR,DS,JT	2,5	74	5	100	0		800	810	4	1	3	1	1	1	2	3	3	2	MgMg/OS & Vanch (P)/OS	1995 (bulb)		1910-10731 & 1910-10729	0						1
Victoria	MHN	2		28/5/97	844	KR,DS,JT	2,5	75	5	100	0		844		3,4	1	3	1	1	3	2	3	3	2	VS/WG	1997		1820-82530	0						1
Victoria	MHN	4,5	perimeter seconds between sampling points	28/5/97	1007	KR	2,5	72	5	100	0		1000	1007	2	1	3	1	2	4	1	3	3	1	OK/RS	1995	510	1840-47612	0						1
Victoria	Horse Trail	2,3	perimeter between SP2 and SP3, closer to 3	10/6/97	914	KR,RS,BS,DS	3,5,6	62	8	40	0		604	1007	4	1	3	1	1	1	4	3	3	1	UB	NA	NA	NA	1	UB					1
Victoria	Old Man Gate	2	b/w SP2 OM3 and SP1 OH	11/6/97	740	DS,BS	2	72	<5	100	0		739	750	3	1	3	1	3	1	5	0	3	1	KD-R/O-GS; UB, LNK	1997		1820-82534	0						
Victoria	Collier Hollow	2		11/6/97	651	DS,BS	2	77	5	100	0		640	651	3	1	3	1	3	1	4	3	3	1	LS/WG	1998		3510-80808	0						
Victoria	Shaughl Rd.	1-2	in clearing between SP's	11/6/97	800	KR,DH	2,3,4,6	73	5	80	0		503	1100	3	1,6–clearing with large trees	3	3	0	1	5	3	4	1	YS/PL	1995	1997	1940-10738	1	UB					1
Victoria	Collier Hollow	3		11/6/97	809	DS,BS	5	74	5	100	0		800	1000	4	1	3	1	1	2	2	1	3	2	VS/LS/WG	1998		3510-80808	0						
Victoria	Collier Hollow	4,5	between the SP's	11/6/97	1021	DS,BS	2	80	5	80	0		1015	1025	4	1	3	1	1	1	3	3,6–powerlines	3	1	MgS/FP	1994		1810-10763							
Victoria	Collier Hollow	5-6		11/6/97	1131	DS,BS	2,3,5	80	7	60	0		1131	1200	1,4	1	3	1	1	1	2	1	3	1	HP/MS	1995		1650-47620	1	UB					1
Victoria	Straight Rd	3	where T of ST.Rd. hits Pauls Alley	11/6/97	1217	KR	5	82	<5	70	0		1217	1230	3	2	2	1	6	1	6	2,3	3	1	UB	NA	NA	NA							
Victoria	Straight Rd.	1,2	b/w 1 and 2 closer to 1, 2M NW of St.Rd., 12M W. of fye. clearing	12/6/97		KR	7–next watch	4/5/10x	7-10	40	0		800	1200	3	1	3	1	5	1	4	2,3	4	1	YS/PL	1994	1997	1910-10738	0	Location: Token Oak, 40ft up, upper canopy, middle of tree. Medium density understory. Saturated leaf-covered nest. Activity: M approached nest at 0940 from NNE and left quickly to SSW. Again at 1107 from NNE with glub, did not load and left with glub					
Victoria	South Corner	4,5		13/6/97	800	DH	3,5,6	75	10-15	100					1	1	3	2	1	1	4	4–fence	3	2	UO's	NA		NA	2						2
Victoria	Outball	3		13/6/97	1000	DH	2	77	10-15	100					4	1	3	1	1	1	3	3	3	2	MgMg/OS&KS/WL	95&97		1910-10731 & 1820-82519	1	0					

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Victoria	Horse Triangle	2	SP1 to SP2, close to 2	13/6/97	1000	KR,RS	3,5	60	10-15	100	0		1000	1200	3	2,7-road	3	2	4	1	1	3	4	0	NA	NA		NA		1	UB					UNK
Victoria	Old Mangate	7		16/6/97	845	RS,DH	2,3	65			0		850	1001	3	1	3	1	5	3	3	3	3	1	MgS/PY	1995		1910-10778		2	UB					
Victoria	Pete's Alley	SW of 8		16/6/97	1111	KR,RS	2,5	78	<5	100	drizzle	high	855	1000	3	2	2	2	4	1	5	1	3	1	UB	NA		NA		1	GS/OW?	UNK		UNK		1
Victoria	MHN	3		16/6/97	1115	KR,RS	2,5	75	5	100	drizzle	high	1040	1130	1	1	3	1	1	2	2	3	3	1	BS/YY	1991	622	1880-47077		0						1
Victoria	MHN	3-4		17/6/97	1012	KR,RS,BS,DS	2	45	<5	30	0		1012	1145	1,4	1	3	1	1	1	3	2,3	3	2	KK/RS; BS/YY	968,95	0,984 622	1880-470125 1880-47077								
Victoria	MHN/N.Corner	b/w SP3 MHN &SP5 NC	on road	17/6/97	1024	RS,KR,DS,BS	5,6	45	<5	50	0		930	1030	3	1	3	2	1	1	4	3	3	1	UB	NA	NA	NA		0						1
Victoria	Colter Hollow	5		17/6/97	1055	KR,DS,DS	2,5	65	0	10	0		1050	1100	4	1	3	1	1	2	3	2	3	2	MgS/RP; UB	1994		1910-10753		0						
Victoria	Straight Road	1 to 5		24/6/97	924	DS,DS	2,3,5,5				0		820	940	3	1,2,3-sharp turn up canal up	3	3	5	1	6	2	3	2	YS/PL; YS/DH/D-O; UG	95,90	199	1880-10735; 1920-52526		2	UB					2
Victoria	Colter Hollow	5 of 5		24/6/97	1000	DS,BS	2,5				0		1000	1142	1	1	3	1	1	1	3	1	3	1	RP/TS	1995		1880-47620		0						1
Victoria	Colter Hollow	6	powerlines	24/6/97	1100	DS,DS	5,6	90	5		0		1000	1140	1	1	3	1	2	1	4	6-powerlines	3	1	UB	NA	NA	NA		0						1
Victoria	MHS	1		24/6/97	804	KR,RS	3				0		900	915	3	1	3	1	1	2	4	3	3	1	NA	NA	NA	NA		1	UB					
Victoria	MHS	b/w 3 & 5	down to 5 and slightly on MHN side, south of creek	10/7/97	820	KR,DS	2	82	7	85	0		920	990	1	1	3	1	1	4	2	4	3	1	WP/DS	1995		1910-10794		0						
Victoria	MHS	5	b/w above, below scarp in hardwoods	10/7/97	832	KR,BS	6	85	7	80	0		932	950	1	1	3	1	1	4	2	4	3	0	NA	NA	NA	NA		0						1
Victoria	Colter Hollow	E. SP3-Horseba ll	in Colter Uplands midway from MHS rd. to Horseb rail rd.	10/7/97	1100	KR,BS	6	87	6	75	0		1100	1108	3	1	3	1	3	3	6	3	3	1	SY UB	NA	NA	NA		0						
Victoria	Colter Hollow		2'E of dew blind and SP2	11/7/97	820	JM	5	78	6	60	0	65	810	840	3	1	3	1	4	3	6	6	3	0	NA	NA	NA	NA		0						1
Victoria	Colter Hollow	4	followed from SP5 across powerlines to 4 along scarp	11/7/97	900	BS	2,3,5	84	10	30	0	65	800	850	4	1	3	1	1	1	6	6-powerlines	3	1	banded UNK	NA	NA	NA		1	UB					1
Victoria	Colter Hollow	6		11/7/97	909	KR,JM	2,5	84	10	30	0	65	900	1000	4	1	3	1	1	3	3	2	3	1	MgS/HP	1994		1910-10753		0						1
Victoria	Horse Trail	1-2	Pace-birds turnkey; SW side of road	11/7/97	1145	KR,JM,BS	5	82	4	20	0	45	1145	1148	3	1	1	2	1	1	5	3	3	0	NA	NA	NA	NA		0						1
Webster	East Central Hollow	2	Leach Grotto	21/3/97	920	KR,KT,DH	1	70	5 TO 10	0	0		920	1000	1	1	3	2	1	1	1	1	3	1						0						
Webster	NW Hollow	6	road to W. Plateau – east facing slope	20/3/97	1240	KR,KT	2	75	45	0	0		1240	1305	1	1	1	2	1	2	UNK	3	UNK	1	RP/MB	1994	653	1910-10725		0						
Webster	NW Hollow	6,7,8	east side	20/3/97	1030	KH,DH,KT	3,6	75	<5	0	0		1015	1045	3	1	2	1	1	1	UNK	3,4	UNK	1	UB					1	UB					
Webster	West Plateau	2,3	south-facing slope	20/3/97	950	KT,DH,KR	2	70	<5	0	0		930	1000	3	1	3	1	1	1	UNK	2	UNK	1	OI_BA_GS	1996	650	3510-50050		0						
Webster	West Plateau			20/3/97	901	DH,KH,KT	6	70	<5	0	0		890	900	3	1,2	3	2	1	1	UNK	3	UNK	1	UB					0						
Webster	West Plateau		1-Trail to dew blind	21/3/97	815	DH,KH,KT	6	65	<5	0	0		815	845	3	1	2	1	2	1	UNK	3	UNK	1	UB					0						
Webster	W. Central Hollow	7	West Slope	12/3/97	1030	KR,KT	6	65	10-15,GU ST	20%	0		1030	1127	3	1	3	2	1	0	UNK	UNK	UNK	1	UB					0						

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Webster	W. Central Hollow		5	south facing (West Slope)	18/3/97	840	KR,KT	5	55	20	0	0		515	945	1,6-slope just above a carry on drag	1	3	2	2	2	4	3	3	1	UG				0											
Webster	West Stream		2	SW Hollow	18/3/97	1918	DI,KR,KT	5	45-70	5	100%	TRACE		1110	1130	1	2	3	1	UNK	4	3	3	3	2	UG				0											
Webster	West Bowl	3, 5		SW Hollow	18/3/97	1010	DI,KR,KT	2	85	5	100%	TRACE		1020	1040	3	2	2	2	UNK	3	5	3	3	1	KKWPS	1996	370	1840-10748	0											
Webster	N. Upland	2,3		SW-facing slope	27/3/97	810	KR,DS,DH	2	65	6	85	0		750	810	3	1	3	1	1	1	UNK	2	UNK	3	SWYP	1990	941	1640-47886	1	UB											
Webster	N. Upland		3	sw-facing slope	27/3/97	854	KR,DS,DH	6	70	6	85	0		840	950	4	1	3	1	1	3	2	3	3	1	UB				0											
Webster	Hanging Rock Springs		7		27/3/97	1180	KR,DS	6	73	5 TO 10	85	0		1110	1130	4	1	3	2	1	2	1	3	3	2	UB				0											
Webster	NW Hollow	1	2	s/w N. Upland & E. Post Oak	29/4/97	1020	KR,DS	2	50.0	6	80	0	85%	1255	1320	4	1	3	1	1	5	2			2	PB/PS?				0											
Webster	W. Central Hollow	1,2		N facing slope	24/4/97	925	KR,DS	3,0	57.7	<5	80	Y	58%	800	920	1	1,2	3	2	1	2	4	3	2	1					1	UB											
Webster	W. Central Hollow	3,4		W facing slope of canyon head	24/4/97	1055	KR,DS	5	69.5	5 TO 10	80	Y	47%	950	1055	4	1,2	3	1	1	3	3	3	4	1	UB				0											
Webster	W. Central Hollow		3		24/4/97	1235	KR,DS	3	75	15-20	90KR%	Y		1130	1230	4	1	3	1	1	1	3	3	4	1	UB				0											
Webster	W. Central Hollow	3,5		E of 3 & 5	25/4/97	830	KR,DS	2,0	50	10	0	Y	60%	830	900	4	1	3	1	1	1	3			1	KKWB7				1	UB											
Webster	W. Central Hollow		6		25/4/97	930	KR,DS	0	01.0	15	0	Y	62%	930	1015	1	1	1	2	1	1	3			1	UB															
Webster	W. Central Hollow	5,6		b/w 5 & 6 on N facing slope	25/4/97	1044	KR,DS	0	08.3	10	10	Y	57%	1030	1102	1	1,2	3	2	1	3	3			1	UB				0											
Webster	Barnes Hollow		4	at head of canyon	25/4/97	1355	KR,DS	0	78.5	10 TO 15	0	Y	45%	1330	1355	3	2	3	3	2	1	2	3	1	1	UB				0											
Webster	Barnes Hollow	2,3		SSW facing slope just W of 2 drainage intersection	25/4/97	1420	KR,DS	2	63.5	10	0	Y	42%	1420	1400	1	1,2	1	2	1	1	2	3	1	1	WSWW(PT)?				0											
Webster	Barnes Hollow		5	SSE facing slope/ridge line shown	25/4/97	1130	KR,DS	1	77.0	10 TO 15	0	N	40%	1100	1142	4	1,2	3	2	1	1	1,2	3	1	1					0											
Webster	Hanging Rock Spring		11	NNE facing slope just SW of 11	30/4/97	1125	KR,DS	1	79.4	10 TO 15	5	N	50%	1125	1150	1	1,2	3	3	1	1	2	3	3	1					0											
Webster	Hanging Rock Spring		9	NNE at bottom of drainage next to Hawk's Nest Hollow	30/4/97	1351	KR,DS	1	90.4	5	0	N		1312	1355	2	1	3	1	3	1	1	3	1	1					0											
Webster	E. Central Hollow		10	NW facing scarp on drainage	1/5/97	930	KR,DS	1	66.2	0	0	N	62%	912	929	4	1,2	3	2	1	3	2	3	2	1					0											
Webster	Hawk's Nest Hollow		2	E facing slope w/ drainage SW to S	12/5/97	830	KR,RS	2	71	3	85	N	63%	820	840	4	1	3	2	1	1	3	3	2	2	OSWPK?															
Webster	Hawk's Nest Hollow		3 4	N facing slope	12/5/97	1021	KR,RS	2,3	73.0	<5	100	N	60%	1014	1021	2	1	2	2	1	1	3	3	3	1	KSWWV?				1	UB											
Webster	West Plateau		10	N of drainage	17/4/97	920	KR,DS	2	88.7	5-10	70	0		900	930	3	2	3	1	2	4	UNK	3	UNK	2	?????															
Webster	West Plateau	8,9		between 8 and 9	17/4/97	1045	KR,DS,DH	1,3	85	<5	70	0	32	1020	1045	1	1,2	3	2	1	1	UNK	2	UNK	2	OSWD_BO	1997		1820-62705	1	UB											
Webster	West Plateau		8	NNE facing slope	17/4/97	1135	KR,DS,DH	1	80.2	<5	80	0	34	1110	1135	1	1,2	2	3	3	4	UNK	3	UNK	1	PSWOW	1997		1820-62545	0												
Webster	West Plateau		6	N. facing slope before canyon to 6	17/4/97	1435	KR,DS,DH	3,0	82.2	5-10	80	0	35	1400	1515	1	1	3	1	1	4	2	2	3	2	UB				1	UB											
Webster	West Plateau	6/7		facing west in a wash between 6 and 7	17/4/97	1410	KR,DS	2	84.3	<5	85	0	35	1340	1400	4	1	3	1	1	4	2-0-fence		3	1	WSWOW	1995	882	1880-47085	0											
Webster	West Plateau		3		16/4/97	1010	KR,DS	1	86.8	5-10	100	0	53	945	1012	1	1	3	1	1	4	UNK	3	UNK	2	OSWPN	1997		1820-62537	0												
Webster	West Plateau		2		16/4/97	950	DH,KR,DS	2	65	5-10	100	0	53	950	955	3	1	2	2	3	3	4	3	3	1	????				0											
Webster	West Plateau		1	line 1	14/4/97	820	KR,DS,DH	3,5	84	0	100	0	54	800	820	4	1	3	1	1	2	3	3	3	1	UB				1	UB											
Webster	West Plateau		3	NNW facing slope	15/4/97	1055	KR,DS,DH	2	86	0	100	0	50	1030	1050	1	1	3	3	1	4	4	3	3	1	YGWPB	1996	193	1810-10782	0											
Webster	West Plateau	4/5			15/4/97	1245	KR,DH,DS	1	07.3	10	100	0		1150	1250	1	1	1	1	1	4	4	3	3	1	OSWYY	1997		1820-62535	0											
Webster	E. Post Oak		11	off west road near jcn. with W. Plateau near hanging point	15/4/97	1040	KR,DS,MT,DH	1	75.2	25 gushing	80	0	45	1050	1145	3	1	3	3	3	1	4	3	3	1	KKDAWPS	1997		1820-62540	0											
Webster	E. Post Oak		4		22/4/97	1030	KR,DS,MT,DH	1	71.1	25 gushing	80	0	49	1000	1030	3	2	3	3	2	2	1	3	3	1	HSWGHAYD_B	1997		1820-62539	0											
Webster	NW Hollow		2	near 2	23/4/97	1020	KR,DS	2	80.8	5	80	0	35	1250	1310	4	1	3	1																							
Webster	W Plateau		10	light white jeep is parked on top W Plateau	24/5/97	1040	CF,DS,DH	0	88.0	5-10	95	YES	54	1330	1410	0	1,2	3	1	1	1	8	3	3	1	UB				0											
Webster	North Slope			w. of 8 on w-facing slope	3/6/97	1053	KR,RS	2	85.7	5	0	0	47	1053	1100	4	1	3	1	1	2	3	2	3	2	SWPY & UB	1996		1820-47886	0											
Webster	Barnes Hollow		5	just above drainage at point 7 upslope from young juniper	2/6/97	1145	KR,RS	1	84.5	3-5	5	0	45	1050	1145	1	1	3	1	1	3	1	3	3	2	WSWR & LRWM_GS	1997		2330-40050	0											
Webster	Barnes Hollow		3	on side drainage just upslope from closing of 2nd growth juniper--but not at head of canyon	2/6/97	1253	KR,RS	2,5	41.5	<5	10	0	40	1220	1255	1	1	3	1	1	3	1	2	3	2	RWM-GS & WSWR	1997			0											

Wilkie	Burnet Hollow		5 SSSW Mazing Maple		2/5/97	1315	KR,RS		2	90	7	40	0		1300	1330	1	1	3	2	1	4	1	3	3	2	SWWO		1993	17N3-11254		0												
Wilkie	W.Plateau	New 1162			30/5/97	004	DS,CF	2,3		75	5	10-15		100	0	85	800	900	1	1,2	3	1	2	5	UNK	3	UNK	1	YSWOK		1995	3510-55551		maybe I	UNK								

DATASHEET

LIKELY PAT COMBO	TOT YOUNG 5 SEX RATIOS	ST HY DEV	CB HYS	OTHER SPP.	SPECIES (BANDING INFO.)	SEX	AGE	USFWS #	COMUO	FEATHER	RECTS	1'COVERT	1'VS.2'	P4	DORSAL	COMMENTS
																calling to male to SE
																recorded as KY/LS by DHL. Could possibly be LS/KY 1986 #1910-10741, banded at Web. OR...YS/PL??. The bird not seen again after this date
					GCW	M	ASY	1820-62528	YS/D-BD-G	2	1	2	2	2	1	this bird banded as YS/D-BD-G but on Ft. Hood sheets is YS/BD-G.
				NA	GCW	M	ASY	1820-62527	OD_G/OS	2	2	2	2	2	1	
				DAWA,OCWA,CACH,TUTI	GCW	M	ASY	1820-62526	PD_B/WS	2	2	2	2	2	1	possible 2nd male flew into area
					GCW	M	ASY	1820-62520	BD_B/BS	2	2	2	2	2	2	no green in crown, no green on dorsal feathers
					GCW	M	ASY	1820-62530	YS/WG	2	2	2	2	2	2	crown completely black
					GCW	M	ASY	1820-62531	D-BS/KD-G	2	2	2	2	2	1	crown has a lot of yellow-green
				CACH												sang B-cull before set up. Did not come in net
																bird recorded as D-GO/OS and resighted two times before moving to SP4 where it was noted as OK/OS.
				BGGN	GCW	M	SY	1820-62532	YS/KD	1	1	2	2	2	1	fully blackened crown
																recorded as RW/WG
					GCW	M	SY	1820-62533	D_CS/D_CP	1	1	2	2	2	1	fully black crown and chin with lots of greenish fringing on dorsal feathers

				NAWA												recorded as PW/KS or PW/S DATA SH197					
																recorded as YS/0_K					
																banded at Wilmer					
					GCW	M	ASY	1820-62534	KO_B/D_G3	2	1	2	2	1		caught with spider in mouth;crown completely black					
																recorded as YS/WJ					
																recorded as GS/W-. Injury to right leg--swollen, infected, and out of use.					
																recorded as CP/03. Could also have potentially been MM/OS or bird was banded in the area (MHN p1,5-8)					
																Tried to (unc) UB b/w foxes and SP11. Didn't respond to lure					
																not very dull or has red wattles; comes in playback					
																Watched M and F rapidly 3 times jumping from area close to fence (unique toward S and downslope close to 2nd growth juniper tree).					
				CA,TUTI																	
				NOCA	GCW	M	ASY	1820-62546	MVD-G/KB (med pin)	1	2	1	2	1	1	3% yellow on crown/throat not completely black					
				BHCB,NOCA,GCW																	
				TUTI,NEWR,CAWR,NOCA,YBCU,BAWA																	
				TUTI,MOOO,BHCB																	
				NOCA,BEWR,BHCB,TUTI,SOJU																	
GK/RS/MJR	UNK		3	0	BHCB,NOCA											GK/RS is father to MYs & was seen feeding them late in day (1820) with female					
				YBCO,NOCA,BHCB	GCW	M	ASY	1820-62547	MVM/D-B/S	1	2	1	1	1	1	10% green tinging in crown,tips missing on primaries;no fade or other wear;pens not worn;DP=SF;st=1;across road in golfball is another UB male territories of GK/RS & MH/D_BS adjacent to GK/RS w/female & 2 HYs					
				BTGW,BEWR,BHCB,GRRO,BIWA,NOCA	GCW	M	SY	1820-62548	KO_M/D_BS	1	1	1	1	1	1	very dull & brown-eyes away as SY from free white of green in crown/chin;picking at branch for a long time after release					
UNK	2	3	0													recorded as D-B/ST. This bird could also possibly be D-BS/KD-G (banded in H)	2				3
				BHCB,NOCA	GCW	M	ASY	1820-62549	WS/G/yGy	1	2	2	2	2	2	all dark crown when green tinging in head/back/throat					
URM/URF	1	3	0	NOCA,BHCO,GCW,BCWH,TUTI												nice male very neat(y)looking and not feeding young--also not calling--heavily streaked, dark throat, cheek not very bright.					
KY/M3	2	3	0	NOCA,SUTA	GCW	M	SY	1820-62550	KY/M3	1	1	1	1	1	1	wing tips missing and very worn; little green on dorsal; at ground gray/dk/brown appearance. CP=3, FAT=1					

WP/XGS,My MgI/OS	7	3	0	SUTA,BHCO,RF WR,BAWA													Both WP/XGS and MgMgI/OS were feeding HY's. Too many to list, [illegible] Three more motes flow into rock: IUB, 1 GS/RIO (may be GKO/RS), IUNK				
YS/XGG	4	3	0	YBXGJ,BHCO,B EWR,MOXDO																	
UB and bended F	5 lin.—4 led by 3d; 1 indep.	3,4	0	CACHI,BEWR													2 UB motes and one UNK bended beside in marsh area, bended fence and one UB feeding 4 HY's; other UB mote lines other side of fence with battery networking in both purposes. Fences bended combo. recorded as GS/XGW (S).				
UB	GP1=4,GP2 =2	GP1=3,GP2 =4	0																		
																	recorded as GKO/OS				
MgI/XS	GP1=1M,2F; GP2=1M,IU NK	GP1=3,GP2 =4	0	TUTI,BEWR																	
					GCW	SY											Bended by DK-H and KR in M49 b/w 5 & 6 on slope 11/3/97.				
	3	3	0														MgMgI/OS also sighted on 12/3 in M11N SP5. Recorded as FL/OS				
YB/WG	3	3	0	GCW													second mote coming to S. more on upland—may be screw road.				
GK/RS	2—1M,1F	4	0														at bottom of slope; territory adjacent to mote to SW				
UGM,UBF	2F	3	0																		
																	KD-R/D-GS bought with mote where road in N. Third mote came in—one possibly UR. KD-R/D-GS using B-cell.				
																	Bended w/ Webster, Doug A-cell				
YS/PL,UBF	2; IM,1F	3,4—not (see Sig)	0														Nest found and visited by both YS/PL and UDF in TX Oak next to Straight Rd (N side) and W. of dividing between SP1 & 2. One nest back only 50 from Straight Rd				
																	Sat nest but couldn't catch. UB using A cell to LS/WG (to north)				
																	recorded on R (possibly hot pink)S/RW				
RP/PS,UBF	1	3	0																		
																		In same direction. 10/9: GS attempt to climb tree to investigate and finds tree covered in fire ants. Nest checked b/w 10/8 and 10/9 to find no mites present. Nest probably abandoned on 12/6 due to fire ant infestation.			
UBMA,UDF	GP1=4,GP2 =1F	GP1=3,GP2 =4	0																		
																	MgMgI/OS—nest at SP 1 accessing corner M11N road in SP5 M4N, KS/YL—at SP5 scalp moving up to SP3-Oak. KS/YL first noticed on 12/3/07.				

DATASH97

UNK	0:2M,3F,1UNK	4		0	w/ back: 2 BAWA (1AD,1JUV), 1 NOCA, 2 TUTI (1AD,1JUV), 1 YBCU, 2 BEWH, 1 HOHI, 2 GADH, 1 ATFL															
																	recorded as LS/PY. Not a good sighting.			
UBM (bundle of	2:1F,1UNK	3	1=ad w/grewk														only female seen feeding. Appeared female: not bright and without black on neck			
RS/YY	1	3		0													BS/YY seen feeding one HY.			
UB	1 BHCO	3		1	BEWH, BAWA															
																	calling in E of UB on S facing slope. Recorded as LS/RW—seen by KR			
GP1/URM+UBF; GP2=LINK	3:GP1=1,GP2=2F	3		0	BHCO,NOCA,BCHA,BEWH															
RP/PS	1	2		0													RP/PS seen feeding 1HY			
UB	1	2		0													UB seen feeding 1HY			
																	moving left foot. Making no noise whatsoever			
UNK	1M	4		0													spotted neck with very little black on head or eye-line; yellow face. Outer webs (vane) slightly streaky black on tissue. Chipping and catching grubs. May have been feeding HY cat			
UNK	1M	4		0	BEWR												very bright cheek, lines cap and malar stripe, fully flecked with orange yellow. Entire bill (mandible) uniformly covered in very light and mottled lite-white. End of primaries brownish. White feathers on corners. Not a great flyer. No vocalizations. Secondary Throat speckled lib-out bill. Mixed yellow face			
UDF	2:1M,1F	3		0													Female in heavy molt with only 1 ind. HY seen being fed by female and begging			
UNK	1M	4		0	WEVI,TUVU,BCHA												Vocalization of MgB/RP. Mg band very faded to a pinky-lavender. P band also faded so it almost appear yellowish. Entire bill in shade, foraging but not moving to sit in hardwoods. HY with complete bill—looks like AtF but noise is blary, not bell			
UNK	1M	4		0													Chipping and trying to call very close to us (very able to see him without getting off rd)			
						GCW	M	ASY	1620-62525	RS/WP	2:UNK	2	2	2	1					
																	banded as RP/LS			
																	Sat up not along edge (top) of slope—responded quickly to tape (A song). Switched tape to B, warbler switched to B—song above not but didn't come down to not level—moved not upland, warbler still in area but didn't respond to tape again.			

																Set up net but bird did not come to playback. Tried both A and B call—responded to A call prior to setting up net.				
																Did not come to net				
																interacted with neighboring mare and female to the north along scarp. Set up net to no avail.				
				CAWR																
				TUTI,CACH,NAWA,BAWA,BUCB																
				AUWA,NAWA																
				TUTI,NAWA																
				CACH,NAWA,NOCA																
				BEWR,NOCA,RTHU																
				NOCA,TUTI																
				SUTA,BOQU,TUTI,BEWR	GCW	M	SY	1820-62541	MR/M_GS (mid-grn)	2	2	1	1	1	1	crown entirely black				
				NOCA,BUCB,BEWR	GCW	M	SY	1820-62542	HGy/MS (Gy-gray)	2	1	1	1	2	1	lots of yellow in crown;hasty				
				TUTI,NOCA,BEWR,PUFI	GCW	M	SY	1820-62543	PS/QyR	2	1	1	1	2	1	crown w/5% green fringing				
				TUTI,BAWA	GCW	M	SY	1820-62544	YQy/D_BS	1	1	1	1	1	1	green on head w/20% yellow,throat not fully black,large CP,no brood patch				
				NOCA,TUTI,BEWR												foundry extends along scarp to W & mostly in upland/jumper area to S				
				BEWR,NOCA,TUTI,WITU												recorded as GS/P				
				NOCA	GCW	M	SY	1820-62535	GS/D_BO	1	2	2	2	2	2	all black back and crown;very extensive white on R4				
					GCW	M	SY	1820-62536	PS/QW	1	2	2	2	2	1	crown with 5% greenish fringing				
					GCW	M	ASY	1820-62537	GS/PK	2	2	2	2	2	1	5% greenish fringing on crown				
																recorded as YS/QK				
																recorded as YQ/PS				
					GCW	M	SY	1820-62538	GS/YY	1	2	2	2	2	1	all black crown; tail feathers nicked to veins and missing tips. Super extensive white on R4. Picked at breeds up to 5 min after release				
				BOSP	GCW	M	SY	1820-62540	BGRAY/PS	1	1	1	2	1	2	crown all black				
					GCW	M	SY	1820-62539	RS/GRAYD_B	1	1	1	2	1	1	very worn feathers, tips missing				
																already noted and recorded on map 17Apr97				
																already entered and on map from 27Mar97. Position moved to North Slope scarp from North Upland between points 2 and 3.				
				CACH	GCW	M	SY	2390-95850	WS/MH	1	1	1	1	1	1	light primary with rachis only (devoid of feathers); loss of lade. Brown backed overall appearance. Second male detected on west side of drainage.				
MR/M-GR	1M,1F	3		NOCA,EAPH,GCW,TUTI												moved in east from banning point				

															recorded as SV(P)/X, there was no hand on the right foot, left foot injured/not in use and held next to body. Second man board to ESE				
															recorded as VS/Y but already recorded on map of same local as VS/CK on 18apr97.				

Appendix 7.

Golden-cheeked Warbler Banding Color Combinations: 1995 – 1996.

Sent

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

191 BAND # 1910 - 10730 ORANGE/BLACK : PINK/SILVER
COUNTY Travis SITE Victoria DATE 3/13/95 AGE ~~SY~~ ASY SEX M

192 BAND # 1910 - 10731 MAGENTA/MAGENTA : ORANGE/SILVER
COUNTY Travis SITE Victoria DATE 3/13/95 AGE ASY SEX M

193 BAND # 1910 - 10732 YELLOW/GREEN : PINK/SILVER
COUNTY Travis SITE Webster DATE 3/14/95 AGE ASY SEX M

194 BAND # 1910 - 10 733 WHITE/PINK : BLUE/SILVER
COUNTY Travis SITE Webster DATE 3/17 AGE ASY SEX M

195 BAND # 1910 - 10 734 RED/RED : PINK/SILVER
COUNTY Travis SITE Victoria DATE 3/20 AGE ASY SEX M

196 BAND # 1910 ~~to~~ - ~~735~~ 10 735 MAGENTA/YELLOW : /SILVER
COUNTY Travis SITE Webster DATE 3/21 AGE SY SEX M

197 BAND # 1910 - 10 736 BLACK/SILVER : RED/RED
COUNTY Travis SITE Webster DATE 3/21 AGE ASY SEX M

198 BAND # 1910 - 10737 LAVENDER/SILVER : /RED
COUNTY Travis SITE Victoria DATE 3/22 AGE ASY SEX M

199 BAND # 1910 - 10738 YELLOW/SILVER : PINK/LAVENDER
COUNTY Travis SITE Victoria DATE 3/22 AGE ASY SEX M

200 BAND # 1910 - 10739 ORANGE/MAGENTA : ORANGE/SILVER
COUNTY Travis SITE Victoria DATE 3/23 AGE SY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

361 BAND #1910 - 10740 BLACK/YELLOW : BLUE/SILVER
COUNTY Travis SITE Webster DATE 3-24 AGE ASY SEX M

362 BAND #1910 - 10741 LAVENDER/SILVER : BLACK/YELLOW
COUNTY Travis SITE Webster DATE 3-24 AGE ASY SEX M

363 BAND #1910 - 10742 GREEN/SILVER : BLUE/WHITE
COUNTY Travis SITE Webster DATE 3-24 AGE ASY SEX M

364 BAND #1910 - 10744 GREEN/SILVER : MAGENTA/MAGENTA
COUNTY Travis SITE Webster DATE 3-24 AGE SY SEX [redacted] F

365 BAND #1910 - 10743 WHITE/GREEN : PINK/SILVER
COUNTY Travis SITE Webster DATE 3-24 AGE ASY SEX M

366 BAND #1910 - 10745 ORANGE/SILVER : ORANGE/MAGENTA
COUNTY Travis SITE Webster DATE 3-24 AGE ASY SEX M

367 BAND #1910 - 10746 /SILVER : BLUE/BLUE
COUNTY Travis SITE Victoria DATE 3-27 AGE SY SEX M

368 BAND #1910 - 10747 WHITE/MAGENTA : YELLOW/SILVER
COUNTY Travis SITE Victoria DATE 3-30 AGE ASY SEX M

369 BAND #1910 - 10748 WHITE/SILVER : BLACK/WHITE
COUNTY Travis SITE Victoria DATE 3-30 AGE SY SEX M

370 BAND #1910 - 10749 BLACK/BLACK : PINK/SILVER
COUNTY Travis SITE Webster DATE 4/3 AGE ASY SEX ♂

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

371 BAND # 1910 - 10 774 YELLOW/SILVER : MAGENTA/BLACK
COUNTY Travis SITE Victoria DATE 4-4 AGE SY SEX M

372 BAND # 910 - 10 775 /SILVER : MAGENTA/BLACK
COUNTY Travis SITE Victoria DATE 4/6 AGE SY SEX F

373 BAND # 1910 - 10776 MAGENTA/SILVER : PINK/YELLOW
COUNTY Travis SITE Victoria DATE 4/6 AGE SY SEX M

374 BAND # 1910 - 10 772 LAVENDER/BLACK : LAVENDER/SILVER
COUNTY Travis SITE Webster DATE 4-3 AGE SY SEX M

375 BAND # 1910 - 10777 GREEN/SILVER : BLUE/YELLOW
COUNTY Travis SITE Victoria DATE 4/6/95 AGE SY SEX M

376 BAND # 1910 - 10 778 LAVENDER/GREEN : YELLOW/SILVER
COUNTY Travis SITE Victoria DATE 4/6/95 AGE SY SEX M

377 BAND # 19'0 - 10779 WHITE/MAGENTA : BLACK/SILVER
COUNTY Travis SITE Victoria DATE 4/6/95 AGE ASY SEX M

378 BAND # 1910 - 10 - 781 PINK/SILVER : /YELLOW
COUNTY Travis SITE Webster DATE 4/7 AGE SY SEX F

379 BAND # 1910 - 10 782 MAGENTA/MAGENTA : WHITE/SILVER
COUNTY Travis SITE Webster DATE 4/7 AGE ASY SEX M

380 BAND # 1910 - 10783 BLACK/SILVER : LAVENDER/MAGENTA
COUNTY Travis SITE 3M DATE 4/8/95 AGE SY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

521 BAND # 1910 - 10784 WHITE/SILVER : MAGENTA/BLUE
COUNTY Travis SITE Victoria DATE 4/10 AGE SY SEX M

522 BAND # 1910 - 10785 LAVENDER/MAGENTA : GREEN/SILVER
COUNTY Travis SITE Webster DATE 4/11 AGE ASY SEX ~~M~~ M

523 BAND # 1910 - 10786 WHITE/GREEN : WHITE/SILVER
COUNTY Travis SITE Victoria DATE 4/12 AGE SY SEX M

524 BAND # 1910 - 10787 MAGENTA/MAGENTA : RED/SILVER
COUNTY Travis SITE Victoria DATE 4/12 AGE SY SEX F

525 BAND # 1910 - 10788 BLUE/SILVER : BLACK/PINK
COUNTY Travis SITE Victoria DATE 4/12 AGE SY SEX M

526 BAND # 1910 - 10789 YELLOW/SILVER : BLUE/PINK
COUNTY Travis SITE Webster DATE 4/14 AGE SY SEX M

527 BAND # 1910 - 10792 YELLOW/SILVER : LAVENDER/ORANGE
COUNTY Travis SITE 3M DATE 4/15 AGE ___ SEX M

528 BAND # 1910 - 10790 WHITE/PINK : ORANGE/SILVER
COUNTY Travis SITE Webster DATE 4/14 AGE SY SEX M

529 BAND # 1910 - 10791 LAVENDER/WHITE : GREEN/SILVER
COUNTY Travis SITE Webster DATE 4/14 AGE SY SEX M

530 BAND # 1910 - 10793 ORANGE/PINK : ORANGE/SILVER
COUNTY Travis SITE 3H DATE 4/15 AGE ASY SEX ♂

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT ; TOPRIGHT/BOTTOMRIGHT

511 BAND # 1910 - 10794 ORANGE/SILVER : GREEN/RED
COUNTY Travis SITE Webster DATE 4-17 AGE SY SEX M

512 BAND # 1910 - 10797 BLUE/SILVER : GREEN/ORANGE
COUNTY Travis SITE Webster DATE 4-19 AGE ASY SEX M

513 BAND # 1910 - 10795 PINK/WHITE : MAGENTA/SILVER
COUNTY Travis SITE Webster DATE 4-17 AGE ASY SEX M

514 BAND # 1910 - 10798 ORANGE/SILVER : LAVENDER/GREEN
COUNTY Travis SITE Victoria DATE 4-20 AGE ASY SEX M

515 BAND # 1910 - 10796 LAVENDER/RED : ORANGE/SILVER
COUNTY Travis SITE Victoria DATE 4-18 AGE SY SEX M

516 BAND # 1910 - 10799 WHITE/PINK : GREEN/SILVER
COUNTY Travis SITE Victoria DATE 4-20 AGE SY SEX M

517 BAND # 1910 - 10800 ORANGE/SILVER : ORANGE/LAVENDER
COUNTY Travis SITE Victoria DATE 4/21/95 AGE 2 year SEX M

518 BAND # 1880 - 47611 PINK/SILVER : LAVENDER/LAVENDER
COUNTY Travis SITE Victoria DATE 4/24 AGE ASY SEX M

519 BAND # 1880 - 47612 GREEN/BLACK : RED/SILVER
COUNTY Travis SITE Victoria DATE 4/24 AGE SY SEX M

520 BAND # 1880 - 47613 WHITE/SILVER : PINK/GREEN
COUNTY Travis SITE Webster DATE 4/25 AGE ASY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

531 BAND # 1880 - 47614 ORANGE/SILVER : BLUE/YELLOW
COUNTY Travis SITE Webster DATE 4/25 AGE SY SEX M

532 BAND # 1880 - 47615 MAGENTA/SILVER : WHITE/LAVENDER
COUNTY Travis SITE Webster DATE 4/25 AGE SY SEX M

533 BAND # 1880 - 47616 LAVENDER/SILVER : YELLOW/RED
COUNTY Travis SITE Webster DATE 4/27 AGE SY SEX M

534 BAND # 1880 - 47617 YELLOW/MAGENTA : YELLOW/SILVER
COUNTY Travis SITE Webster DATE 4/27 AGE SY SEX M

535 BAND # 1880 - 47618 RED/SILVER : LAVENDER/LAVENDER
COUNTY Travis SITE Victoria DATE 5/1/95 AGE SY SEX M

536 BAND # 1880 - 47619 LAVENDER/SILVER : PINK/MAGENTA
COUNTY Travis SITE Webster DATE 5/2 AGE SY SEX M

537 BAND # 1880 - 47620 RED/PINK : PINK/SILVER
COUNTY Travis SITE Victoria DATE 5/3 AGE ASY SEX M

538 BAND # 1880 - 47621 RED/WHITE : LAVENDER/SILVER
COUNTY Travis SITE Victoria DATE 5/3 AGE SY SEX M

539 BAND # 1880 - 47622 ORANGE/SILVER : BLUE/ORANGE
COUNTY Travis SITE Victoria DATE 5/4 AGE ASY SEX M

540 BAND # 1880 - 47623 WHITE/GREEN : MAGENTA/SILVER
COUNTY Travis SITE Victoria DATE 5/4 AGE ASY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

651 BAND # 1880 - 47624 /SILVER : ORANGE/MAGENTA
COUNTY Travis SITE Webster DATE 5-5 AGE SY SEX M

652 BAND # 1880 - 47625 WHITE/GREEN : BLACK/SILVER
COUNTY Travis SITE Webster DATE 5/5 AGE ASY SEX M

653 BAND # 1880 - 47626 GREEN/SILVER : BLACK/LAVENDER
COUNTY Travis SITE Webster DATE 5/5 AGE SY SEX M

654 BAND # 1880 - 47627 MAGENTA/SILVER : MAGENTA/LAVENDER
COUNTY Travis SITE Victoria DATE 5/9 AGE SY SEX M

655 BAND # 1880 - 47628 GREEN/SILVER : /GREEN
COUNTY Travis SITE Webster DATE 5/10 AGE SY SEX M

656 BAND # 1880 - 47629 YELLOW/PINK : RED/SILVER
COUNTY Travis SITE Webster DATE 5/12 AGE SY SEX M

657 BAND # 1880 - ~~47630~~ 47631 MAGENTA/SILVER : LAVENDER/MAGENTA
COUNTY Travis SITE Webster DATE 5/12 AGE SY SEX M

658 BAND # 1880 - 47630 WHITE/LAVENDER : BLACK/SILVER
COUNTY Travis SITE Webster DATE 5/12 AGE SY SEX M

check 659 BAND # 1880 - 47632 PINK/SILVER : WHITE/MAGENTA
COUNTY Travis SITE Webster DATE 5/16 AGE ASY SEX M

660 BAND # 1880 - 47633 MAGENTA/BLACK : ORANGE/SILVER
COUNTY Travis SITE Victoria DATE 5/24 AGE SY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

661 BAND # 1880 - 47634 BLACK/SILVER : BLACK/YELLOW
COUNTY Travis SITE Victoria DATE 5/24 AGE SY SEX M

662 BAND # 1880 - 47635 WHITE/SILVER : GREEN/YELLOW
COUNTY ~~1880-47635~~ Travis SITE Webster DATE 5/30 AGE ASY SEX M

663 BAND # ~~Travis~~ 1880 - 47636 BLACK/SILVER : WHITE/WHITE
COUNTY Travis SITE Webster DATE 5/31 AGE ASY SEX M

664 BAND # 1880 - 47637 BLUE/BLUE : LAVENDER/SILVER
COUNTY Travis SITE Webster DATE 5/31 AGE ASY SEX M

665 BAND # 1880 - 47638 BLUE/SILVER : WHITE/MAGENTA
COUNTY Travis SITE Webster DATE 5/31 AGE SY SEX M

666 BAND # 1880 - 47639 WHITE/SILVER : PINK/MAGENTA
COUNTY Travis SITE Webster DATE 6/2 AGE ASY SEX M

667 BAND # 188[illegible] - 47[illegible] LAVENDER/SILVER : /MAGENTA
COUNTY Travis SITE [illegible] DATE 6/[illegible] AGE HY SEX F

668 BAND # 188[illegible] - 47[illegible] ORANGE/SILVER : PINK/YELLOW
COUNTY Travis SITE [illegible] DATE [illegible] AGE HY SEX M

669 BAND # 188[illegible] - 47[illegible] PINK/SILVER : /GREEN
COUNTY Travis SITE [illegible] DATE 6/20 AGE [illegible] SEX M

670 BAND # 1880 - 47[illegible] WHITE/YELLOW : BLUE/SILVER
COUNTY Travis SITE [illegible] DATE 6/21 AGE [illegible] SEX F

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

731 BAND # 1880 - 47644 WHITE/SILVER : LAVENDER/GREEN
COUNTY Travis SITE Victoria DATE 6/21/95 AGE HY SEX M

732 BAND # 1880 - 47645 BLACK/SILVER : YELLOW/BLUE
COUNTY Travis SITE Victoria DATE 6/21/95 AGE HY SEX M

733 BAND # 1880 - 47646 MAGENTA/RED : RED/SILVER
COUNTY Travis SITE Victoria DATE 6/21/95 AGE HY SEX M

734 BAND # 1880 - 47647 /SILVER : BLUE/RED
COUNTY Travis SITE Victoria DATE 6/22/95 AGE ASY SEX M

735 BAND # 1880 - 47648 YELLOW/LAVENDER : PINK/SILVER
COUNTY Travis SITE Victoria DATE 6/23/95 AGE HY SEX U

736 BAND # 1880 - 47649 PINK/SILVER : GREEN/BLACK
COUNTY Travis SITE Victoria DATE 6/23/95 AGE HY SEX M

737 BAND # 1880 - 47650 PINK/SILVER : /PINK
COUNTY Travis SITE Victoria DATE 6/26/95 AGE HY SEX M

738 BAND # 1880 - 47657 ORANGE/SILVER : PINK/LAVENDER
COUNTY Travis SITE Victoria DATE 6/26/95 AGE HY SEX M

739 BAND # 1880 - 47652 MAGENTA/SILVER : WHITE/YELLOW
COUNTY Travis SITE Victoria DATE 4/15/96 AGE SY SEX ♀ F

740 BAND # 1880 - 47658 LAVENDER/SILVER : RED/MAGENTA
COUNTY Travis SITE Webster DATE 6/28/95 AGE HY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

751 BAND # 1880 - 47659 MAGENTA/RED : BLUE/SILVER
COUNTY Travis SITE Webster DATE 6/28 AGE HY SEX M

752 BAND # 1880 - 47660 BLUE/SILVER : WHITE/LAVENDER
COUNTY Travis SITE Webster DATE 6/28 AGE HY SEX M

753 BAND # 1880 - 47661 WHITE/SILVER : MAGENTA/PINK
COUNTY Travis SITE Victoria DATE 6/29 AGE HY SEX M

754 BAND # 1880 - 47675 BLACK/YELLOW : MAGENTA/SILVER
COUNTY Travis SITE Victoria DATE 4/3/96 AGE SY SEX M

755 BAND # 1880 - 47674 LAVENDER/SILVER : WHITE/LAVENDER
COUNTY Travis SITE Victoria DATE 4/3/96 AGE SY SEX M

756 BAND # 1880 - 47662 RED/MAGENTA : /SILVER
COUNTY Travis SITE Webster DATE 6/29 AGE HY SEX M

757 BAND # 1880 - 47663 ORANGE/ORANGE : GREEN/SILVER
COUNTY Travis SITE Webster DATE 6/29 AGE HY SEX F

758 BAND # 1880 - 47664 MAGENTA/SILVER : BLUE/RED
COUNTY Travis SITE Webster DATE 6/29 AGE HY SEX M

759 BAND # 1880 - 47665 /SILVER : LAVENDER/BLACK
COUNTY Travis SITE Webster DATE 6/29 AGE HY SEX M

760 BAND # 1882 - 47673 MAGENTA/SILVER : BLACK/WHITE
COUNTY Travis SITE Vict DATE 4-1-96 AGE SY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

821 BAND # 1880 - 47676 BLACK/SILVER : GREEN/WHITE
COUNTY Travis SITE Victoria DATE 4/4/96 AGE ASY SEX F

822 BAND # 1880 - 47677 BLUE/SILVER : YELLOW/YELLOW
COUNTY Travis SITE Victoria DATE 4/4/96 AGE SY SEX ♂

823 BAND # 1880 - 47681 BLACK/MAGENTA : GREEN/SILVER
COUNTY Travis SITE Victoria DATE 4/10/96 AGE ASY SEX ♂

824 BAND # 1880 - 47678 GREEN/PINK : WHITE/SILVER
COUNTY Travis SITE Victoria DATE 4/4/96 AGE ASY SEX ♀

825 BAND # 1880 - 47679 ORANGE/WHITE : GREEN/SILVER
COUNTY Travis SITE Victoria DATE 4/9/96 AGE ASY SEX ♀

826 BAND # - RED/SILVER : BLACK/PINK
COUNTY SITE DATE AGE SEX

827 BAND # 1880 - 47684 /SILVER : YELLOW/GREEN
COUNTY Travis SITE Victoria DATE 4/17/96 AGE SY SEX F

828 BAND # 1880 - 47680 LAVENDER/BLUE : LAVENDER/SILVER
COUNTY Travis SITE Victoria DATE 4/9/96 AGE SY SEX ♂

829 BAND # 1880 - 47683 WHITE/SILVER : MAGENTA/ORANGE
COUNTY Travis SITE Webster DATE 4/16/96 AGE SY SEX M

830 BAND # 1880 - 47685 MAGENTA/WHITE : BLACK/SILVER
COUNTY Travis SITE Victoria DATE 4/17/96 AGE SY SEX M

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

831 BAND #1880 - 47664 BLACK/RED : BLACK/SILVER
COUNTY [illegible] SITE [illegible] DATE [illegible] AGE HY SEX ♀

832 BAND #3510 - 89613 PINK/ORANGE : /SILVER
COUNTY TRAVIS SITE BCP DATE 17 Apr '96 AGE SY SEX ♂

833 BAND #3510 - 89614 PINK/SILVER : BLACK/WHITE X
COUNTY TRAVIS SITE WEB DATE 18 Apr '96 AGE SY SEX ♂

834 BAND #3510 - 89620 /SILVER : ORANGE/GREEN
COUNTY TRAVIS SITE WEB. DATE 18 Apr '96 AGE ASY SEX ♂

835 BAND #3510 - 89615 BLACK/SILVER : /BLUE
COUNTY TRAVIS SITE WEB DATE 19 Apr '96 AGE SY SEX ♂

~~836 BAND #3510 - 89616~~ RED/SILVER : PINK/GREEN
COUNTY _____ SITE _____ DATE _____ AGE ___ SEX ___

837 BAND #3510 - 89616 ORANGE/SILVER : LAVENDER/BLACK
COUNTY TRAVIS SITE WEB DATE 19 Apr '96 AGE ASY SEX ♂

X 838 BAND #3510 - 89618 WHITE/PINK : /SILVER X
COUNTY TRAVIS SITE BCP DATE 24 Apr '96 AGE SY SEX ♂

839 BAND #3510 - 89619 BLUE/SILVER : LAVENDER/BLACK
COUNTY TRAVIS SITE BCP DATE 24 Apr. AGE ASY SEX ♂

840 BAND #1880 - 47671 YELLOW/SILVER : LAVENDER/PINK
COUNTY TRAVIS SITE WEB. DATE 23 Apr. AGE ASY SEX ♂

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TOTAL P.02

96

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

861 BAND # 1880 - 47669 MAGENTA/SILVER : /PINK
COUNTY TRAVIS SITE BCP UPLANDS DATE 24/3/96 AGE SY SEX ♂

862 BAND # 1880 - 47670 PINK/SILVER : PINK/GREEN
COUNTY TRAVIS SITE BCP UPLANDS DATE 25/3/96 AGE SY SEX ♂

863 BAND # 3710 - 89606 LAVENDER/SILVER : WHITE/GREEN
COUNTY TRAVIS SITE WEBSTER DATE 11 Ap '96 AGE SY SEX ♂

~~864 BAND # - RED/PINK : /SILVER~~
COUNTY ___ SITE ___ DATE ___ AGE ___ SEX ___

865 BAND # 3710 - 89607 LAVENDER/YELLOW : ORANGE/SILVER
COUNTY TRAVIS SITE WEBSTER DATE 11 Ap '96 AGE SY SEX ♂

866 BAND # 3710 - 89611 LAVENDER/SILVER : WHITE/BLACK
COUNTY TRAVIS SITE BCP DATE 10 Ap '96 AGE SY SEX ♂

867 BAND # 3710 - 89601 YELLOW/PINK : PINK/SILVER
COUNTY TRAVIS SITE BCP UPLANDS DATE 4 Ap 1996 AGE SY SEX ♂

868 BAND # 3710 - 89[illegible] GREEN/BLACK : BLACK/SILVER
COUNTY TRAVIS SITE [illegible] DATE 4 Ap 1996 AGE [illegible] SEX ♂

~~869~~ BAND # - RED/SILVER : WHITE/LAVENDER
COUNTY ___ SITE ___ DATE ___ AGE ___ SEX ___

870 BAND # 3710 - 89603 BLUE/SILVER : BLUE/YELLOW
COUNTY TRAVIS SITE [illegible] DATE [illegible] AGE SY SEX ♂

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To: David Hernandez

96

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

~~871~~ ~~BAND #~~ ~~MAGENTA/SILVER : RED/ORANGE~~
COUNTY ____ SITE ____ DATE ____ AGE ____ SEX ____

~~872~~ ~~BAND #~~ ~~RED/SILVER : PINK/ORANGE~~
COUNTY ____ SITE ____ DATE ____ AGE ____ SEX ____

873 BAND # 3510 - 89604 PINK/MAGENTA : BLUE/SILVER
COUNTY TRAVIS SITE BCP DATE 10 Ap 1996 AGE SY SEX ♂

~~874~~ BAND # ~~MAGENTA/LAVENDER : RED/SILVER~~
COUNTY ____ SITE ____ DATE ____ AGE ____ SEX ____

875 BAND # 3510 - 89605 ORANGE/SILVER : /WHITE
COUNTY TRAVIS SITE BCP DATE 10 Ap 1996 AGE SY SEX ♂

876 BAND # 3510 - 89608 BLUE/SILVER : WHITE/PINK
COUNTY TRAVIS SITE BCP DATE 15 Ap 96 AGE ASY SEX ♂

877 BAND # 3510 - ~~89609~~ 89612 PINK/BLACK : ~~RED~~/SILVER
COUNTY TRAVIS SITE WEBSTER DATE 16 Ap 96 AGE SY SEX ♂

~~878~~ BAND # ____ BLUE/SILVER : RED/RED
COUNTY ____ SITE ____ DATE ____ AGE ____ SEX ____

879 BAND # 3510 - 89609 ORANGE/LAVENDER : /SILVER
COUNTY TRAVIS SITE WEBSTER DATE 16 Ap 96 AGE SY SEX ♂

880 BAND # 3510 - 89610 BLUE/SILVER : MAGENTA/WHITE
COUNTY TRAVIS SITE WEBSTER DATE 16 Ap 96 AGE SY SEX ♂

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

941 BAND # 1880 - 47686 /SILVER : PINK/YELLOW ? no gen, lot of white on rectrices but lot of wear on tail
COUNTY Travis SITE Oblate DATE 4/23/96 AGE ASY SEX M

942 BAND # 3510 - 89648 WHITE/SILVER : BLUE/BLACK
COUNTY Travis SITE Webster DATE 4/30/96 AGE ASY SEX ♂

943 ~~BAND # 1870 - 67517~~ RED/MAGENTA : ~~YELLOW~~/SILVER
COUNTY Travis SITE Wes DATE 5-7-96 AGE ♂ SEX SY

944 BAND # - ~~PINK/RED : /SILVER~~
COUNTY SITE DATE AGE SEX

945 BAND # - ~~YELLOW/SILVER : RED/BLACK~~
COUNTY SITE DATE AGE SEX

946 BAND # 3510 - 89654 WHITE/SILVER : BLACK/GREEN
COUNTY Travis SITE Victoria DATE 5/1/96 AGE SY SEX ♂

947 BAND # 3510 - 89649 WHITE/SILVER : YELLOW/YELLOW
COUNTY Travis SITE Webster DATE 4/30/96 AGE ASY SEX ♂

948 BAND # ~~3510 - 89650~~ ~~YELLOW/RED : LAVENDER/SILVER~~
COUNTY SITE DATE AGE SEX

mbo can 1880-47666

see 949 → BAND # ~~3510 - 89650~~ PINK/LAVENDER : WHITE/SILVER
COUNTY ~~Travis~~ Travis SITE ~~Webster~~ Webster DATE ~~4/30/96~~ 5/3/96 AGE ~~ASY~~ SY SEX ~~♂~~ ♂

950 BAND # 3510 - 89650 ORANGE/BLUE : GREEN/SILVER
COUNTY Travis SITE Webster DATE 4/30/96 AGE ASY SEX ♂

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OPTIONAL FORM 99 (7-90)

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

951 BAND # 1820 - 62555 GREEN/SILVER : RED/LAVENDER
COUNTY Trav. SITE BCP DATE 7-may-96 AGE ASY SEX ♂

952 BAND # 1820 - 62552 MAGENTA/WHITE : RED/SILVER
COUNTY Travis SITE BCP DATE 7-may-96 AGE ASY SEX ♂

953 BAND # 1820 - 62554 ORANGE/LAVENDER : PINK/SILVER → billless wonder
COUNTY Travis SITE BCP DATE 9-may-96 AGE SY SEX ♂

954 BAND # 1820 - 62551 GREEN/SILVER : WHITE/GREEN → Fred
COUNTY Travis SITE BCP DATE 9 may 96 AGE ASY SEX ♂

955 BAND # 1820 - 62553 YELLOW/SILVER : WHITE/PINK
COUNTY Travis SITE BCP DATE 8 may-96 AGE ASY SEX ♂

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956 BAND # 1820 - 62507 /SILVER : PINK/BLUE
COUNTY Travis SITE Web DATE 5-3-96 AGE SY SEX ♂

957 BAND # 1820 - 62508 PINK/SILVER : PINK/BLACK
COUNTY Travis SITE Web DATE 5-7-96 AGE ASY SEX ♂

958 BAND # 1820 - 62509 LAVENDER/SILVER : PINK/PINK
COUNTY Travis SITE Web DATE 5-7-96 AGE SY SEX ♂

959 BAND # 1870 - 62510 BLACK/SILVER : GREEN/ORANGE
COUNTY Travis SITE Web DATE 5 7 96 AGE SY SEX ♂

960 BAND # 1870 - 62511 MAGENTA/PINK : BLUE/SILVER
COUNTY Travis SITE Webster DATE 5-8-96 AGE ASY SEX ♂

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

61 BAND # 1880 - 17687 WHITE/BLACK : BLACK/SILVER
COUNTY Travis SITE BCP DATE 26 Apr 96 AGE 8/4 SEX ♂

62 BAND # 3710 - 89645 BLUE/SILVER : MAGENTA/BLUE
COUNTY Travis SITE BCP DATE 26 Apr 96 AGE AHY SEX ♂

63 BAND # 3710 - 89646 YELLOW/SILVER : BLACK/WHITE
COUNTY Travis SITE BCP DATE 26 Apr 96 AGE AHY SEX ♂

~~64 BAND # LAVENDER/ORANGE : RED/SILVER~~
COUNTY ___ SITE ___ DATE ___ AGE ___ SEX ___

~~65 BAND # GREEN/MAGENTA : RED/SILVER~~
COUNTY ___ SITE ___ DATE ___ AGE ___ SEX ___

66 BAND # 3510 - 89647 PINK/SILVER : BLACK/ORANGE
COUNTY Travis SITE Webster DATE 4/30/96 AGE SY SEX ♂

67 BAND # 3710 - 89651 YELLOW/SILVER : GREEN/BLACK
COUNTY Travis SITE Webs DATE 4/30/96 AGE SY SEX ♂

68 BAND # 3510 - 89652 /BLUE : PINK/SILVER
COUNTY Travis SITE Web DATE 4/30/96 AGE AHY SEX ♂

69 BAND # 3710 - 89653 YELLOW/SILVER : YELLOW/LAVENDER
COUNTY Travis SITE Web DATE 5/2/96 AGE SY SEX ♂

70 BAND # ___ - ___ PINK/MAGENTA : WHITE/SILVER ?
COUNTY ___ SITE ___ DATE ___ AGE ___ SEX ___

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

.011 BAND # 1820 - 62556 YELLOW/SILVER : YELLOW/BLACK
COUNTY TRAVIS SITE BCHP DATE 10 M 96 AGE SY SEX ♂

.012 BAND # 1820 - 62557 BLUE/MAGENTA : WHITE/SILVER
COUNTY TRAVIS SITE BCHP DATE 10 M 96 AGE SY SEX ♂

.013 BAND # 1820 - 62562 ORANGE/SILVER : WHITE/MAGENTA
COUNTY TRAVIS SITE BCHP DATE 11 M 96 AGE ASY SEX ♂

1014 BAND # 1820 - 62558 LAVENDER/PINK : RED/SILVER
COUNTY TRAVIS SITE BCHP DATE 10 M 96 AGE ASY SEX ♂

1015 BAND # ~~1820 - 62563~~ 1820 - 62564 RED/SILVER : MAGENTA/LAVENDER ←
COUNTY TRAVIS SITE ~~BCHP~~ WEB DATE 21 M 96 AGE SY SEX ~~♀~~ ♂

1016 BAND # 1820 - 62563 BLUE/SILVER : LAVENDER/ORANGE ←
COUNTY TRAVIS SITE BCHP DATE 21/5/96 AGE SY SEX ♀

1017 BAND # 1820 - 62560 BLACK/SILVER : LAVENDER/RED ←
COUNTY TRAVIS SITE BCHP DATE 11 M 96 AGE SY SEX ♂

1018 BAND # 1820 - 62559 /MAGENTA : YELLOW/SILVER ←
COUNTY TRAVIS SITE BCHP DATE 11 M 96 AGE ASY SEX ♂

1019 BAND # 1820 - 62561 PINK/SILVER : ORANGE/PINK
COUNTY TRAVIS SITE BCHP DATE 11 M 96 AGE SY SEX ♂

1020 BAND # 1820 - 62565 RED/MAGENTA : ORANGE/SILVER
COUNTY TRAVIS SITE BCHP DATE 23 M 96 AGE ASY SEX ♂

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

1021 BAND # 1820 - 62573 RED/PINK : BLUE/SILVER
COUNTY TRAVIS SITE BCHP DATE 6/6/96 AGE ASY SEX ♂

1022 BAND # 1820 - 62566 BLACK/SILVER : BLUE/ORANGE
COUNTY TRAVIS SITE BCHP DATE 28/5/96 AGE ~~ASY~~ ANY SEX ♂

1023 BAND # 1820 - 62567 GREEN/SILVER : BLACK/PINK
COUNTY TRAVIS SITE BCHP DATE 28/5/96 AGE ASY SEX ♂

1024 BAND # _____ WHITE/SILVER : PINK/RED
COUNTY _____ SITE _____ DATE _____ AGE _____ SEX _____

1025 BAND # 1820 - 62568 LAVENDER/LAVENDER : BLUE/SILVER
COUNTY TRAVIS SITE BCHP DATE 30/5/96 AGE ASY SEX ♂

1026 BAND # 1820 - 62569 GREEN/MAGENTA : /SILVER
COUNTY TRAVIS SITE BCHP DATE 30/5/96 AGE ASY SEX ♂

1027 BAND # 1820 - 62570 LAVENDER/SILVER : BLACK/PINK
COUNTY TRAVIS SITE [redacted] DATE 5/5/96 AGE SY SEX ♂

1028 BAND # 1820 - 62571 MAGENTA/SILVER : LAVENDER/PINK
COUNTY TRAVIS SITE BCHP DATE 4/6/96 AGE SY SEX ♂

1029 BAND # _____ BLACK/RED : GREEN/SILVER
COUNTY _____ SITE _____ DATE _____ AGE _____ SEX _____

1030 BAND # 1820 - 62572 GREEN/SILVER : WHITE/ORANGE
COUNTY TRAVIS SITE BCHP DATE 6/6/96 AGE ANY SEX ♂
prob ASY

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

031 BAND # 1820 - 62513 YELLOW/PINK : BLACK/SILVER
COUNTY Travis SITE Victoria DATE 5/13/96 AGE SY SEX ♂

032 BAND # 1820 - 62514 LAVENDER/SILVER : YELLOW/BLUE
COUNTY Travis SITE Webster DATE 5/14/96 AGE SY SEX ♂

033 BAND # 1820 - 62515 WHITE/SILVER : PINK/WHITE
COUNTY Travis SITE Webster DATE 5/14/96 AGE SY SEX ♂

034 BAND # - WHITE/SILVER : ~~RED/MAGENTA~~
COUNTY SITE DATE AGE SEX

035 BAND # 1820 - 62516 ORANGE/MAGENTA : YELLOW/SILVER
COUNTY Travis SITE Webster DATE 5/14/96 AGE SY SEX ♂

036 BAND # 1820 - 62517 ORANGE/SILVER : /BLUE
COUNTY Travis SITE Webster DATE 5-20/96 AGE SY SEX ♂

037 BAND # 1820 - 62518 GREEN/WHITE : GREEN/SILVER
COUNTY Travis SITE Victoria DATE 5/29/96 AGE SY SEX ♂

038 BAND # - YELLOW/SILVER : /RED
COUNTY SITE DATE AGE SEX

039 BAND # - BLACK/SILVER : LAVENDER/LAVENDER
COUNTY SITE DATE AGE SEX

040 BAND # 1820 - 62519 BLACK/SILVER : YELLOW/LAVENDER
COUNTY Travis SITE Victoria DATE 5/31/96 AGE ASY SEX ♂
by tail

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3/5

96

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

081 BAND #1820 - 62574 LAVENDER/LAVENDER : /SILVER
COUNTY TRAVIS SITE BCHP DATE 11/6/96 AGE ASY SEX ♂

082 BAND # ____ - ____ RED/SILVER : MAGENTA/YELLOW
COUNTY ____ SITE ____ DATE ____ AGE ____ SEX ____

083 BAND # 1820 - 62575 WHITE/ORANGE : MAGENTA/SILVER
COUNTY TRAVIS SITE BCHP DATE 13/6/96 AGE ASY SEX ♂

084 BAND # 1820 - 62577 YELLOW/ORANGE : MAGENTA/SILVER
COUNTY Travis SITE BCHP DATE 13/6/96 AGE ASY SEX ♂

085 BAND # ~~1820~~ 1820 - ~~62577~~ 62579 BLACK/LAVENDER : /SILVER ♂ - NO LAVENDER NOT ...
COUNTY TRAVIS SITE BCHP DATE ~~13/6/96~~ 13/6/96 AGE HY SEX ♂

086 BAND # 1820 - 62580 YELLOW/SILVER : ORANGE/MAGENTA
COUNTY TRAVIS SITE BCHP DATE 21/6/96 AGE ♂ SEX HY

087 BAND # 1820 - 62578 GREEN/SILVER : LAVENDER/BLACK
COUNTY TRAVIS SITE BCHP DATE 6/18 AGE SY SEX M

088 BAND # 1820 - 62576 GREEN/YELLOW : MAGENTA/SILVER
COUNTY TRAVIS SITE BCHP DATE 13/6/96 AGE SY SEX ♂

089 BAND # ~~1820~~ - ~~62578~~ LAVENDER/SILVER : BLUE/GREEN
COUNTY ~~TRAVIS~~ SITE ~~BCHP~~ DATE ~~6/18~~ AGE ~~SY~~ SEX ~~♂~~

090 BAND # 1820 - 62581 BLUE/YELLOW : WHITE/SILVER
COUNTY TRAVIS SITE BCHP DATE 21/6/96 AGE HY SEX ♀

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96 5 pm 1/5

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

91 BAND # 1820 - 62582 MAGENTA/SILVER : PINK/ORANGE
COUNTY Travis SITE BCHP DATE 6/25 AGE SY SEX ♂

92 BAND # 1820 - 62583 BLACK/LAVENDER : BLACK/SILVER
COUNTY Travis SITE BCHP DATE 6/27 AGE ASY SEX ♂

93 ~~BAND # RED/BLACK : PINK/SILVER~~
COUNTY SITE DATE AGE SEX

94 BAND # 1820 - 62585 LAVENDER/SILVER : BLACK/BLACK
COUNTY Travis SITE BCHP DATE 7-2 AGE HY SEX ♂

95 BAND # 1820 - 62586 /SILVER : LAVENDER/WHITE
COUNTY Travis SITE BCHP DATE 7-2 AGE HY SEX ♂

096 BAND # - LAVENDER/SILVER : LAVENDER/BLACK
COUNTY SITE DATE AGE SEX

097 BAND # - /SILVER : RED/MAGENTA
COUNTY SITE DATE AGE SEX

098 BAND # - MAGENTA/SILVER : GREEN/BLACK
COUNTY SITE DATE AGE SEX

.099 BAND # - GREEN/SILVER : RED/WHITE
COUNTY SITE DATE AGE SEX

.100 BAND # 1820 - 62584 WHITE/LAVENDER : PINK/SILVER
COUNTY TRAVIS SITE BCHP DATE 6/27 AGE ASY SEX ♂

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Abelian
SITE ~~UTF~~ SITE

A1 ; $7 $100

96

GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOPLEFT/BOTTOMLEFT : TOPRIGHT/BOTTOMRIGHT

01 BAND #_____ - _____ BLUE/SILVER : RED/PINK
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

02 BAND #_____ - _____ GREEN/SILVER : PINK/RED
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

03 BAND #1820 - 62523 GREEN/SILVER : YELLOW/ORANGE
COUNTY Travis SITE Victoria DATE 6-26-96 AGE HY SEX ♂

04 BAND #1820 - 62524 /SILVER : PINK/MAGENTA
COUNTY Travis SITE Victoria DATE 6-27-96 AGE EASY SEX ♀

05 BAND #_____ - _____ BLACK/LAVENDER : YELLOW/SILVER
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

06 BAND #_____ - _____ /MAGENTA : GREEN/SILVER
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

07 BAND #_____ - _____ LAVENDER/SILVER : MAGENTA/BLACK
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

08 BAND #_____ - _____ BLUE/WHITE : PINK/SILVER
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

09 BAND #_____ - _____ WHITE/SILVER : GREEN/WHITE
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

10 BAND #_____ - _____ BLACK/SILVER : BLACK/PINK
COUNTY_____ SITE_____ DATE_____ AGE____ SEX____

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GOLDEN-CHEEKED WARBLER COLOR COMBINATIONS

TOP LEFT/BOTTOM LEFT:TOP RIGHT/BOTTOM RIGHT

41 BAND # 1820 - 62525 RED/SILVER : WHITE/PINK
COUNTY Travis SITE Webster DATE 31/3/97 AGE ASY SEX M

42 BAND # 1820 - 62526 YELLOW/SILVER : BLUE/D_GREEN
COUNTY Travis SITE Victoria DATE 3/24/97 AGE ASY SEX M

43 BAND # 1820 - 62527 ORANGE/D_GREEN : ORANGE/SILVER
COUNTY Travis SITE Victoria DATE 3/24/97 AGE ASY SEX M

44 BAND # 1820 - 62539 RED/SILVER : GRAY/D_BLUE
COUNTY Travis SITE Web. DATE ~~3/31/97~~ 4/22/97 AGE ~~ASY~~ SY SEX ~~M~~ M

45 BAND # 1820 - 62532 YELLOW/SILVER : ORANGE/GREEN
COUNTY Travis SITE Victoria DATE 3/31/97 AGE ASY SEX M

46 BAND # [illegible] D_GREEN/SILVER : D_GREEN/PINK
COUNTY Travis SITE Victoria DATE [illegible] AGE SY SEX [illegible]

47 BAND # 1820 - 62534 BLACK/D_BLUE : D_GREEN/SILVER
COUNTY Travis SITE Victoria DATE 4/12/97 AGE [illegible] SEX M

48 BAND # [illegible] ORANGE/SILVER : D_BLUE/ORANGE
COUNTY [illegible] SITE Webster DATE 17/4/97 AGE ASY SEX M

49 BAND # 1820 - 62540 BLUE/GRAY : PINK/SILVER
COUNTY Web SITE Travis DATE 22/4/97 AGE SY SEX M

50 BAND # 1820 - 62541 MAUVE/RED : ~~D~~ M_GREEN/SILVER
COUNTY Travis SITE Web. DATE 29/4/97 AGE SY SEX M

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EMAIL: corneliusj@hood-emh3.army.mil

Appendix 8.

Data Forms, 1996, for Golden-cheeked Warblers at the Balcones Canyonlands National Wildlife Refuge.

BANDING ATTEMPT FORM DATE: 4-2-96 OBSERVER(S): C G, D.P-71

TRACT: web SUBUNIT: N center

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 60 WIND: 5-10 CLOUD: 100%

OBSERVATION PERIOD

START TIME: 1:41 ENDTIME: 2:01

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

nothing came in to band after the net was set up

BANDING ATTEMPT FORM DATE: 4/8/96 OBSERVER(S): Christine, Steph

TRACT: Webster SUBUNIT: E. side 1/2 way

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 45° WIND: 0 CLOUD: clear

OBSERVATION PERIOD

START TIME: 9:35am 15min ENDTIME: 9:53 3min

TAPED SOUND USED (GCW OR OWL) both DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, ~~BOTTOM~~ UPLAND,

(2) MATURE TREES, SECOND ~~GROWTH~~, SHRUBS ONLY, ~~GRASSLAND~~.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED.

(4) CLOSED CANOPY(>50%), ~~SEMI-OPEN~~(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m >50m Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY? ~~1~~

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1

BAND COMBOS. OF UNCAPTURED GCWS: unleashed ?

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 4/8/96 OBSERVER(S): TS, SH, DRH, CC

TRACT: Webster SUBUNIT: North hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 73° WIND: 0 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1109 ENDTIME: 1124

TAPED SOUND USED (GCW OR OWL). DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND right above hollow slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED.

(4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m >50m Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 4/8/96 OBSERVER(S): B, SH, DRH, CC

TRACT: Webster SUBUNIT: Hanging rock springs

(Attach cover map showing locations, date and time).

WEATHER: TEMP. WIND: >5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1245 ENDTIME: 1306

TAPED SOUND USED: (GCW OR OWL). DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED

(4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m >50m Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

1 unb. ♂

1 – silver on right – no color bands ♂

3rd – unk sex, unk if banded

BANDING ATTEMPT FORM DATE: 12 April 96 OBSERVER(S): CC, SH

TRACT: ~~Helman~~ Webster SUBUNIT: Hanging rock springs

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 65° WIND: <5 CLOUD: 100% - slight drizzle

OBSERVATION PERIOD

START TIME: 823 ENDTIME: 850

TAPED SOUND USED (GCW OR OWL). DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED.

(4) CLOSED CANOPY(>50%) SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m >50m Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY? 1 - unb

HY GCWS OBSERVED (YES NO). HOW MANY?

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1 - unb

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

→ we were trying to catch bird silver on right leg only. Two → → were chasing each other but only going when they moved away from the net.

BANDING ATTEMPT FORM DATE: 4/16/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: ?

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 60° WIND: <5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 0843 ENDTIME: 915

TAPED SOUND USED (GCW OR OWL). DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM (UPLAND), right next to slope

(2) (MATURE TREES), SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), (JUNIPER/HARDWOODS MIXED).

(4) (CLOSED CANOPY(>50%)), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m (20-50m) >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m (>50m) Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES, NO). HOW MANY? 1

HY GCWS OBSERVED (YES (NO)). HOW MANY?

ADDITIONAL MALE GCWS OBSERVED (YES (NO)) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 4/16/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: South road

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 65° WIND: <5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1039 ENDTIME: 1105

TAPED SOUND USED (GCW OR OWL). DECOY USED (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED.

(4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m >50m Unknown

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m >50m Unknown

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: WS | MO

AGE/SEX: SY / ♂ (M) USFWS NUMBER: 1880-47683

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY? 1

MY GCWS OBSERVED (YES NO). HOW MANY?

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

Across the road from KK/PS.

BANDING ATTEMPT FORM DATE: 4/25/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: West plaka

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 85° WIND: <15 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1215 ENDTIME: 1241

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO)

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near edge

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, ~~GRASSLAND~~.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED, (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

BY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL

(3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

[illegible]

BANDING ATTEMPT FORM DATE: 4/25/95 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: west plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 74° WIND: <15 CLOUD: Ø

OBSERVATION PERIOD

START TIME: 0919 ENDTIME: 0959

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%) SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

[illegible] not

BANDING ATTEMPT FORM DATE: 4/30/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: West plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 82° WIND: <5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1150 ENDTIME: 1155

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: WS 11 YY

AGE/SEX: ASY 11 ♂ USFWS NUMBER: 3510-89649

WT(g): PLUMAGE WEAR: ~ none

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 4/30/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: West plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 70° WIND: <5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1050 ENDTIME: 1055

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: WS || BK

AGE/SEX: ASY / ♂ USFWS NUMBER: 3510-89648

WT(g): PLUMAGE WEAR: little wear on tail - no contrast

(2) SPECIES: BAND COMBO: on coverts.

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 4/30/96 OBSERVER(S): CC, TS

TRACT: Webster SUBUNIT: west plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 82° WIND: <5 CLOUD: 0

OBSERVATION PERIOD

START TIME: 1236 ENDTIME: 1240

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: OB||GS

AGE/SEX: ASY || ♂ USFWS NUMBER: 3510-89650

WT(g): PLUMAGE WEAR: none

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/2/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: Central ~~[illegible]~~ hollow north / north branch

(Attach cover map showing locations, date and time).

WEATHER: TEMP. WIND: <10 gusting to 20 – CLOUD: 100 %

OBSERVATION PERIOD

START TIME: 903 ENDTIME: 0923

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO)

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED, (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY? 1

BY AGE CLASS. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

1 ♂ unb

1 ♀ unb

1 ♂ - unk

BANDING ATTEMPT FORM DATE: 5/3/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: Hanging Rock Springs

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 68° WIND: 25 CLOUD: 100% - drizzle

OBSERVATION PERIOD

START TIME: 905 ENDTIME: 923

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: RECAP
AGE/SEX: SY/♂ BAND COMBO: PL || WS
WT(g): USFWS NUMBER: 1880-47666
PLUMAGE WEAR: SY -

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/3/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: East end of hanging rock slope

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 68° WIND: -0- CLOUD: 100%

OBSERVATION PERIOD

START TIME: 1015 ENDTIME: 1043

TAPED SOUND USED (GCW OR OWL) **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY? 1 - unb

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

→ was banded only on left leg WS || - -

BANDING ATTEMPT FORM DATE: 5/7/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: NW Hollow - upland area

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80° WIND: <10 CLOUD: 50 %

OBSERVATION PERIOD

START TIME: 1200 ENDTIME: 1230

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

BY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 2

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

all 3 [illegible], All [illegible]

BANDING ATTEMPT FORM DATE: 5-7- OBSERVER(S): [illegible]

TRACT: [illegible] SUBUNIT: [illegible]

(Attach cover map showing locations, date and time).

WEATHER: TEMP. [illegible] WIND: 10 CLOUD: [illegible]

OBSERVATION PERIOD

START TIME: 1[illegible] ENDTIME:

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM, UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: K15/60

AGE/SEX: SY/♂ USFWS NUMBER: [illegible]

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY? [illegible]

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5-7-3 OBSERVER(S): T, S, CC

TRACT: [illegible] SUBUNIT: [illegible]

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 55° WIND: 10 CLOUD: [illegible]

OBSERVATION PERIOD

START TIME: [illegible] ENDTIME: [illegible]

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: L/S/PP

AGE/SEX: SY/[illegible] USFWS NUMBER: [illegible]

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/9/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: NW Hollow - upland area

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 82° WIND: L10 CLOUD: 50%

OBSERVATION PERIOD

START TIME: 1245 ENDTIME: 1255

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: PS11 PK

AGE/SEX: ASY/♂ USFWS NUMBER: 1270-62502 little wear

WT(g): PLUMAGE WEAR: [illegible]

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/7/90 OBSERVER(S): TS, CC

TRACT: [illegible] SUBUNIT: [illegible], [illegible]

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 79° WIND: 25 CLOUD: 100%

OBSERVATION PERIOD

START TIME: 0730 ENDTIME: 0815

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

BY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

♂ was already banded YY/RS - was holding left leg close to body but did not appear to be using his leg.

BANDING ATTEMPT FORM DATE: 5/2/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: Mic Hollow - upland west of hardwood forest

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 75° WIND: 0 CLOUD: 100%

OBSERVATION PERIOD

START TIME: 815 ENDTIME: 830

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: MP11 BS

AGE/SEX: ASY/03 USFWS NUMBER: 1870-62511

WT(g): PLUMAGE WEAR: Little wear

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/14/9 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: ~~[illegible]~~ road east of west plateau road

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 85° WIND: <10 CLOUD: 60 %

OBSERVATION PERIOD

START TIME: 1145 ENDTIME: 1245

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) ~~MATURE TREES,~~ SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED, (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: LS11YB

AGE/SEX: SY/♂ USFWS NUMBER: 1830-62514

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

BY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/14/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: west neighbor of LS/YB

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 90° WIND: <10 CLOUD: 60%

OBSERVATION PERIOD

START TIME: 1230 ENDTIME: 1230

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) ~~HOLLOW-SLOPE~~ BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, ~~SHRUBS ONLY, GRASSLAND.~~

~~(3) HARDWOODS~~ (>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED, (4) CLOSED CANOPY(>50%) SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO ~~EXTENSIVE~~ FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: WS||PW

AGE/SEX: SY/♂ USFWS NUMBER: 1820-62515

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

flew into net before it was fully open!

BANDING ATTEMPT FORM DATE: 5/14/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: farther down creek from WS/PW

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 9°C WIND: LIO CLOUD: 60%

OBSERVATION PERIOD

START TIME: 1312 ENDTIME: 1831

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: OH/YS

AGE/SEX: SY/F? USFWS NUMBER: 1820-62516

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

WS || PW

BANDING ATTEMPT FORM DATE: 5/17 OBSERVER(S): Christine Dave Stephen

TRACT: Webster SUBUNIT: on top of R.W. Holland

(Attach cover map showing locations, date and time).

WEATHER: TEMP. WIND: 10 mph CLOUD: 50%

OBSERVATION PERIOD

START TIME: 9:40 ENDTIME: + long call + chipping (1 min)

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND.

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT.(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS: He's chipping + making occline flights NE - 1st time w/ food

B & C

Tennessee

Flowing Creek

Site A - Northeast

Site B

BANDING ATTEMPT FORM DATE: 5-2[illegible] OBSERVER(S): T.S, Christie

TRACT: Webster SUBUNIT: South Hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 72° WIND: 5 mph CLOUD: < 10%

OBSERVATION PERIOD

START TIME: 1215 ENDTIME: 1325

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM, UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: 0/5/1B

AGE/SEX: SY/♂ USFWS NUMBER: 1820-62517

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

BY GCWS OBSERVED (YES NO). HOW MANY?

BY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/27/96 OBSERVER(S): DCH, CC

TRACT: Webster SUBUNIT: west plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80° WIND: <10 CLOUD: 0

OBSERVATION PERIOD

START TIME: 948 ENDTIME: 1008

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near a slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1 - didn't see if he was banded

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/30/96 OBSERVER(S): FS, [illegible]

TRACT: Webster SUBUNIT: [illegible] side of South hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80 WIND: < 10 CLOUD: 60%

OBSERVATION PERIOD

START TIME: 930 ENDTIME: 944

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, next to slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m hanging rock springs

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1 - unk if banded. Only heard him call.

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

This ♂ already has WS on left leg. Trying to capture so can [illegible].

GCW DETECTION FORM

#41

DATE: 6/6/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT CAPTURE OBSERVATION OF BANDED BIRD DETECTION OF FEMALE

NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Webster SUBUNIT1 Road heading west off of main road SUBUNIT2

SUBUNIT3 into reserve (Attach cover map showing locations, date and time)

WEATHER: TEMP 85-90 WIND <15 CLOUD 60% PRECIP(LAST 24 H) 0

OBSERVATION PERIOD: START TIME 1040 ENDTIME 1115

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM UPLAND
2. **VEGETATION** MATURE TREES, SECOND GROWTH, SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED
4. **CANOPY COVERAGE** CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)
5. **DISTANCE TO NEAREST RIMROCK:** <20m 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m 20-50m 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK – tenajas
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m 200-500m >500m

BIRDS DETECTED (NUMBER, AGECLASS, AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS: unb

MALE GCWS: KK / WS - → sang the entire time while ♀ made all the foraging

HY: HOW MANY? 2 **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL traps. She was

(3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID** foraging recently in Texas

COWBIRD HYS: 0 Oak Caught 1 greenish

OTHER SPECIES grey catapillar

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) GCW OR OWL (2) SC OR LC

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

(2) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers, Yes or No? Descriptive Comments

±42

GCW DETECTION FORM

DATE: 6/6/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT CAPTURE (OBSERVATION OF BANDED BIRD) DETECTION OF FEMALE

NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Webster SUBUNIT1 plateau west of hardwood grove SUBUNIT2

SUBUNIT3 (Attach cover map showing locations, date and time)

WEATHER: TEMP 80-85 WIND <10 CLOUD 50% PRECIP(LAST 24 H) 0.0

OBSERVATION PERIOD: START TIME 825 END TIME 920

SITE DESCRIPTION:

1. **SETTING** (HOLLOW SLOPE) BOTTOM UPLAND
2. **VEGETATION** (MATURE TREES) SECOND GROWTH SHRUBS ONLY SAVANNA GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%) JUNIPER(>75%) (JUNIPER/HARDWOODS MIXED)
4. **CANOPY COVERAGE** (CLOSED CANOPY(>50%)) SEMI-OPEN(10-50%) OPEN(<10%)
6. **DISTANCE TO NEAREST RIMROCK:** (<20m) 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m (20-50m) 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP POND CREEK tinajas
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m (200-500m) >500m

BIRDS DETECTED (NUMBER, AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

2 **MALE GCWS:** KS/GO & WH/OS - both singing along the rim-rock of the hollow stayed w/ each one about 20 mins

HY: HOW MANY?____ **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID** never saw ♀ or young

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) GCW OR OWL (2) SC OR LC

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary covers brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers. Yes or No? Descriptive Comments

(2) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary covers brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers. Yes or No? Descriptive Comments

GCW DETECTION FORM

#43

DATE: 6/6/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT CAPTURE (OBSERVATION OF BANDED BIRD) DETECTION OF FEMALE NEST DISCOVERY (DETECTION OF HYS) DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Webster SUBUNIT1 – plateau west of the hardwood grove SUBUNIT2 SUBUNIT3 (Attach cover map showing locations, date and time)

WEATHER: TEMP 80° WIND <5 CLOUD 50% PRECIP(LAST 24 H) 0.0

OBSERVATION PERIOD: START TIME 0730 END TIME 0800

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, (UPLAND)
2. **VEGETATION** MATURE TREES, (SECOND GROWTH), SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), (JUNIPER/HARDWOODS MIXED)
4. **CANOPY COVERAGE** CLOSED CANOPY(>50%), (SEMI-OPEN(10-50%)), OPEN(<10%)
6. **DISTANCE TO NEAREST RIMROCK:** <20m 20-50m (50-100m) 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** (<20m) 20-50m 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK tenaja
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m (200-500m) >500m

BIRDS DETECTED (NUMBER AGECLASS, AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

MALE GCWS: PS | PK - foraging in the juniper where fledge stayed in the live oak

HY: HOW MANY? 1 **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID**

COWBIRD HYS: ~~5~~

OTHER SPECIES

FOR BANDING ATTEMPTS: **TAPED SOUND USED?** (1) GCW OR OWL (2) SC OR LC

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) **SPECIES:** **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray?, (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

(2) **SPECIES:** **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh?, (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray?, (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers. Yes or No? Descriptive Comments

#26

GCW DETECTION FORM

DATE: 5/8/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT: (CAPTURE) OBSERVATION OF BANDED BIRD DETECTION OF FEMALE NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER JG

LOCATION: TRACT: webster SUBUNIT: SUBUNIT2:

SUBUNIT3: west upland across road from hardwood forest (Attach cover map showing locations, date and time)

WEATHER: TEMP 83° WIND <10mph CLOUD 100% PRECIP(LAST 24 H) 0

OBSERVATION PERIOD: START TIME 1400 ENDTIME 1405

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, (UPLAND) edge of slope
2. **VEGETATION** MATURE TREES, (SECOND GROWTH), SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), (JUNIPER/HARDWOODS MIXED)
4. **CANOPY COVERAGE** (CLOSED CANOPY(>50%)), SEMI-OPEN(10-50%), OPEN(<10%)
5. **DISTANCE TO NEAREST RIMROCK** (<20m) 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m (20-50m) 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK, [illegible]
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m 200-500m (>500m)

BIRDS DETECTED (NUMBER, AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

MALE GCWS:

STAGE OF DEVELOPMENT OF HYs. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) (GCW) OR OWL, (2) (SC) OR (LC)

DECOY USED (YES) OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) SPECIES: [illegible] **AGECLASS** SY **USFWS NUMBER** 1890-[illegible] **BAND COMBO** RM/YS

AGEING CRITERIA (a) feathers (worn) or fresh? (b) rectrices pointed or truncate? (c) primary coverts brownish or dark gray? (d) primary and secondary covert comparison, contrast, or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers. Yes or No? Descriptive Comments

(2) SPECIES: **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts. brownish or dark gray? (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

#27

GCW DETECTION FORM

DATE: 5/8/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT CAPTURE OBSERVATION OF BANDED BIRD DETECTION OF FEMALE
NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Webster SUBUNIT1 upland west of hardwood grove SUBUNIT2
SUBUNIT3 (Attach cover map showing locations, date and time)

WEATHER: TEMP 83° WIND <10 CLOUD 100% PRECIP(LAST 24 H) 0

OBSERVATION PERIOD: START TIME 945 ENDTIME 1005

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, UPLAND
2. **VEGETATION**, MATURE TREES, SECOND GROWTH, SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED
4. **CANOPY COVERAGE**, CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)
5. **DISTANCE TO NEAREST RIMROCK:** <20m 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m 20-50m 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK - [illegible]
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m 200-500m >500m

BIRDS DETECTED (NUMBER AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

MALE GCWS: WC 11 KS — was displaying against the unb →

HY: HOW MANY?_____ **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID**

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: **TAPED SOUND USED?** (1) GCW OR OWL (2) SC OR LC

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers, Yes or No? Descriptive Comments

(2) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers, Yes or No? Descriptive Comments

#28

GCW DETECTION FORM

DATE: 5/8/96 **OBSERVER(S):** TS, CC

NOTEWORTHY EVENT CAPTURE OBSERVATION OF BANDED BIRD (DETECTION OF FEMALE)

NEST DISCOVERY DETECTION OF HYS (DETECTION OF UNBANDED MALE) OTHER

LOCATION: TRACT Webster SUBUNIT1 upland/northwest SUBUNIT2 hollow - west of hardwood grove

SUBUNIT3 (Attach cover map showing locations date and time)

WEATHER: TEMP 23° WIND <10 CLOUD 100% PRECIP(LAST 24 H) 0

OBSERVATION PERIOD: START TIME 1122 END TIME 1135

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, (UPLAND)
2. **VEGETATION** MATURE TREES, (SECOND GROWTH), SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), (JUNIPER(>75%)), JUNIPER/HARDWOODS MIXED
4. **CANOPY COVERAGE** CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)
5. **DISTANCE TO NEAREST RIMROCK** (<20m) 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m 20-50m (50-100m) 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK none
8. **DISTANCE TO NEAREST WATER:** <20m 20-50m 50-100m 100-200m 200-500m (>500m)

BIRDS DETECTED (NUMBER AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS: 1

MALE GCWS: 1 (Cos was not captured)

HY: HOW MANY?_____ **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID**

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) (GCW) OR OWL (2) (SC) OR (LC)

DECOY USED (YES) OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

transfer to worksheet

(1) SPECIES: ↓ **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

(2) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh?; (b) rectrices pointed or truncate? (c) primary coverts brownish or dark gray? (d) primary and secondary covert comparison contrasty or similar? (e) white area on #4 (third from outside) rectrix limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

BANDING ATTEMPT FORM DATE: 5/8/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: NW Hollow - upland west of hardwood forest

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 75° WIND: 0 CLOUD: 100%

OBSERVATION PERIOD

START TIME: 815 ENDTIME: 820

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM, UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: MP11 BS

AGE/SEX: ASY/03 USFWS NUMBER: 1870-62511

WT(g): PLUMAGE WEAR: little wear

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/20/96 OBSERVER(S): TS, CC

TRACT: Webski SUBUNIT: north side of south hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80 WIND: < 10 CLOUD: 60%

OBSERVATION PERIOD

START TIME: 930 ENDTIME: 944

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, next to slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m hanging rock springs

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1 - unk if banded

BAND COMBOS. OF UNCAPTURED GCWS: Only heard him call.

OTHER SPECIES AND ADDITIONAL DETAILS:

This ♂ already has WS on left leg. Trying to capture so can be banded.

BANDING ATTEMPT FORM DATE: 5/7/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: NW Hollow-upland area

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 82° WIND: <10 CLOUD: 50%

OBSERVATION PERIOD

START TIME: 1245 ENDTIME: 1255

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: PS || PK

AGE/SEX: ASY / ♂ USFWS NUMBER: 1870-62508 little wear

WT(g): PLUMAGE WEAR: ~~see band sheet for [illegible]~~

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/7/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: North Hollow, South Fork

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 79° **WIND:** L5 **CLOUD:** 100%

OBSERVATION PERIOD

START TIME: 930 ENDTIME: 945

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

→ was already banded YY/RS - was holding left leg close to body but did not appear to be using his leg.

BANDING ATTEMPT FORM DATE: 5/14/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: ~~[illegible]~~ road east of west plateau road

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 85° WIND: <10 CLOUD: 60%

OBSERVATION PERIOD

START TIME: 1145 ENDTIME: 1145

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED, (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: LS11YB

AGE/SEX: SY/♂ USFWS NUMBER: 1820-62514

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/14/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: west neighbor of LS11YB

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 90° WIND: <10 CLOUD: 60%

OBSERVATION PERIOD

START TIME: 1230 ENDTIME: 1230

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) ~~HOLLOW-SLOPE~~ BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, ~~GRASSLAND~~.

(3) ~~HARDWOODS~~(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED (4) CLOSED CANOPY(>50%) SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: WS11PW

AGE/SEX: SY/03 USFWS NUMBER: 1820-62515

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

flew into net before it was fully open!

BANDING ATTEMPT FORM DATE: 5/14/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: farther down creek from WS11 PW

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 96° **WIND:** L10 **CLOUD:** 60%

OBSERVATION PERIOD

START TIME: 1312 ENDTIME: 1334

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: OH/YS

AGE/SEX: SY/OS USFWS NUMBER: 1820-62516

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

WS 11 PW

BANDING ATTEMPT FORM DATE: 5/17 OBSERVER(S): Christine Dave Stephen

TRACT: Webster SUBUNIT: OK topeka NW Hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. WIND: 10 mph CLOUD: 50%

OBSERVATION PERIOD

START TIME: 9:40 ENDTIME: long call + clipping (10 min)

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)(Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:
AGE/SEX: USFWS NUMBER:
WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS: He's chipping + making decline flights NE - 1st time w/ food

B&W

Titmouse

Flowing Dove

Stick A - Nuthatch

B/W

BANDING ATTEMPT FORM DATE: 5-2-98 OBSERVER(S): T.S, Christie

TRACT: Webster SUBUNIT: Sixth Hollow

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 90° WIND: 5° SW CLOUD: < 10%

OBSERVATION PERIOD

START TIME: 1215 ENDTIME: 1225

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: 015113

AGE/SEX: SY/♂ USFWS NUMBER: 1820-62517

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5-7-86 OBSERVER(S): T, S, CC

TRACT: Webster SUBUNIT: N of Oak Forest

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 85° WIND: 10 CLOUD: 50%

OBSERVATION PERIOD

START TIME: 1315 ENDTIME: 1322

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: L/S//PP

AGE/SEX: SY/5 USFWS NUMBER: 1870-62[illegible]

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5-7- OBSERVER(S): T, S, CC

TRACT: [illegible] SUBUNIT: [illegible] N.W. [illegible]

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 88° WIND: 10 CLOUD: 50%

OBSERVATION PERIOD

START TIME: 1355 ENDTIME:

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM, UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10=50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO: K/S/60

AGE/SEX: SY/[illegible] USFWS NUMBER: [illegible]

WT(g): PLUMAGE WEAR: SY

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY? [illegible]

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY?

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/7/96 OBSERVER(S): TS, CC

TRACT: Webster SUBUNIT: NW Hollow - upland area a

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80° WIND: <10 CLOUD: 50 %

OBSERVATION PERIOD

START TIME: 1200 ENDTIME: 1230

TAPED SOUND USED (GCW OR OWL). **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND,

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

MY GCWS OBSERVED (YES NO). HOW MANY?

MY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL (3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 2

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

BANDING ATTEMPT FORM DATE: 5/22/96 OBSERVER(S): DRH, CC

TRACT: Webster SUBUNIT: west plateau

(Attach cover map showing locations, date and time).

WEATHER: TEMP. 80° WIND: <10 CLOUD: 0

OBSERVATION PERIOD

START TIME: 948 ENDTIME: 1008

TAPED SOUND USED (GCW OR OWL) **DECOY USED** (YES OR NO).

SETTING (CIRCLE THE MOST APPROPRIATE):

(1) HOLLOW SLOPE, BOTTOM UPLAND, near a slope

(2) MATURE TREES, SECOND GROWTH, SHRUBS ONLY, GRASSLAND.

(3) HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED. (4) CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)

(5) DISTANCE TO EXTENSIVE FOREST/GRASSLAND MARGIN.

<20m 20-50m 50-100m 100-200m 200-500m >500m

(6) DISTANCE TO NEAREST WATER (SEEP, POND, CREEK).

<20m 20-50m 50-100m 100-200m 200-500m >500m

CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE) (Attach plumage notes and other details to back).

(1) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(2) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

(3) SPECIES: BAND COMBO:

AGE/SEX: USFWS NUMBER:

WT(g): PLUMAGE WEAR:

BIRDS ATTRACTED BUT NOT CAPTURED

FEMALE GCW OBSERVED (YES NO). HOW MANY?

HY GCWS OBSERVED (YES NO). HOW MANY?

HY AGE CLASS. (1) DEPENDENT/DOWNIES (2) DEP/SHORT-TAIL

(3) DEP/FULLY FEATHERED (4) INDEPENDENT (5) UNKNOWN

ADDITIONAL MALE GCWS OBSERVED (YES NO) HOW MANY? 1 - didn't see if he was banded

BAND COMBOS. OF UNCAPTURED GCWS:

OTHER SPECIES AND ADDITIONAL DETAILS:

GCW DETECTION FORM

DATE: 7-5-96 **OBSERVER(S):** Tim, Dean, Stephen

NOTEWORTHY EVENT CAPTURE OBSERVATION OF BANDED BIRD DETECTION OF FEMALE

NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Webst SUBUNIT1 SUBUNIT2 Hardwood [illegible]

SUBUNIT3 (Attach cover map showing locations, date and time)

WEATHER: TEMP 78° F WIND L, [illegible] SW CLOUD 0 PRECIP(LAST 24 H) no

OBSERVATION PERIOD: START TIME 0800 ENDTIME

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, UPLAND
2. **VEGETATION** MATURE TREES, SECOND GROWTH, SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED
4. **CANOPY COVERAGE** CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)
6. **DISTANCE TO NEAREST RIMROCK:** <20m 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m 20-50m 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m 200-500m >500m

BIRDS DETECTED (NUMBER AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

MALE GCWS:

HY: HOW MANY? 2 **STAGE OF DEVELOPMENT?** (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL 1 ♂, 1 ♀

(3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID**

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) GCW OR OWL (2) SC OR LC

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison, contrasty or similar? (e) white area on # (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

(2) SPECIES: **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray? (d) primary and secondary covert comparison, contrasty or similar? (e) white area on # (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers, Yes or No? Descriptive Comments

DATE: 7-5-96 **OBSERVER(S):** T.S.

NOTEWORTHY EVENT CAPTURE OBSERVATION OF BANDED BIRD DETECTION OF FEMALE
NEST DISCOVERY DETECTION OF HYS DETECTION OF UNBANDED MALE OTHER

LOCATION: TRACT Utah SUBUNIT1 SUBUNIT2 W. of main Road & hardwood grove
SUBUNIT3 (Attach cover map showing locations, date and time) approx ½ way between rimrock and road. S. of Pond N. of N. road

WEATHER: TEMP 85 WIND 0 CLOUD 0 PRECIP(LAST 24 H) 0

OBSERVATION PERIOD: START TIME END TIME

SITE DESCRIPTION:

1. **SETTING** HOLLOW SLOPE, BOTTOM, UPLAND
2. **VEGETATION** MATURE TREES, SECOND GROWTH, SHRUBS ONLY, SAVANNA, GRASSLAND
3. **CANOPY DOMINANCE** HARDWOODS(>75%), JUNIPER(>75%), JUNIPER/HARDWOODS MIXED
4. **CANOPY COVERAGE** CLOSED CANOPY(>50%), SEMI-OPEN(10-50%), OPEN(<10%)
5. **DISTANCE TO NEAREST RIMROCK:** <20m 20-50m 50-100m 100-200m 200-500m >500m
6. **DISTANCE TO FOREST MARGIN** <20m 20-50m 50-100m 100-200m 200-500m >500m
7. **TYPE OF NEAREST WATER SOURCE:** SEEP, POND, CREEK
8. **DISTANCE TO NEAREST WATER** <20m 20-50m 50-100m 100-200m 200-500m >500m

BIRDS DETECTED (NUMBER AGECLASS AND STAGE OF DEVELOPMENT FOR HYs)

OBSERVED BAND COMBINATIONS

FEMALE GCWS:

MALE GCWS: MP/BS →?

HY: HOW MANY?_____ STAGE OF DEVELOPMENT? (1)DEPENDENT/DOWNIES (2)DEP/SHORT-TAIL (3)DEP/FULLY FEATHERED (4)INDEPENDENT (5)UNKNOWN **PARENT BAND ID**

COWBIRD HYS:

OTHER SPECIES

FOR BANDING ATTEMPTS: TAPED SOUND USED? (1) GCW OR OWL (2) SC OR LC both, w/ chipping

DECOY USED (YES OR NO)

FOR CAPTURED BIRDS (FOR MORE THAN 3 CONTINUE ON SECOND PAGE)

(1) **SPECIES:** **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh? (b) rectrices pointed or truncate? (c) primary coverts, brownish or dark gray?, (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers Yes or No? Descriptive Comments

(2) **SPECIES:** **SEX:** **AGECLASS** **USFWS NUMBER** **BAND COMBO**

AGEING CRITERIA (a) feathers worn or fresh?; (b) rectrices pointed or truncate?, (c) primary coverts, brownish or dark gray?, (d) primary and secondary covert comparison, contrasty or similar? (e) white area on #4 (third from outside) rectrix, limited or extensive? (f) Greenish fringing on dorsal feathers, Yes or No? Descriptive Comments

Bird only moderately interested, responded in vicinity, but not coming in to sound (tape). Short tail (molt).

Appendix 9.

Field notes on Golden-cheeked Warblers by Dean Keddy-Hector: November 1992 – September 1995.

[redacted]

6 Nov. 1992. PATKAL,
Co Rd. 102 (RTC Trip)
Blanco Co., ct. Little Blanco R. to
W. US28 /.

GPS ROVR File - B110616A.
Start @ 094345 (CST)
at SW corner near Main entrance,
LAT. 30° 01.142' N.
LON. 98° 29.090' W.
elev. 1808 3D.

Main entrance
LAT. 30° 01.162' N
LON. 98° 29.037' W.

Creek Crossing

30° 01.178' N
98° 28.496' W.
1208 ft.

6 Nov. p. 2

entered + stopped at Ch. on
W. edge of Meadow.

Common Raven,
Tridax flavus,
Panicum hockey,
Elymus canadensis (Canadian wild rye.)
Yucca rupicola.
Muhlenbergia lenticularis
Verbascum sp. Mullein
Phoenopyrus glomerata (Bush Blue.
Paspalum ervellei Vasey Crown
Platanus occidentalis Sycamore
Ulmus crassifolia Lea Cl.
Lobelia cardinalis Cardinal Flow.
Muhlenbergia utilis
Phoenix sylvestris ?? Lea.
Lynchia Spanish
Small Fish in Stream.
Sotol. (Dasylrion sp.)
Ptelea trifoliata

Ch

6/11/92 p. 2.

Ch. Bath

Lots of Ferns

Maidenhair

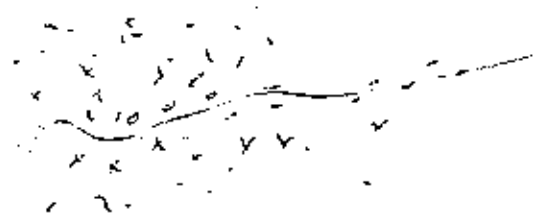
Very Seepy

Big Morus

Diospyros

Ash Junger gallery borders Platanus

Ulmus ax



c = Plat

x = Ulm

= Jung

Q. dumonis

Panicum virgatum

Sorgastrum nutans

Juglans nigra

Elymus Canadensis

0/11/92

p. 3

Field Bow

Juglans - - Cagn

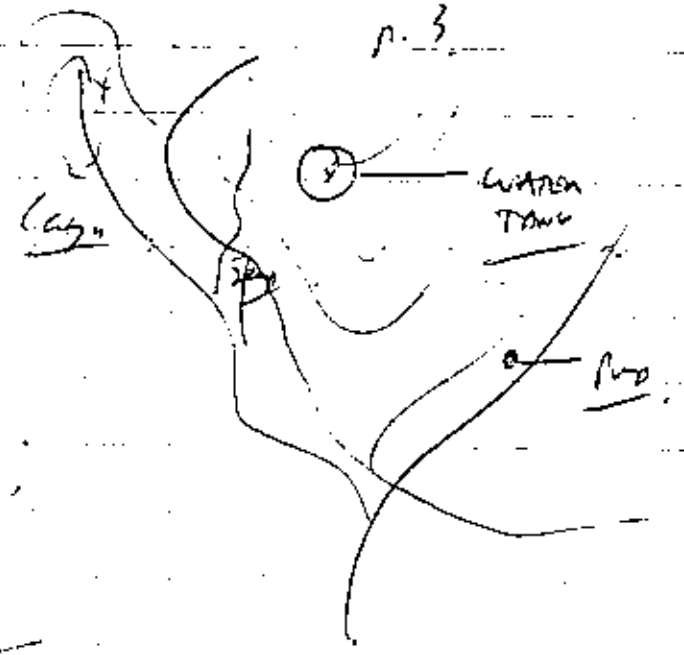
A-J.

Berberis

Sanguinaria

Smilax

Celtis -



1154 up Side Cu. to S. to

Horse & Bluffs

Potter Hill

Slopes

Prunus serotina

Unguadia speciosa

Ptelea

Diospyros

Bumelia

Juglans

Yucca

Paros

Dalgleia

Sinus Jay

p. 4

~~Name Topic Block~~

Queen + Prince seeking
going up Thru. A J [illegible]
Sotoy

Stilanchi Queen Reg.

Muhlenberg involuta - higher

Zenaida macroura

House Hilltop very seeing Platina
Muhlenberg, Midrapy —

16

Gris Dan Sly

Mr. Winchester

Spondylo vaginaflora

Nolina sacatwick

Q. ~~[illegible]~~ [illegible]

Thalitrum fem

Maidenhair fem.

the Peallea fem.

Deep up slope

Verbisuma virginica Lichen

Eupatoria

Carex planostachys

"O" [illegible] Ptelea !!

Comos —

Cardinal
Carolina Wren
RC Kinglet
Sapindus

325 Back @ Car. 1222 CST
30° 01.324'
98° 28.775

@ Back Gate
30° 01.366'
98° 28.701'

327 30° 04.066' N
97° 59.883' W

Jim McElroy → Exec Ob

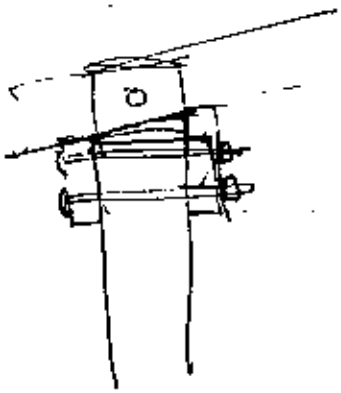
Sonny Hunt.

Scott Royder – Hollow Ck. 444-5864

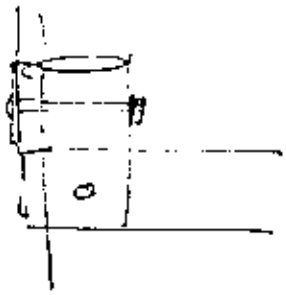
~~– Rabb Rd. 441-7916~~

GARAGE ARBOR

3 - 10ft. round posts.
3 - 20ft. 2x 6's.
13 - 12ft. 2x 6's.
Hardware - Joints.
long bolts + nuts + ...
carriage bolts. + washers.
2 - 10ft. 1x 6



		Cn.
Flyer	7.	0.
S.A.	1	0
Mex.	7	2
Gn	6	3
Flyer	4	3
	25	6.



.24 1.4.
25 160
50
110

11

15 July 1973

D/S 11 M) @ #6

Steve Shewar.
918-333-8346 (W).
918-336-7778 (O)

1. #. PRT 674050

Call in to

FM 029

Donna Work. &
1-800-
405-329-1077 WATTS line

Call @ work from Paul's Valley.

~~Tony Guide~~ -

(2) + 6

① Fast dry in Epoxy.
② HD Astotext.
③ Cotumix Quart.

N

Equip Order

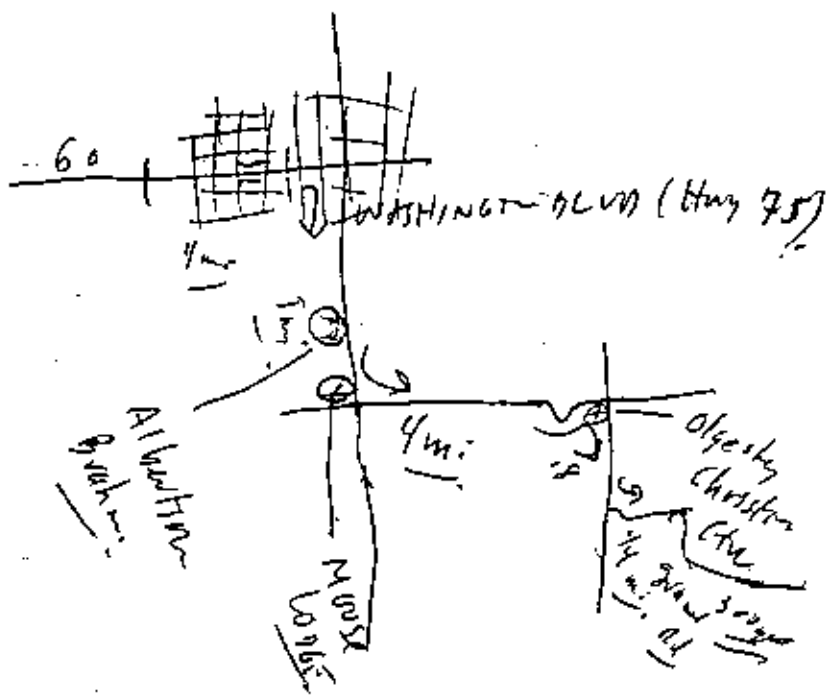
2 Small Sampo Swivels @ 3.95 ea.

Pakistan Belt.
2 Dr. #3's @ 8.95/pr.

Glove - 'YAKIMA'
- Elk.

The Falcon Gentle 35.95

1. Greg A.
2. Greg B.
✓3. Ray M. →
4. David H.
5. Ruben B.
✓6. David J.
✓7. Anton G.
✓8. Jean H
✓9. James S.



Log House

FP Essay

Point: Biggest T in N. = Glen.
#C2F, Bahagian, trophies, fields
worked between gamma religion
as needs, Socon SAT. Night.

T at erection fields to all C
Colls & entry fees & Concession

Stands. Shades & traditions
FP hurts wrong reg. fees
to all C Hr.

- VS

ASA needed. 34 fees
= $100,000 into
Avil

Fields in good stages

vs. Avil

~~[illegible]~~ TI all 3 FP

TI decline..

[illegible] $140..

vs non-trad. FP [illegible].

field quality decline.

Cyprus [illegible] too high.

No. Steam. No provincial.

[illegible] colleges. No. social.

No. trophies, Tech All. T.

No. Sweetheart.

Sweetheart broken.

No [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

∴ What [illegible] [illegible].

405-321-8482 (H)

(1.) Antonio G. ✓
~~James Smith~~
(2.) David H. ✓
~~3. James Smith~~ 443-1847
~~4. Tommy D.~~
(3.) Ray M. 832-1079 ✓
(4.) ~~Greg B.~~ Dean Hector ✓
(5.) David J. ✓
6. Ruben B.
7. Greg B.
8. Greg A.
(9.) Tommy D.
(10.) James Wyatt
(11.) James Smith

Softball Sat-713-864-6046

13 July 1933

Camille McKeever

① Original → 3186 A's

②

Craig Bell - City of A. - Utility Guy.

John Kanger 210 - 55

LAST CHANCE FOREVER - 210-655-6049

Melissa Hill 661-6717.

Hickey Animal Clinic

210 - 225-4046

PW085717

487-7200

"Lucite" Flat White
LATEX (Paper label)

Roller + Pan

- Utility wire (14th Tall)
- T-posts.

- Ready mix - 4 bags.

- Hot wire
- Stand-offs.
- Fence Charge Tape

1. David J
2. Ray M.
3. David H.
4. Wayne A.
5. Robert R.
6. Chad Smith.
7. Randy —
8. Anthony Cantwell.
9. Dan H.

Ray

Dan Dan

Dan Dan

Ray

Wayne.

4 Aug

0737 GCW Tape - #6 Tenth -

0742 -

0737 GCW Tom - #6 South

24

4 Apr. 1 (water) STOP

0815 R L

411 S/W

♂ present @ #6 E of Strange + Rd

0823

near BANDING SITE on ♀

Shuttling about in upper branches

posing a ♀. Posing

hence ♀ abbreviated ♂ say

Before-hand from Strange + Rd

0826 - STOP

0826 - Scene out by

House Finch + Chickadee

♂ GCW initial Fay in a FRAX

& LO with Chickadee

0831

@ Paul's Alley @ JCT

0842 Glow Tap

Note: Might be useful to
grade territories in terms
of time of departure or adjust-
ing. If good T. departure
may be delayed as long as
possible.

0850 Stop

0857 Stop @ #3 [illegible]
0907 Stop } NOTE

0911 @ Trail between Sinkhole &
0915 - following mystery "chips"

0929 @ Rim of Canyon behind sinkhole
"Leila's Mole"
possible Glow chip in Canon to
N.

0934 Stop

4 Aug. 1995 (cont'd)

1. Dave T.
2. Dave H.
3. Guy A
4. Wayne A
5. Guy B.
6. Antonio B.
7. Anthony C.
8. Rudy Riojas.
9. Dean Hecht.

4 Aug. 1993 (cont'd)

0935 - Screening Our Tam. L
Sinhalese Camp. "Lemon Bird"
0942 STOP

0950 @ #2 Next Site. GCW
- Chichadees - vvc.
1000 STOP

1011 #6 [illegible] near MAP SITE.
GCW TAM
- Dewick's Wren
- Chichadees
1024 STOP.
GCW [illegible]
1031 Main Gate. - to [illegible] along
Fence down.
3G Guatemala → FG in AJ.
Chicks
1041 STOP

-1501

28

[redacted]

Rebecca- 478-3440 (H)

Collection Curation @ Austin.

Nat. Center.

Freezer-full of Dead Animals.

— Rehab. People

— To Learn Class.

Outward learning Bird Skinning.

Riverside Campus

512-389-4104

Nivra Kelley

Ctr. Coastal Studies

Corpus C. State U.

6300 Ocean Dr.

C.C. 78412

512-994-9005

Cor Wet

4 Aug V.L.M.

1051 – START GCW TYPE @
#1 of site

1103 →

GCW T
1119 @ Volta Nat
Cambrian

1129 –

1140 @ CK. (Collier Holler) at
end of Trail to Goth
RC Spawn in W. Fm
1150 Stop

1223 at 1st. Branch Site @ Rock Stone
GCW Tap wall Tem

1233 STOP

30

Garner Arbor

1. 2-20 ft. 2x6

2. ~~8~~ 5 10 ft. round poth.

3. 6 sacks ready mix.

4. post-hole digger.

5. 11 - 12 ft. 2x6's. (joist)

6. 2 - 10 ft. 1x6's. end plate.

7. 2 - 8 ft. neat. 4x4. 2 4 diagonals braces

8. ~~22~~ 44 metal rafter joiner.

9. 8 sheet. 3/4" plywood.

10. Roofing Felt.

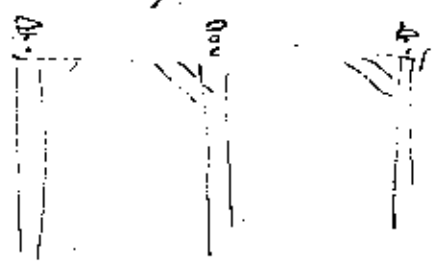
11. Shingle for 240 sq. ft.

12. 11 lag bolts for stringer.

13. 6 - long carriage bolts. wash for post. supp.

14. ~~[illegible]~~

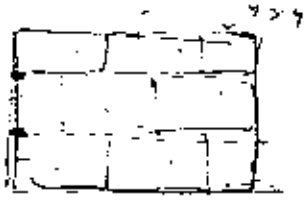
14 Drip Edge. 44 ft.



20 ft.
10.

12
20
240

20 x 12



1,2-20 ft. 2x6

Grover Arbs

31

5 Aug 1993 Welsh

OAK Grove

0754 GCW TAPE

RB Woodpecker

Chick.

Juv. Cardinals

0814

0823 2nd site on hilltop in OAK area.

When Lella fore family group

in mid. July

0835 STOP → Chickadee &

GF/ RB woodpe

but NO GCW

0851 - STAGE @ HEAD N. Hollow

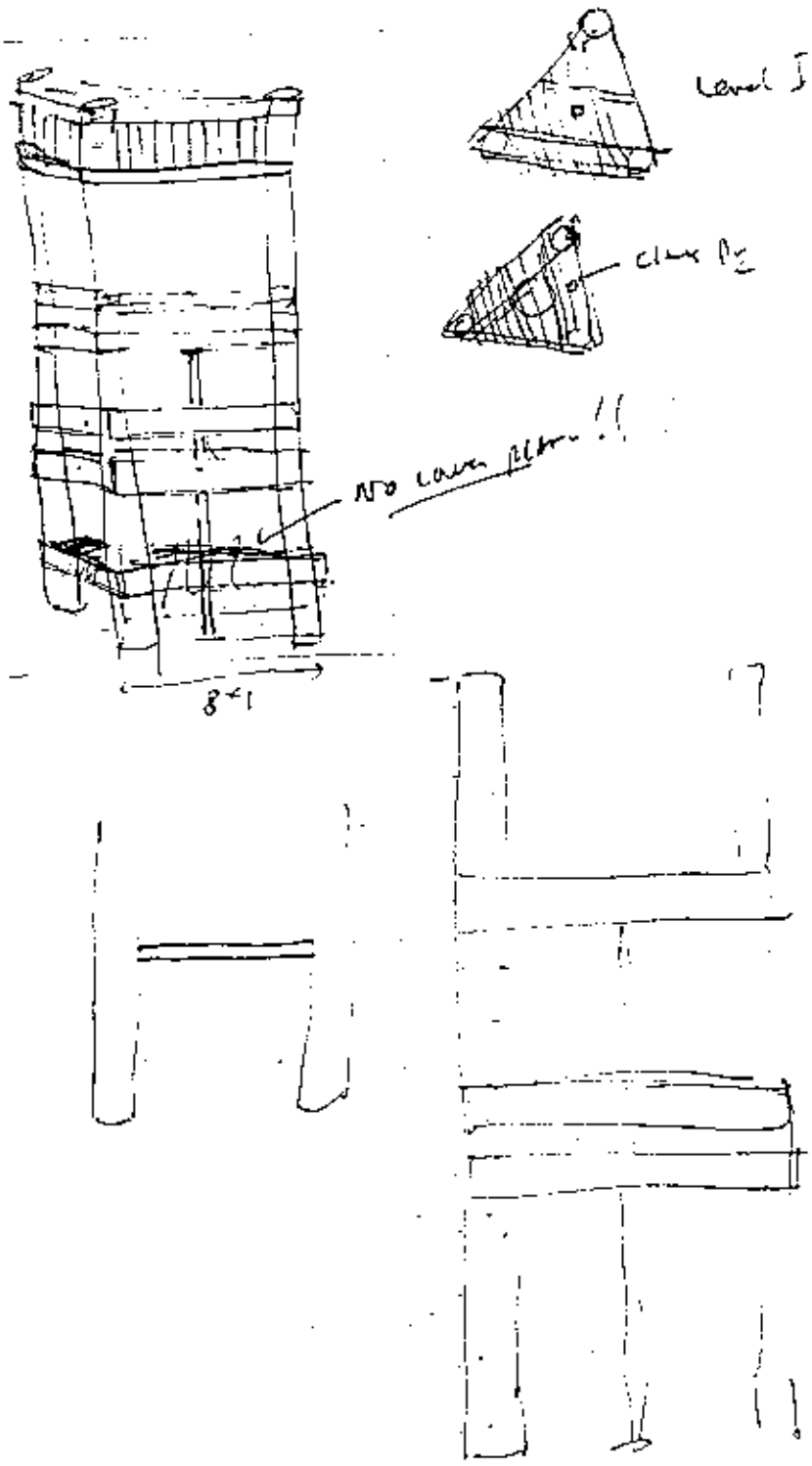
on Airport

* WE Vireo Sing in rain -

Carolina Wren Sin

Bushtit ??

1858 STOP - END OF TAPE


Level I
No cover plate!!
8×1

S. Ang Note: Lela saw B+W Warbler
@ last Site.

0918 Hear Middle Hollow. GC on Tape

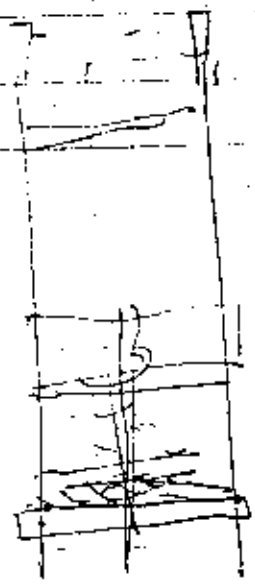
0928 Nonstop STOP

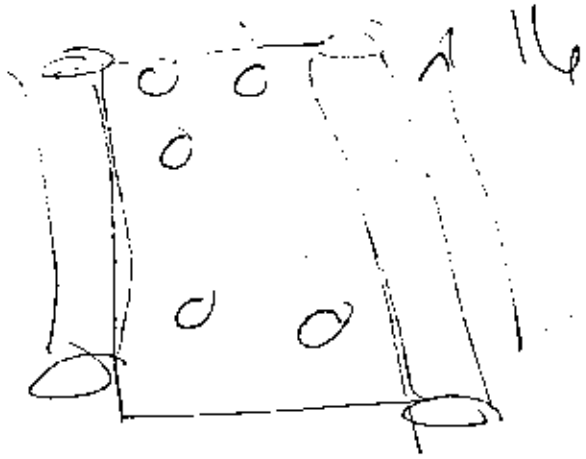
0952 @ Hanging Rock Spring.
@ Orchard Oriol. seen in Big
Field Sparrow Hack. into
Cardinal. E of Spring
S. face slope

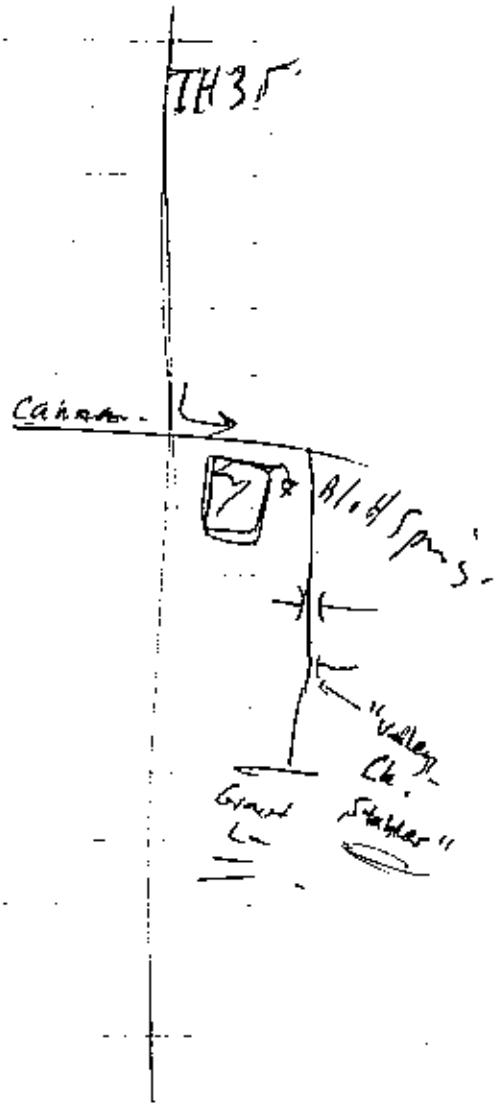
1002 STOP

1017 S. Hollow @ Pool Gcwt.
Chick.

1027 STOP





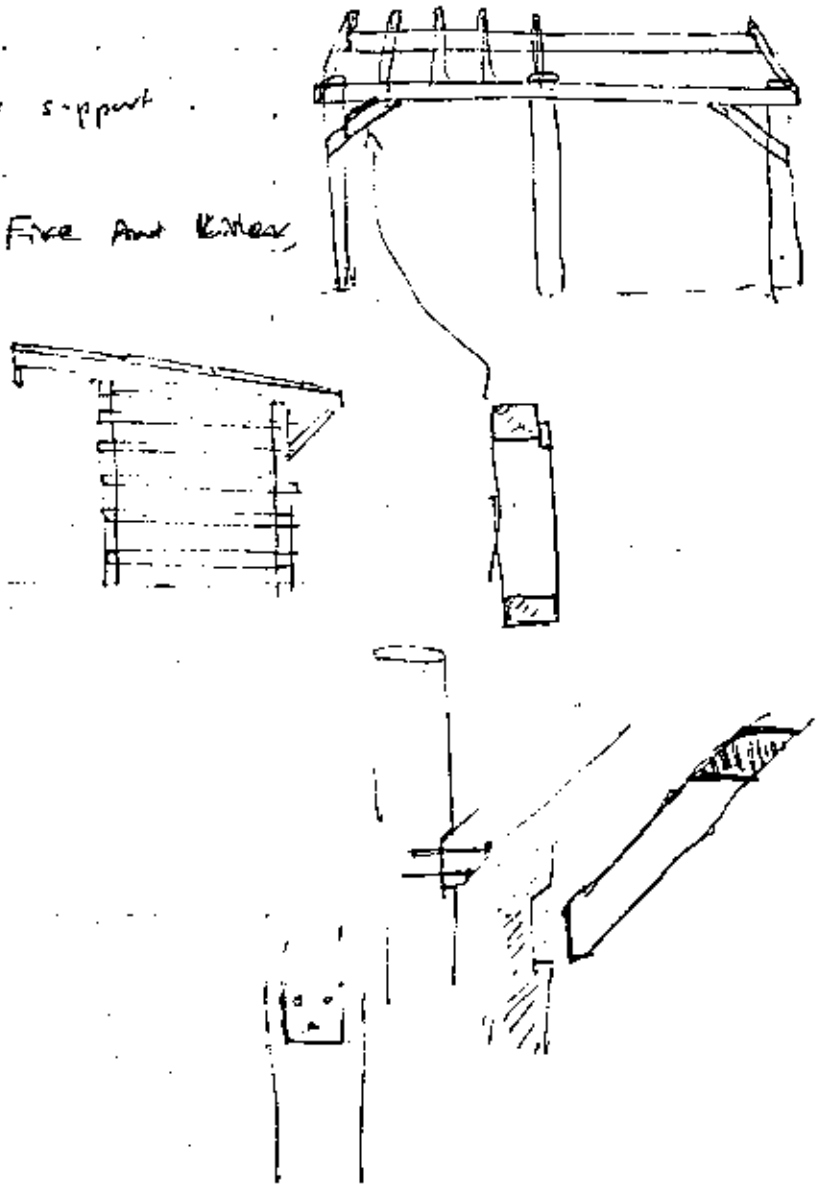

TH35
Cannon
Blood Spring
"Valley Ch. Stabler"
Grant Ln

Wire clips.

PVC base support.

Drippers

AWARD Fire Ant Killer



[redacted]

38

BCU $12,000 from last year.

+ $30,000 K Poo 1

How my position, Dev'n 2

GCW Project

2 Site 3 pay. 2 more

BCU + GCW

Survey Teams

Max Thompson... →

- 45 + 46 - Small B. & Hmm:.

* 47 - off.

43 → Dist. Oaxaca.

44 → Mont.

2/11/93
10:05 a.

John Cornelius of Ft. Hood
needs to speak w/ you.

Hwy Dept → Bill Hood
416-2623 or 2625

Meet FWS next Tues. 11:00

BCV Situation.

N

Kirby -

K. Stevens

Bay Area Laundration.

@ SAT 8:00 THRU presentation.

400 Students

Handouts →

① List. T/E spec
List will.
not. Region.

(400 total)

② Slides. (20 min not. Reg)

Slides
College
Workshop

BCCP Sycamore Ck.

BAT Report. p. 15: Grazing as Control Take

GARYL re: Meeting with Long & Cor...

Retain Grazing as a Potential →
Provide both prescriptive + continue.

List. Potential Uses

Grazing Issue.

1. Comments on Control Sec.
2. Regular Management of Control Animals.

* Tony Furney →

Intro

Focus 1. need to exclude take.

2. Difficulty of multi-[illegible] manage

3. basic objective

4. Introduction

Wildlife. ( )

1. Species abundance relat.
2. Species.

Plant Communities

1. Plant Succession Mon.
2. COVER.
3. DYNAST.
4. ECOSYM.
5.

382-4040

H. Man-made Clearing, — recreation, — + agricultural area;

Hand cutting, chain saw;

Use 1 Cy.

① revenue,
② control [illegible]
③. wildfire control.
④ Vegetation [illegible].

~~cowbird attractant~~

① improve habitat for cowbird.
② watershed damage.
③ water pollution.
④ improve habitat for WT [illegible].
⑤ destruct or ~~[illegible]~~ [illegible] [illegible].
⑥ Contribute to [illegible] pressure.

H

① Revenue Gener.
②
③
④

① Veg. Management
② Cash Cr.
③ Wildlife Control
④ Use in Presentation
⑤ To draw - [illegible] Pollinator ↓ [illegible]
⑥ ~~[illegible]~~ Slow-burn
⑦ ~~Revenue Gener.~~ Generate Revenue.
⑧ Rev. [illegible] - [illegible] of Mag.

⑨ [illegible]

Populations of certain.

Gang:
①
②
③
④

Chickadee. ✓ Wrens
Titmouse. ✓
Gnatcatcher.
B & N Warbler. ✓
G-C W's. ✓
WF VM. ✓
Bell. Vine. ✓

Gary → PATTEAM
Kirby B. → AGENCY MEMBER.

Gryz: Cuc. estimate ~~that~~

Clean mouse to avoid:
(a) minimize target spp capture & mortality
(b) monitor ~~[illegible]~~ [illegible]

(c) ½" Hardware Cloth

1. Beaumont
2. Darren
3. Scott R.
4. Patrick Mabt
5. Gary A.
6. John A.
7. Ray Mart.
8.
9.

Paul S.
Alan S.
Charlie C.
Ridley B.
5. Vince C.
6. Tony D.
7. James S.
8. Mike M.
9. Gary Krause

5. Wayne A.
6. — A.

MM ID. AS.
GK. PS.
JS. RB CC.
Vince

Ray Martine

Robert Saporry

Cardinal.
Inca Dove
Cedar ~~Wing~~ Waxwing.
Chickadee.
Titmo
Ruby-Crowne Kinglet.
Bewick's Wren
Blue Jay.
King Fisher.
Cannon Wren.
Carolina
Junco.
Carolina Wren
W E Vireo.
Common Raven
Phoebe

400 Davison Rd.
Austin TX 78737

Green Dragon
Frost Weed - Butt.
Grapevine
Water Starwort.
Palmetto
Prunus ~~mexi~~
Berberis Swatch

Palen Pear
Tridens huckleyanus
Fringed Poccoon
Bladder pod.
Old Plainsman
Canex muhlenbergi
Plochan

Mr. Kirkpatrick

1. Above
2.

(1)

(2)

Send →

Honey Ck..
Wm Cu Bam

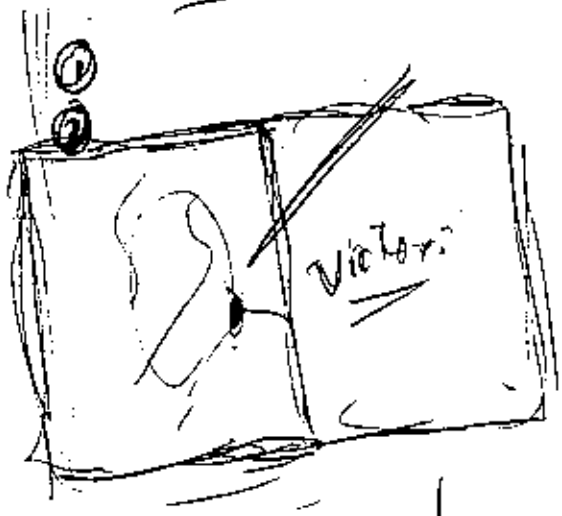
Judy Doran → 389-4482.
deleted BCU mention.

Ivi Bolt.
75 hr Green

Jim Loyal - 24/3

* 4 tracts. —

Victoria - Mark 12-15 [illegible]



Road Network

Webster → great relief

2 [illegible] John Kelley

Amanda Hughes (Brit-

Location Map

Lea

Texas Oaks

~~Hawk~~ Harold →

Victoria / Suburbia

Bank Angus

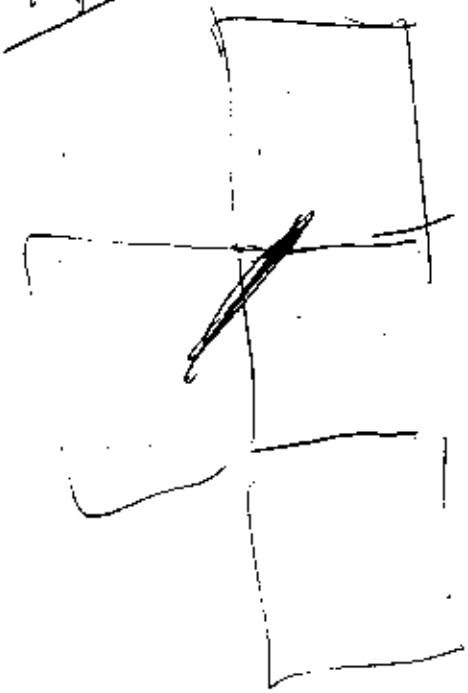
Cedar Elm →

Eclaunt

Friday

Jim Seigel

512-477-8527 (H)



Terry C.

Lund

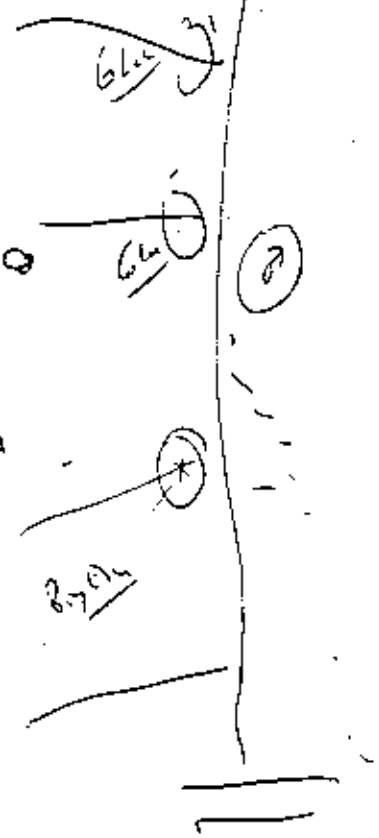
Lee A

Aaron

26 March 1972 - Barton Ch. upstream from loop 360 Bridge.

Titmouse
Cardinal.
11 WE Vireo (WEV).
Chickadee.
GCW. x Cnech. to S. @
1st riffles.
~~GCW~~
Prob. ~~WE~~ Vireo or GCW not.
Palea atw. - Ran
GCW @ Byth.
+ Moneh.
Ann RTH
unk Hawk
RC Kinglet.
~~[illegible]~~ Cardinal.
GPS B0 3262 0A. (30° 15' 19.5" N
2D 97° 49' 15.3" W)

@ GCW loc. in W-most side branch.



p. 2

Mile 6 Mark

Gcu

BQ3 262ΦB - 30°15' 29.6" N

ZD 97° 45' 17.9' W

X Cu. f. 4ft. Gcu @

Mile 6 Port

31 March 1993 Victoria Tract

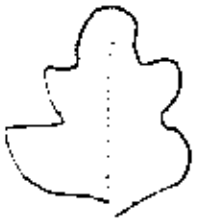
GPS Files

BØ33116 A. "Horse Thing"
30° 30' 01.3' N (10:21:41)
97° 58' 05.1" W

BØ33117A - 0:08:12. 140 pt
30° 30' 26.4" N.
97° 57' 57.5" W.
1122 ft.

GCW E∞ Locator at edge of drainage. (see map) - Calling in Lg. Jumpers near sinkhole.

2 April, ♂ "forage" "display"
A – F / D (short call)
in Post Oak.

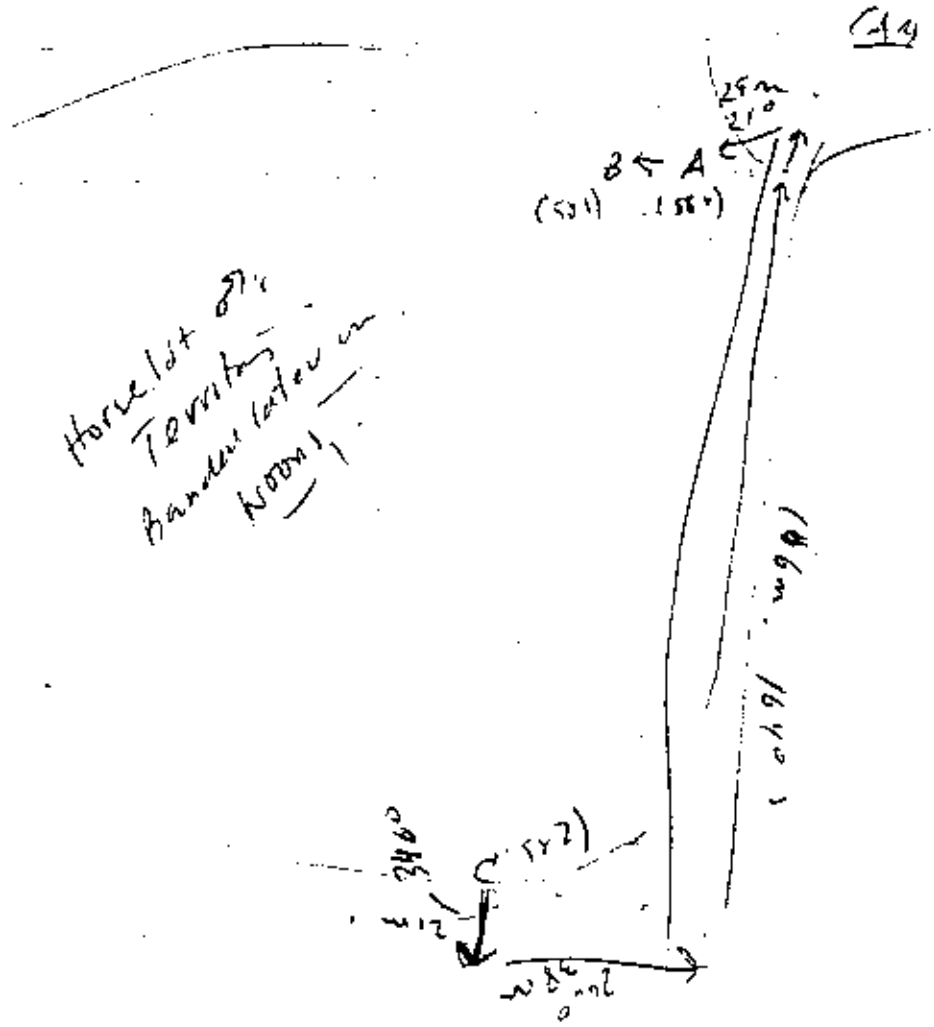


0954 B – ♂ D/F, male? ♀
#581 female. – chips. – F
also in tree.

Cedar Waxwing.
Bewick's Wren
Field Sparrow
Cardinal
Eastern Phoebe

Titmouse.

1014 C – ♂ Drall – NOT seen
#582 Grove LOJ, Bumelia,
on small pressing Hackberry, TX Oak,
clear, lots of leaves,
Second-growth juniper surrounding.
Continuous woods on one side –
small clearing on other.



Horse lot 8½
Territory
Bandelier in
Noon

To
Horse
Thinking

2 Ap. Victoria Nat - Midden.

- GPS File

DØ4022ØA.

30° 30' 10.5" N

97° 57' 58.2" W

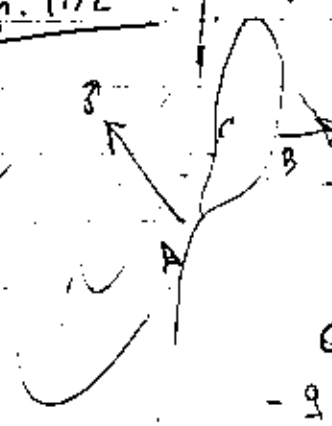
1374 ft. 3d.

8 Ap. 1952

Windy - 60-65°C

1100 Male X cañon to 280° - 300° W.

@ Loop #2 Nest



Caroline ~~Cañon~~ Wren Calling - Cañon to W.

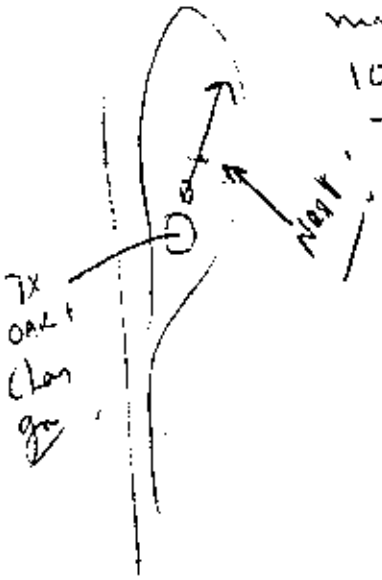
- ♀ Chips + staccato (♂?)

Chip heard at A (S. on trail).

(B) ♂ heard @ 1108; ⊖ B

(C) ♂ lg call @ 1111

(D) ♀ chips + obs. F with nesting material in direct cross 100° C at Pine fly



1126 Nest in TX Oak 3/1/2 - 2/3's up.

1144 (E). ♂ @ E

with ♀ chip

nearly ... AT

♂ to W

Flagge in pr

Sinkhole

x - Trail

N ←

♂ E

1144

Trail

♂ he (1147)

124 Leila @ obey next - both ♂ + ♀

going to meet together ♂ short-cutting

in vicinity

1225

2

1 + chips

3 + chips

3 + w wall

9 April. Friday:

1009 @ GCW Near

1010 "Chips" 2-3X.

1010 Brief. trill call

1011 ♀ at nest with material - (Prob. Back)

left almost immediately, sat in cavity

+ shifted (scootched)

1012 - 30± ♂ ♀ at nest. with material

+ scootching

1014 "Chips" 1X.

1015 ♀ at nest with NM (Back)

1016 ♂ Buzz. trill.

Ch. 2X

1017 15 S.

1018 - Ch 1X.

10.18.40 - ♀ NM (back)

10.19.06 SC

♂ lc. close by.

1020 ♂ SC

20.12 ♀ NM, ♂ SC.,

SC.

20.39 → Ch. 3X.

1021 Ch. cavity.

Ch. 2 location.

1021 SC

height ♂♂ singing

1023 Ch 3X.

1025 dist. SC, lc.

1026 Ch. 3-4X ?

1028 Ch. 5-6X ?

1029 ♂ SC to S. } dists ♂

1030 ♂ S.

9 Ap. 1973,

1031 cl. 2x

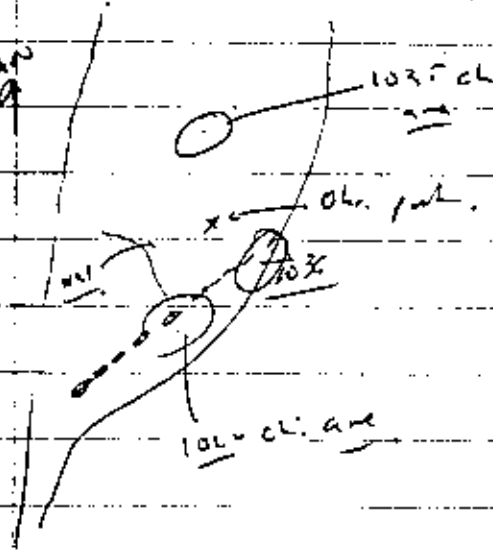
1033 cl.

1032 repeated chir. up

slow

X 1037 Break to photo

now



x 1047 ♀ Back to follow ♂

1048 ♂ SC.

1049 ♂ SC.

1053 ♂ SC + Lx.

1054 ♂ S.

P. serotin Yucca pony

Q. texan. buckling. BHCA

A J.

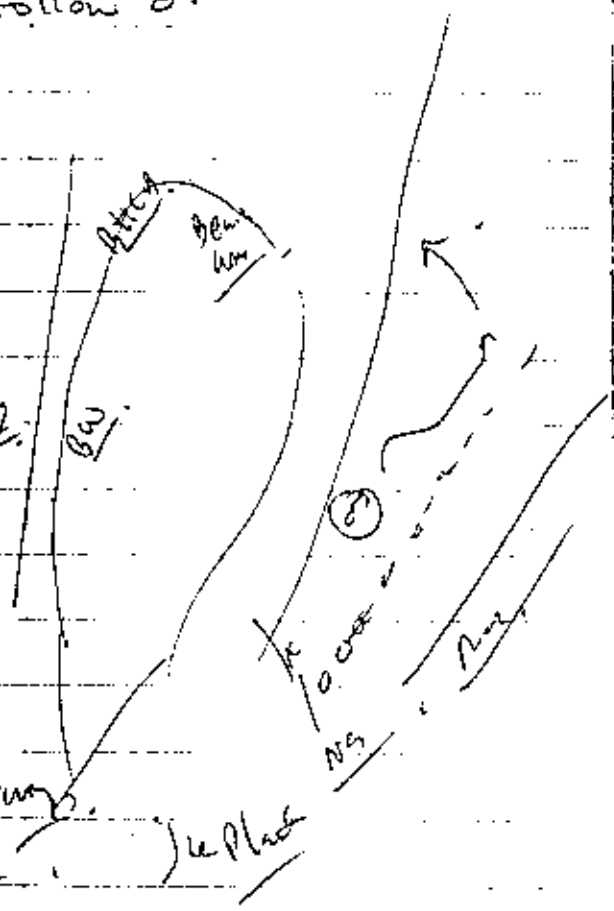
Bunda J.

Ptelea trifoliata

Waxway.

lots of P. serotin seeding. Ice Plant

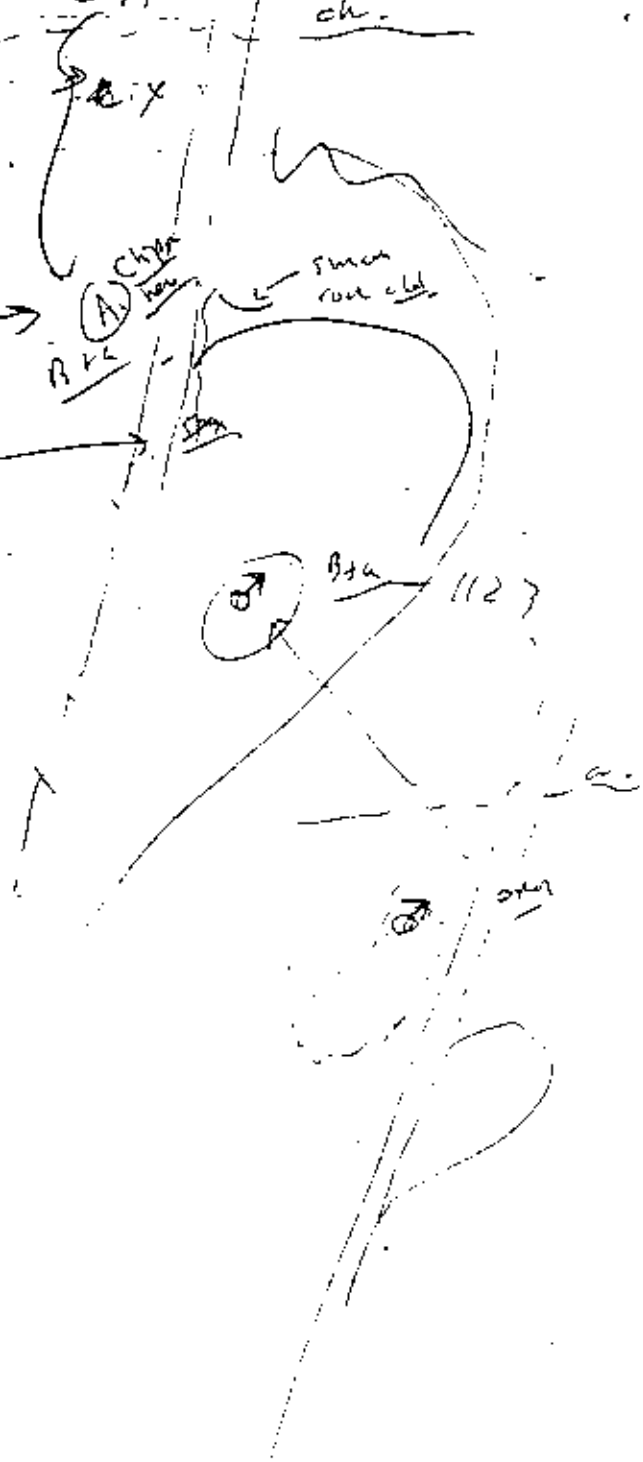
Smilax.



1111. 2 ♂ intact @ A (Pouring ♂/♀ intact) ok.

3m ♂ S.C.L.

opposite shape



2 ♂♂ here →

Mollenkeysilver.

Cerus, coming up on dk

Vitro.

1124 T pretty silent except for beginning of hill

7 Hp 1240 Walk to 1st [illegible]

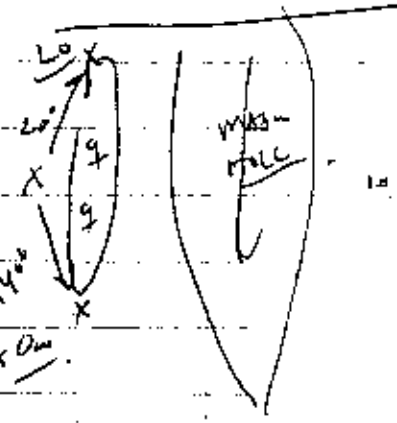
1253 q. – W edge of Mason Hollow

q Lin GPS B040917A

#591 30°30' 14.7" N

97°57' 50.0" W.

q moving in row of trees at edge of clearing – chipping intermittently – TX Ow



Possible not construct – fwy

1312 BHCB flying away from Mason Hollow to W 10 m to Bottom. [illegible] – in scattered 2nd growth

1314 @ NMT #1 [illegible] in cavity

9 Ap. 1993

1320 @ Nort 1, bottom vacty pt.
♂ lc alg cinc wn to N. on 60 m.
moving close.

1324 another cinc in Cañ.
we vine to W in brn

1325 ♂ lc.

1328 ♂ lc moving S. alg Cañ vine
towards ml

1331 ♀ @ N. sk in cup. th
leave mt 30s.

Silent @ next

1333.36 ↓ ♀ @ N. "
1333.38

1335 – BHCA in HC in Cana C.h

1336 ♂ SL.

1337 ♂ SL.

1337 – " " moving close

37.30 ♀ @ N – ♂ SL.
( )
37.59 ♀ – "chatter" cale

1338 ♀. to W. x trap
chip lip

Susan Foster
267-2727 (Home - Rm)

1339 Leaving Nest # still made
Cuystrus

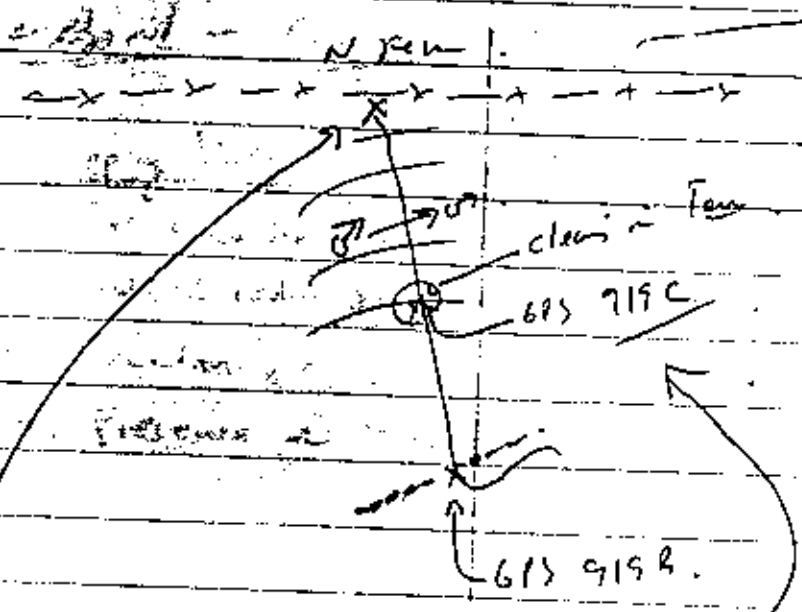
Rock-Tena @ 270°

GPS . B040919A
30° 30' 31.8" N
97° 57' 48.8" W
along Rock tena
ROCK CAIRN
cuystrus

Trail N. of Sinkhole Bn.
BW to S.

GPS B040919B . - road passed through
30° 30' 31.8" stone fence to N. above
97° 57' 51.1 W. N. property line.

GCW →



B046919C
30° 30' 34.1 N.
57' 50.8" W

B040919D — @ N Fence
30° 30' 34.1" N
57' 52.9" W.

B040919E @ NW Corn ... 30 m S
30° 30' 41.1"
58' 1.3" W

1453 → Back to Next #2

12 April – Cloudy – 75°F

Trapping Data:

1. Presence of female. (~~[illegible]~~ visual evidence) ?!
2. Vocalization Sonar / Types.
3. Location.
4. Presence of Young / Juvenile Calls.

Spot-Mapping Work

Basic Location of All Displaying ♂♂.

⇒ on Cover map.

1. How many ♂♂ on periphery.
2. How many ♂♂ on drainages or other steep – moist slope.
3. How many ♂♂ on uplands.

— All corrected for woodland cover.

Nest Location – Describe Woodland.

OVRiver

1. D – nearest tree.
2. Sp. of nearest tree.
3. ground cover.
4. mid-stem.
5. dry slope.
6. slope.
7. distance to nearest clearing.
8. GPS – Loc.

Nest Tree

~~Total Height~~

1. Species
2. Total Ht.
3. DBH.
4. Crown Diameter
5. Ht. of Nest.
6. Shield
7. Nest Loc. main trunk.
   upper branch.
   side branch
8. Concealment Material.

Harold.

~~[illegible]~~

12 Apr. 1993 1511 Gale Bin.

Green Anole New Gal

Lak Spann @ Cary Post Oak Cove

23. (S/B) // m
24. (B/S) // m

25. M // (S/B)
26. M // (B/S)

27.

28.

S // (M/W)
S // (M/W)

(M/W) // S
(W/M) // S.

S // (M/B)
S // (B/M)

(M/M) // S
(B/M) // S.

(S/M) // W
(

14 Ap. 1983

B041418A 29' 51.5
57 41.4 on trail
[illegible]
Collier Hollow

B041419A 29' 54.3
57' 44.3

Zone B line. on trail

B041419B 29' 53.6
57 51.1

15 Ap. in S. my Collier Cam

BHCB – in cam in bottom

B+W.

GCW in bottom.

Wrangling

Cardinal

0911 → eng many

Airport Action.

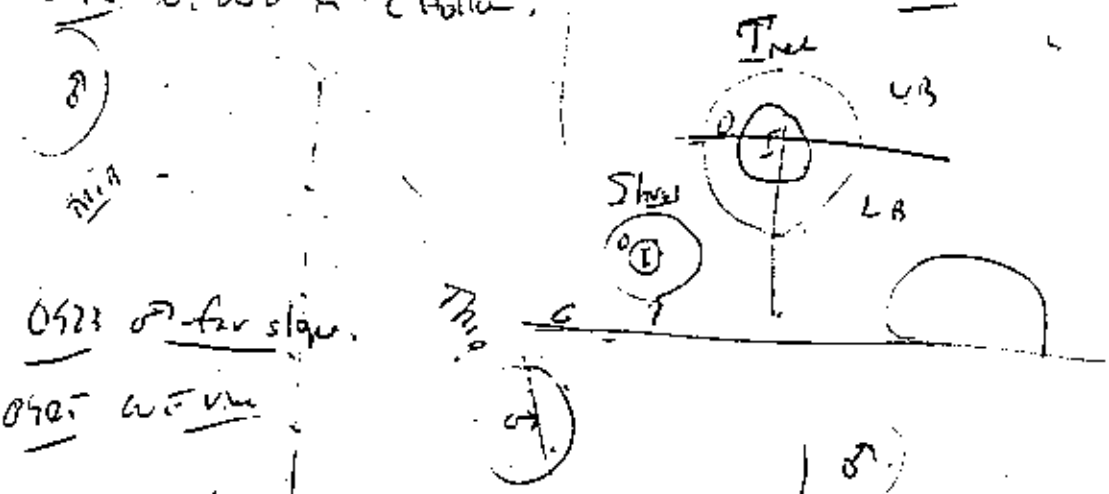
pr. Lunch Spam → in bird pile

Scrub Jay

0918 GCW ♂ in C Hollow.

Get Permission to X fence.

GCW calling intermittently in Collier Hollow



11 0923 ♂ far slope.

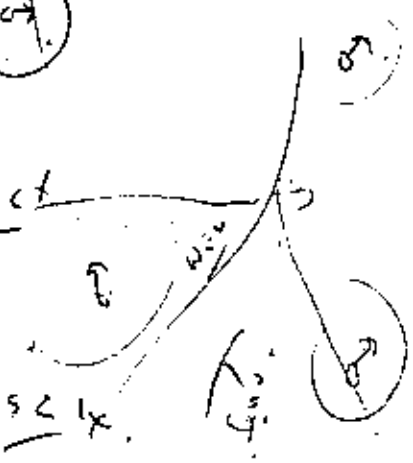
0925 WE vine

0925 ♂ to S X hall

0925 ♂ lc @ Trib. Jct

0928 ♂ in Hollow LU

~ pl 1c 2-3x in sc 1x.



B // (M/S)

0928 Sighting — ♂ lc. LO, O', upper B.

0938 Sighting — ♂ lc. LO, O', upper B.
tree in full blow. 1.5 dbh ha.

0980 / 0939) ♂ @ AJ upper branches. LC

BWOM

AJ DBH .5 m
prominent — fence ROM 5-6 m
tall

F → 40° ~ (Station P. lc
intermittently.

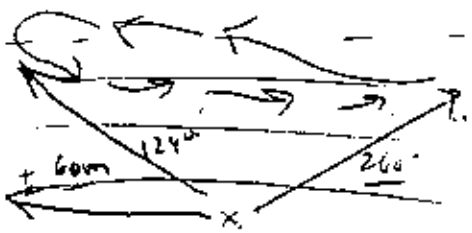
0944 Airplane

Bloom Sequence

Blackjack Oak

0959 ♂ SI in S. Slope Plum (Post Oak. & Tx. Oak. & S. & O.
mid Line Oak

1003 ♂ in S. Slope .. fr
bandsite. lc. continuously with st
pauses



1011 silence dense slope. tr.
♂ SC. to E in Sem 50-60 m

15/4/93

1014 Cooper Hill [illegible] AJ [illegible]

S. Slope

AJ [illegible]

3020 12m

3340 20m

10m

AJ

Collier Hollow

fence

fence

24m

2320

1560 12m

1027 Helicopter

BHCB 1034

Chop

280 10m

BHCB

LU

1031 Steady SC ♂ [illegible] 3180, 23m ♂ F N [illegible]

TX Oak [illegible] OB - 8 sec

BHCB up.

TX Oak [illegible]

1034 BHCB [illegible] crew

1035 ♂ in [illegible] to [illegible]

15/4/93

1059 – @ Seance.

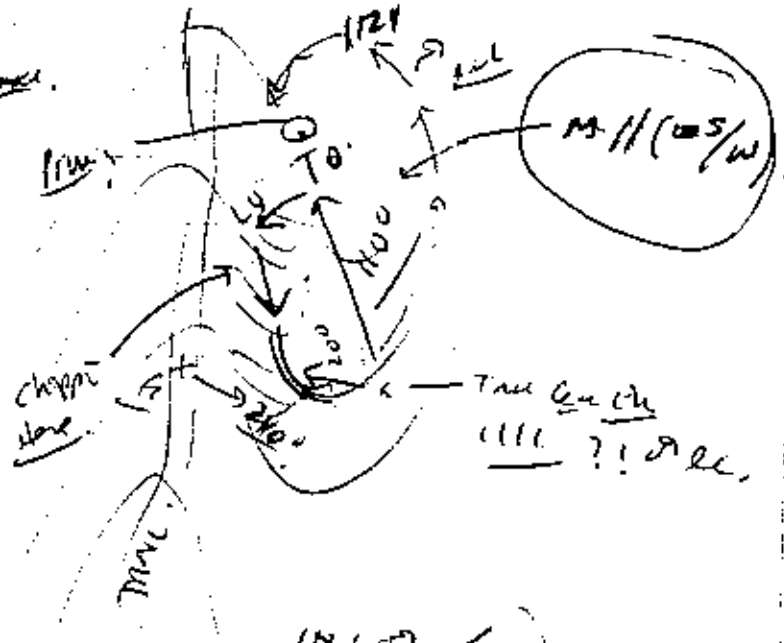
1118 in LO

Pinch TU not under cliff

1125 Airport Helicopter Noise

Bow Wankle

Summer Tonnage



~~1121 of Seance bow SC Dist~~

1140 of P. Seaton Lc. → AJ → LO

M // (S/W) to E Rd

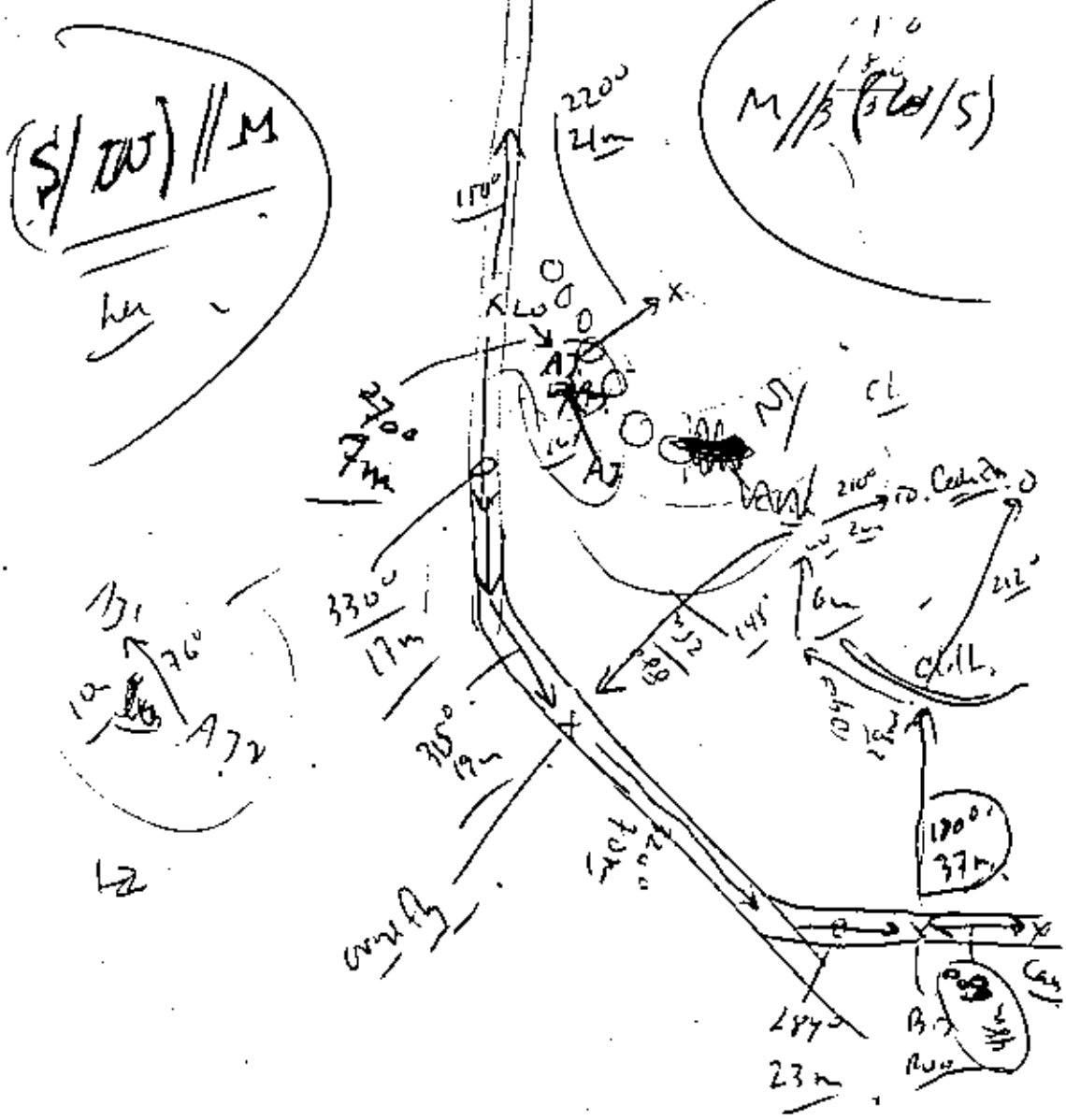
1145 of to E lc. + ch. f x rd.
+ attain W of the Bitric to E.

1140. of UB, E Clearing → AJ → LO → AJ → TO

LO → AJ + Ag. Ensuite X rd

15/4/97 E & W ⊙⊙ to distant parts
⊙ ⊓ E⊙ to [illegible]

1200 ⊙ [illegible] to AJ2
EC → Prominent UB. 3m DBLL 30-40
AJ1 + AJ2 Pin UB



1245 Helicopter

♂ Sing in Cl. ll X ~~[illegible]~~

~~[illegible]~~ E ♂ X rd. to sing in
LO, UB

Next 1

1300
↓
1342 chip X trans. to W.
1354 – pun. Ch, ??
1352 cl.
1357 BW in Cam.
1356 Cam Wren in Cam.
1355 Cam Wren in Cam.
1401 Bew wren to W –
1402 WE Vireo in Cam.
1403 2-3 Chip w. ↓ Nw.
1405 – Chi: 7.8x for 2 locs. E ↓
W ↑ NT

15/4/53 Next 1

1409 chs 1-2x in Cairn Rm.

1414 Ch 2X, to N. close.

1416 Ch 1X.

1417 Sheary Chippi to E in [illegible].

No Sp in BM

1420 B&W in Cairn just [illegible],
Hummer.

1421 chip. 3-4X near near. pick ♀.

1422 Caro Wren.

1425 BW + Cardinal in Cairn

1430 Cardinal [illegible] to E.

1436 Ch. 2X in the type SBO

1434 Cardinal + chip 2-3X + pointed Bell's V

1436 Sheary chippi to near next + S. (Tyne)

15|4|93 Sunny + Mild wing

1436 1438 Steady Chips

1439 more chips.

Ca Wan - Ca ñ.

BW in C. in Next to NT + Recorder

1441-1443 Recorder bow BW call.

1445 Chip ~~2x, 3x~~. 6x L. SBO & Na NT.

1446 BC Tamar - 3 binn pair
- through → chasing.
- more chips. (maybe BCTs)

1449 Chips.

1451 - RC Kingfisher.

1451 - RE Vireo ?? in C.

1523 leaves Area, ♂ Not Heard!!

16 Ap 1993 10-15 Kmt

1131 Mapping BW @ Cut-arm ♂ #6
Bearing [illegible]

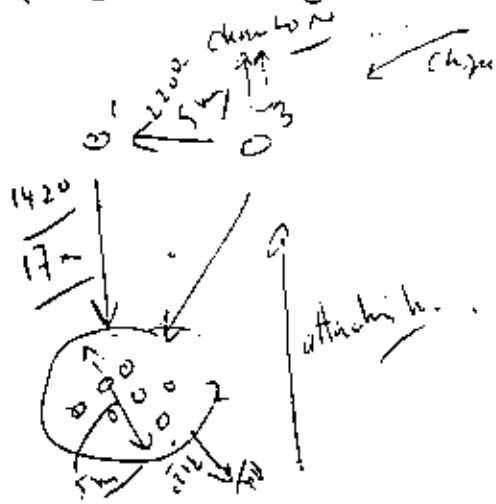
1143 Glow ♂ lc, LO, UB, IB, blom
(B/S) // M, ~~[illegible]~~ 1° the 1° P

1153 Chips at Cleaning
#2
♂ Chip

312
-180
132

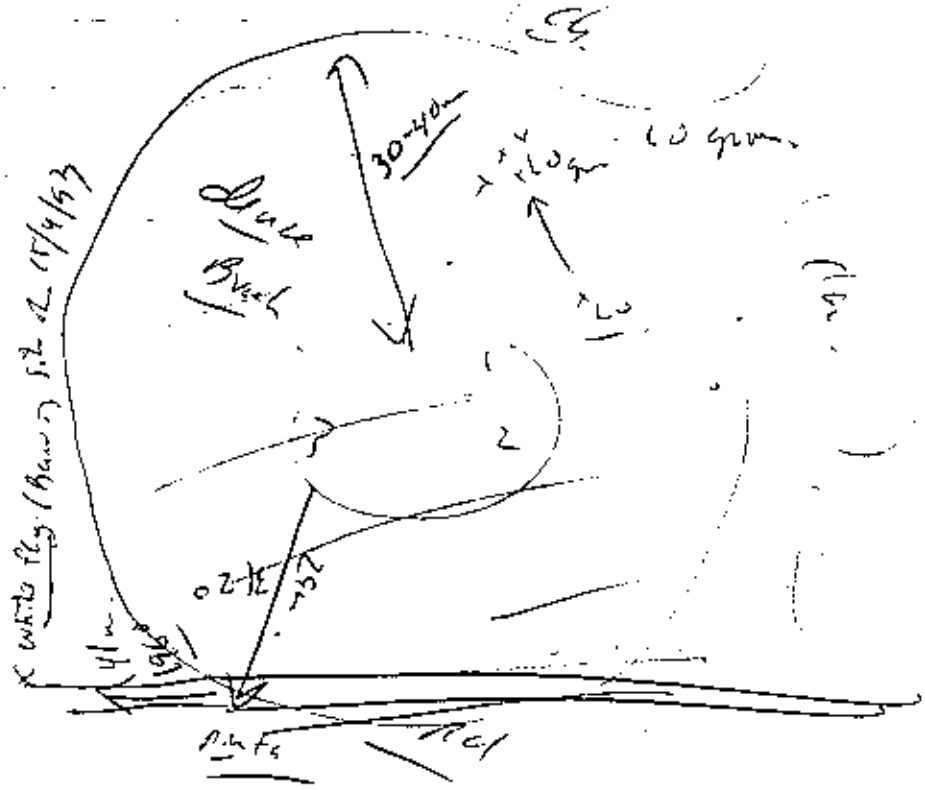
#2 LO grove, UB, 1°, blcom,
lc + chips (♂ + ?)
10 then

#3 chips #3, LO, 1°, UB
chips seen ~~X~~ 2nd bit flies in
+ chase to N.



Genus Vitis Dense Brush

1209 ⇒ Cardiac to E.
M Dove
Sprk Tag



16/4/53 M // (W/S)

Main Gate ♂.

1230 SC. PO, OB, side. SC. Seen

#2 LO, OB, side, SC, Seen.

F to N

#3. Chip, LO gun ?? N side — Blown

clear SC, UP.

(Mulberry)

chip to N in Oak gun

1240

BANDER ♂.

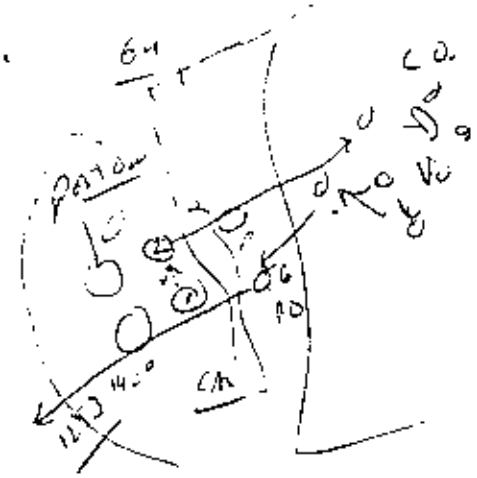
in LOS chip at

earn move —

hovering at roller

leaf prob. lapidary

larva



1240 Silica NO Bike

G/W prob main feeding

@ high pace + main thru

LOS in Neg of

MGA. Clear —

1248 SC, LU, 1°, Blary
UB, IB,

1353

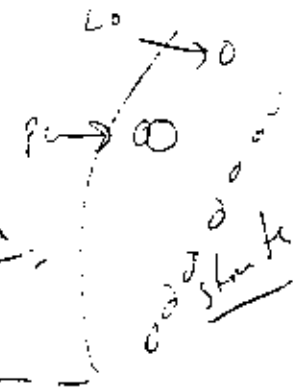
LAMK. SPS,

1256 PO. #6 SC in
prominent Pauc white green + ...
Ply to 146°

#7

1257 AJ. min ...

1258 LO 10 SC 1°. Blar
PO 1°, SC



1302 PO 1°, SC, UB, Fees

1304 F to. S (150° S)

(Dumetrol)

1308 Airplane
Clg in CO + S.

1310 to PO [illegible] #6, Ch 2-3x

1310 to PO over CAM

Chip

1312 ?? F to 10°N + 005

1320 Airplane

1324 Plus, Chip PO +

#10. 9 ch LO [illegible]

1335, [illegible] odd [illegible]

[illegible] 3u

Dark [illegible] type

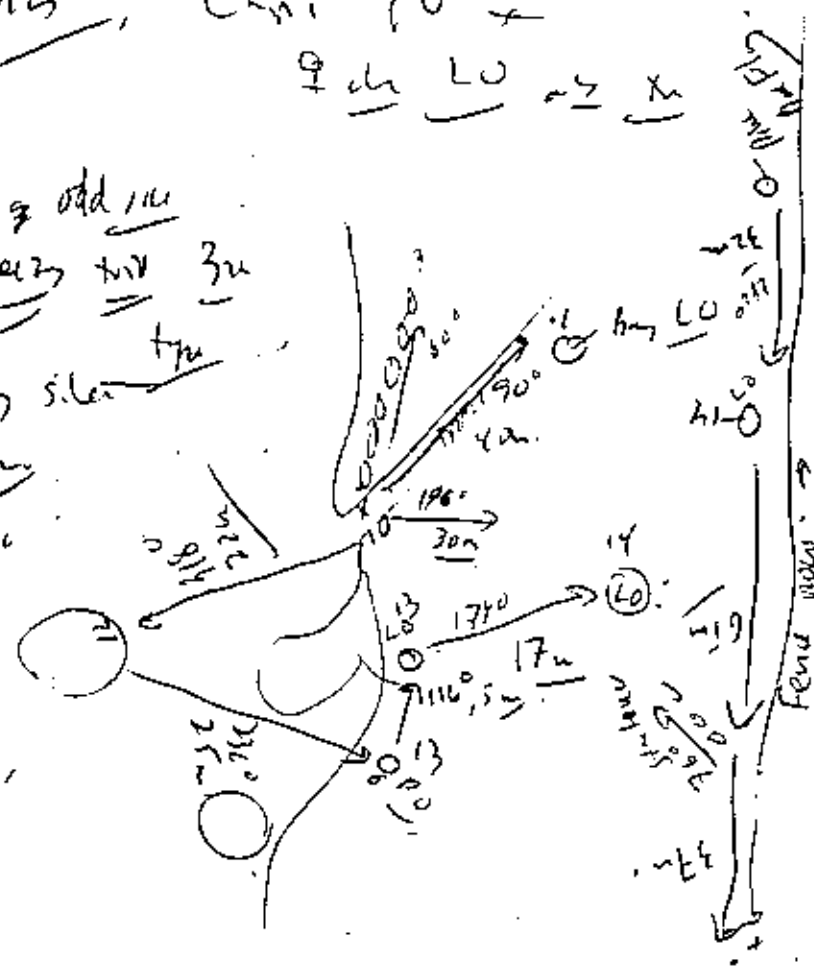
9 [illegible]

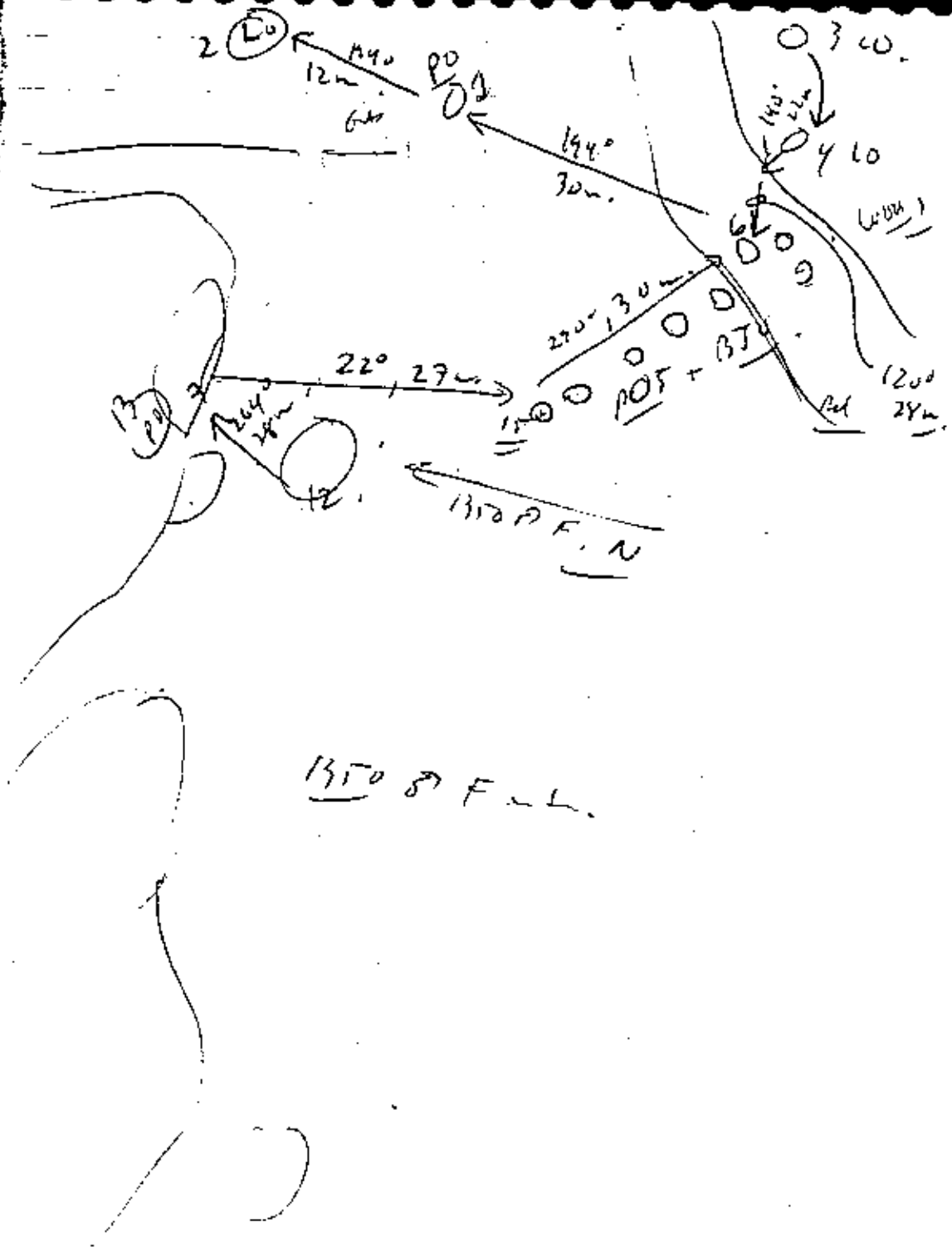
9 [illegible]

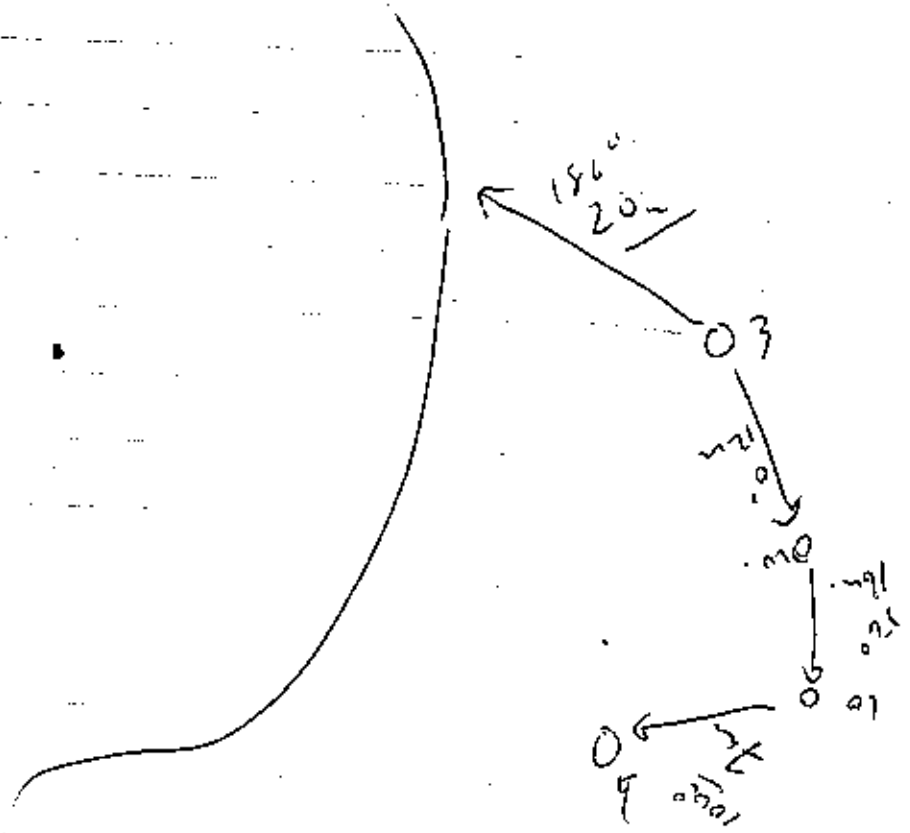
1335 [illegible]

+

Titus




2 LO
12m
PO
194°
30m
3 LO
4 LO
6
22°, 27m
POS + BJ
1200
28m
12
1350 ⊕ F. N
1350 ⊕ F. L.



1415 00-LC to S. 15 beyond #12

~~VR~~

D. Murgy - 1-800-324-4934

Kron Sh Extra Heavy wt.

No. 962, Dry, Nat. colors

$15.00

$5.00

VC

1-800-888-820

NF 104-248 (medium)

Size 2-14 ch.

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Cal

K36507

X+B 007

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Whol

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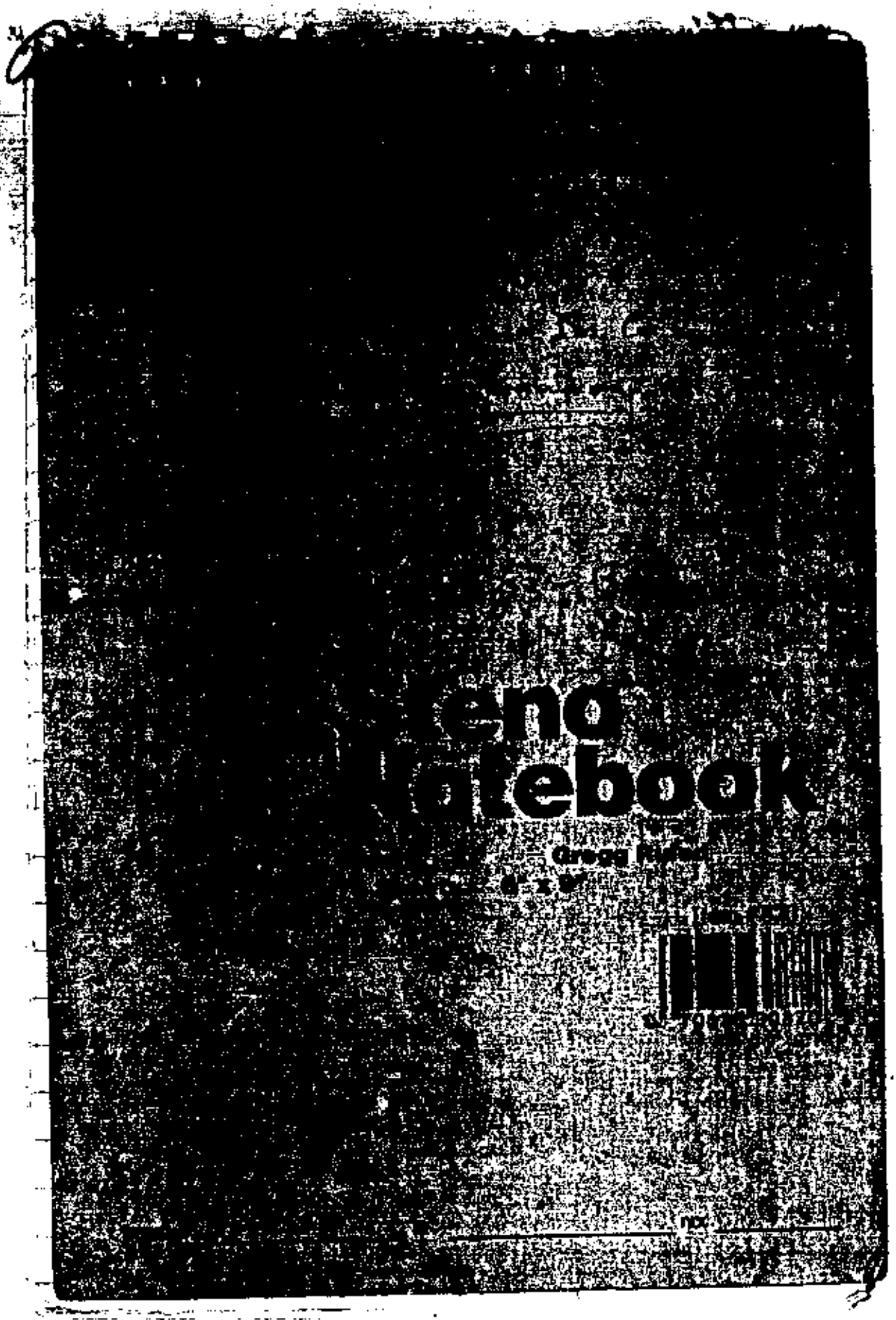
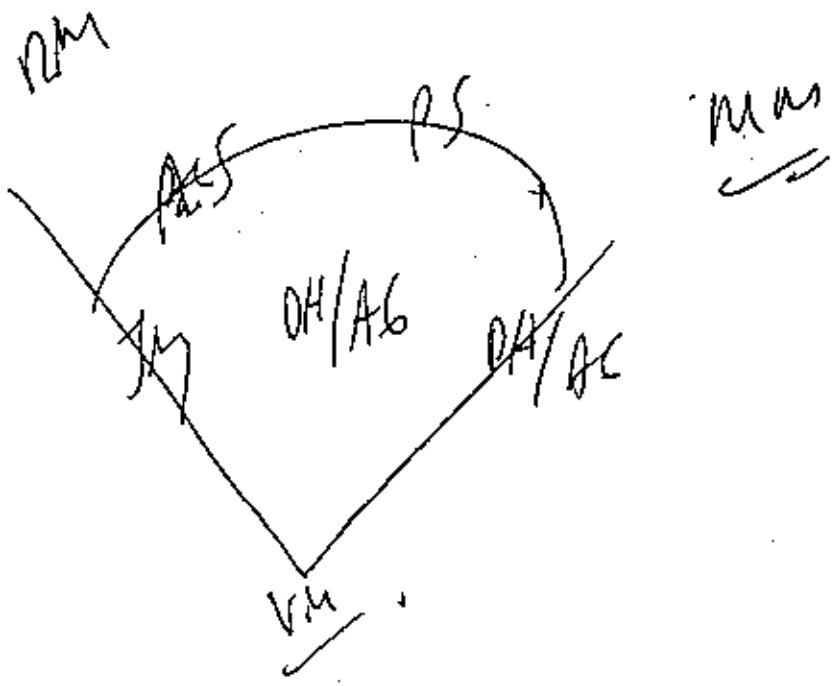


Lyh
$19.75 ea.
6th. Tuesday

TD DT.



5 June 1993 Victoria
[illegible] E Sc.
[illegible]

9 June 1953 Victoria

on Hollow — E Side.

possible orchid Grisk

0853 Brow'sing

0856 ♂ SC

Mysarchus
Canarium ...

Midsh
Ilex
Corn
Rescuh.
Unguad.
Viburn.

X 0907 → ♂ SC (#1) FRAP Unham.

UB, IB → WINBY

Pr. 5-10 km.)

0730 BHCB @ ~~[illegible]~~ Gate.

0800 BHCB @ Pline on top of

Side Hollow

MAP TO #1

#1	342°,	17 m.	A
A	354°,	35 m.	B
B	0°,	19 m.	C
C	44°,	24 m.	D
D	356°,	16 m.	E
E	40°,	40 m.	F

100 m UP
Mid Ref Pr

+
Big Cedar
Pr

0527 Silent

0533 Viburnum - white Browse line

B+W W

WE Vireo - Jov.

0537 YB Cuckoo

B+W Wa.

Scrub Jay

Corvus on Slope

1003 Back at Room

Ca Goo on fine Truck alley

Rd

1005

(1) Dean Hecht ✓ (1)
(2) Ray Martinez (7)
(3) David Hernandez ✓ (2)
(4) Antonio Garcia ✓ (6)
(5) David J. (1230) → (9)
(6) Mike Duque "
(7) Alan Stark (✓ (3)
(8) Gary ~~[illegible]~~ ✓ (4)
(9) Paul Stark (5) ✓
(10) Tommy Deberry (8) ✓
(11)
~~(12) Mary Trunk.~~
(12) Vince 462-8771
(13) Tommy Deberry 280-0467 (H)
323-1575 (W)
(14) Jay Tok - 458-5977 (H)
- 345-2378 (W)
(15) Darrin Clarke 326-3679 (H); 389-4024 (W)

Sasa Sept 2-6
Ray
pm 2 people
$344 per
couple
American
Suzette) -
477-9916

Show
Riverplace Paul,
346-6784
~~462-8671~~

99

Calls

1. Darrin re. Dawn?
2. Wayne A — 444-35-64
3. Jeanette re: Patrick 448-4311
4. John Linn 445-4315
5. Mark Hurst
6. Tony Fowey — 795-0252

Greg Barho — 416-0963 (H)

DRS

9 June 1993 | —

#5 LO 278°, 9m. #4 LO.
#4 LO 285°, 7m. #2 (LG) AJ 6/1
#2 (LG) 273°, 12m. #3 (LG) LO)
#3 (LG) 31°, 22m. #2 (AJ) 6/1
#2 (AJ) 71°, 4m. AJ (10/4 / Old Pen L)
AJ (Old Pen) 13°, 3m. ~~#2~~ #1 (LO) 6/1)
#1 (LO)
#11 (LO) 6/1), } 176°, 12m. ~~#1 (LO) 1/6~~
#4 (LO, LG) 6/1) }
#3 (LO) 6/1) – 108°, 7m. A (LO)
A (LO), 47°, 6m. B (LO)
B (LO) 47°, 10m. C (AJ)
C (AJ) 60°, 4m. & D (TO)
D (TO) 84°, 7m. E (AJ)
E (AJ) 53°, 4m. F (LO)
F (LO) 62°, 3m. G (LO)
G (LO) 300°, 13m. #1 (LO) 2/6.
G (LO) 117°, 9m. (ROAD N. EDGE &
H (LO/AJ)

Additional 6/1 Perch 60 N.
of Rd. cm. 50m

MAPPING

#6(10)(6/1) 94°, 8m. #7 EC 6/1)
#6(EO)(6/1) 326°, 14m. #8 QS (6/1)
#8 QS 6/1 346°, 34m. #10 LO 6/1
#9 QS 6/1 303°, 20m. #8 LO 6/1
#8 LO 6/1 210° 52m H(10/A)
at Rom

1450 B+W wn

1501 Scrub Jay S.

Bewicks Wn. S.

Field Sp
Rufus Cn.
B+W wn.
WE Vireo.
Carolina Wn.
Cannon Wn.
Bewicks Wn.
Cardinal.
Nuckingham
Scrub Jay

Painted Bunting.
Orchard Oriole
BHCB
Black-capp V.
Eyed Vireo

Buddy Rodgers Fm → Pearl.

A. Vernon 707

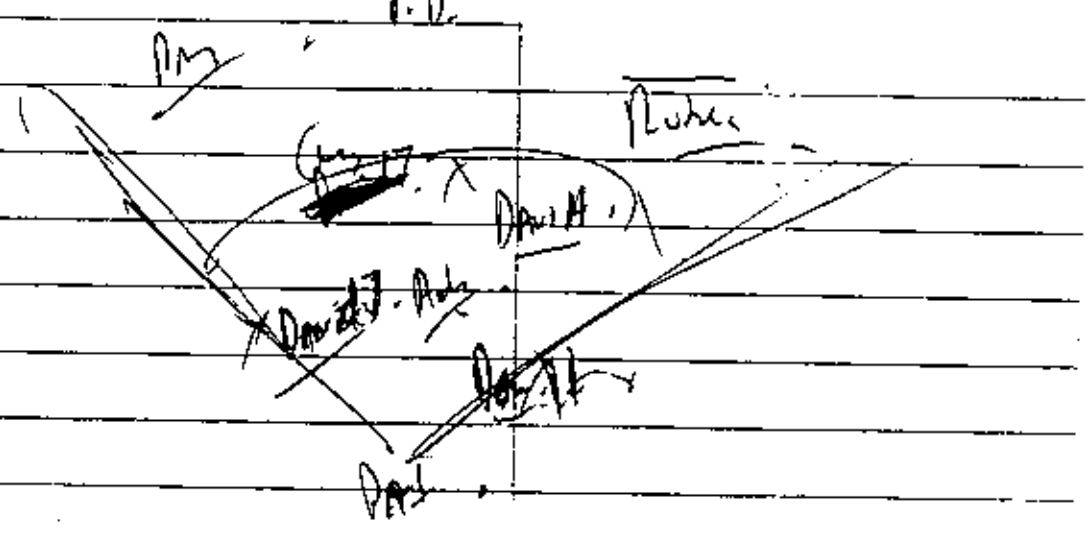
Paramedic →

Penn Ranch →

AUSTIN RAIDERS

1. DAVID J.
2. ~~Tommy~~ RAMON M.
3. Dean H.
4. Greg A.
5. Tommy D.
6. ~~Antonio G.~~ DAVID H.
7. Pat. Herrera
8. Ruben Bautista
9. Antonio G.
10. [redacted]

SUBS: Alan Stark
Paul Stark
Dean Heck.
T.D.



Bautista, Reuben	Hm. 855 5332
David Jeansonne	Hm 448-1058
	Wk - 462-7213
ANTONIO GARCIA	wk 471-7064
	(h) 479-6260
David Hernandez	Hm 442-2518
	wk 448-4311

AUSTIN RAIDERS ROSTER

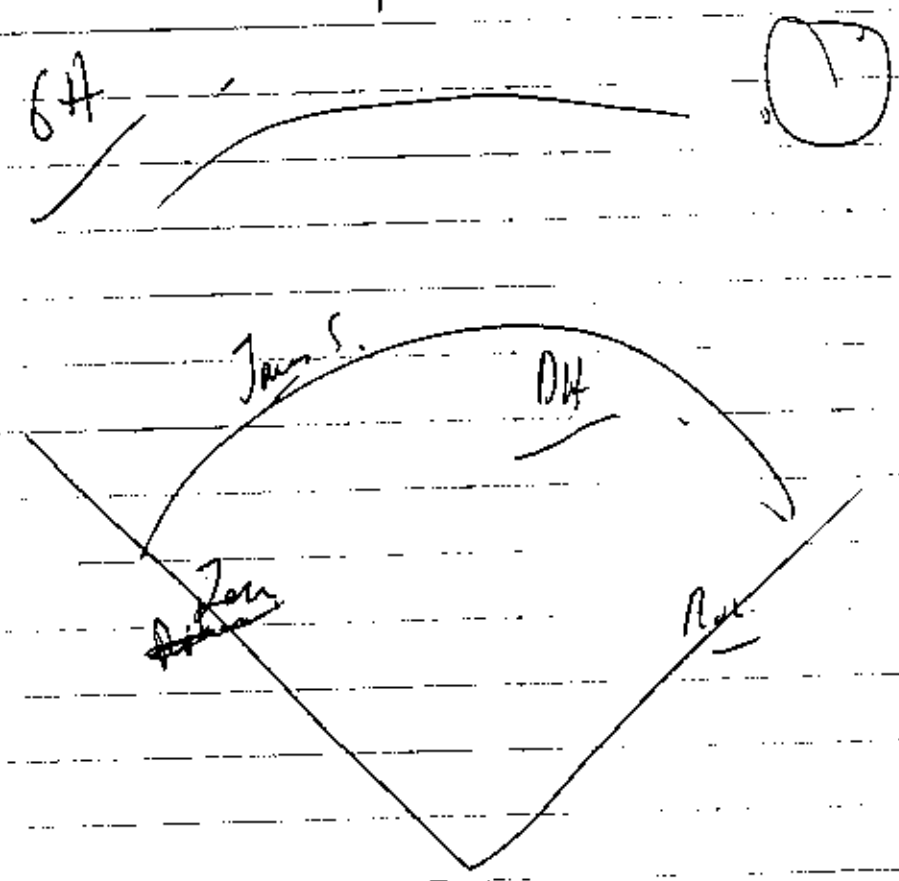
1. DEAN HECTOR
2. ANTONIO GARCIA
3. ALAN STARK
4. RICKY BARKER

} Pitchers

5. DAVID Hernandez.
6. DAVID Jeansonny
7. GREG Anderson
8. Greg Barho
9. DARRIN CLARKE
10. Ruben Bautista
11. PAUL STARK
12. Tommy Deberry
13. JAY Johnson
14. RAY MARTINEZ.
15. Scott Royder
16. MIKE MAAS
17. VINCE Cantu
18.

TD.

6H



Robert Olivo
396-0062

Ch. 5 –

p. 35. ¶ 2. s.f. In general – competent scientists/ecologists do not believe that "... all environments respond to the same forces in the same way". Savory needs to take a peek at any good basic ecology or range management text.

¶ 3. B Libya "birth" if its decay takes 15 centuries!! ~~Mr~~ Savory misses an obvious key qualifier... time!!

p. 36 ¶ 2 No!! next is considered by a partial cure – since development of conservation biology + advanced range ecol. of 1940s – 1970s applied scientists have appreciated that under some conditions ~~stability leads~~ protection from disturbance leads to change as a result of ecol. succession, past land uses/abuse can lead to succession which continues

despite rest.

p. 36 ¶ 3, 4, 5 NO DOCUMENTATION – How was "DAMAGE" measured? Were injuries #'s estimated? These are the sort of Q's. a gen must provide answers to in the form of documents

p. 36 ¶ 7 – 8c ~~Savory make the logical error~~ If there is no deterioration then how can there be no desertification? I thought overgrazing was defined in terms of ~~an~~ rangeland degrees! Furthermore... how can any land be mismanaged ~~[illegible]~~ ... if no decline in production is occurring – ... Under these terms we define with the SAVORY system as the standard; i.e.

|| MIS-MANAGEMENT = NON-SAVORY
|| overgrazing = NON-SAVORY ||

¶ 7

p. 37, ¶ 5 Savory is simply defining as "brittle" those climatic regimes ... "unpredictable rainfall" which promote development of grasslands + retard development of woodlands + forests.

¶ 6 How can a distribution be "poor"?!

p. 38 ¶ 3. ~~[illegible]~~ EGO showing!! What "discovery"?

p. 38 1° Seed dispersers. → wind + birds + terrestrial animals + run-off.

454-5491 -

505-766-3972 (USFWS) Albuquerque

512-482-5436 - (USFWS).

Send Request →

JAN HARD

Send me request

[illegible]

111

Ch. 6. – p. 41/42 Basic premise here — that observations (HIS) are better than "science".

p. 42 ¶ 3. Makes generalization here that can only be verified with field measurements

p. 42 ¶ 3, 4, 5, 6 – expense. Is dogmatic view here with no documentation.
– do wild plants always need good seed beds.
– Is there evidence that the functions (trampling + hoof-action) are critical for health & brittle environments. ??

p. 43 ¶ 2. S.1. D.S with NO Proof NO CIT.

p. 43. ¶ 6 NO DOC. NO CIT.

[illegible]

[illegible] (HST) [illegible] 112

Ch 7. p.45

¶12 EGO! EGO! Savory's "discover" of time impact equation to Einstein's Th. Relativity

p.46 ¶1 Savory's e.g. cos with interpretation ... that part ungulates ~~[illegible]~~ coevolved with grasslands so had little impact + could coexist in greater #s than domestic livestock.

p.46 ¶4 In contrast to Savory's statement ... ~~[illegible]~~ global climate has changed over the last few centuries from cool, moist to hot/dry.

p.47/48 Sav. recounts his observ but once again with no measures of degradation to support his case

p.49 ¶6 expected response - cattle dealing in condition of cattle being forced to feed on a poor diet.

p.50 ¶2 Once again Savory & Voisin discover something I believe is common knowledge; i.e. that overgrazing is a function of time & herd size.
It is deceptive of Savory to present this as a discovery.

p.51 ¶2+3. I see a tight link here between Savory system approach & the overcompensate controversy.

p.51 ¶2+3 A key controversial point is that Savory focusses on cattle-caused disturbance as important to maintaining grassland health - Previous chapters consider only fire as a stabilizing source of disturbance. Herbivory - soil compaction singes set the stage for succession to ~~woody~~ annual unpalatables & woody dominance; e.g. brush.

At the outset, Savory's book should generate suspicion. It is seriously underreferenced. Dogmatic statements are made without provision of evidence to allow independent evaluation. This is the role of the scientific lit. & empirical data. A further source of concern is Savory's arrogance. I appreciate ~~self~~ the role of self-confidence – but to portray one's "~~[illegible]~~ discovery" of principles which are common knowledge – an ~~[illegible]~~ parent to the discoveries of Copernicus & Galileo & Clinton is a bit much!

A further general concern is the wholesale ~~[illegible]~~ & misunderstanding of science. Science is not a body of knowledge so much as it is a process of producing knowledge ~~[illegible]~~ by objective ~~[illegible]~~ means. To discuss the scientific process appears to ~~[illegible]~~ represent a throwback to the dark ages, & sets the stage of the invocation of pleasure – "just-so-stories" designed to preferentially misinterpret in the interest of supporting [illegible] [illegible]

p.51 . ¶ 3 [illegible]

p.52 . MAJOR ARROGANCE PARAGRAPH .

¶ 2 " In years to come we will look back on the time before the discovery of the four missing keys as truly the dark ages of agriculture and of mankind which attitude toward the ecosystem the sustainer is." [illegible]

PART VII GOALS

p.56 ¶ 4. last S. first indication of attempt to apply concept to Natural Area.

p.58 ¶ 2 Stating the obvious / common knowledge brush as a symptom of something deeper.

PART IV The Ecosystem

Ch. 10 Wasson Cycle

p. 65 ¶ 2 last S. No evidence
this "...loosens, rough surface covered
by old, prone plant material activity
... slows the flow of water."

p. 65 "Crumb structure" ??

p. 66 ¶ 3. ~~No~~ 1st S. NO CITATION.
implies non-brittleness is
a function of rate of decay.

pp. 66-67 — This is 2 pages of
plagiarized garbage. I wonder
what standard EROS. test he lifted
this from?!

p. 67 ¶ 5. So now he's a sugarcane
farmer. So far he's been a
wildlife ecologist, an army tracker
& now a sugarcane farmer!!

[illegible]

[illegible]

p.67, ¶6 Displays a common sense approach to the sci. math. — but loses it when he jumps to a supposedly single conclusion.

p.68 ¶2. Need a citation here. What is the evidence the livestock production drops in high rainfall years?

p.70 ¶5 How can someone "observe" a water cycle?!

~~Sorrow~~

p.72 A General Point: I doubt if the average range hydrologist would agree that you can determine characteristics of a water table solely by inspection. — although I agree there are clues available ~~the~~ through ~~other~~ visual observation.

p.72 last ¶ But Hiram as presented depends on cattle — how do cattle influence "all of mankind activities"?!

[illegible]

118

Ch. 11 Succession

p 73 ¶1. embodies somewhat contro concept of community evolution.

¶2 Once again he seems to have abstracted a concept from a standard ecological text then taken it off on a bizarre tangent.

p. 74 "In reality a small fungus or rodent can be just as crucial to the survival of a fruit on the trees themselves".

16 Aug. 1993

Veg Class

① Riparian → Pecan/Walnut
→ Am. Elm, Cow. Elm, Hackberry
→ Cypress
→ Sycamore/Willow
→ Live Oak

② Slope Commodities → Boxed
→ Jumper
→ Texas Oak
→ Esc. Cherry
→ Ash
→ Walnut/Pecan
→ Elm
→ Shin. Oak → L.O.

③ Upland → L Shin. Oak
→ Post. Oak
→ Walnut
→ LO
→ Tx Ash
→

④ Disturbance Baccharis
AJ single column

Grass → Artificial. - C. Bean

→ Little Bluestem. Big - Bl

Switch Grass. -

→

GPS

Sept. 23 [illegible] Thu. / [illegible]

Workshop

Need [illegible] a file

Statistical methods

Vegetation transect 5 yr.

Scanning Procedures

Pr

SCANNING PC

① MSDOS

② C:\>cd\BATCH

③ C:\BATCH\STRTMCIM. (to change config. to run microimg soft)

D:

④ D:\>cd, MICROIMG

⑤ D:\>cd>MICROIMG.

File VIC_.BIG.

TIFF file conv

D:\MICROIMG\PR >tm2

"PKZIP" to condense file

pkzip.2

123

SPARC. station IPX

ARANSAS % cd / pcfs
/ pcfs.

ARANSAS % . fs.

Machine Names. →

E:\ PROJECT 3

FTP : GALVESTON

Beg Procedure
Create file - to save via network
a N. drive.

E:\ ftp Galveston

Scanning Cont'd

need 33 mgB. for

MICROIMG → need to convert to appropriate file type to maximize color resolve

Bill Microimg

Saves

VICTORIA 300 dpi IMAG.

"STARTLAN" — to start network

"FTP"

/BATCH/STARTLAN.BAT/+IXE

~~PUT~~ ftps GALVESTON. ~~put VICTRAC~~.

B:\MICROINC

ftp GALVOIN

"~~USER~~

"REMOTE USER NAME" growell.

"PASSWORD:" WTSOB321

ftp> ls → to get UNIX directory

Hard drive sd sd

/home/ Galvanin / growell

"PUT VICTRACT.BIG" to save file from MICROINC to UNIX

UNIX

to get directory listing ls -al ("list all files")

After Scanner Crash

D:\MICROIMG>C:

C:\>

D:

D:\MICROIMG>C:

C:\> CD BATCH.

C:\BATCH> DIR /W.

C:\STARTLAN.

↓

return key.

D:\MICROIMG → to set start space.

Qs (Susan)

D:\MICROIM6\PROJECT3 > ftp gate

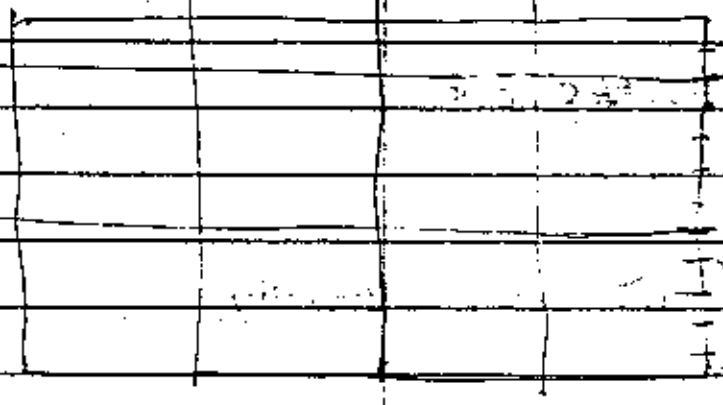
VICTRAC.BIG

ftp > get victrac.big

TM → .TIF file

HIJACK → .BMP

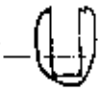
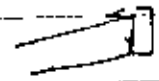
→ .TARGA



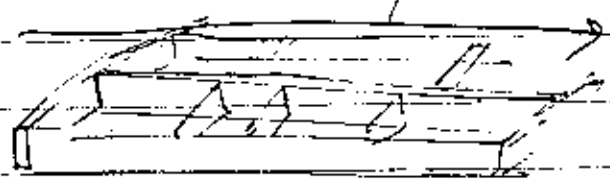
Catfoot. ; Super Bloom ; Pet Dig.

Materials

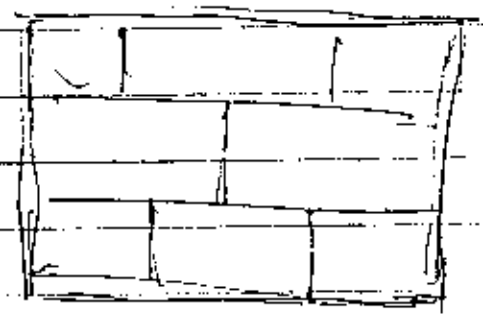
✓ 16 → 12 ft. 2x6 i.

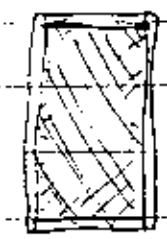
✓ ~~metal hanger~~  

2 Sacks - Ready mix



① Good Hose + Spray Attachment.





Screen Wire.

~~1 2' x 8 ft. Lattice Pieces~~

~~2 4 x 8 ft Lattice Pieces~~

✓ ~~12 6 8' 1x2" lathe~~

hinges

389-4052

23 Aug. 1993 BCU meets with Rishkind

What to do with Wendy?

Fall Work (Sem. Work 14 - Bro.)

Contents of Wendy's Work.

Ken - Bill.

Ronnie - Gap & Big Bend Ranch.

- Elephant Mtn.

Mgmt. Plan → a. present dist.

b. protective measures.

c.

Objects

* ① map occupied Hunter Thyme Park System

② Intensive Pop. Study

③ ~~map Thy~~ Exp. Vary. Manipulat

① MAP OF OCCUPIED HABITAT.

② Protective measure.

③ Active Veg. Manipulation

④ Continual Monitoring.

⑤ List of Potential Problem at Each Site.

⑤ ~~[illegible]~~

Sec 16 Project:

① Intensive Pop Studies

LINK MGMT. GUIDELINES

TO RECOVERY PLAN

OBJECTIVES. → TO

JUSTIFY FUTURE FUNDING

Sam Davey

① BCCP Draft.

Sta & G. lines

② RCU RD

24 Aug. 1993

S. Llano Rim S.P.

Probs..

① Spri/Fall. Spraying in

Big Cancer

① Destruction of Insect Pg
of Neotropical Migratory Sng birds.

↓

Against Biodiversity Prints

② Proximity to BCV colony.

③ Need for USFWS —
EPA Comments

BCV wave →

Exp. Stat

Exp. Project

Non-Invasive Control

① Barrions →

② Ethanol Spraying → "bottleneck Approach"
kill 3st. beds

③

a. loosenen of Contract →
tighten contract →

estimated contract amount, $5,500 - $20,500 /yr.

b. encourage economic forces to increase available hunter & ACV; without impact exist bottleneck

* Need 1.1. on use of
Pecan Bottoms by Sanybirds.

Judith - Pesticide use.

Need for Pesticide Use Regs. in
Parks.

Need to specify time of
spray.

Natalie - call RE:
845-7201

TNRIS Special Plates

Kfoo

8A2-J501

[illegible] 158 138

[redacted]

[illegible] ~~28 Sept~~ VICTORY

25 Aug 1993

[illegible] 1.6 [illegible]

0930 SO. Tape Spread Out Arms

Parish. [illegible]

Juv. Cardinal

Scrub Jay

0943 → GCW Tape to Good

LO [illegible] [illegible]

0953

Belly Chimney

~~[illegible]~~ SOT

1022 - WEV

BUV

C. [illegible] Field Sparrow

Chick

1029 TRAVERTINE

1047 - 200m. downstream Titmice

Carol

WEV.

Caroll [illegible]

1056

33 - weekly → 10 Jw
→ 23 ad. ♂. 22

22 - Vill → 0 2 26

3 ♀♀ 7

19 ♂♂. 33

55

Territ Mys

Victory

Territ Mys

♂♂ { 1, 2, 3, 4, 7, 6, 13, 9, 15, 11, 8, 10, 12, 14, 19, n = 15

Weekly 22, 24, 21, 28, 25, 30, 29, 27, 31, 32, n = 10

♀♀ { Vill. 17, 16, alm ⊖ Nat. 1, 2, (Vill. ♂ 11 Pauli Ang. 5.

weekly. ♂30, ♂47, - -

Flush Mys ♂ Nat 1, 2, + ♂6, ♂9,

Flush: VJCF 44, 9, Pauli Ang, 19 & 20, 6, Uplum 2, ♂4,

weekly POA female ♂24, ♂21,

N. Hill, Center Hill, ♀♂45.

1. Harold.
2. Jose Wan m.
3. Leila.
4. Matthew.
5. Vicki...
6. Wendy
7. Daniel

"You've got to believe me ...
I'm an imposter, I'm a charlatan,
a fake ... I'm a DUCK!!
Daily Duck to ...

Dell 325SX

640 K Base mem.
02048 extens

655,360 Total Cu
587,504 large exec
P. Fire

2 mB total Cat
mem

0 B contrg. extens
mem

983 KB. XMS
DOS in High Mem

[illegible]

141

Weather Station → [illegible]

TV - [illegible]

→ Talk to [illegible]

Weather →

CAM Corder → sound recovery

2½ extended tape + sound [illegible]

Blind Covering

Fran Jamey

Wiens → chapter

* Lori Spackman → Kreta [illegible]

→ Harper & Collins

*

Call →

Contingency Plan

① Equipment
② Soft
③ Call John Lighter
④ Maypie Monogin

→ Tbla
→ Tuna

16 Feb, 1994

Meeting with Risk Ind. → Monitoring
Public Lands

① Site when development is planned.

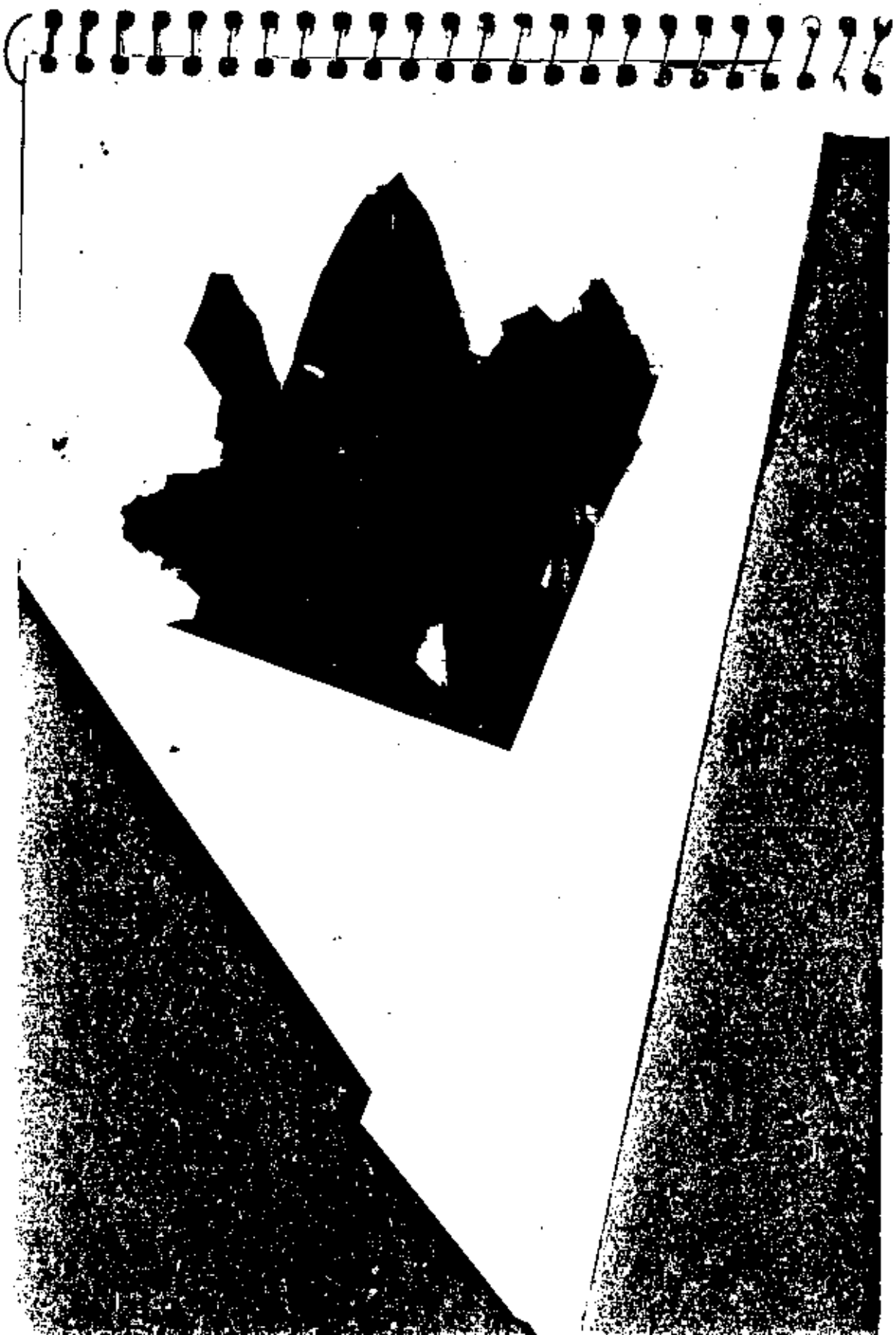
Training → at sites. Colen Ru, Marion, Pfall, } Isolated Site

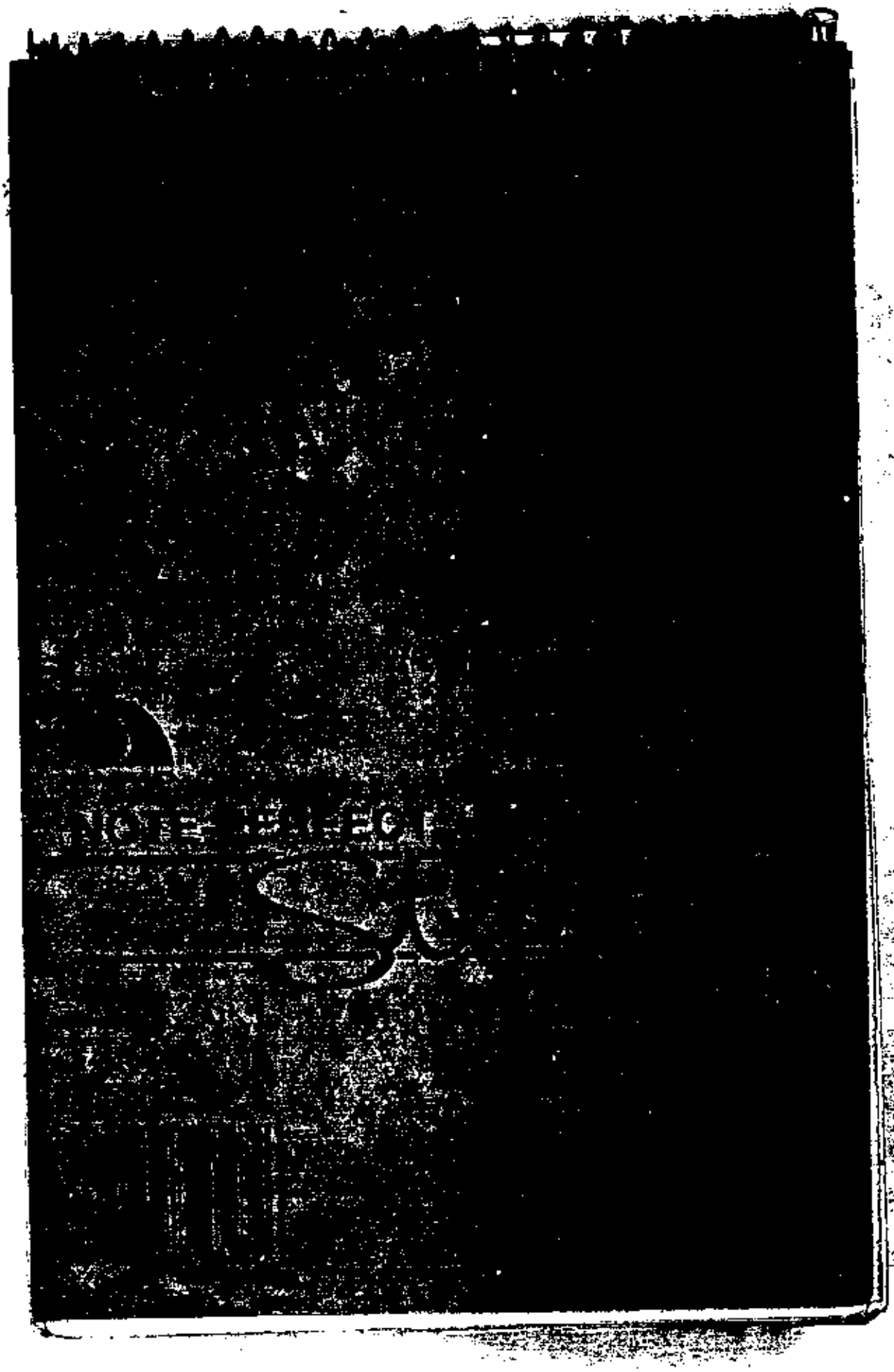
→ Ann Bro Sampling Protocol

① Possum Kingdom & Adjacent Brazos RA Land
② Moth Nettles
③ Dinosaur Valley
④ Hill County SNA
⑤ Garner
⑥

WINDOWS

1. "MAIN"
2. "Control Panel"
3. "Drivers"
4. "Add"
5. "C:\SCAN-ONE" enter path
6. "OK"
7. "SCAN-ONE DRIVER"
8. "OK"





[redacted]

19 Ap. 1953 - Windy Day. 65-70°F, ◐

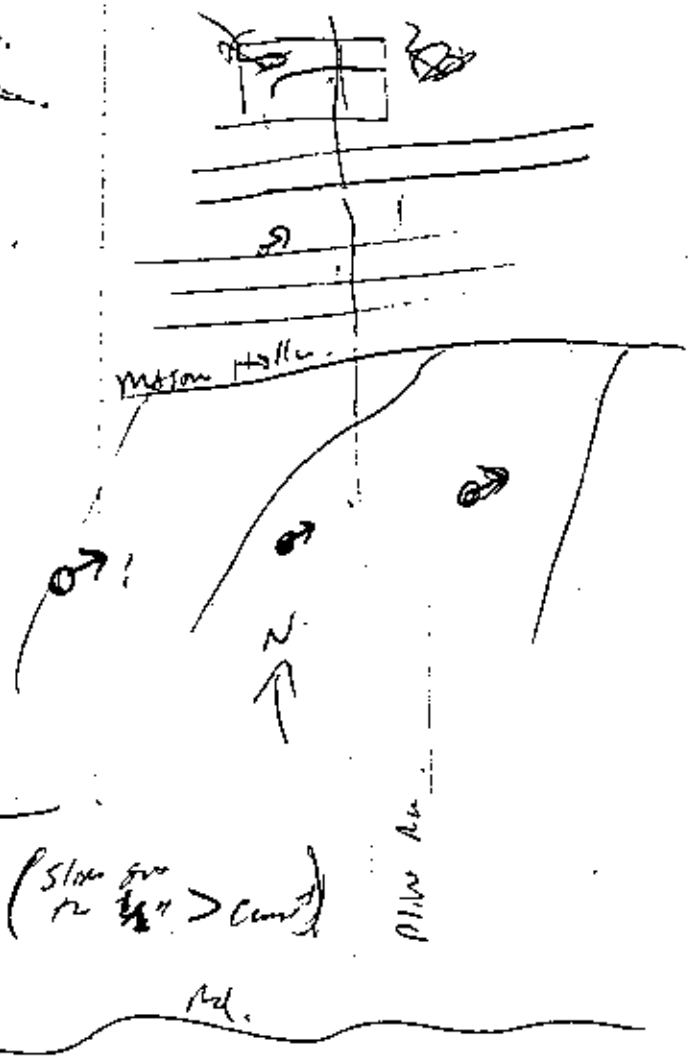
@ Banding Site. W side Pomona Cut. S. face
at Mason Hollow.

2 ♂♂ territ on center.
at net.

1 ♀ present chipping.

Cophosaurus Lexan
Cardinal Wee
Nashville W.

1448 ♂ sl. L
Tx. Out gone
middle woodlot



* Hdwd Pulleys Plant Pipe → Pipe, (Slips go to ½" > Cont)
Small I-bolt.

* Small spring clips. (8)

GCN

20 Ap. 1993 Wing, Light Rain in Mang. ca. 15-60°F

0914 Banded Hazelot ♂ ASY tail slightly worn.

M // (S/B)

#6 "ROAD Bird"

♂ BHCB @ Horn 1.2 T-pole.

"MAIN GATE"

#4 M // (W/S)

*

Nest //

0935 ♂ SI. 5. of Nest ca 60m

0951 → ♂ silent for last. 5-10 min.

Nest covered with downy feathers.

Nest bottleted severely by wind.

1000 Carolina Wren.

1000 BHCB in cañon ca. 60m from edge.

1008 BC Hummer

NE Vireo

1010 BHCB RS @ F overhead.

1010 weak chip to W. ??
1013 " " to ♂ near Cañ Eye.
BHCB in Cañ.
1018 BHCB whistle overhead. @ Gcw
fam SC in Cañ.
1015 ♂ BHCB in next tree !! then
F to Cañ.
1026 chip - repeated - keying.
1021 ♂ SC in Cañ. (distant)
1023 small hawk flew over (or to ??) next tree ??
1024 GF woodpecker - chip in Cañ.
1025 - chip from near NT.
1026 - BHCB rattle-whistle - F to Cañ.
1027 - ♂ lc. Cañ X from next.
1028 - ♂ lc. " " " hot close.
1030 - BHCB whistle,
♂ lc to E.

1031 ♂ lc to ESE.

1032 BHCB whi. 2-3x rip / cañ.

BHCB ⇒ rotate to W. ~ 2°.

1033 ♂ lc ESE x cañ.

1033 RE vireo ⇒ cañ.

BW Warbler.

1035 Fox Squirrel moving along cañ. rim.

1036 ♂ SC to E. 50-100 m.

1036 ♂ lc to E. 50 m.

1038 ♂ SC to ESE.

1040 Scuh Jay.

1041 Flock BHCBi on cañ.

1043 SC ESE in cañ.

1050 Repeated ch. in cañ.

1055 BHCB cuh.

1057 " call this C. rim.

Pine Bells vireo ~ R.C. Span.

Delay NEXT CHECKS TO AFTERNOON TO AVOID ALERTING BHCBi to PRESENCE.

1058 [illegible] LC [illegible] X [illegible]

Brem

1132 WE Vine [illegible]

[illegible] has [illegible] LC [illegible] repeatedly in [illegible]

1134 Leary Ave

[illegible] NE [illegible] seem empty but could we get gov [illegible]

1135 B. [illegible]

1135 [illegible] BHCB [illegible] 1° [illegible] [illegible] in SB [illegible] [illegible] [illegible]

Horse Thin on

1432 – ♂ SL.

1439 – ♂ SL #1 TO. UB, IB.

1440 – ♂ SL #2 TO. Chip. UB, IB.

1441 – ♂ – AJ. #3 – Chip

1442 – ♂ – SL + Chip, S-ox. TO. #4.

F – 200 – 220°

1444 Chip – LO #5 gm. UB, Blow.

repair.

horse at. suspended branch not caterpillar

M // (S/B)

1446 #6 LO Chip/Feed Blow.

tr: F – to. 10° – 20°

1449 SL. LO, #7 Blow.

UB, 10°,

Chip, Feed.

1452 SL., Chip/Feed, Glass. → BARK → Lichen → Catkin → Leaves

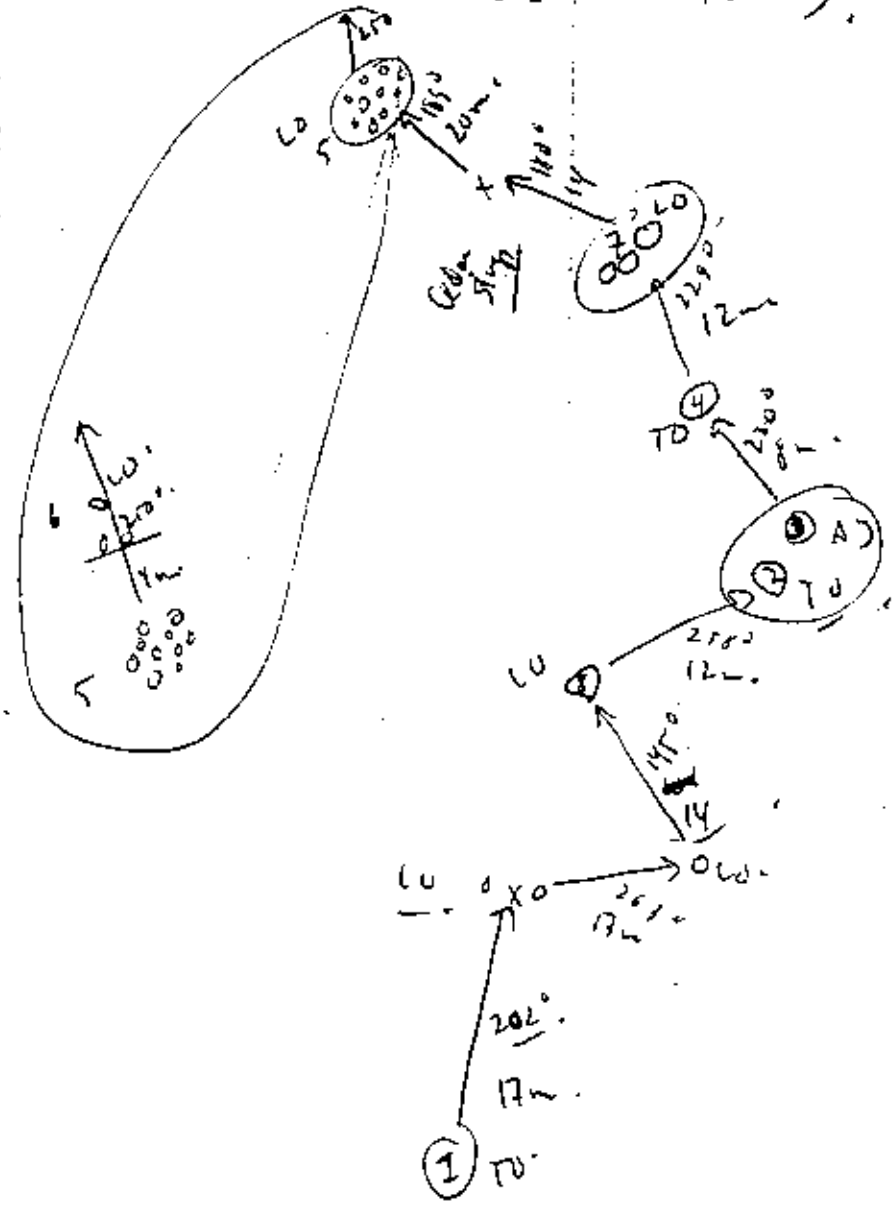
+ Hover

1454 – Silent (Used all ?.)

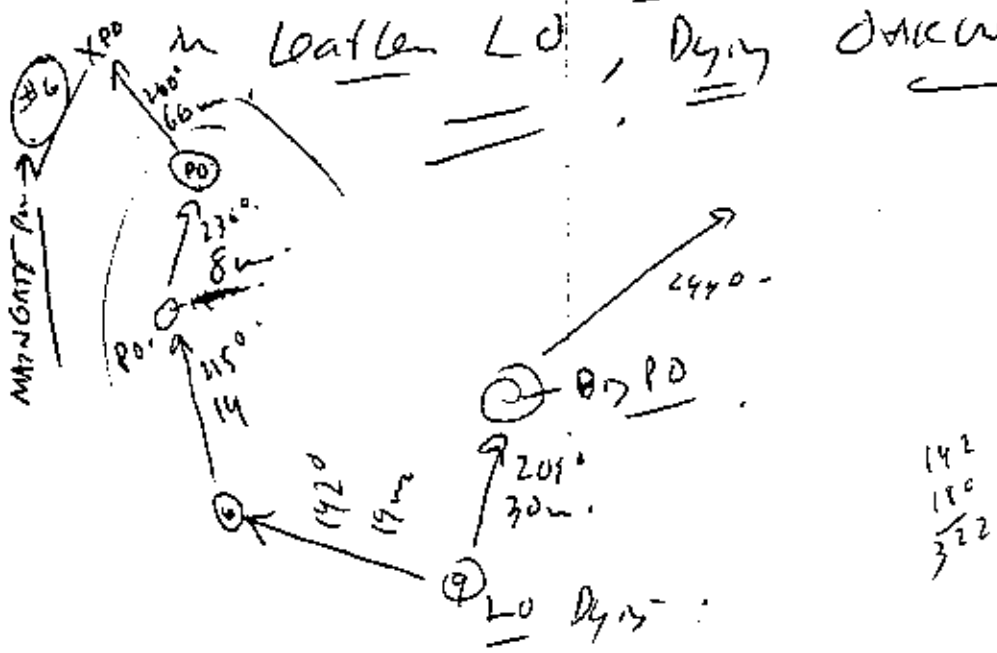
1455 ⇒ lc. 160-180° S.

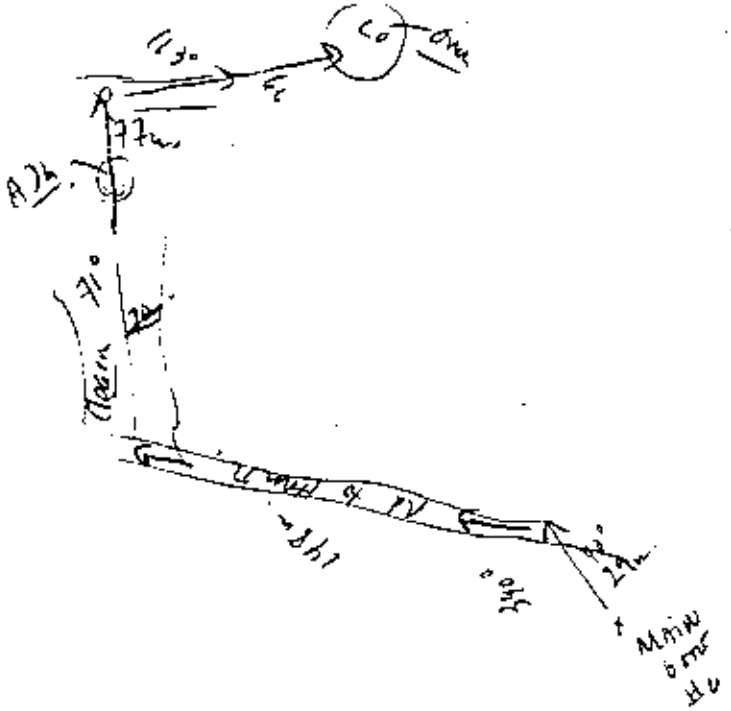
1503 ⇒ sc. ⑧ LO UA, IA, Fed. 1°.

(2nd ⇒ lc to 120-140°, +
3rd ⇒ sc to 240°).



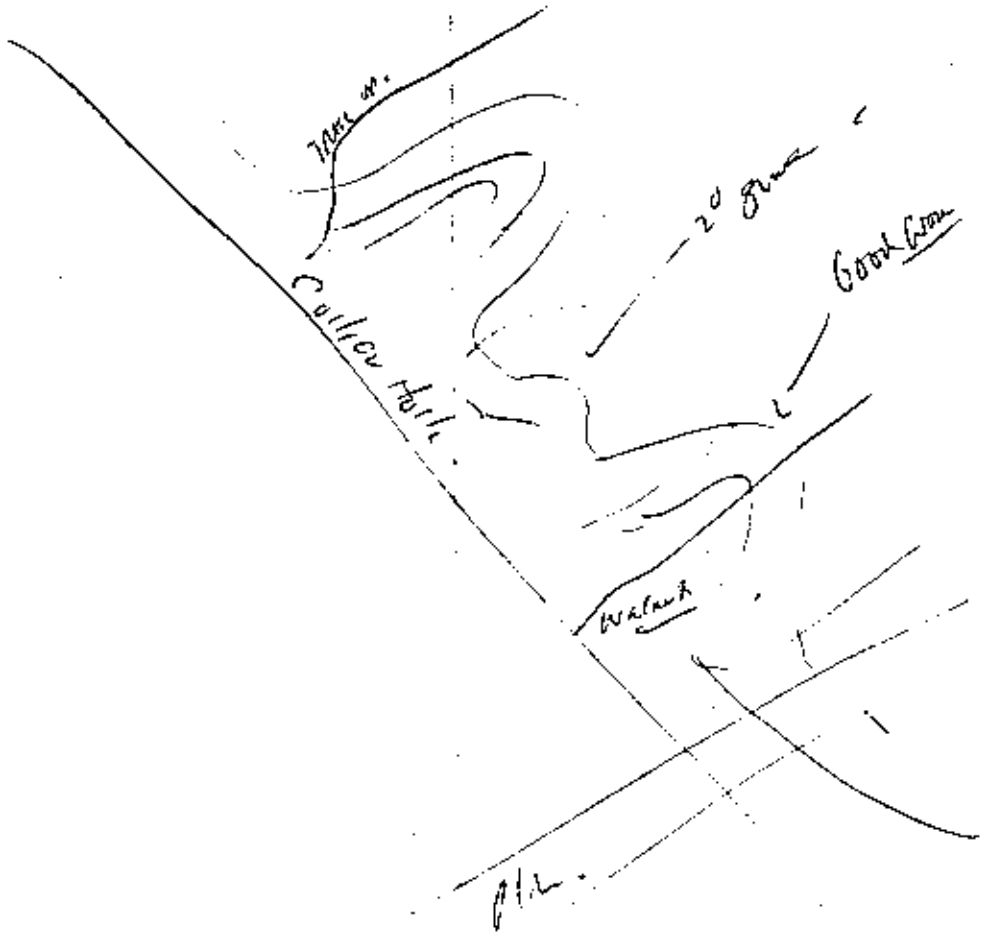
1517 ST but
⇒ M / (W/S) & MAIN GATE ⊗!!
M Leaflen LO, Dying OAKWILT?!





21 Apr. 1993 GCW now

Plane 5 to Collier Holler, S. Slope
then ESE along S. slope to trail.



21/4/91 Right-hand Mall Windy

1344 – Right-hand of SC

1408 – RH of lc. (1° AJ. OB, JB., press
M // (S/W) on (10-15m)

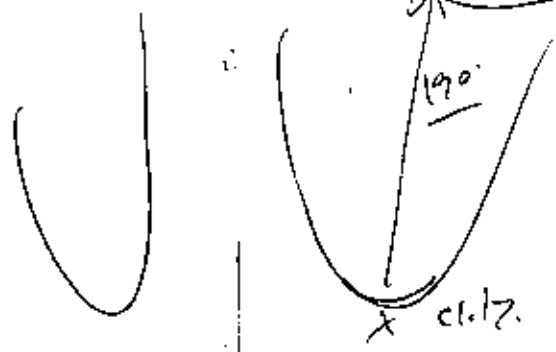
1418 – (160° to AJ #2 from previous maps,
+ cu.

1420 lc. the F250° to vis. of 2.
chipping the lc. to camera both.

(Note this make only used 2 pencils
in tree for entire pairing

Both of here in camera)

lc to distant slope K. Hovel on Ridge

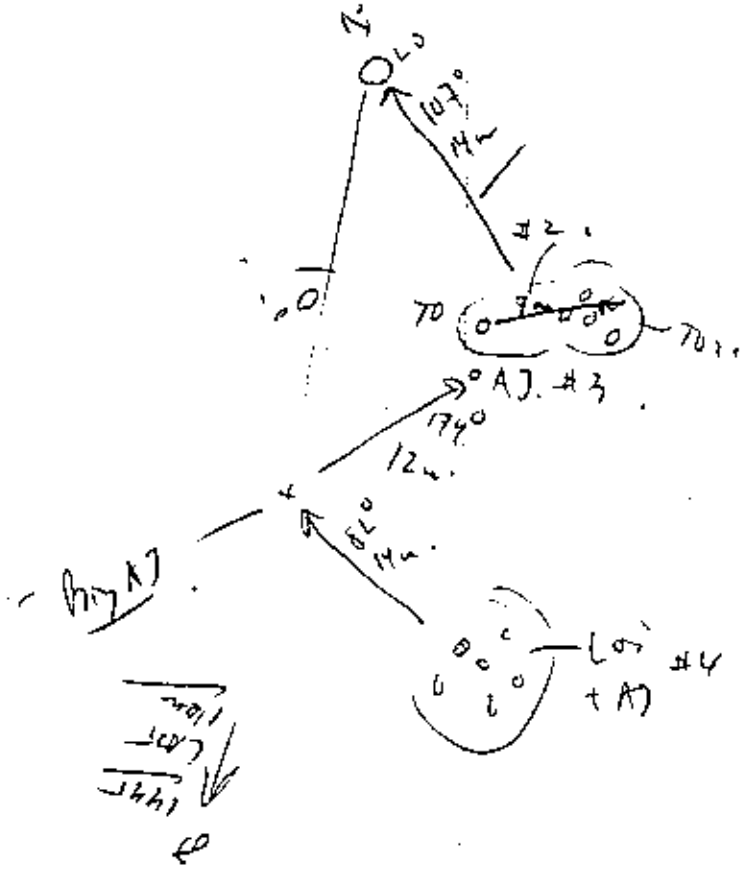


1430 Neighbour Mach

1422 LO, 1°, OB, SC (Lon)
TO, SC, Fey. Hovel

1424 AJ #3 2°/3°, Pees S7

(hover-fell from TO to small AJ, then moved thru inner branches to mid-way above ground, hit mix to vic. of #4 a ground small LOi with AJi intermixes



2 Ap. 1990

2 Mississippi Kite

0930 Ultralight @ Airport

1007 Jet Overhead

1008 BHCB in Canon

Nice-looking spread grotto in left fork.

Old AJ - & signs of old pools in bottom

1120 in Head of Mason Hollow - @ Chimney

WEV + B+W + ♂ GCW sc.

1125 ♂ GCW on S side at Bluff in.

Q. sch. - chipping 2-3x, BW nearby.

Rattan Alabama Supplies...

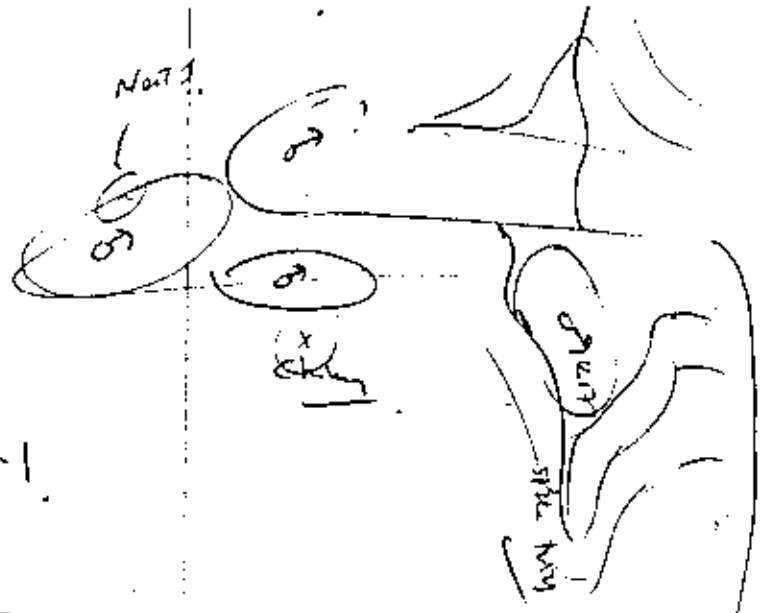
Big Vine in Mason Hollow

1135 Near Nest.

Aesculus ~~pa~~ harflavescens (red Bu

pavia, van pa

22 Ag. 1973



American Elm

Green Ash

Chasmanthium

Mercury ???

Mulberry (Mann)

WEVIR

Sambucus (Elder

1207 ♂, GCW — 1st. S Trib. past chimney

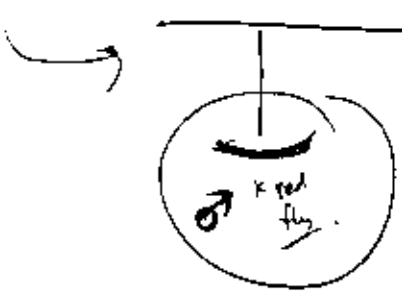
Red-eyed Vireo

1231 ♂ GCW sc ≠ lc at S. Trib.

Prom. mexica

1248 BFW with Bellfull of Cpillars in ~~FXAsh~~

Fraxine sp.

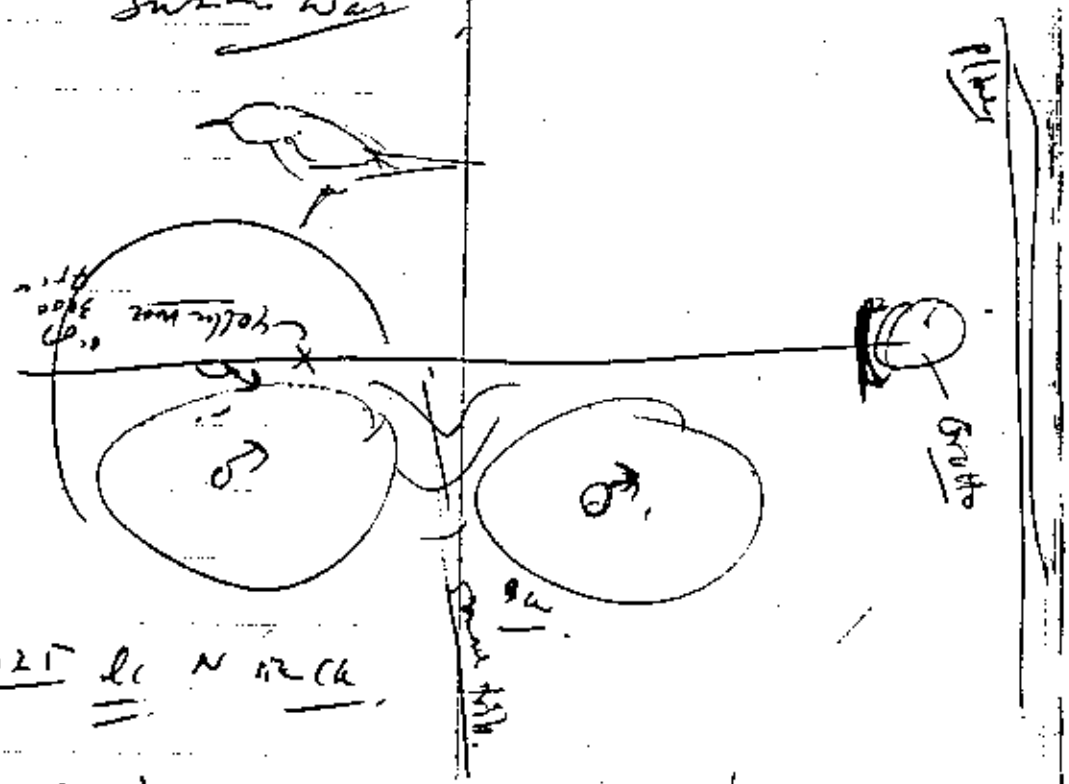


Signs of cleaning/cutting, posting in stream bottom

22/4/92

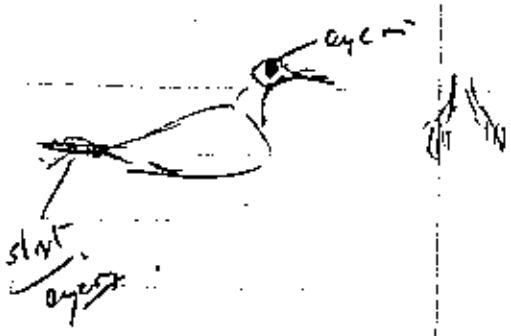
Dayflow Commodities?

1314 ♂ bcw W Rec'y lc.
Swimming Wars?

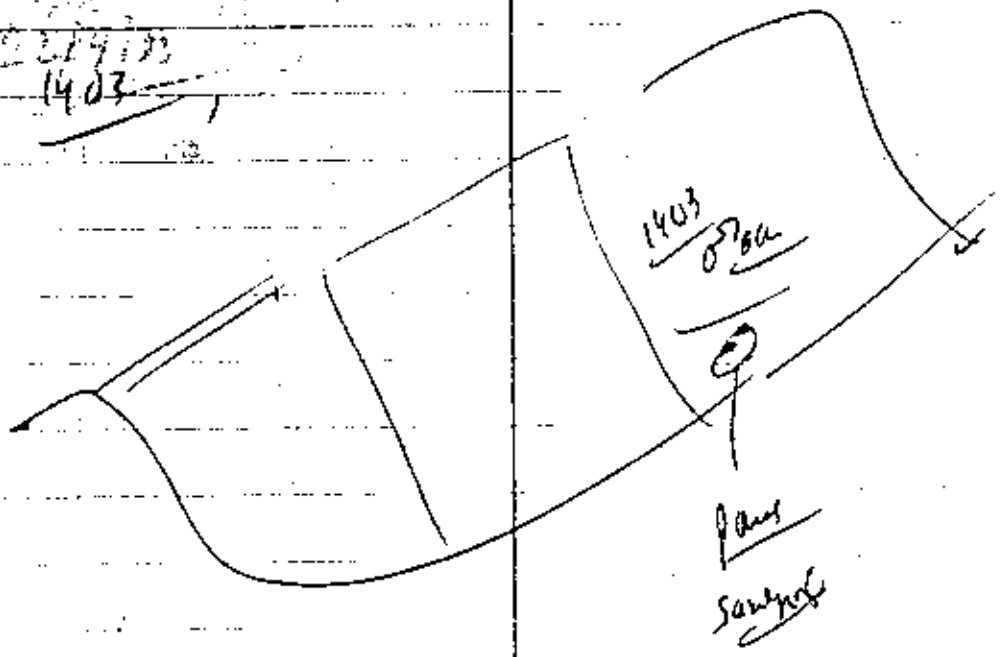


1325 lc N sizeck.

1328 burned out stumps, saw-cut stumps, etc. along bottom.

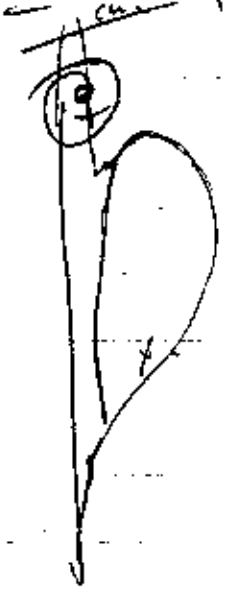


1403



1415 Bar → ♂ @ E W Road

Sixth of 9 feet below Nest 2



164

22/4/93

1453 @ Chimney

22/4/93

1453 @ Chimney -

1500 of 6cm Main Hole S. side

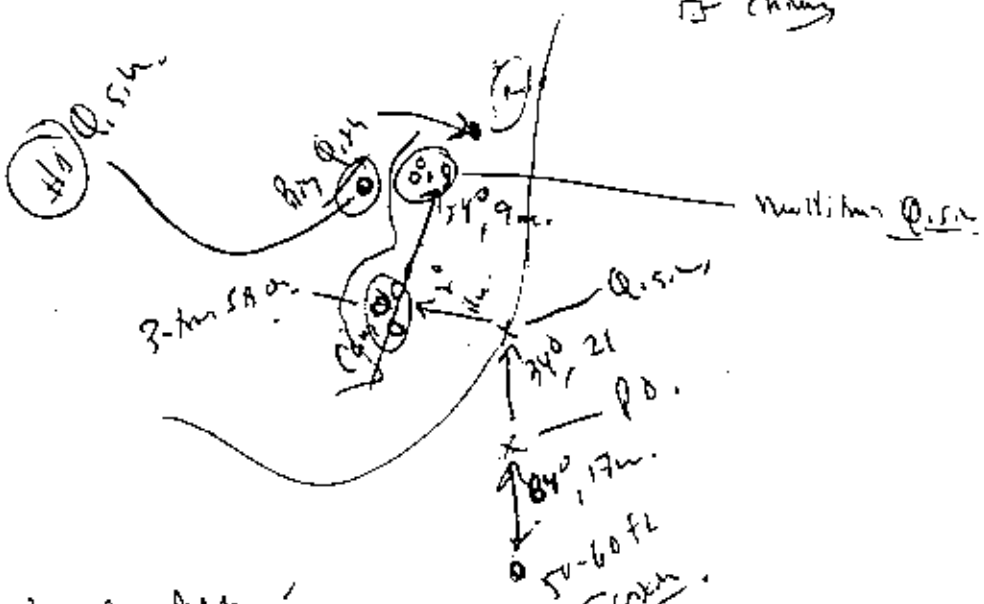
#1 Q. sin 1°, Feen., UB, OB/IB.

1502 → P 200° 60m ??

S? 7x, AM

1506 → Wiles still. SC in Frax #2

chip - UB, IB ?!



Bamles Bay

Cardiff Chichester.

22/4/93

Bander ♂ new chimney !!

WINDY!!

1137 ♀ shifts to face 300° fr. 60-80°.

1138 up/shift shortl.

1139 preen., rouse.

39.32 preen. – ♂ s. dowslyn..

39.47 - pr.

1140 BHCB – dowslyn. 00 - 100m.

45.34 - ♀ pr.

45.57 - ♀ up pr.

46.17. ♀ down sk.) ♂ s. dowslyn ?s.

46.41 - ♀ pr.

50.03. ♀ up. look on other dowslyn. –

51.07 ♂ lc. dowslyn inner lence

53.00 BHCB dowslyn 50-60m.

53.39 ♂ lc ds

Note: Where are the Tourgaders

24/4/93

23/4/93 — 168

0835 - John Kelly (Chelpa yesterday)

0850 —

0856 — At → Leila Canon.

B+W

0930 Attempt to Trap. Flag Canon Blue

1030 Attempt to Trap Spring Canon Blue

Note: House Spanner (Nunn) at Airport Hangar.

Blue Jay at Jonestown + Lago Vista.

1031 @ Nest 2 ♀ Pre

1131.50 - ♂ SC 60° NW

1132 ♂ close SC

♀ Alert. 33 OC - SC

13 - SC

27 - SC

34.18 - ♀ shifting in. 59 - SC

open near

back visible.

23/4/93 -
0835 - Tom Kelly (Chelsea Westerns)
0850 -

24/4/92

169

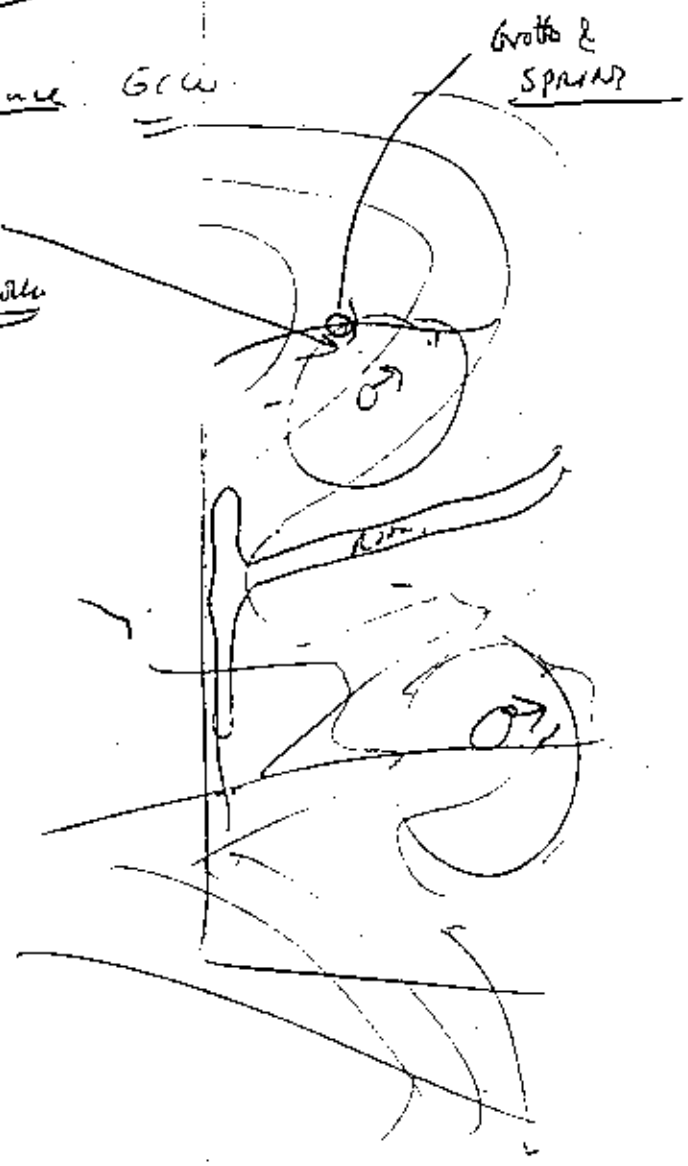
Note: Where are the Woodpeckers:

0957 ♂ at L. Cairn transition -
Mostly SC & Fen.
- 1 - green caterpillar ..
Signs of Pest in Cairn.

1030 @ N. Fence GCW

1032 ♂ LC

1044 Spring in hollow



23/4/93 [illegible]

170

11:59.33 ♂ s.e. ds.
ST

56.05 dist ♂ li x fen.
locm ♂ s2

57.04 ♂ s1

57.31 ♀ shift to face 80°

58.25 ♀ gone

.48 ♂ s1

12:17.10 ♀ returned to west

♂ @ [illegible]

* preceded by much e' sing chipping.

* Then out nest
♂ came to nest + went to ♀.
Perhaps to feed her !! Then to [illegible]
+ pause [illegible]
off.

1223 BACK from PHOTO

23/4/93 MAPPING E-W #1. (WINM)

1239 lc. #1 vicinity LO, AJ. TO. [illegible]

1247 lc. #2. Bir. Qsin ?! Not seen in tree.

BIRD NOT CALLING REGULARLY + TOO WINDY TO HEAR

Nest #2

1345. ♀ on nest, ♂ SC dan[illegible] in vicin

Clouds moving in.

1348 B+W + ♂ SC.

1355 ♀ off. - ♂ SC ds.

1400 - ♂ @ 40°

1404 - Cliff [illegible] (Screech Owl Beh)

1406 ⇒ Bohwrite R Valley -

(Solitary Sandpiper at Pond Yesterday)

1420 - ♀ BACK TO NEST preceded by [illegible] [illegible] chipp.

1423 ♀ @ nest

1430 - ENDING OBSERVATION

1441 - RAVEN

Vicki & Harold —

David — I left at 3:00 to drop by Dell Computer on way back. —

26/4/93

0907.47 at S. Pline.

1032 - Next set up. S. ~~Flo~~ Fairy, Slope of Mason Hill → 2 bone pm

Basic Rule

① No "psshing" not use of tape recorder calls to elicit responses of any species except in vicinity of trapping setup.

S. face of Mason Hill just off road. — Odd Max for Hot slope.

Q. str.

~~Juglans - sapling~~

AJ,

Phelan.

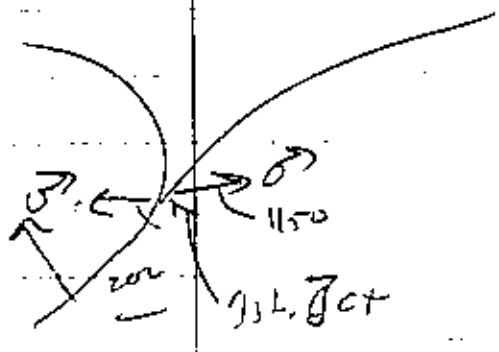
Unguadia:

1137 2 males @ N. edge Mason Hill. (see map) Most chipp

1157 ♂ 38° fr N rome hel

1st cut-off in 200 s. n

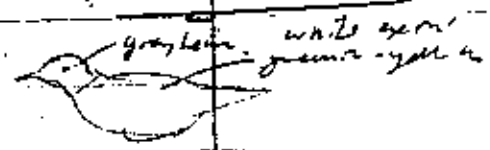
1st Jct 115° 2 to 2° ♂



26/4/93 MAPPING N. Cañon Terr

Nashville

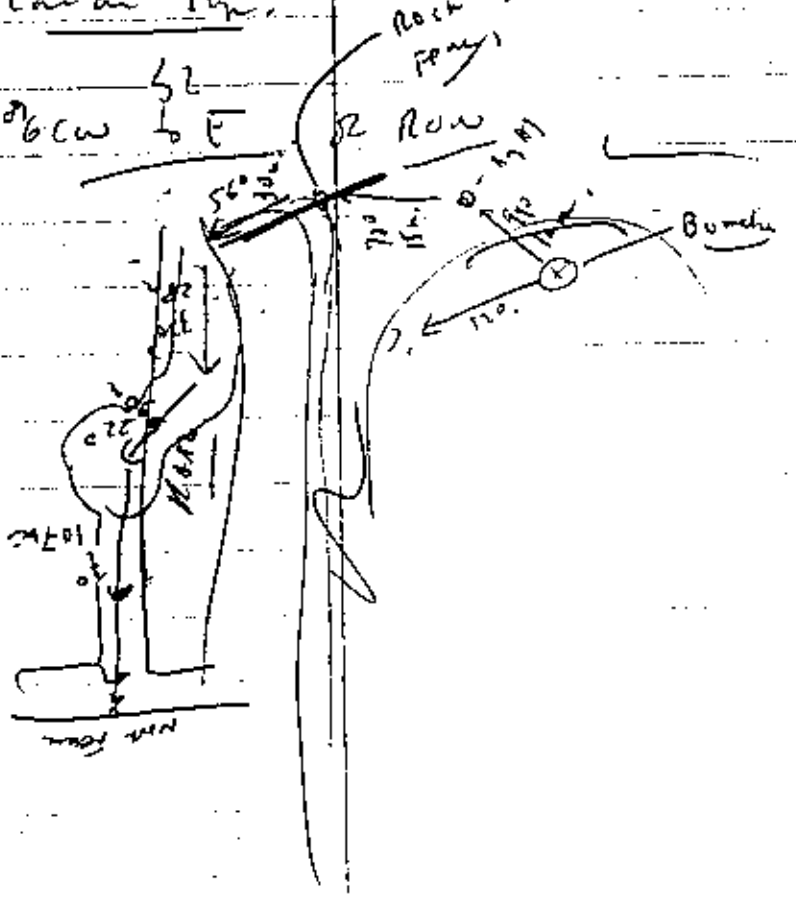
Wash



Peers in Tex. Oak grove in

Cañon Rp.

1235 ♂ 6 CW to E SL Row



1210 ♂ in vit. of small SL

Bunch (#1) - Prob. in Pony B. -

Tx. Oak (S.L) F 52° Now Sibl

24/9/68

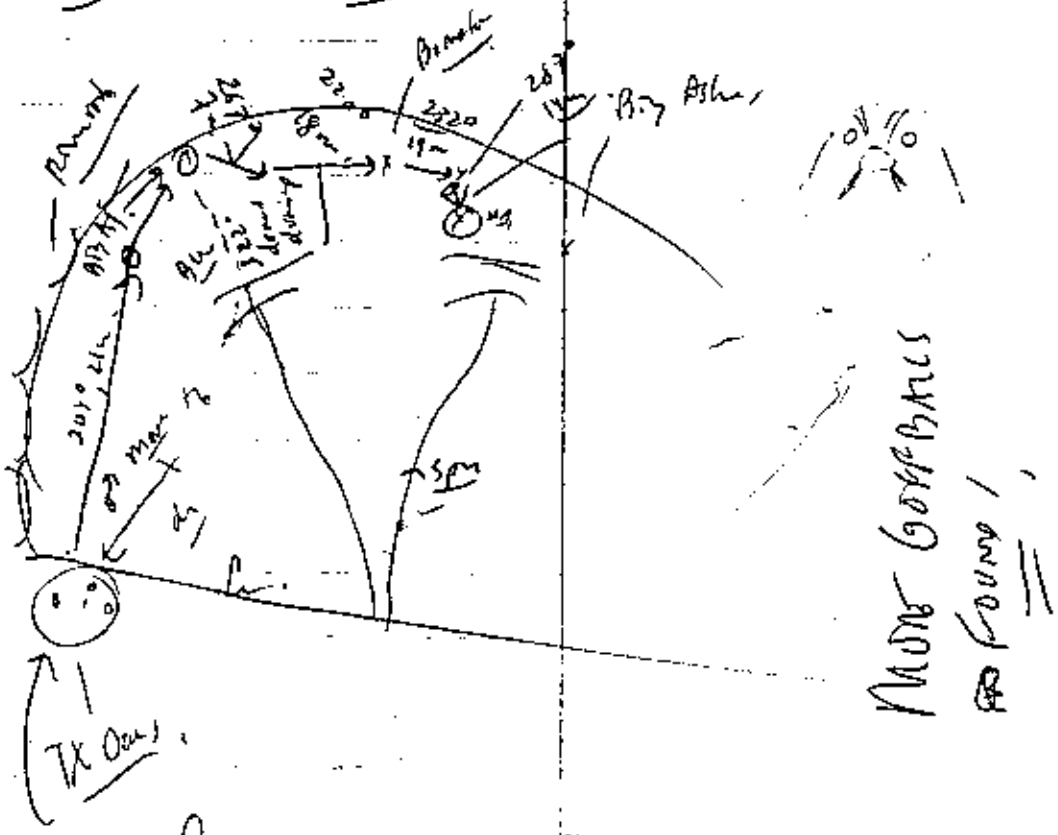
1255 Hairy woodpecker

♂ 6 cm sz. N Ca

Huge Ash Trees here

#1 vit. ce Big Ash

1307 ♂ F 40° sz.



1306 Found ♂ in grass of TX. Oaks, just X N.

Lemon Catch's cpillar - heat again brown

grey cpillar then up into UB.

Caught on dam box.

1325 ♀. Chip + feed on. Tx Oac
UA, IB, + AJ.

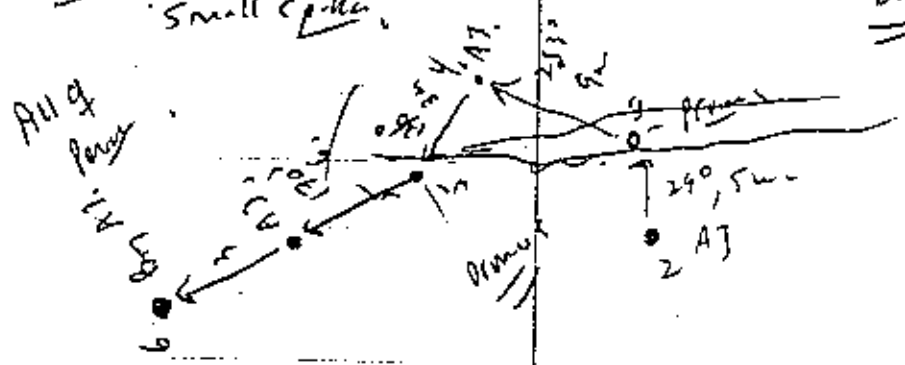
1326 ♀ Fa Cpilla R
stem

Ch. ⊙ ear pass. Chu

1330 in Prunus s. F + S glean.
Chip inter
also Nashville W.

1332 ♀ in AJ. F gr. M
1332 in Prun. R
1332 in AJ (Silent)
1335 overhead ♂ inhandle
1340 ♂ Fylor, SC. Garrya + Bumelia ⇒ small Bugs
small cpilla.

(N. (ANO)



178

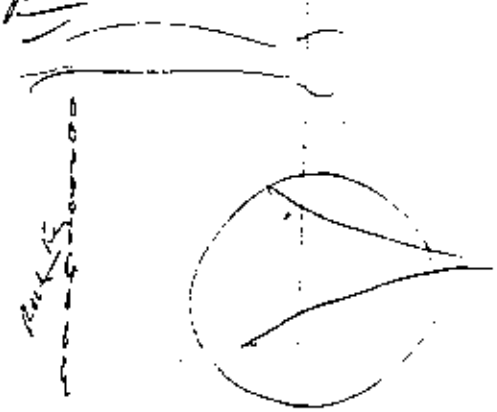
24/4/97

♂ Fry + SC. steering in viz. R-

24/4/93

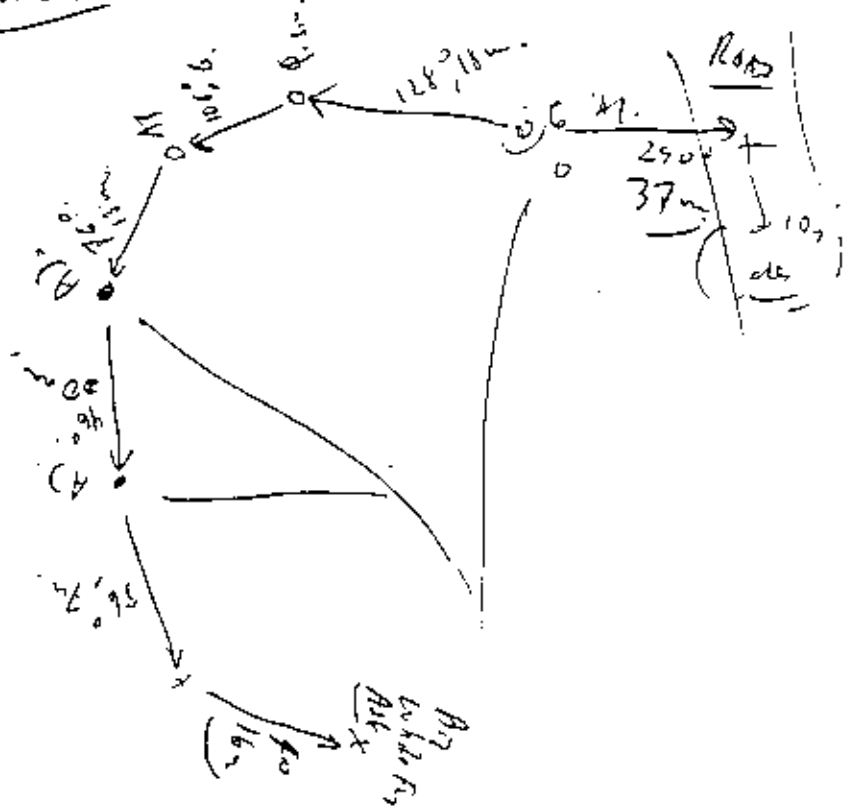
♂ Fuzz + SC - steering in vic. R

by pro



Map from prec page to link with

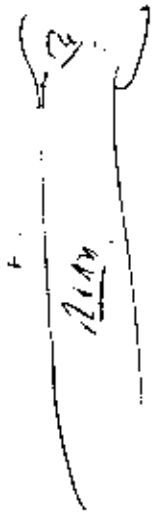
Walnut



1352 Silent: Note: White ♂ ♀ forage, ♂ sc'd (contact) in area surrounding ♀'s center of activity.

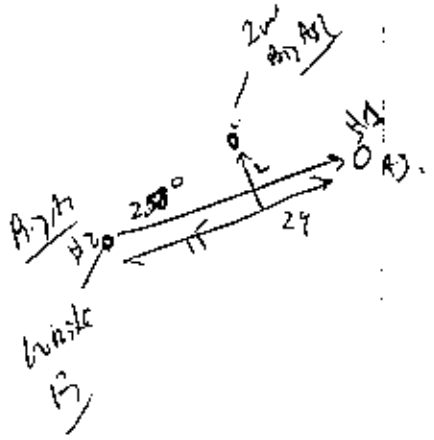
1359 ♂ lc downslope in dirt

1400 2 ♂♂ along Road countersing lc. within 3 trees of each other



1405 Spoke ♂ (S/W) 11 m
#1 A7 lc | Bandage ♂
pick ♂ in dispute @ room
1° - A7 UB Fall ?

1414 ♀ Chip dummy
♂ in Big Ash (White Flyer - See map)
Big Ash
1° (50-60 ft). DBK 24"



1431 END

20/4/77

Check Nest 2 – 4 eggs. No Cowbird Eggs

1512 – Mylarchus passes through obs. area

1515 ♀ BACK

Leila watches ♂ feed ♀ again @ nest.

1524 ♂ ~~10+12~~ 24

1529

1537 ♀ off

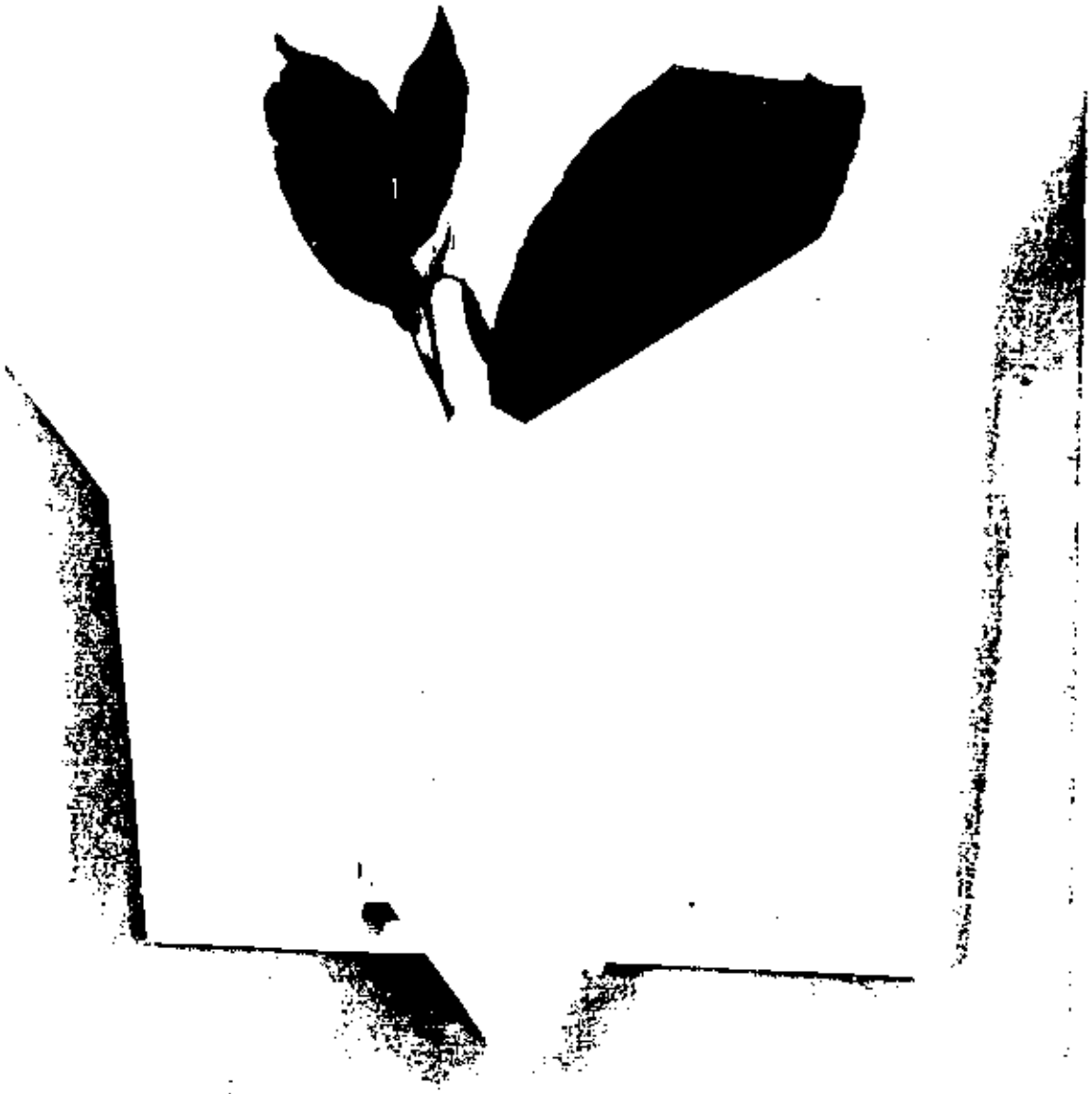
1542 chipping to ☐ – Steady Chipping then

1543 B

Steady Chipping

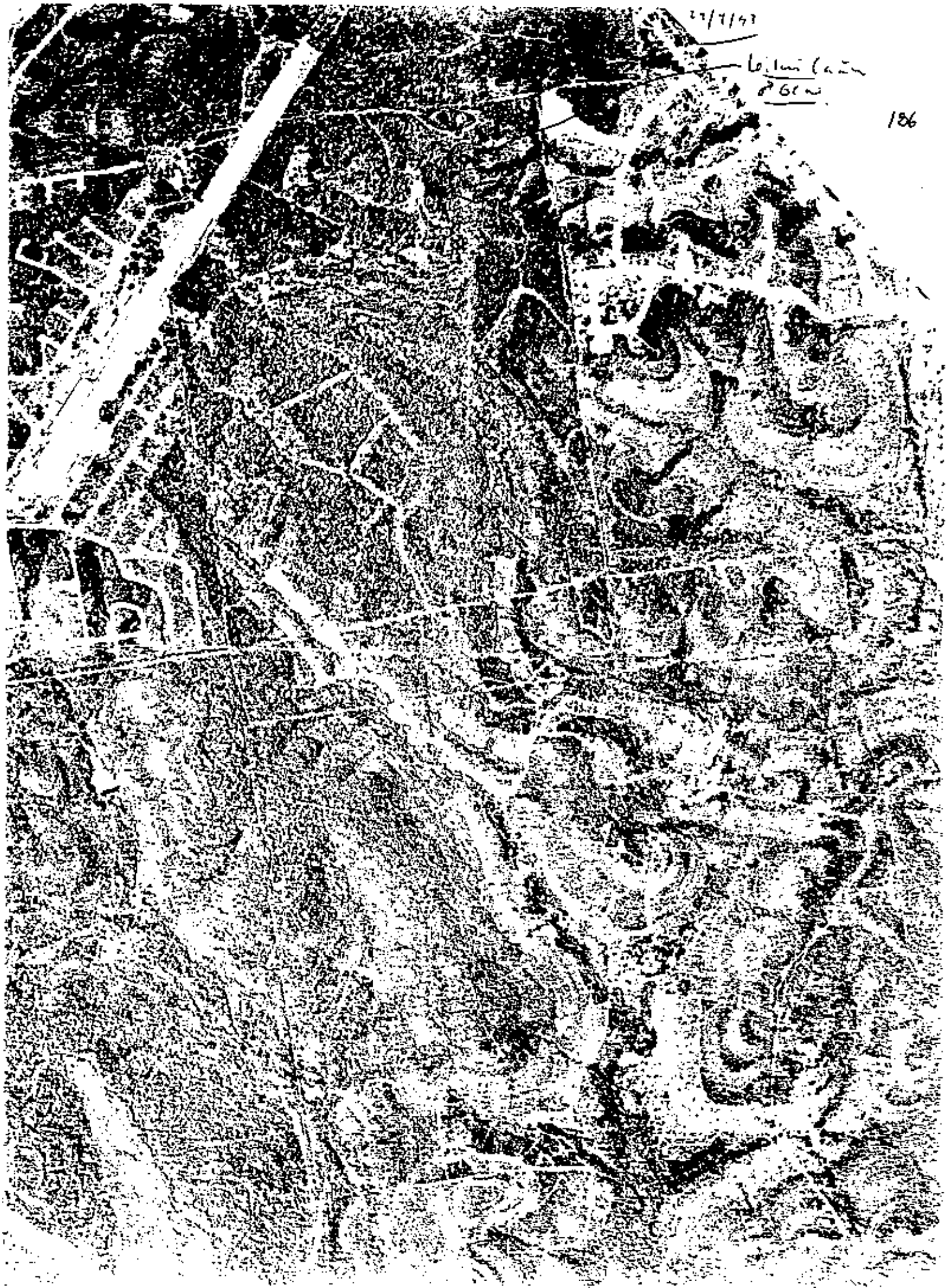
1546 then Back to [illegible]

1557



26/4/43

184


22/7/43
186

188

(93)

SCM OFFICE SUPPLIES, INC.

#4

Steno Notebook

Green
70 Sheets

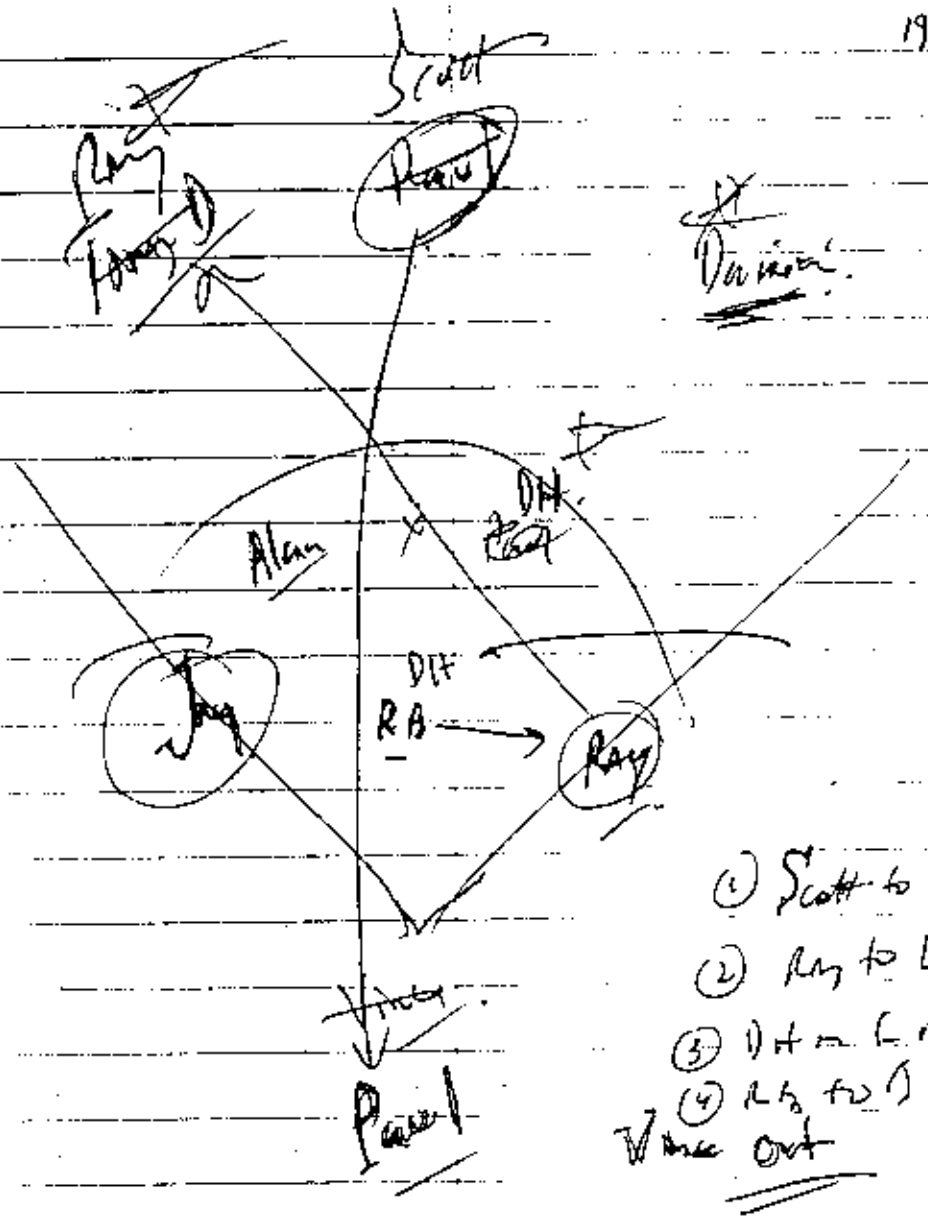
Gregg Ruled
6" x 9"

Item # 870

0 70630 30870 8

from 7 May 1993. to 13 May 1993. no. _____

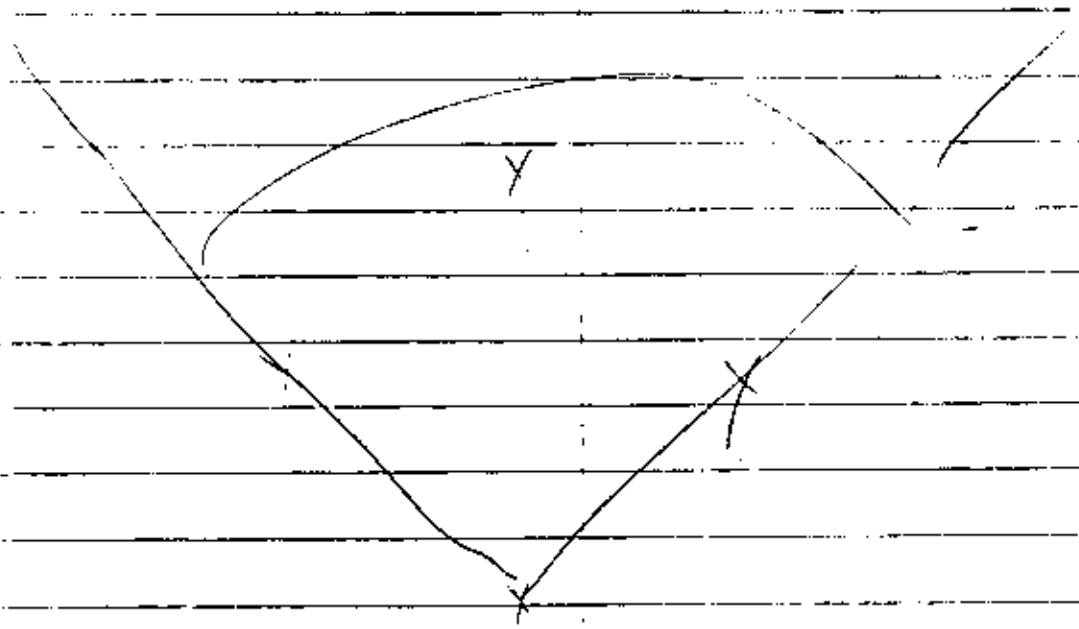
190



① Scott to CF
② Ray to LF
③ DH in for Ray
④ Ray to RB.
Vince out

Patrick
Mike

David Pearson NW 448-10581



192

1. Paul – 8F-6
2. Greg – ②.1
3. Jay
4. Mike
5. Alan
6. Tommy
7. Ray
8. David H.
9. Darren C.
10. Dean.

Sub Davin
Vince.
Richy A.

1. Tommy D.
2. Alan
3. Paul
4. Vince
5. Richy R.
6. Mike M.
7. Scott R.
8. Pat M.
9. Jay J.

1. Greg B.
2. Ray M.
3. Darren C.
4. David H.
5. Greg A.
6. David J.
7. Dean H.
8. ~~Scott~~ Friend Dan.
9. Friend David
10. ~~Antonio~~

Dye.

Thread

Needle.

Contact Cement

Film.

Data. have Sw.

Screen wire 4' X ?

2x 4's — 11.

Dead. Hdcat.

3 — Storm Door

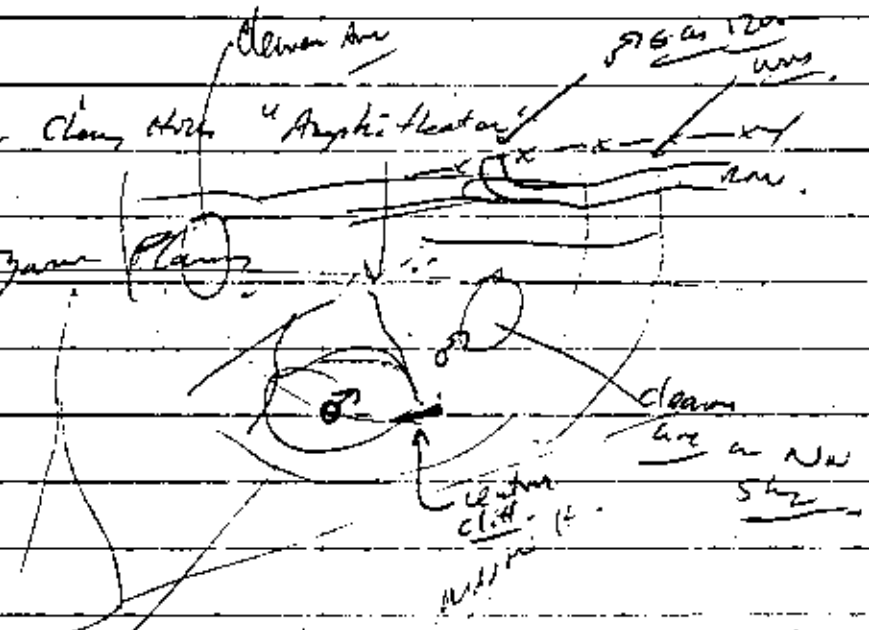
Staple

Hinges

7 May 1993

1131 in Cleaning Area "Amphitheater"

1138 Dogwood Planting



#3 DBH 49.5, TH 45 - upper slope

Big A) s. #1 DBH 37.5 TH. 45°
#2 DBH 47.5. TH. 48°. } lower slope

1144 ♂ GCW on Central Bend (NW Face)

1147 BH/A on Cliff Hence →
Btw here also

1150 ♂ GCW just E. drainage here.
cliff face "Waterfall" cavity
NW in drier N face slope

1154
Posting Signs on NW face slope above
clearing area

1200 ♂ GCW along N fence where NW
corner N to fence

7 My 1993, Rodgers [illegible]

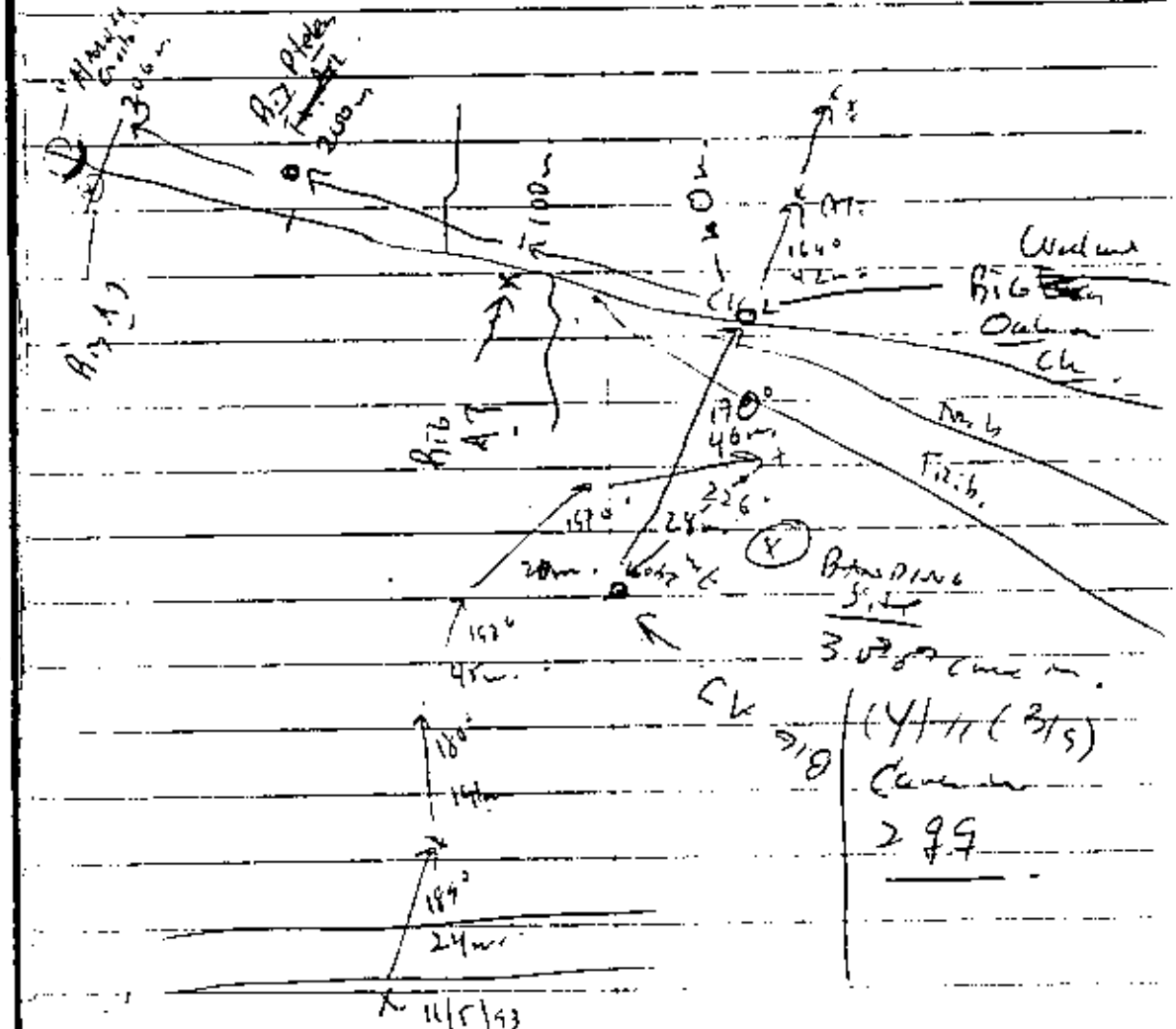
Cedar Elm 65 DBH 12° @ 20m

[illegible]

11 May 1993 - Alm Mass Holla on W side

possible Bobcat Trace present in a road on W side Mass Holla + Raccoon Trace

0331 Chicken at Trapper Hum 6 ft s.?

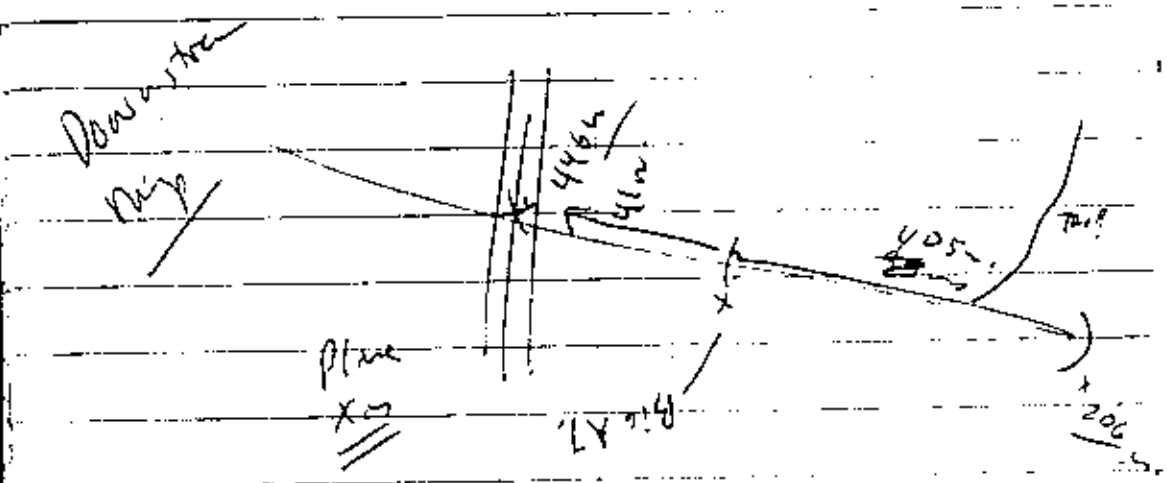


Ret Post to Holla
Small AJ, N side road. Alm Trap

11/7/93 – Accept

Comp → Full map

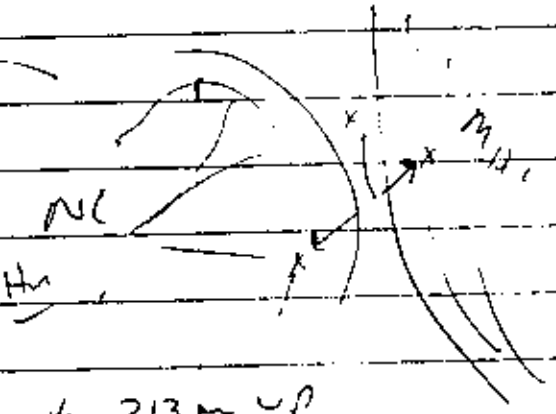
306
99
405



1038 Vichi observes 4 faces on top of AJ.

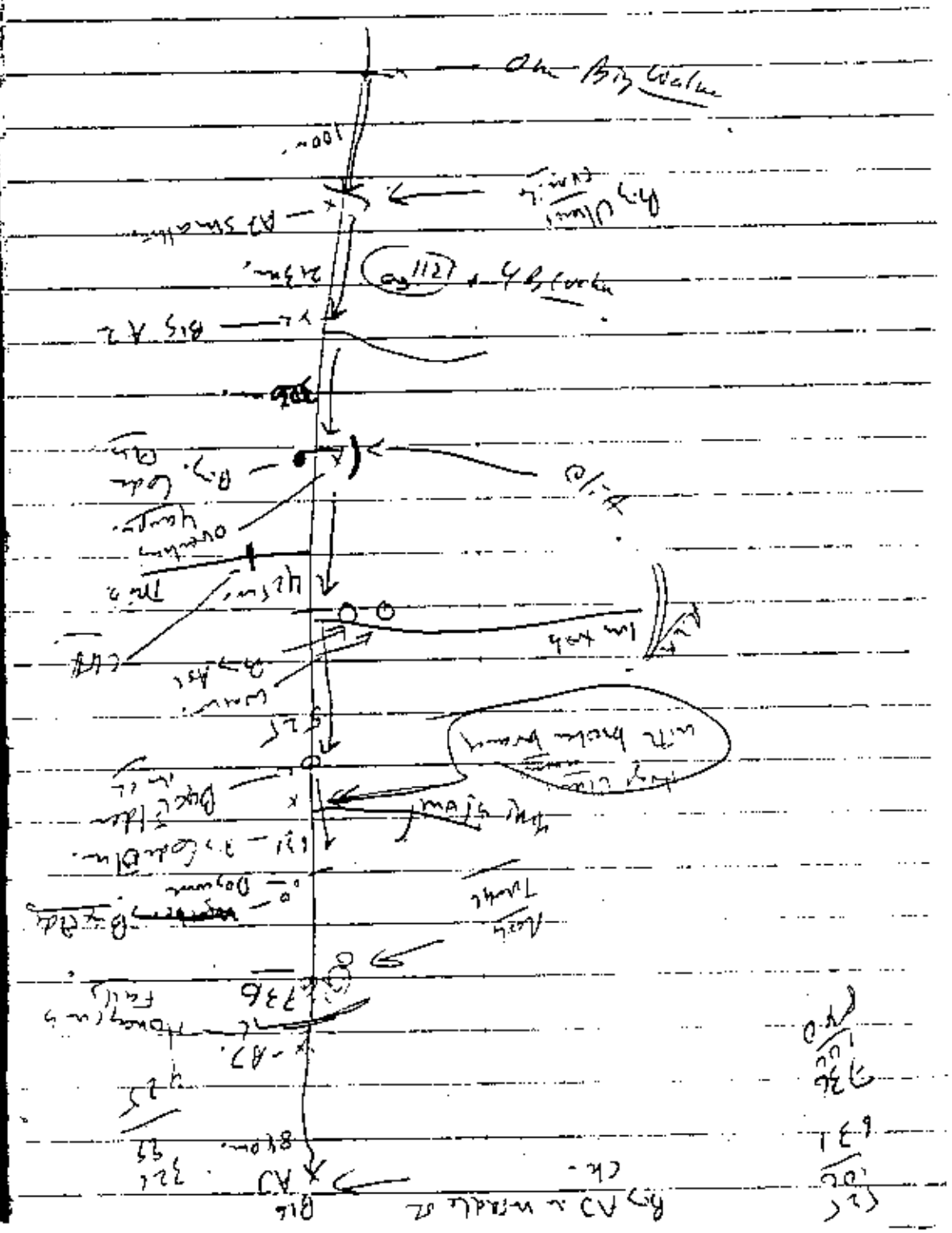
1106 ♂ @ Tree ash lg. whitish moss
in AT lc to ♂ to NW
in BN Cedar Hill

mud chips

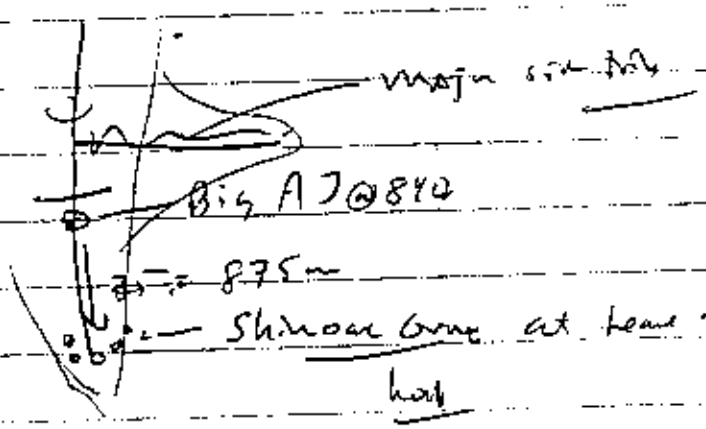


1121 ♂ SC at 213 m up
mu E side Ck
MASON Hon

MAPPING UPSTREAM on MASON HW



1155 Airplane off
1200 " lower



Note: Older AJ's other now
many lower lateral branches
suggesting greater openness + reduce
light levels under gage - but
now these lower branches are often
justed off

Another Advantage of Early Nests -
- reduces mass / Ap. Fire Ant
Activity

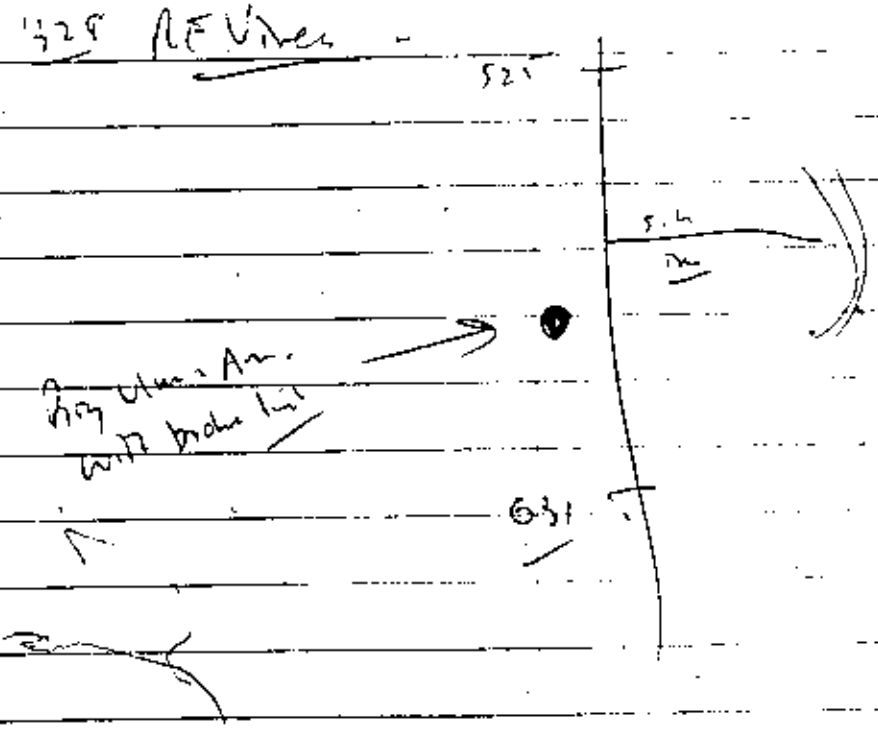
1245 winds picking up - Wiring
Clear skin

1247 - Mean Perch Site Chem.
at SE end of Mass Holes

1319 Walking downstream on mtl.
Flag ~~[illegible]~~ Cavities area
Collects Hesiola seeds but
not many left → something
may eat them of seeds
present are up high →
is this spec. bird dispersed)

Major E. Trib. Betw. 631 & 535 up.
on mtl

1328 RE Vines -



[illegible]

1356 [illegible]

g #1 AJ. HG. ♂ SC.
#2. CE - FG.

1403 #1 AJ SC, FG
2 TO " "
3 AJ " "
♂ (4) " (B/S) ?? → (S/W)

4 AJ " "

1407 5 AJ " "
1408 26 6 AJ. " "
7 AJ. " "
1410 43 F to. Bu AG
8 AJ. SC FG
9 TO SC. ?"
1416 10 AJ " "
1417 11 AJ. SC + HG/FG
1424 - 12 AJ. SC.
1426 13 - F. to S 180° [illegible] #12 [illegible]
[illegible]
13. Ulmer [illegible] SC/FG [illegible]

All [illegible] Prom AJ.

11/5/93

#13 Bay Cedar Ctn

1931 OS 51

1933 — S. Lent

END

1513 OS [illegible] SZ [illegible]

1534 OS [illegible] SZ [illegible] [illegible] now

LC

	# [illegible]			# Dat	
CE	#13	294°	16m	→	?
AJ	?	2°	14m	→	10
AJ	10	200°	12m	→	FE. 11 (AJ)
AJ	10	338°	16m	→	#12
AJ	12	344°	18m	→	#5
AJ	5	300°	7	→	#6. AJ
AJ	6	224°	7	→	#7
AJ	5	84°	8m	→	#4
AJ	4	122°	9m		#3.
AJ	3	129°	22m		?
	?	70°	43m		
	?	140°	19m		#2.
	2	95°	4m		#1. AJ
	1	164°	18m	→	Ch. + AJ

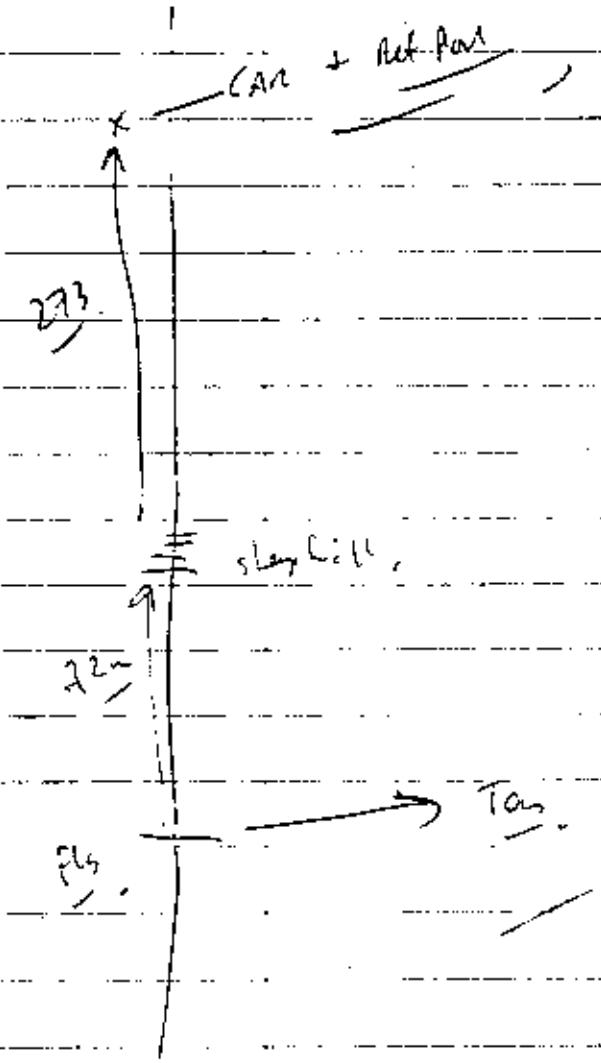
1517 [illegible]

on Ch. AJ → 25m to 213m up MAN

#7 → 320° 29 to woodland

38m to Stump. edge

99m to [illegible] Flagger (Pink) + Tagger


CAR + Ref Pan
273
sleep hill
72m
Tan
Fls

12/5/93

[illegible] @ Tenstr [illegible] Bank [illegible]

(B/S) // ?

1016 ♂ 2 ♂♂ ⇒ one [illegible]

♂?? lc, [illegible] (EC)

the F to.

1020 TO + lc.

Other - possibly [illegible] ♂ in #3

[illegible] AJ

1022 Silent

All

CB [illegible]

but

Bird

Hidden

NAT

#1 (TO) 8°, 15 m. #2.

#2 (EC) 290°, 16 m. #3

#3 (AJ) 40°, 18 m (Leslie #1)

L1 (AJ) 316°, 33 m. (Pink Flag)

Pink Flag (TO) ♂/♀ Both Barn

♂ S/B // G. ♀ B/S // G.

Leslie [illegible]

sc/? L1. [illegible] 265°, 40 m (?)

(?) 315°, 6 m L2

lc/? L2 (AJ) 290°, 18 m. L3

sc/? L3 (TO)

sc L4?

Mapping T to CK. RP.	D	L
(A) 132°, 33m (A)	33	42
(A) 76°, 21m (B)	21	26
(B) 138°, 15m (C)		
(C) 86°, 32m (trib)	32	46
(TRIB is 0m RB) 356°, 31m (A)		
(A) 40°, 77m (TO)	108	130
(TO - RP - 108 Down) ⇒ 46°, 31 (A)		
(A) 0°, 29m (B)		
(B) 72°, 31m (CK, mass CK)		
MH 29m to 306m Down MH RP		

118 Airplane

3-4 take-off pin to the

TO - 1°S. TRIB RB
108m

0m

S- Facing Slope above Harlan Creek.

1121 ⊙ lc up slope 1100 m. for
between 300 + 400 Down RP mil

1123 #1 lc L TO. in TO Bet
lc + Chp.

1124 (0) // Z W/S) + FG. UB/IB
#2 TO lc + Chp + FG

#3 TO. lc ?

1127.59.
#27 #4 TO. lc UB/IB. FG.
the E to. E -

1129 #5 lc AJ, FG for underside
or AJ lower

NOTE: Birds can FG more easily in
Older AJ: the gravel when HG may
be a recent

1132 #6 TO lc + Chp. + FG

1134 #7 TO. lc " " .

1135 EC #8 lc UB/DB

1137 #9 TO lc. chg FC UB/DB

WINDY!! 10-15 gusts

1138 #10 TO lc chg. FC UB/DB

1139 #11 TO " "

1141 #12 TO captured insect hem + abstrem

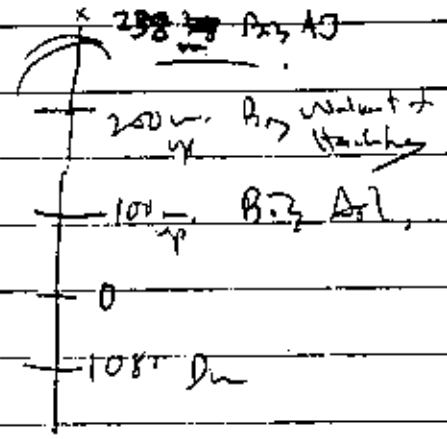
1142 ♂ SILENT

1155 ♂ BACK [illegible] 250° + [illegible] 188° to Plum Tower - [illegible] slow (S slow)

1202 ♂ going Back through TO grow

12/5/93 →

1° S. Trib



1338 Vireo nest
of cedar bark,
in Big Ash.

33
45

B1238 on Rd

13/5/93 @ Pline King

0815 unhandle ♂ lc. L UB/OB

also lc. + FG

#1 AJ

#2 AJ.

0901 then silent

0917 RC Spary o

S-Facing Slope MH

0912 ♂ SC near

0914 ♂ SC the lc. AJ UB/UB

B #1 AJ

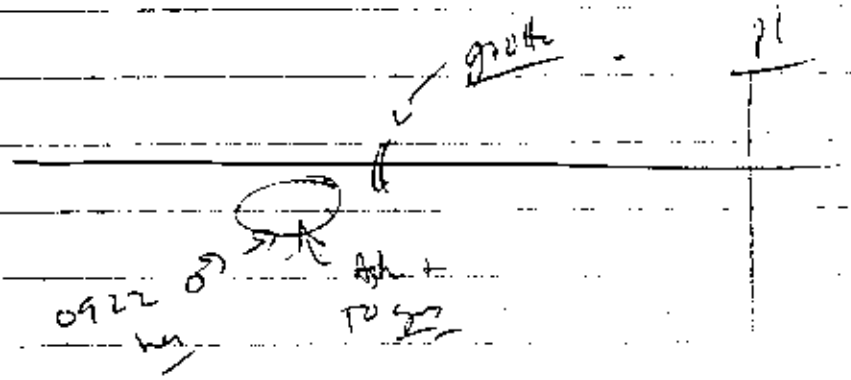
0918 ♂ SC 270°

0922 ♂ SC alg ch) in TO + Ash

grown along CK. @ grotto RP

also chips here

0930 Now Silent



0933 ♂ SC B#2 AJ UB ?
+ 270° ± 100

0937 C#1 AJ 1°, UB, OB, 1°
0943 ♂ lc, +
F - dais

0944 @ C#2 TO lc, UB
BACK TO C#1 AJ + UB/OB, lc.
0947 then same

0956 Y // (B/W)

D#1 TO lc, FG UB/JB

D#2 AJ FG/Hc
0957 F
D#3 TO lc, chp FC
D#4 AJ lc FG

D#5 AJ lc FG/Hc
1000-1001 D#6 AJ lc UB/OB 1°
1003 - Fg

1003 D#7 le H6
A7

1004 D#8 A7 H6

1008 Smith to C Pr

C#3 TO UB/IB - F6

94m to Dr. +
166m to Pine ROW

C#1 —°, — C#2
C#2 — C#3

1050 Tree Measure @ 12/5 pm

MAP INFO

#1 TO 304°, 7m #3 (TO)
#1 TO 100° - 7m #2 (TO)
#2 (TO) 176°, 10m. # #10 (TO)
#10 (TO) 230°, 9m. #9 (TO)
#9 (TO) 77°, 14m. #8 (EC)
#8 (EC) 88°, 5m #7 (TO)

#7 (TO) 312°, 8m #11 (TO)
#11 (TO) 126°, 7m #4 (TO)
#4 (TO) 22°, 3m #12 (TO)
#12 (TO) 130°, 10m #6 (TO)
#6 (TO) 62°, 7m A
A 106°, 6m B
B 117°, 20m, #5 (AJ)
#5 AJ, 117°, 15m. E#1 (13/5 - AJ)
1104 O // - - ? @ E#1. (13/5)
AJ ~~OB~~ OB/OB 1° lc

NOTE: Pline ~~W~~. Uses this area as a combined Furrow + Display area with TO's in 10 Furrow site + Big AJ's near Pline Row
TO uses all Furrow subsidiaries are part of homogeneous grave.

Note: Could protrusion of TO's be due simply to part clearing of TO grave with resultant interior root-spirits. Followed by slow encroach of AJ into strong area

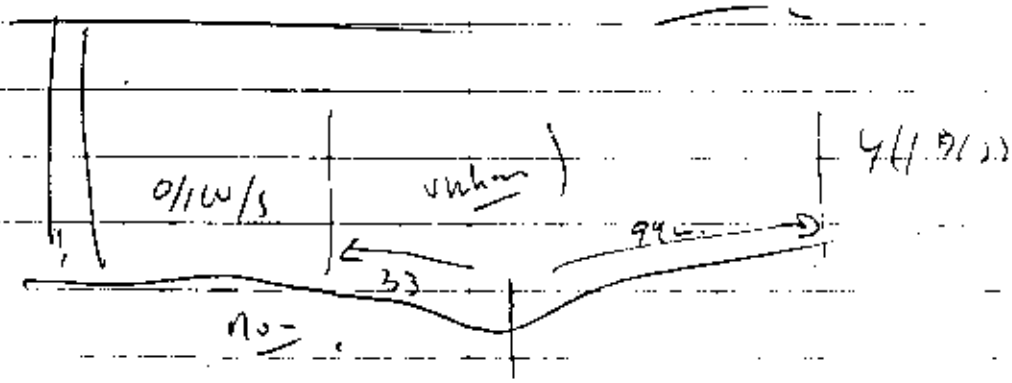
1242 B+W

1324 Fixed mar.

while eath 1mr Bandw 5? (0 // W/S)
+ unbanded neighbor to W has
encounter to W. Unbanded
neighbor also - quietly came in
+ were perched #1 + #2 &
(0 // W/S) for yesterday while.
0 // W/S say (lc) for A7i to E.

Site of 1300 Torrith chan.
114°, 11m to #7 (12/5)

33m to 94m March



13/5/93

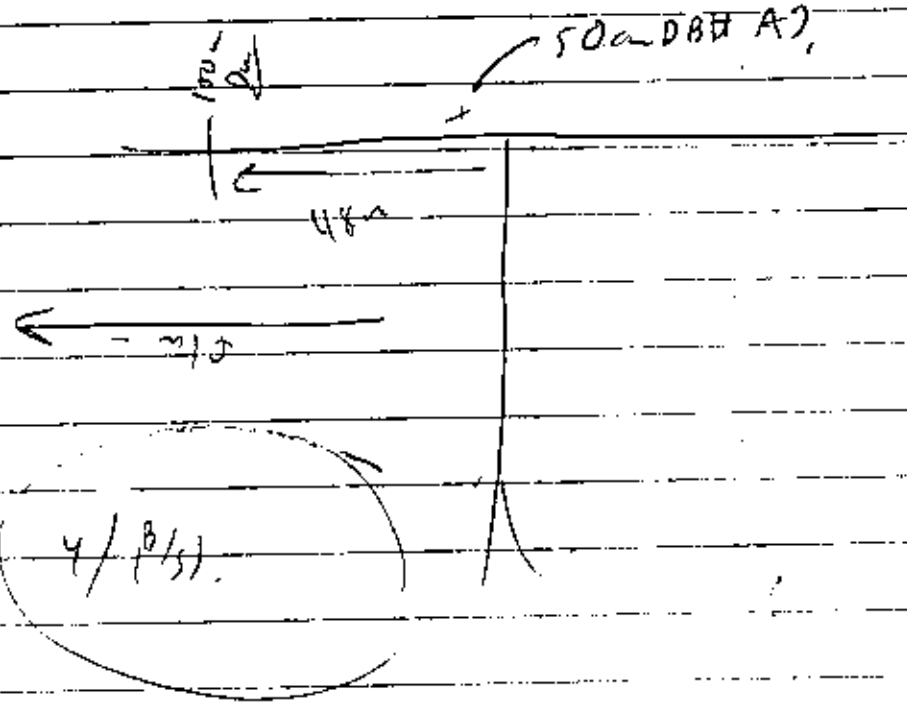
D Pond Maps

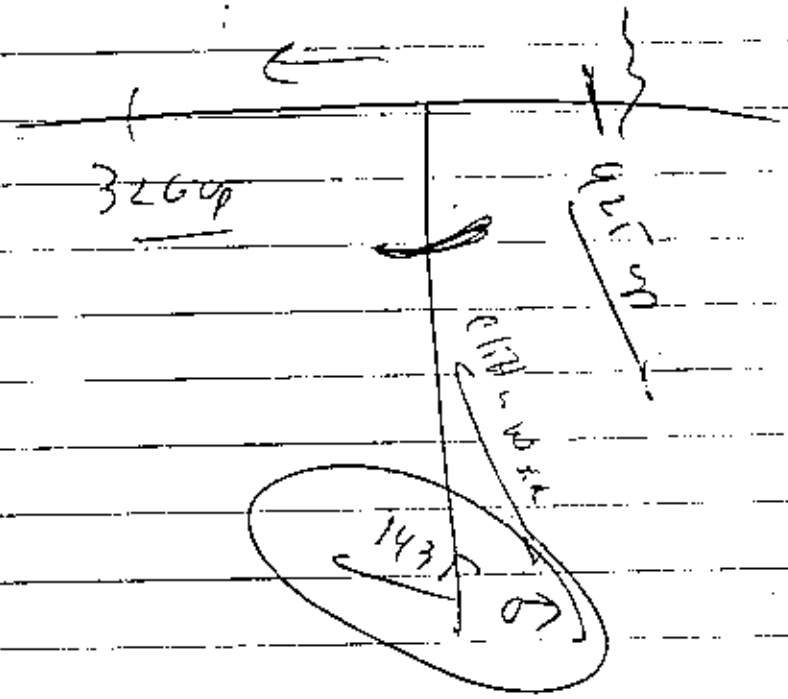
AJ D#7 134°, 4m. D#8 (AJ)
AJ D#7 276°, 31m. #5 (AJ)
AJ D#5 0°, 6m. #4
AJ D#4 166°, 13m. #6
AJ D#6 192°, 14m. # D-4
TO D-4 64°, 19m. # D-2
AJ D-2 132°, 10m. # D-1
TO D-I 102°, 27 (94m Marker)
Nay TO D-1 96°, 24m. D-I
TO D-I 160°, 20m. D-3 Pine

252
180
102

TO D5(N) 96°, 18m (A)
(A) 112°, 10m (D4(N))
TO D5(N) 346°, 22m. D#3 (Pnk)
TO D3 (Pnk) 294°, 20, D#2 (Pnk)
AJ D2(Pk) 10°, 9m D1 (Pk)
TO D1 (Pk)

1412 / 07 to 4/1 (B/S) to
lc in # D2 (Pk)


50 cm DBH A?
48 cm
4/(B/S)

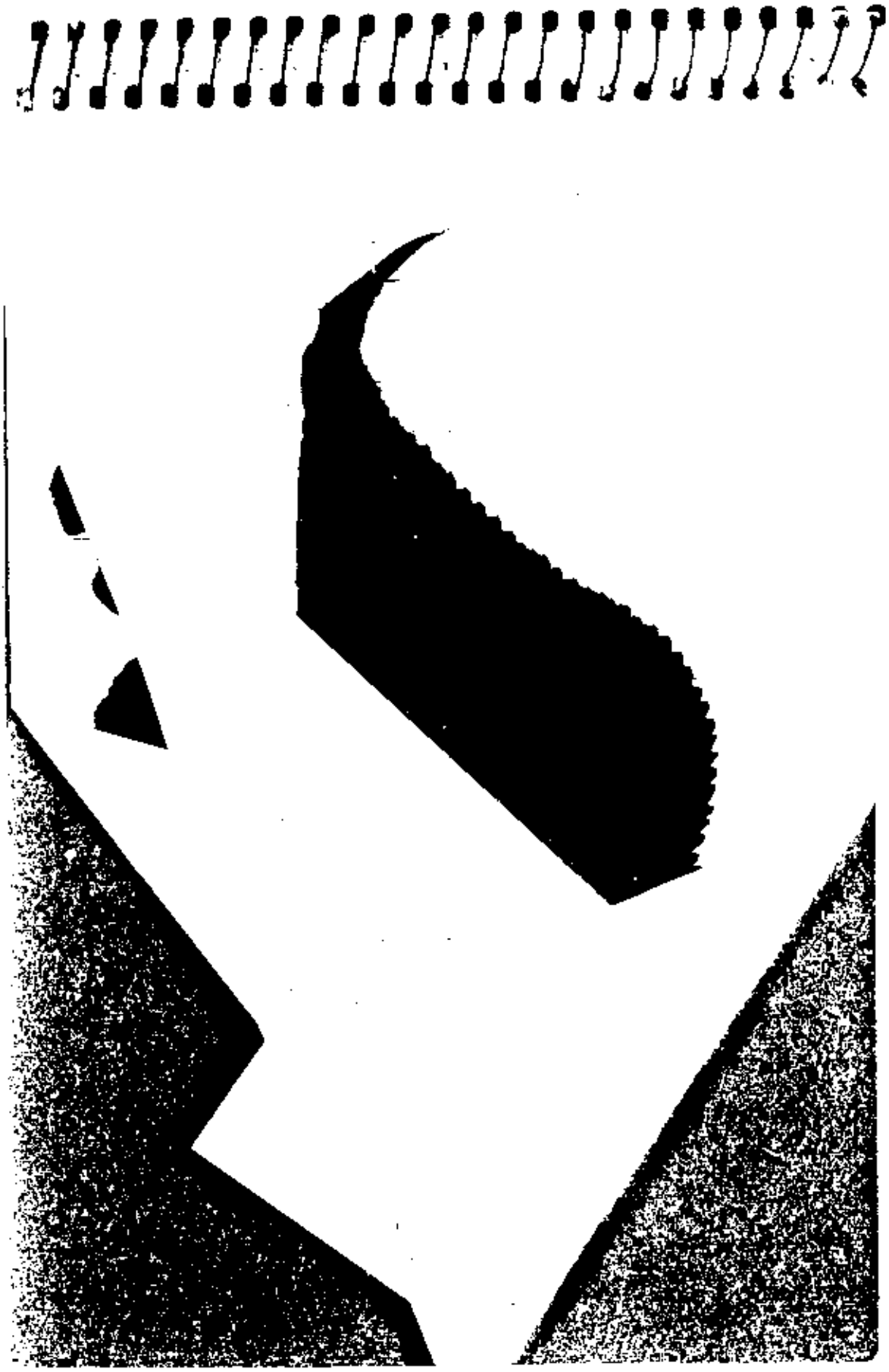

326 cm
143 cm

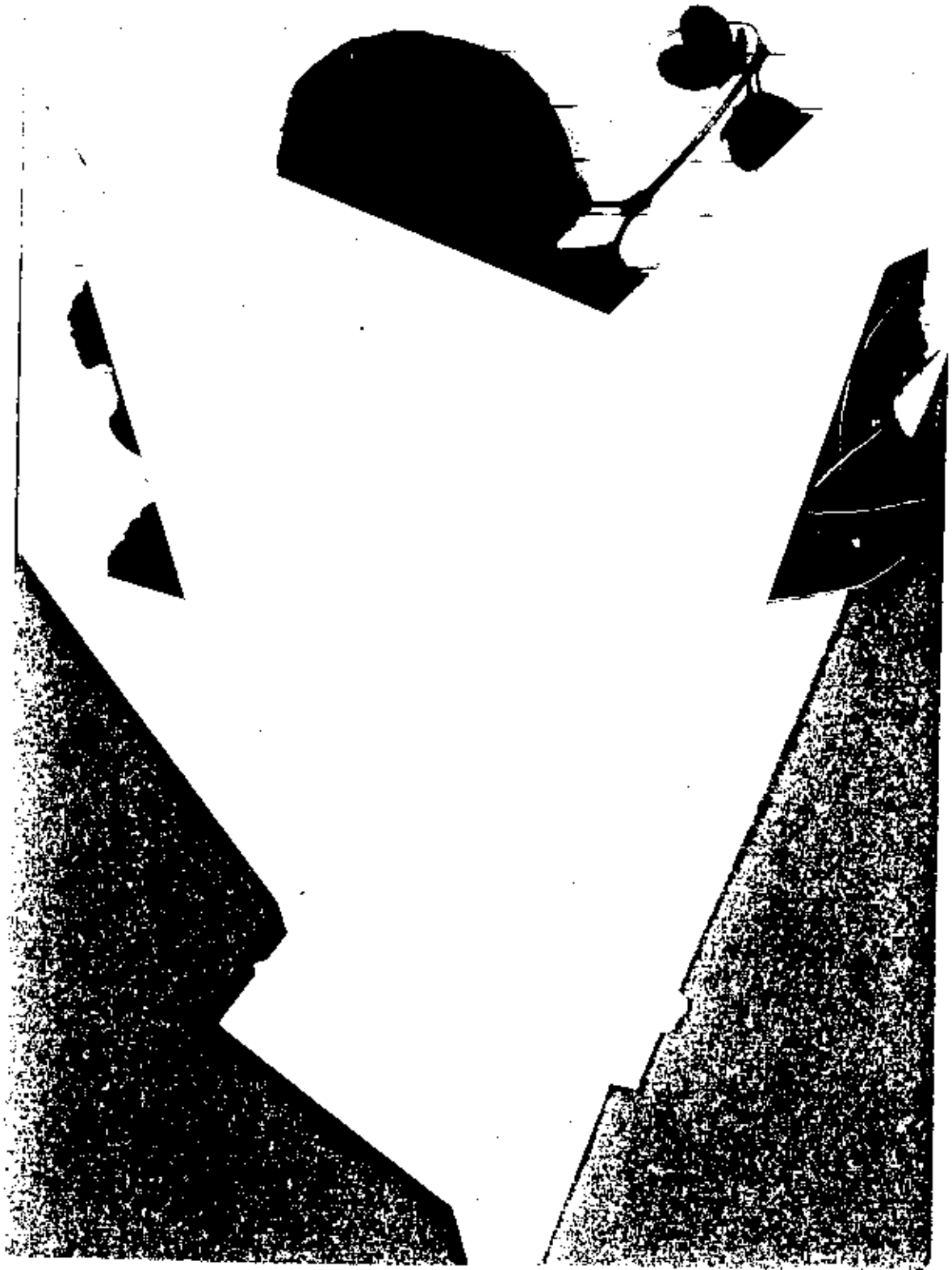
Bruce Hornsby
Little Feat,
Steve Ray,
Eric Johnson
Tango Gris

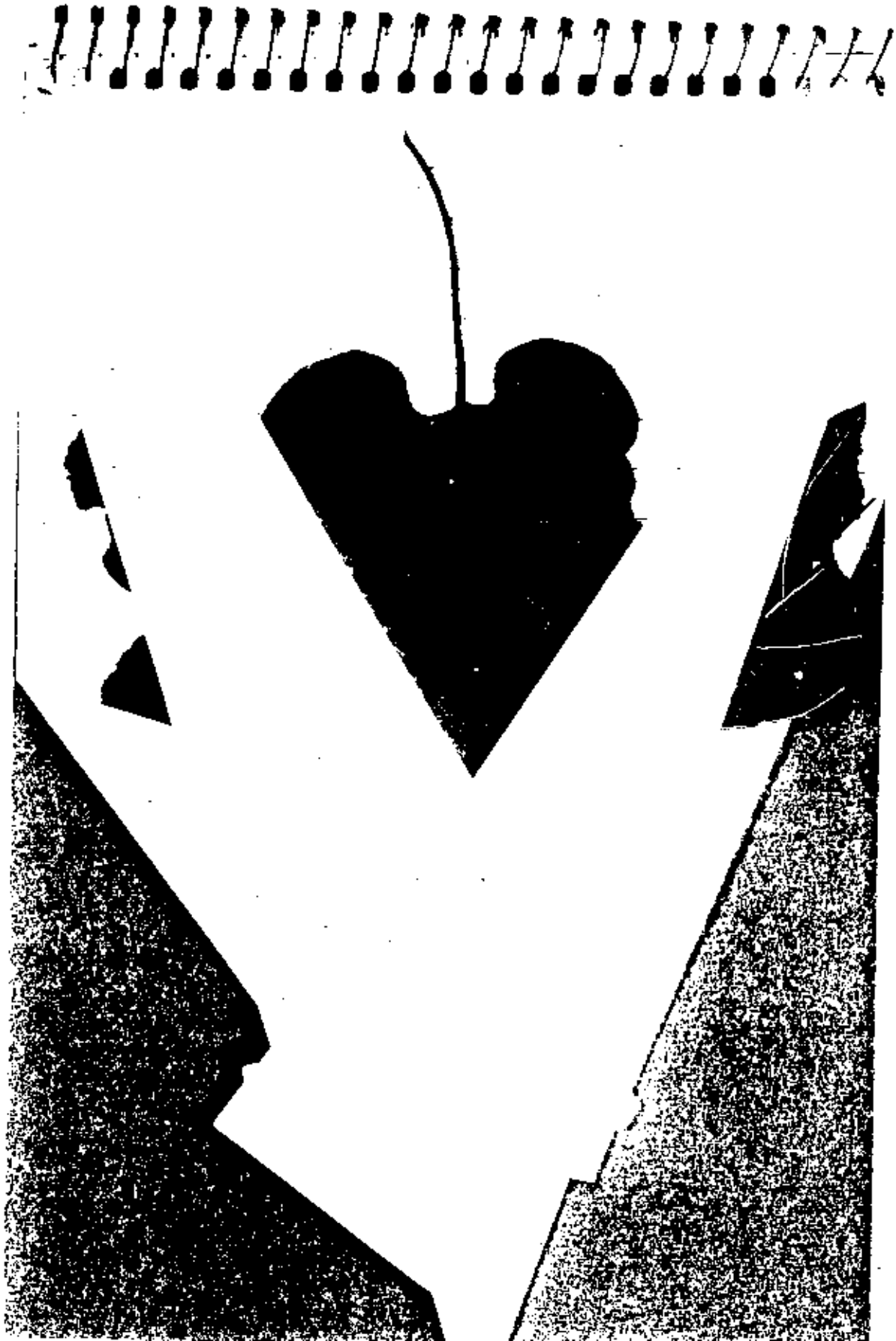
D: MICROINJECT / SCANNODE

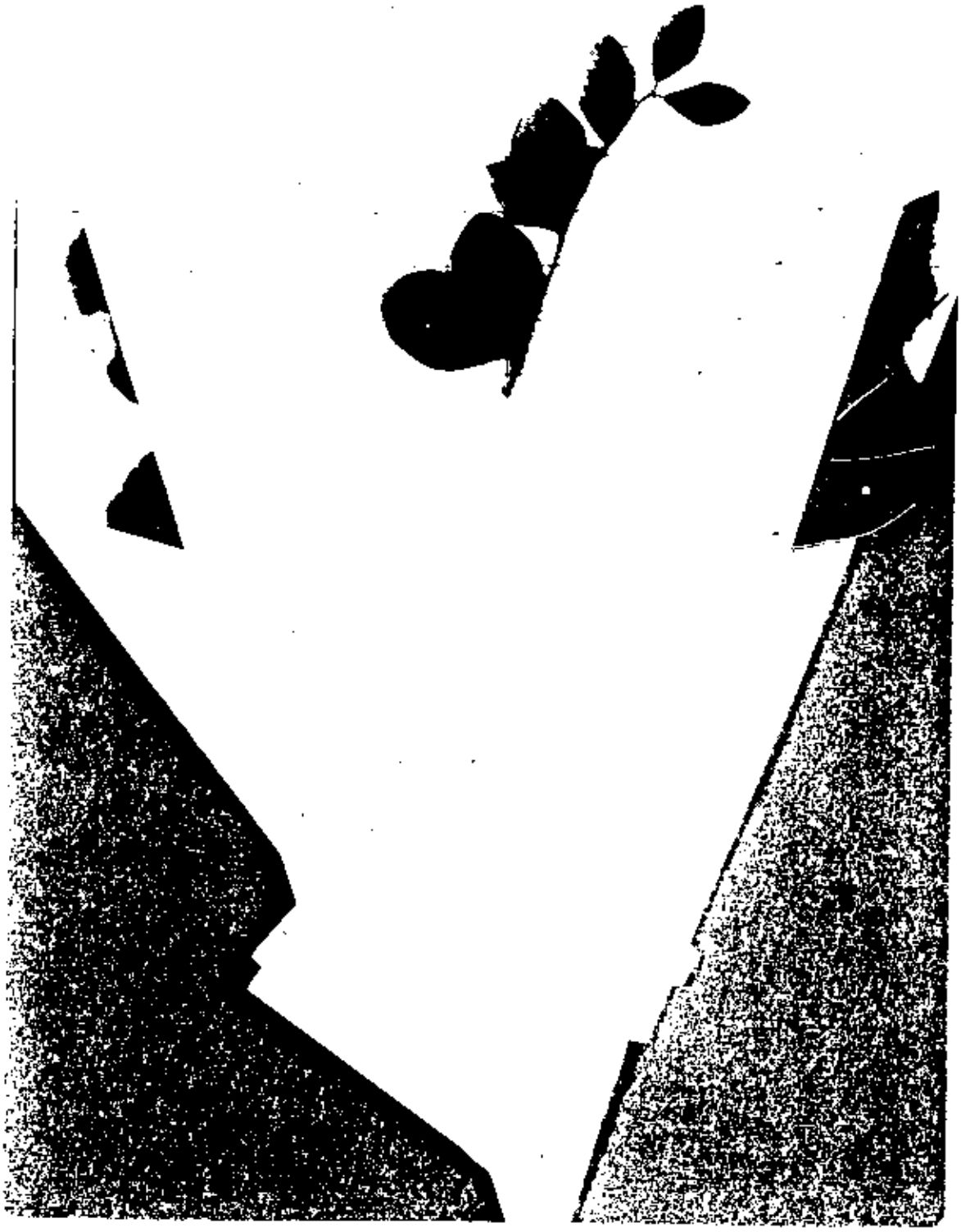
Copy

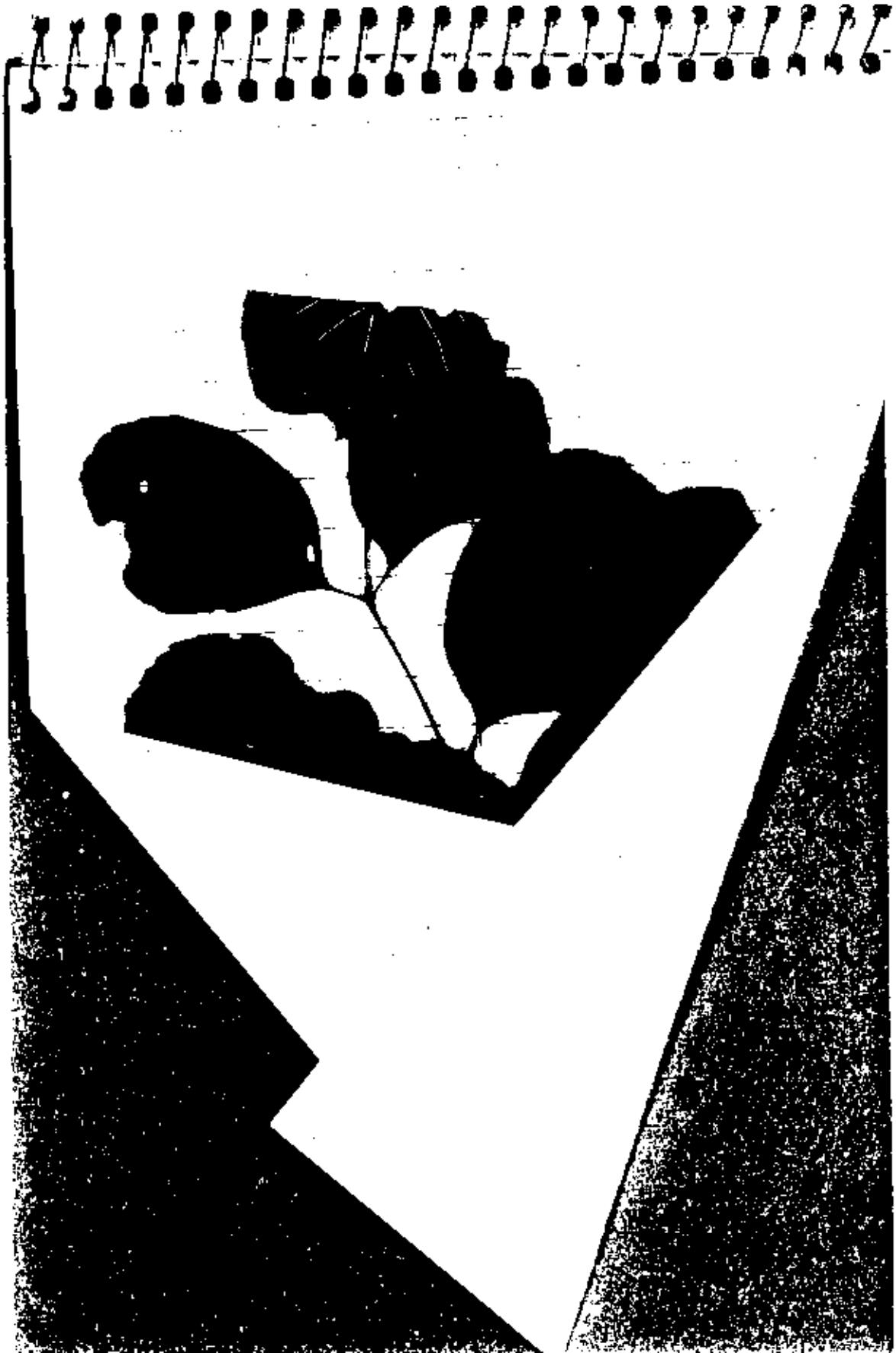
E: PROJECT 3











229

Stem
Not

S. Hollow (Wehstan) Bandwn ♂.

♂ 21 G / W/S

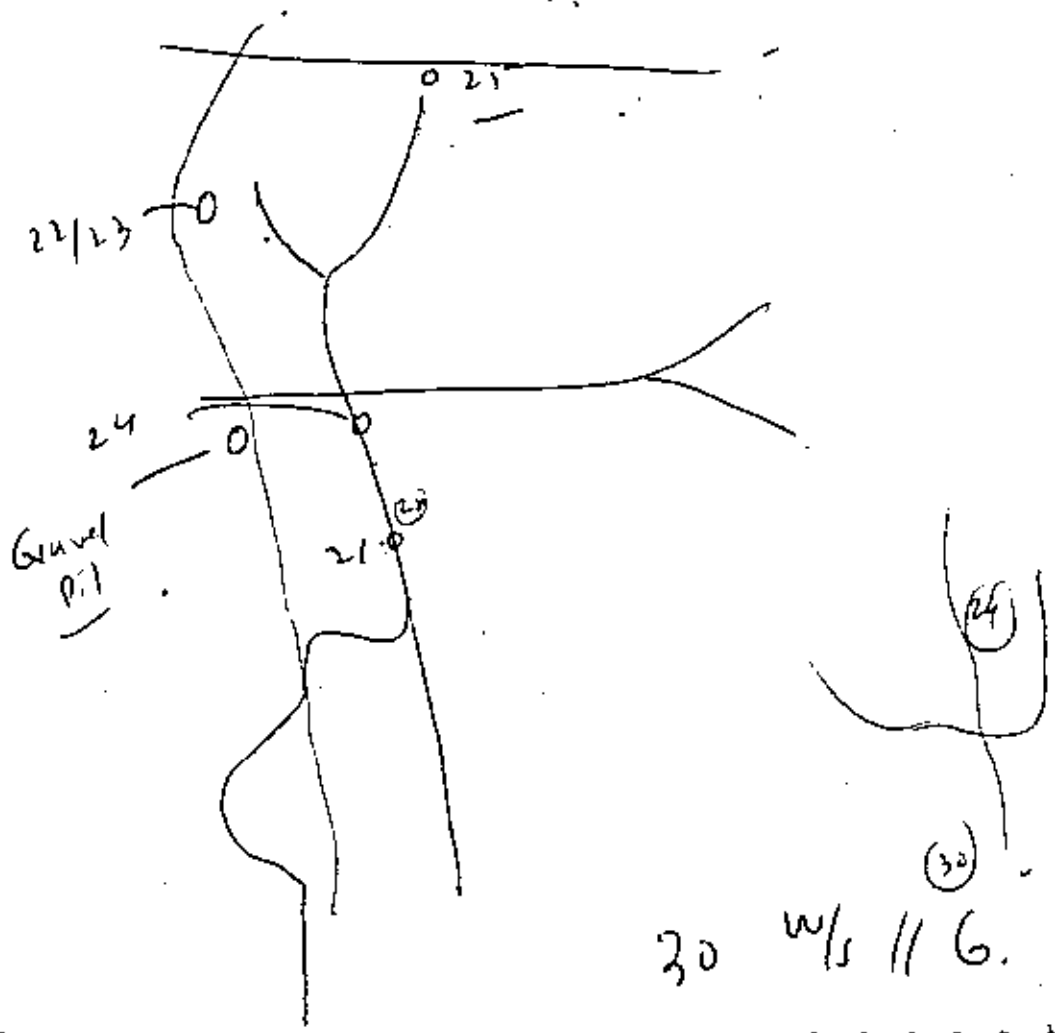
22 G / S/W

23 W/S / Y

24 O / W/S

25 Y / S/B. — N Fwd.

S Fwd.



30 W/S // G.

17 May 1993 → Wehstan Dwt.

[redacted]

17 May 1993 → Webster Trail

~~Rt.~~ South Hollow Clear Pt. [illegible] @

Painted Bunting on Top.

Bewick Wren.

0923 - 0925 - ♂ SI ~~[illegible]~~ Walnut → FG !!

UB/UB + Moving Thru upper

BT

0931 → Used Screech Owl whistle & ECW now quiet

Need Sharpy Photocopy of Topo.

AJ. encroaching as [illegible] spear

0949 ♂ ECW SI, a

#1 Tuy next to 0923 then

SI stations pair not near

OB/SB bar near

0952 moved to new pos

#2 ♂ SC/FG/HG TO

0957 F L, Moving upstream along

2-3 S. Stop → Saw [illegible]

Pearl Chap

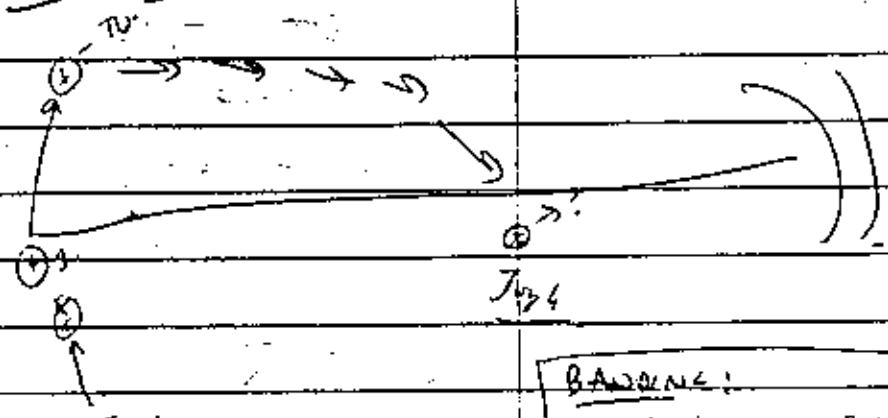
OSTE: 57 51 #3 J06

to Big Jug. on N. Slope

Preen/SC mon. to ETC

(4.) // (/5)

1000 Gone



BANDING:
Yellow + Silty

1003 RB woodpecker
also one seen at
Victoria on
Thursday

1003 Jet Overhead

1007
@ head of S. Fork → Fire Ant
Moguer on Slope
Dewitt Cr

1015 ♂ SK, [illegible] Hose Code [illegible]

1027 #4 CE – ♂ SC + Pres stat, pw

UB, OB,

1025 ♂ to E lc

1026 ♂ F ?

#5 TO

R ∥ L

((W/S) ∥ Y)

1032 Bitch [illegible] Wave [illegible] ch

1030 F → ?

SC

#6 Jug. SC [illegible]

1037 F ♂

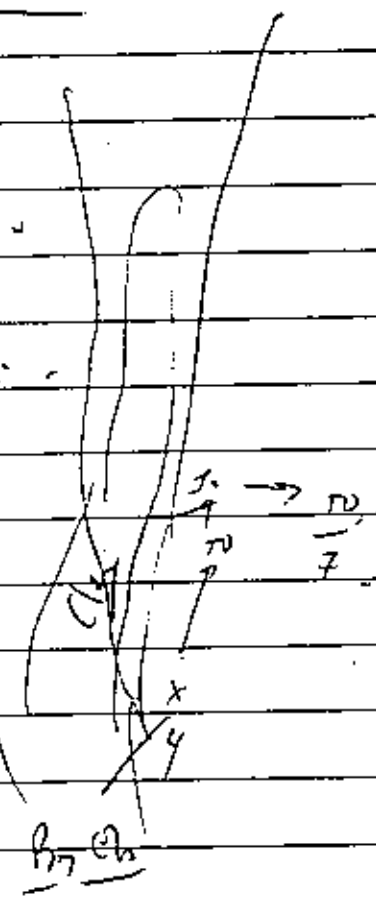
#7 TO SC stat, Press.

1042 Now FG

UB, IB

using out [illegible]

but not [illegible]



1073 F. E & #8 EC 1°. OB, OB
upper mid bn twigs.
#9
+
1048 F? E. a [illegible] SFm sly
Woodpecker,
#10 JUC
1050 F. →
#11 [illegible] TU. SC STAT
OB, OB 1° dead
upper twigs!!
1052 lc 3-4x + pneus
at prominent [illegible]
1052-56 lc agn facing to N
(Nw ~ S. face slope
crest)
Winding to 10 pm occasion
59.31 still pneus + SC.

17/5/93

1055.15 SC + Brown

56 on Turned to Face S.

Wind.

Bill Sdrp.

57.41 SC ~~MM~~ 1

↓

58.30 → E. dam sta.

Field Sp

Cla

#12

1100 ♂ Silent ?? Gone !!

Scrub Ty

Lunch Break

Cane Cove

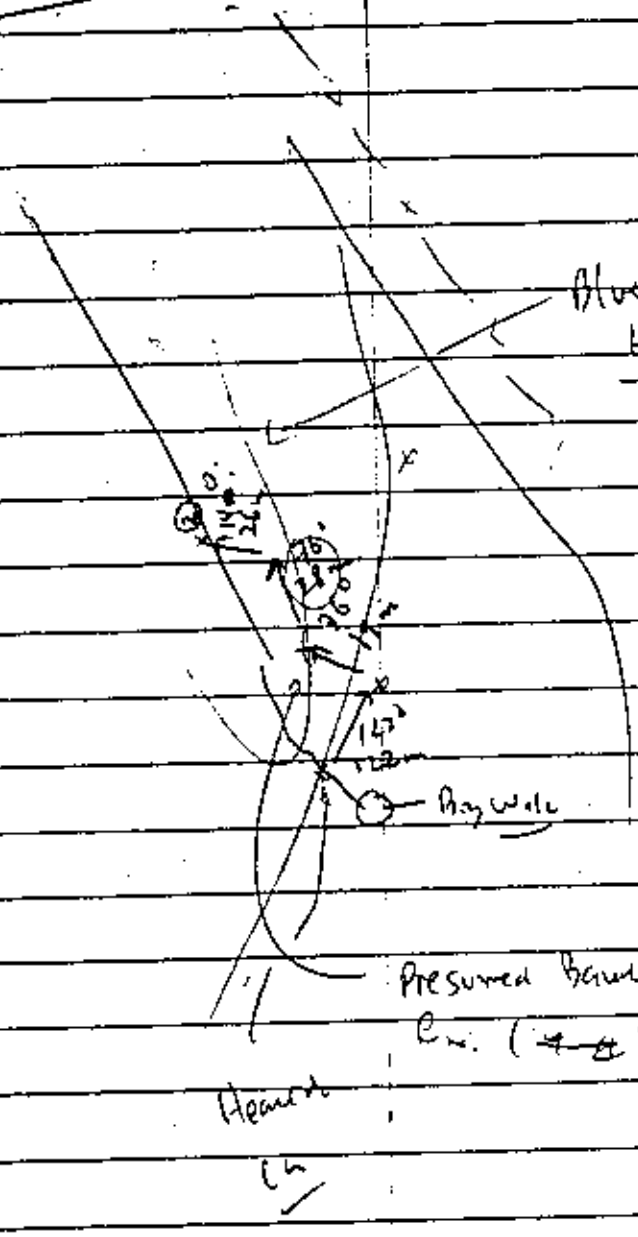
1149 Bro Ribbon Shrub &

N. erythrogaster & Pool

1150 ♂ lc @ Lean of

Hill x opp. slg

1135 - Blue Jay [illegible]



#2 TO → approximate direction of movement.. (pencils not seen until #3), 280°, 21 m to A (TO)

A (TO) → 286°, 27 m to B (JUG)

B (JUG) → 26°, 10 m (CK)

C (CK) → 352°, 12 m D (TO)

D (TO) → 71°, 8 m (#3 JUG (Chinabers here)

#3 JUG → 90°, 21 m. * (JUG)

* JUG (first pencil 0933 this morning)

* JUG → 140°, 8 m #1 (JUG)

#1 JUG → 151° → #2 (TO)

(1223 of 3r to 5)

#1 JUG → 137°, 22 m A (Big TO)

A (BIG TO) → 174° → #12 (TO)

A (BIG TO) → 92°, 20 m B (2 Trunk TO)

B (2 Trunk TO) at head of clearing in NF sign

B 124°, 10 m small C (A2)

C (A3) 60°, 41 m. D (center trail)

D → 55°, 38 m → E

E → 80°, 20 m → F

F → 54°, 58 m → G (in middle of clearing)

H → 346°, 32 m → #4 CE.

#5 TO → [illegible]

17/5/[illegible]

#4 CC → 214°, 27m, #5 (TO) 1246 - Cm up

#5 (TO) 264°, 39m A (TO) Cam

A (TO) 147°, 7m → #6 JOG.

#6 (JOG) → 289°, 21m → A (TO ans)

A → 13°, 36m → B

B → 63°, 6m #7 TO.

#7 (TO) 286°, 10m. #12 (TO)

#12 (TO) 25°, 19m (A)

(A) → 103°, 17m #9 (EC)

#9 (EC) → 188°, 5m #8 (EC)

~~#8 (EC)~~

#9 (EC) 339°, 20m A

A - 4°, 17m. #10 JOG.

#10 Jog 284°, 13m A

A 264°, 11m. B

B - 200°, 6m. #11 (TO)

#11 Rest pm

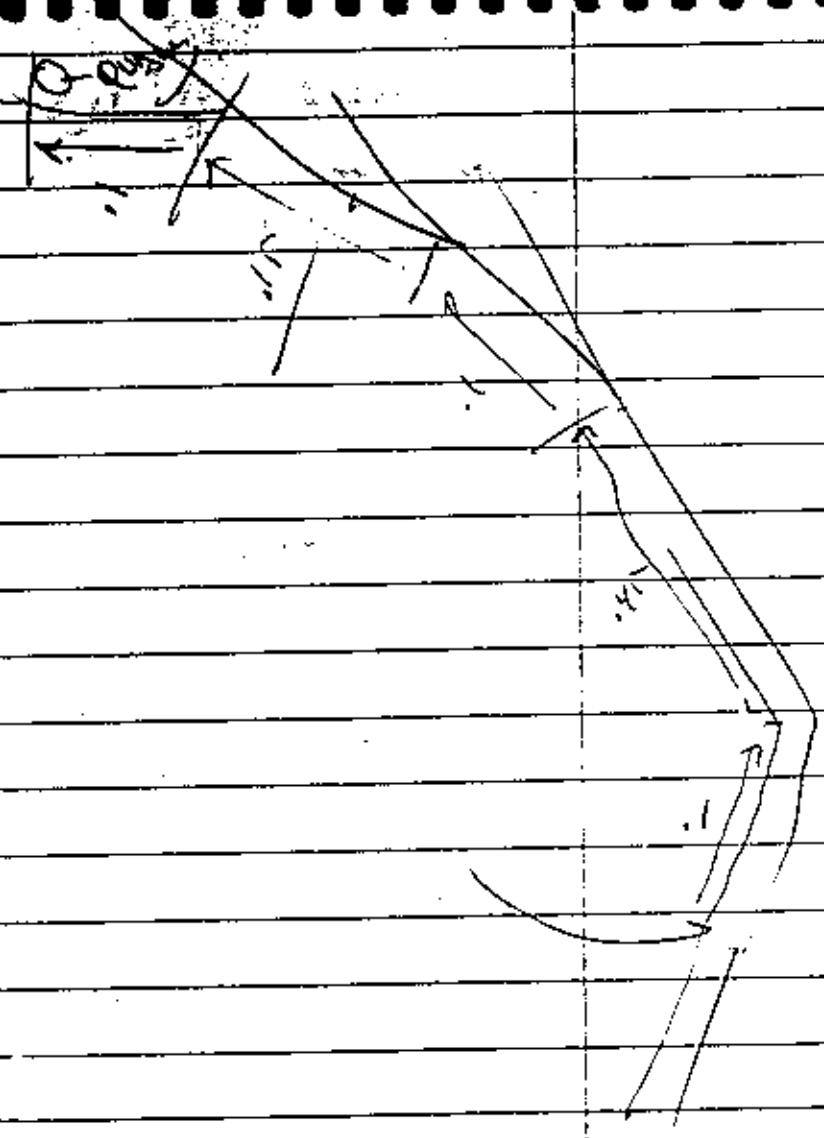
Clear to Trou

TAL → 2°, 45m, A

A 320°, 38m Road + Quarry to left (B)

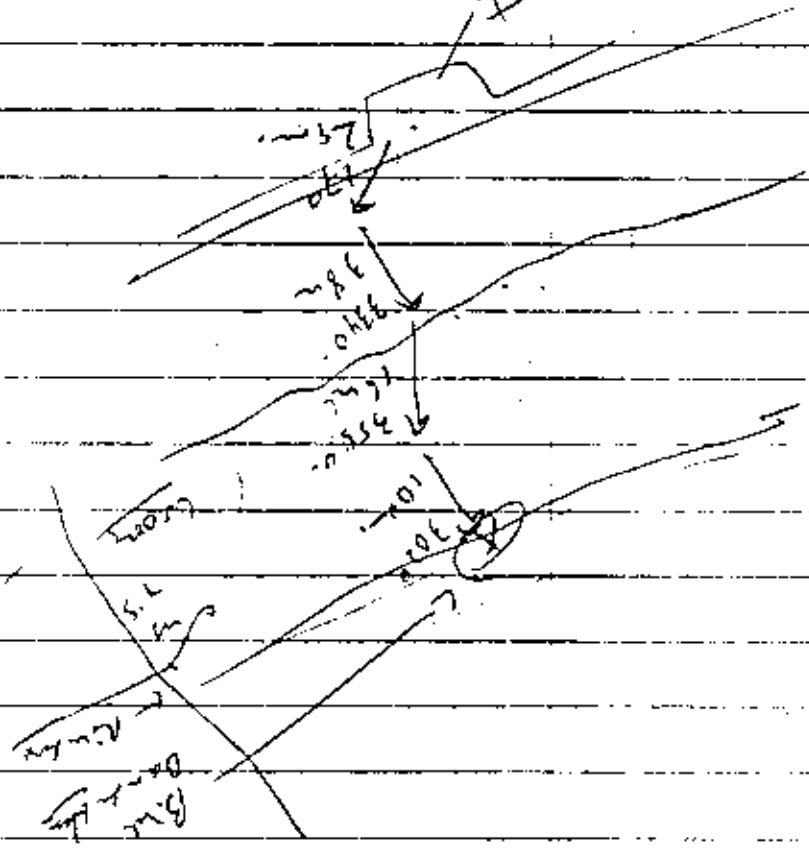
~~(A) 303°, 84m (B)~~

(C) 354°,


.1
.15
.1
.45
.1

18/5/93 WEBSTER → shows this morning
[illegible] light. NW wind
Cold Front due, [illegible]

@ A 2" & Tenth (0 // W/S)



0815 BHCB → at edge [illegible]

R.C. Spam

0827 [illegible] 8/7/88

chip + [illegible]

0827 [illegible] + chip [illegible] [illegible]

[illegible] AJR

241

10/

+10

0-10

0825 lc + chip Dr #3 to
chip + mar

0828 the F up slope to E UB/JB
#2 (vic.). E2 mar

0830
F E + dandy
#3, vic: TO

0830 SC + lc. & vic. #3
UB

the F-E? to distance
pencil & SC. ca 60-100m
distance

0838 dandy lc

0839 #1 make SC to 230°
SILENT

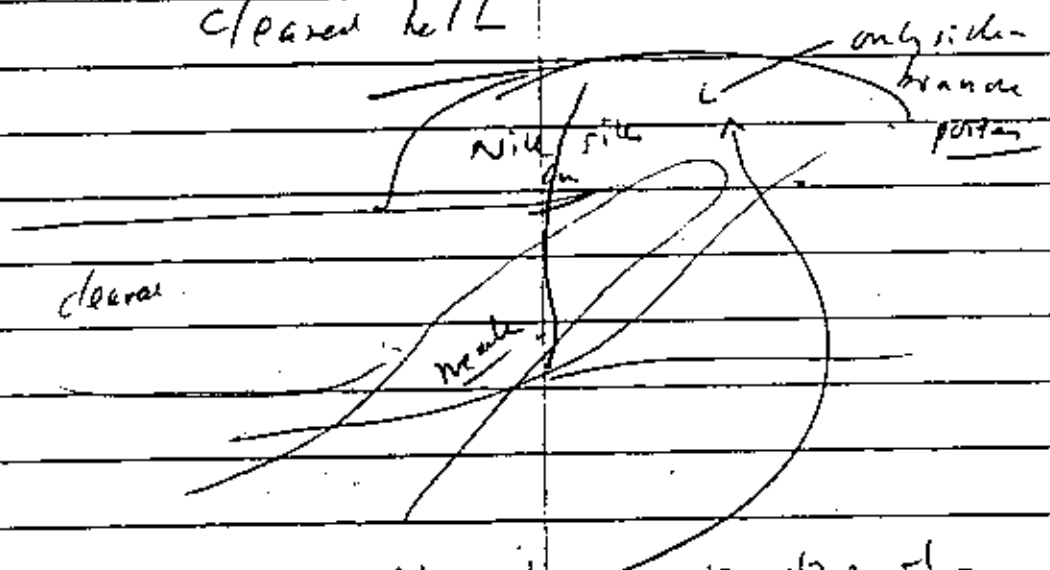
0844 explay lower slope
SC rock jay
@ side [illegible]

0516 [illegible] to E. + Chp. [illegible]
AG @ #2
to moving HG
to UR, IB or latter [illegible]

0925
Stuck Tray Nearby

0924 Now gone ≈ 30° Downslope
— // (W/S) definitely bound
Silent

0930 moving W along mid-slope
cleared hill



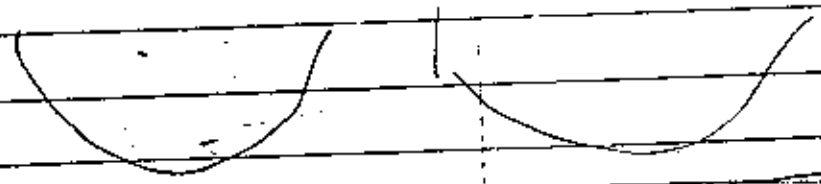
But shows older steps indicative of
earlier (pre-1969) bout of posting

0543 Cardiac wren.
WIND ↑.

0556 #23 ♂ SC. X. holes in
vic Rg EE ~ upper slope TUT + EC

1004 working E in NF slope.
moving ♂ SC to E
UB/JB. BH2 Jackson
1006 F? → 273°

@ Nice Crotto & side Lance in NF slope



1011 Cont. E. ♂ SC to E distance

1012 Airplane overhead
♂ l.
BH2 10 11 (W/S). deliver #24
EE UB/JB looking
20° 1016 F. 20°

245

1017 Dunshy ca 20 m ⊥ ⊥ A 2
more chip

B#3 AJ. Chip lc
H6

1017 F upshy 160° ?
the lc +
chp. ∞

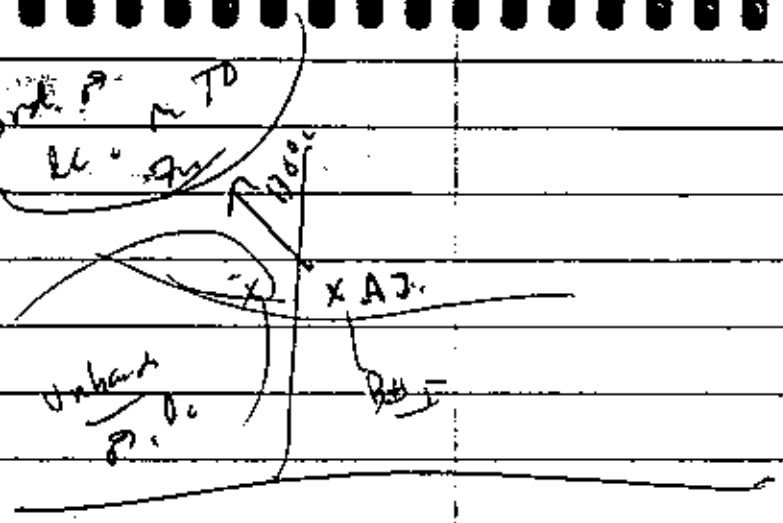
1021 ♂ lc in tall EC.

B#4 EC @ Sid
cu

1023 F ?
1023 Jet —
♂ lc. ↳ 34°
Chp ∞.

1028 O // W/S @ the
p.1.

B#1 + Unhandle 3rd ♂
bin ha + upshy
AJ alm to SB



1031 0 // W/S to B#6 AJ

1032.30 ♂ Pre. 5 ||||

Tang Gh., Chip 2-3x

FG

1033.02 HG

ovl. F. to W.

RC 5

Chip 1-1

1036 B#7. AJ

♂ on Chip 1 movi prob FG/

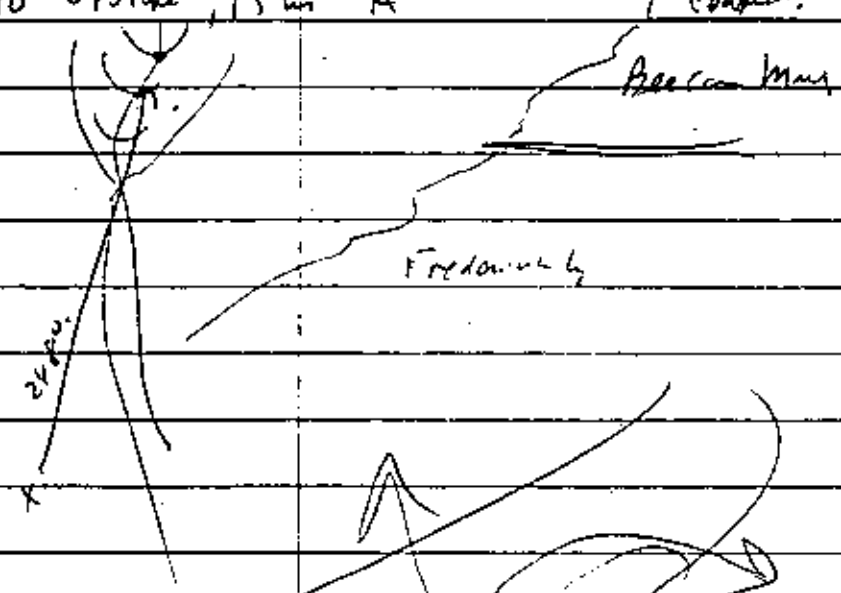
F to W HG

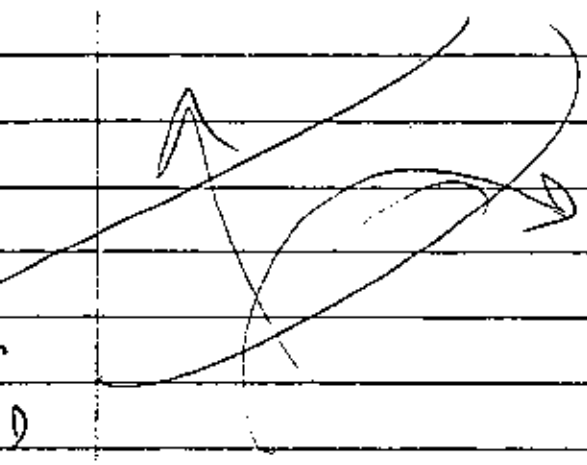
B#8 + DC. AJ.

Not localen preas

MAPPING BACK

B#7 (AJ) → 92°, 14m B3 (AJ)
B3 (AJ) → 30°, 36m. B6 AJ. 1096 B+W Wrecks
B6 AJ → 64°, 33m B5 AJ.
B5 AJ (248° to island road drops down into Hawk Nest Hollow)
B5 AJ 170° upslope, 15m A





A → 218°, 7m B.
B. → 166°, 47m C
C → 208°, 17m D
D → 205°, 15m E
E → 157°, 16m. F
F → (Rim Roll..) 258°, 5m G.
G → 160°, 30m. @ ROAD

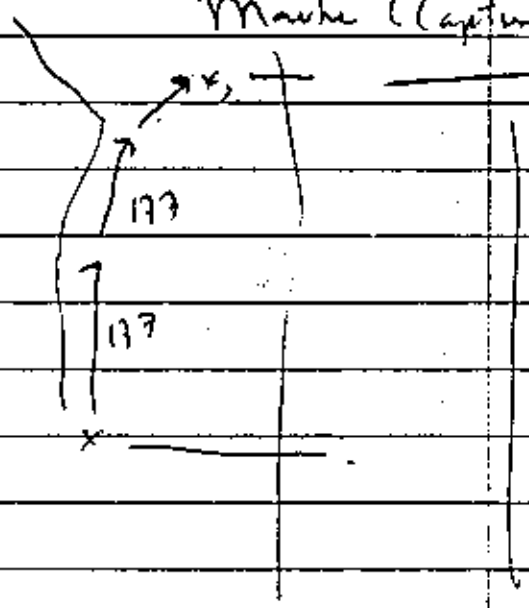
ROAD BACK TO CAPTURE SITE

→ 232°, 177 m. to Fence

Fence, 256°, 178 m to Fence corner

Corner 273°, 46 m to Pink

Marker (Capture Site)



Pink Alley Fence.

Flycatch.

18/5/97 . MAP #2C B/S // 4 —

TRAPPING SITE → 212°, 47m A

A 263°, 11m B

B 208°, 8m C

C 242°, 14m D

D 210°, 30m E

E 190°, 8m F

F 224°, 59m. ~~[illegible]~~ G

G 272°, 21m. (Old Rd. in H Trail.)

H. +50° to Banding Site

H 193° (down old rd) 102m I

I (blue marker) 265°, 57m J.

J = fence road

18/5/93 Back @ #24 W. end T.

MAP from #24 Barn site
→ 336°, 64 m #1. TO.
#1 TO 94°, 36 m. [illegible] ^ E2.
E2, 4°, 31 m to edge of dam AS
down slope

1514 172 m from #24 E edge marker
on road to next orange
ribbon

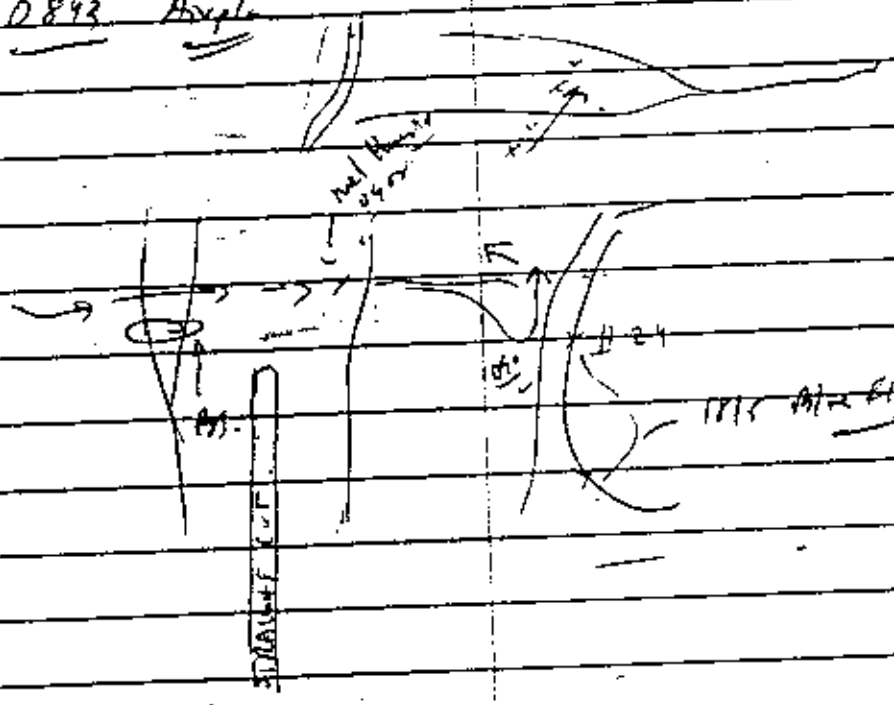
+ 196 m to #21 handing site.
Pink tape.

+ 109 m to orange Flag + cairn
(Jims)

+ 166 to Y in road

19/5/93 WERSTEN LOOKING at
#21 Bird 1 & 5 Slope —
Hawks New Holland

0829 - 0831 ⇗ SC + [illegible] in succession of
4-5 AJ's (40-50 m below Rim Road)
A1 AJ - marked next to double [illegible]
GONE
0843 Airplane



This slope EL + TO dominates but with
many saplings AJ's coming up.

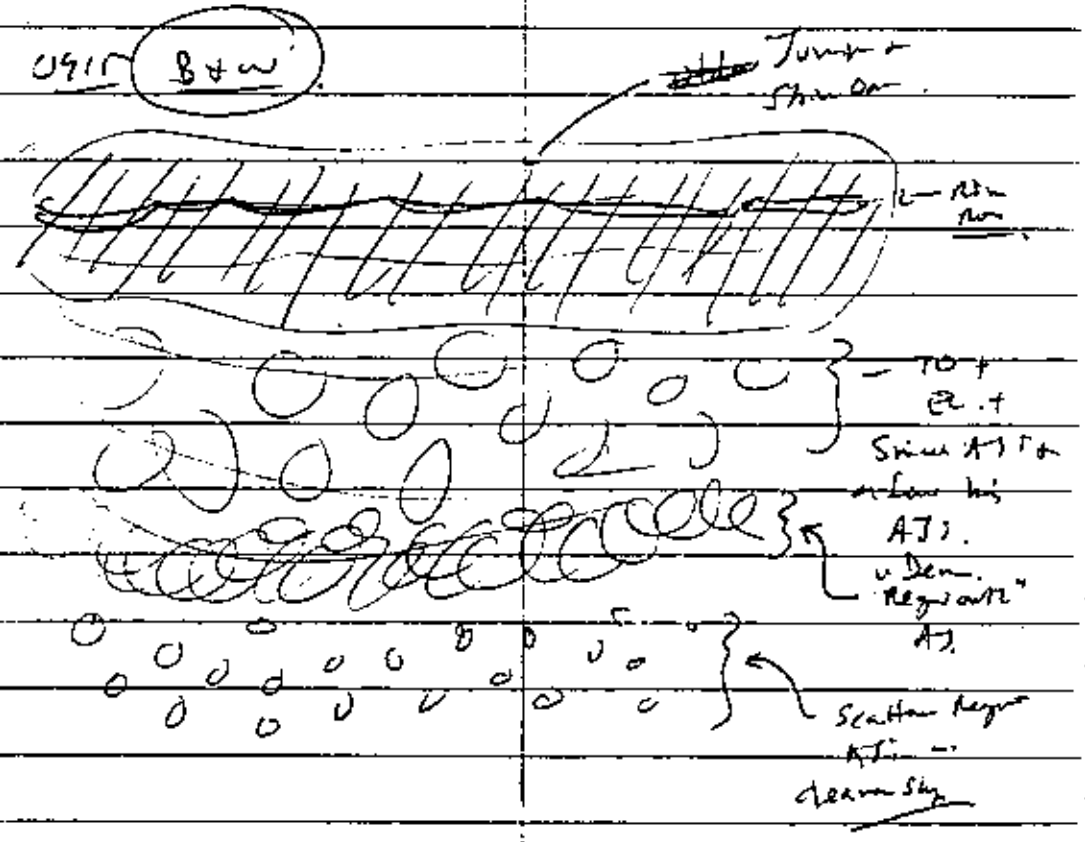
AJ combination of great tensile strength, + dense leaves
& shallow root system makes AJ susceptible
to being felled by high winds

Would be interesting to compare AJ's & various hardwoods in terms of ~~windfall~~ blow-down susceptibility & morphology.

In rainforest - typical buttressed trees are susceptible to blow-down when surrounding forest is removed.

Perhaps a similar situation applies in these woodlands or in woods - in general.

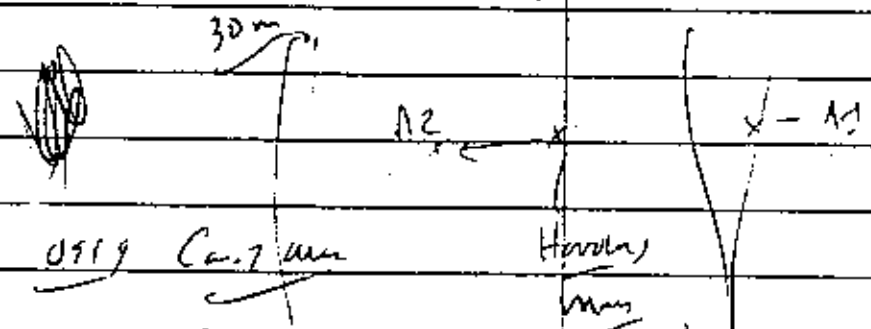
0915 B+W



0520 - 0573

A2 ↑ slc + main thin screen
of small AJs. FG + HG

200° to Hamilton's Mark.



0519 Cast area

1007 0° lc. Chg.

away 7h A2

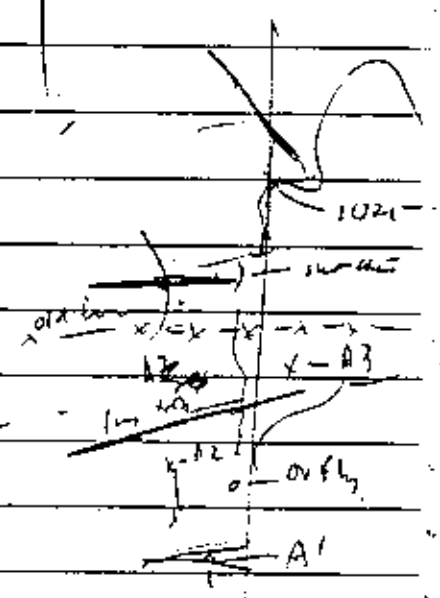
4-5 AJs

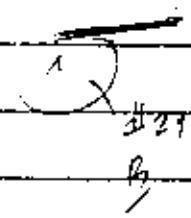
A3 FG + HG, + ...

having + falls to ground

moving rapidly they
rid to upper level of
tree FG/HG + SC

chain flushed wings
insects on flight

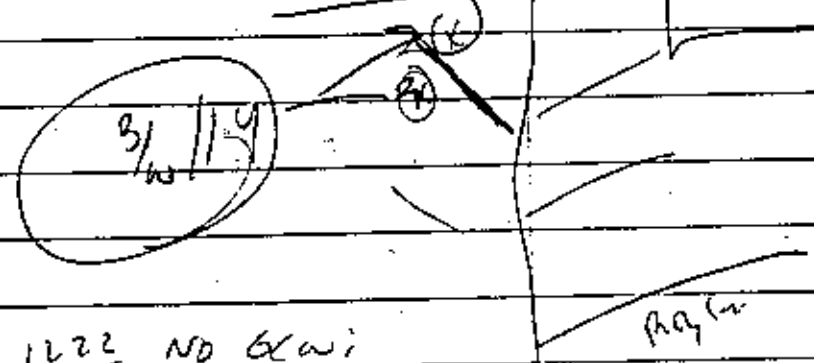




1135 @ middle Hollow N. Stop
#29 [illegible]
Scrub Jay

Collared Lizard

1145 B+W ♂ + ♀ [illegible] 45°



1222 No Gcw
heard - everything
2 handed [illegible]

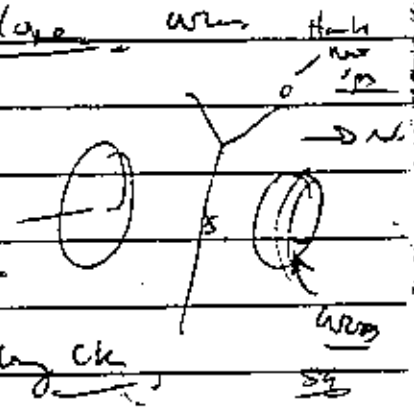
1232 Hummer " 2nd a 3rd [illegible]

21/5/93 Webster

@ Hawks Nest Hollow N Slope wrn

BHCB at Thicket & Dom &

N. edge woodlot



BHCB @ HNH woodlot along ck

Boundary #24 at HNH along ck

Q-tips & Camera Film

Surveyor Tape

#30 Burning Site

#1, 2, 3, 4 262°, 20m A

A 308°, 18m B

B 350°, 22m 70m Ch. Crosby

1313 HNU Chr.

P of F. A7

1316 #1 A7 ♀. HOIFO-
#2 A7.
A3 A5
A4 CE

Redstart

1317 of capture

24/5/93 - ~~[illegible]~~ WED

BHCB → @ ck

~~0920~~

0910 - 1??. ⇒ ♂ lc. + move

~ AJ.

#1.

0920 F →

l.

#2 VIC: ??

lc + ch.

0922 F → ch to AJ mov + lc.

#3 0922 F →

AJ mov lc.

0925

#4 AJ mov lc

#5 AJ mov - lc

0931 ⇒ l. tob. #6 VIC ??

0931.11 ♂ Gun

0934 S l c (a).

@ #7 AJ lc
#8. AJ

0932 ♂ BACK to V.C. &
STARTING POINT.

0940-0955 3 pieces manner
by CAROL & JIM
3 AJs

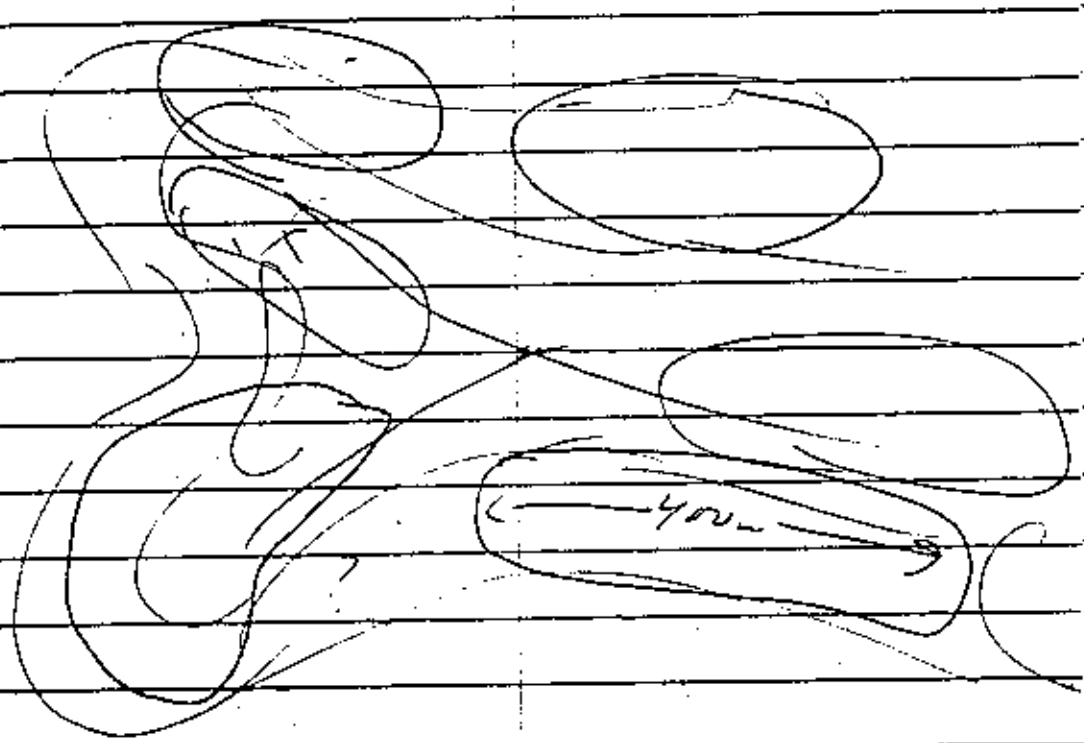
4 Bl Cuchu

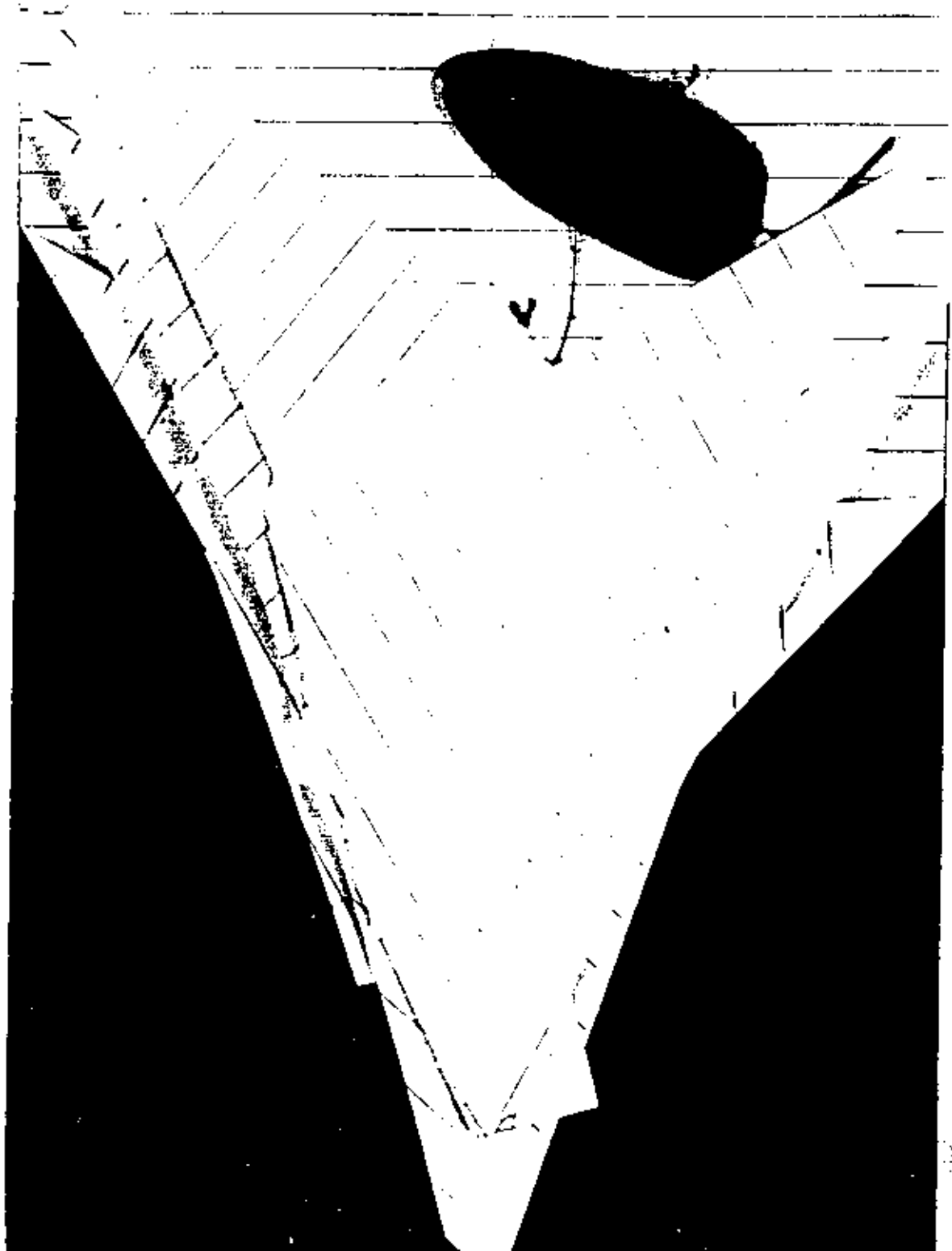
1007. Quiet

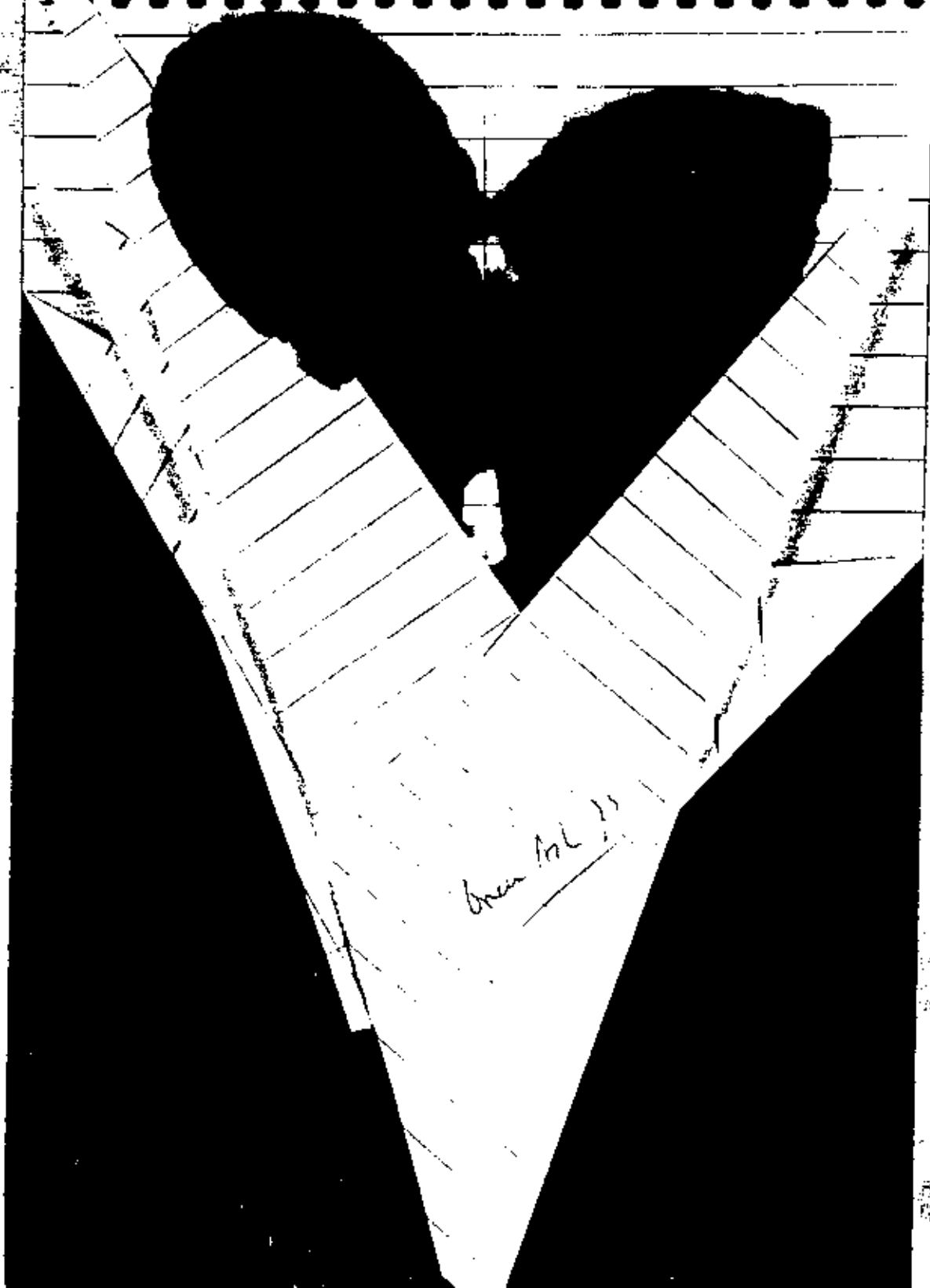
1027 2BHCB ~ 5. [illegible]

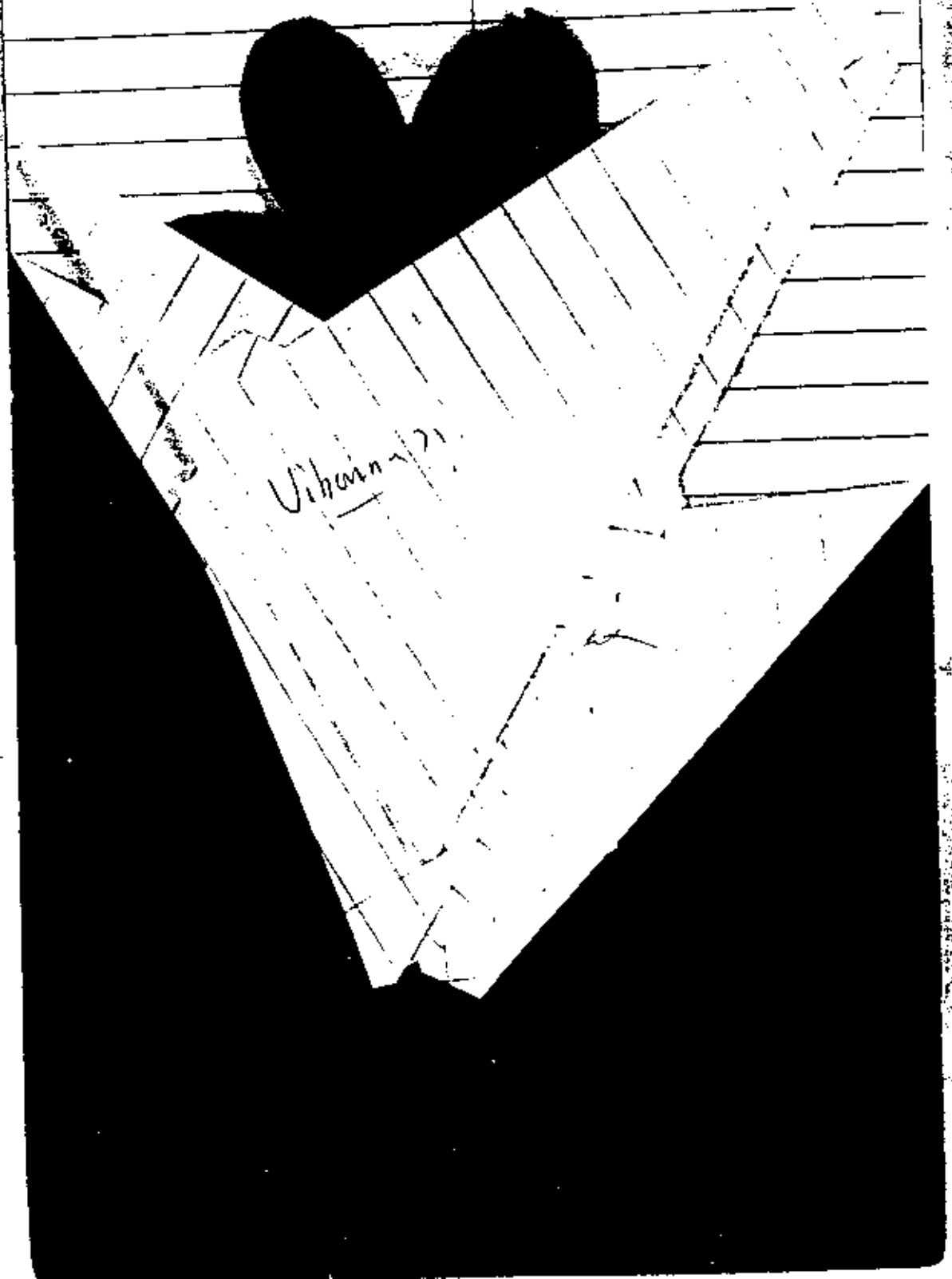
2° grade

Myinchu.








Vihain

Webster Nat
Central Hollow
18/5/93

266

93

WIRELOCK® WIRE WILL NOT SCRATCH DESKS OR SNAG CLOTHING

Name D.P.K-11
Book No. G.
From 24/5/93
To 26 May 1993

AMPAD

NOTE-PERFECT™

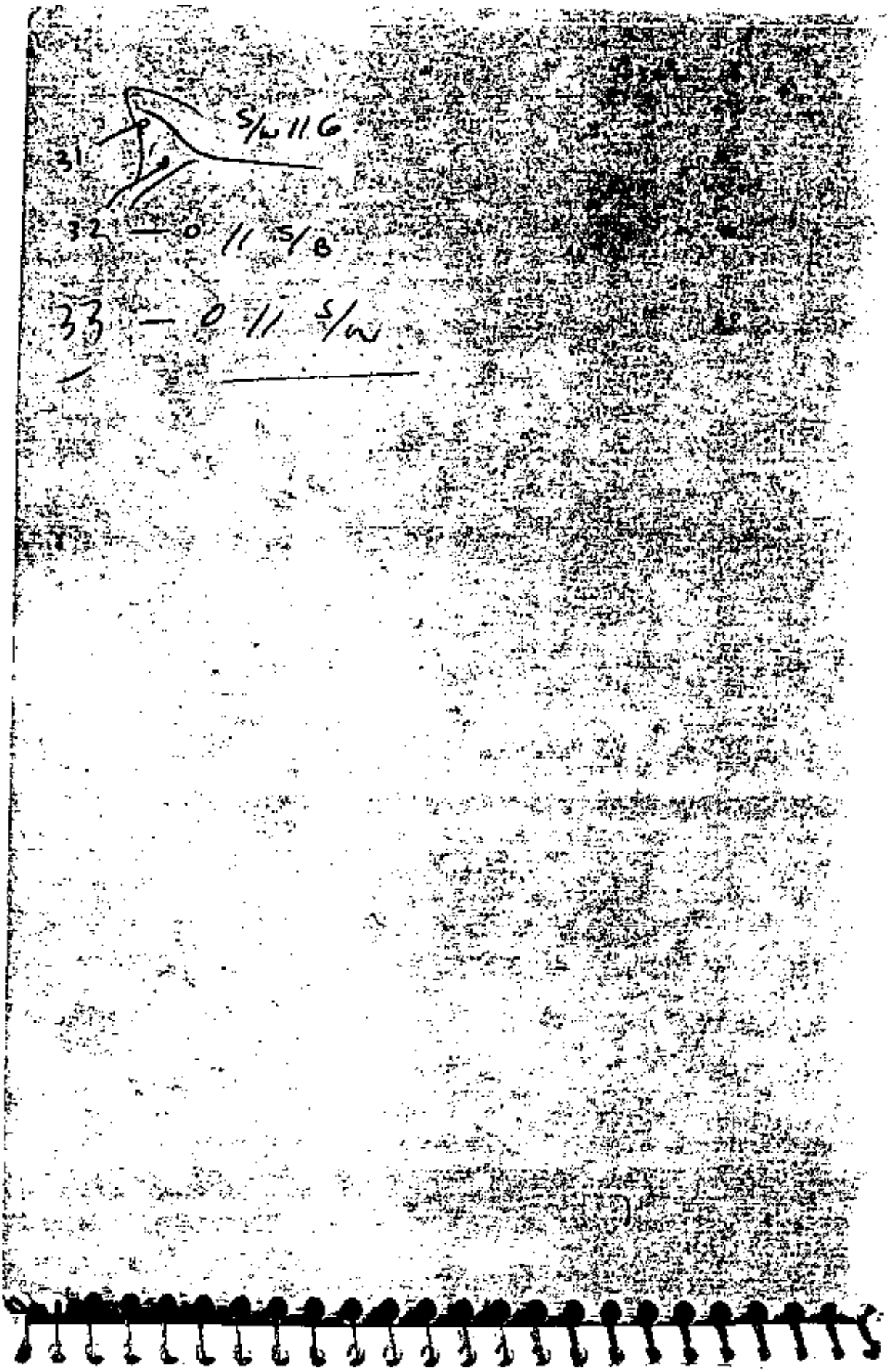
Steno

BOOK

6" x 9"
70 sheets greentint paper
Gregg/narrow ruling
with center line

0 74319 25272 6

reorder #25-272



One Val Vendor Rec - BCD.
ED # 2910068 @ Valv

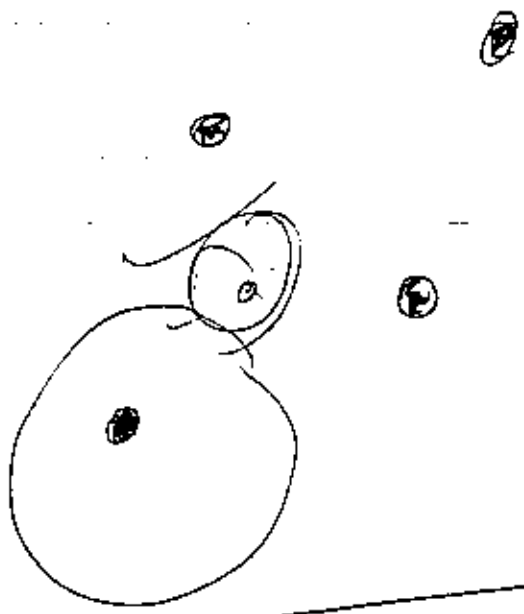
One Val Verde Res in BCD. 268

EO# 2910068 @ Valv

Con 4 mi. N Anistrum Res.

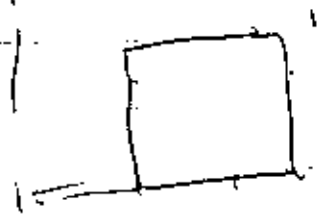
in Little Satan Ck.

4:30 Meets



1

$\equiv 10$ deer/km^2



1.6 km = 1 mi.

$\equiv 25.6$ deer/mi^2.

(2)

2-19- Fausett)

Jean Althowe ( )

Montana

Ashram → Oakhill →

Organic Garden —

- #220 a.c. —

Spokesman for Bausan Dam

Spiritual Master -

[redacted]

Agriculture Part →

Buffalo Crum.

Orchards —

Sandra Scray - Audubon Soc., CA.

Dan Roses -

Native Plants Soc.

Some Groups —

- Native Prairie Society
-

Non-migrant Birds

RW Blackbird
Starlings
Am/Mex. Crackle.
Jays
Mocking bird
TX RP.
Audubon Soc.
TX. Hyp. Cuban Spp.
Orchard Unmigrated Owners.

Cliff Clashing

Problem at Guy St. Rill $

7-21 Will be there →

AB 14th. Jean at.
Bayou Blanc.

24/5/93 Brown Towhee between middle
+ N. holly quarry uplands

1307 @ Middle Hollow - N face islm.
28 ?? banding site.

(S/B 114 ♂)

1322 N face many oak seedlings
+ root sprouts here
at least 2 ♂♂ lc. ing
B + one Warbler X
Canyon on S. slope

1334 ♂ F. 4 in EC #1
1337 ♂ F. 4 in FC #2
1338 ♂ F 4 in TO #3

UB/IB

1339 ♂ lc. #4 AJ
1340 ♀ + FL. UB, OB #5 TO

B42 ♂ Fl. 41

♂ S.L. @ #2 Cl UB/ID.

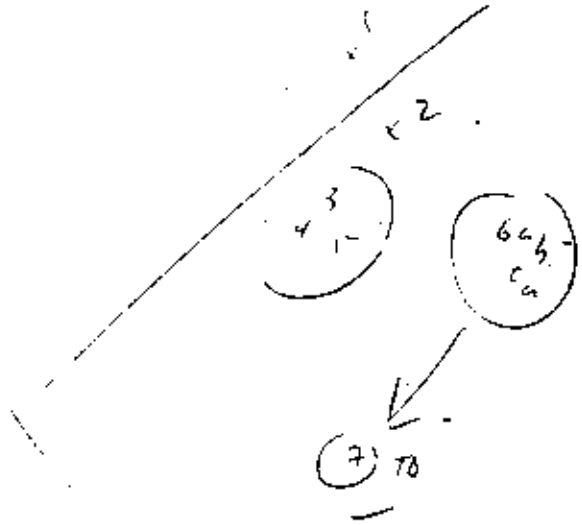
1344 ♂ + q. Fy → W. the Chp

#6. AJ ♂ Chp + HG/FC

→ Bohl FC + HC in sollen R

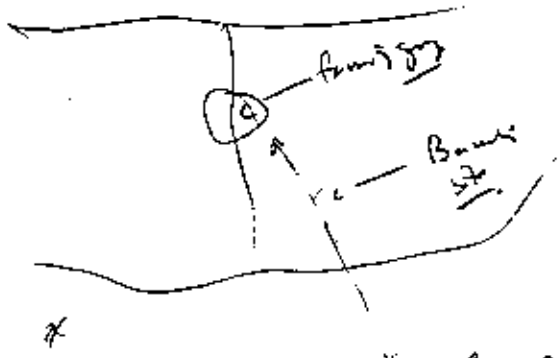
AJs

1351 #7. TO q Fa. 9.



MAP to ♂
#7 333°, 33. A.
1 300° to BANDING site
marks.

Ex,



X — Reed Blind in Cedar Elm.

At one point the adult male ~~female~~ flew to the vicinity of the female, switched to SC & began foraging close to ♀ in a squeeze of 4 AJs. Later flying to vicinity of #1 Y ♀, meanwhile an observer seen near #2 Y.

Date.
Attempt #
Outcome

25/5/92

#1 TO [illegible] SL + [illegible] Y

[illegible] Y [illegible] HG - FG.

0820 → #2 AJ Y [illegible]

↓ Y → chip

0822 #3 AJ Y F.

BHCB @ Tape site.

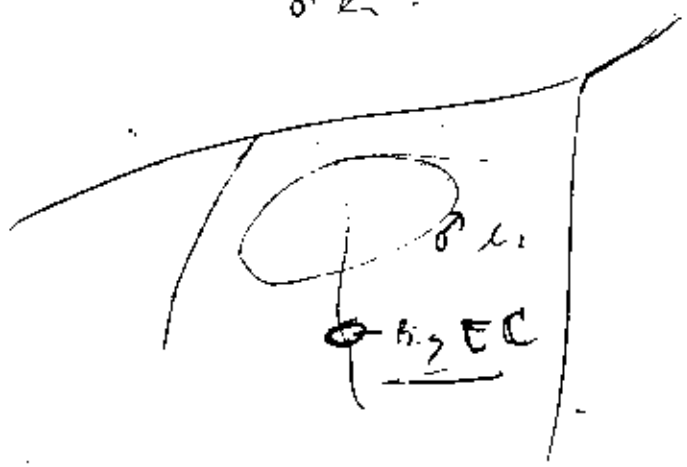
↓ ♂ + Y moving to [illegible] site.

0902 @ N. Holly site of #31
banking site →

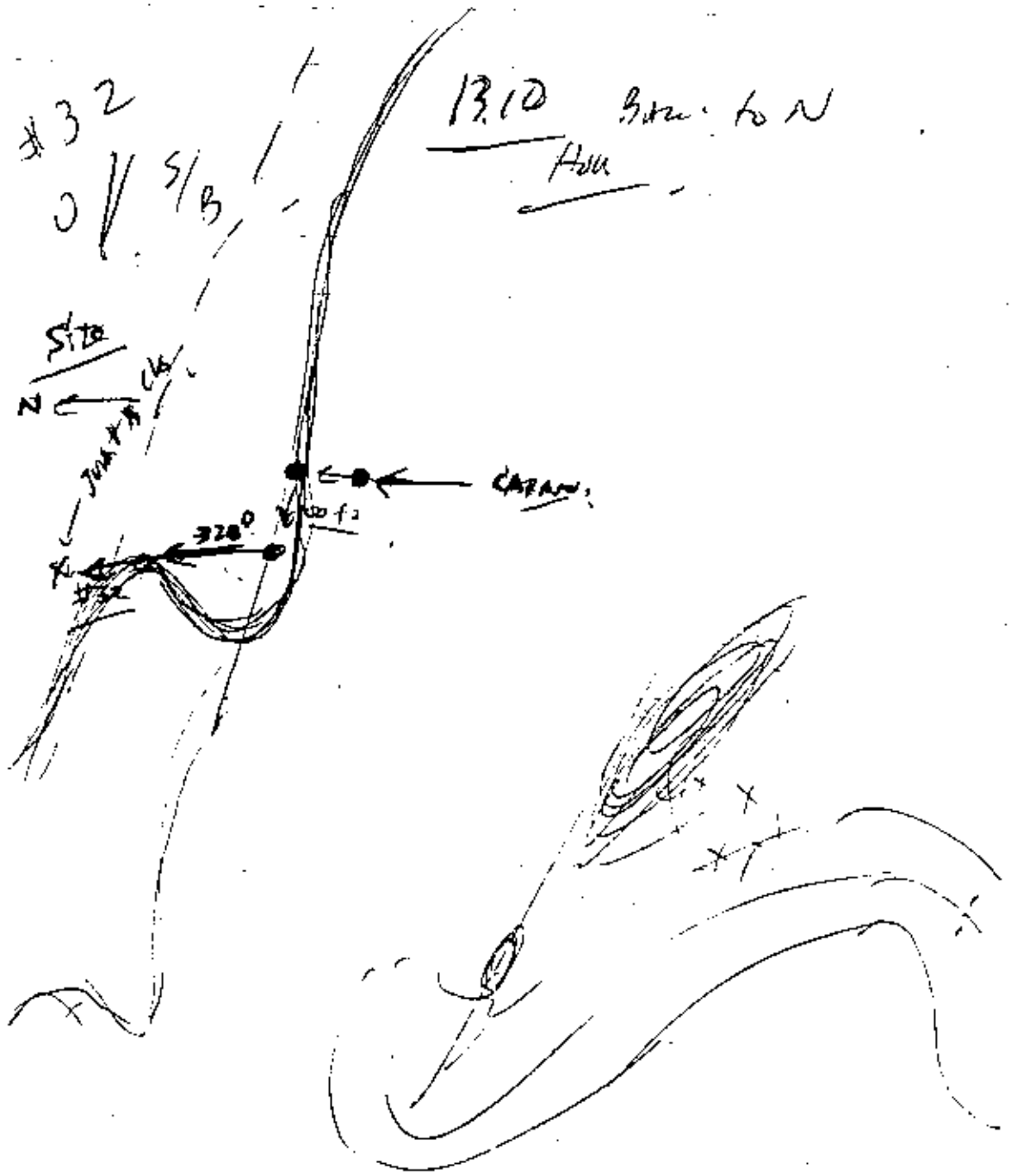
#31 ?? Grateall.
YBLL
BHLB on upper slope
Cañon cover.

0905 ♂ lc on slope.
#1 EC. FG/HG./lc.

1003 #1 + #2. AJ. site of Tenist encounter
one family group. ⇒ Lect 3 ♂♂. 2
♂ lc. unbanded



25/5/93 Visitors Jiva



#32 Bamy site

167°, 31 A

A 130°, 13 m. B (Blue Flag)

B ~~128~~°,

137°, 15 m. C Blue 1

C 169°, 20 m. D

D 180°, 8 m. E

E 140°, 6 m. F

F 182°, 16 – Hardwood Belt.

24 m. G.

G. 147°, 46 m. H

H 186°, 20 m. I

I 277°, 9 m. J

J ~~208~~°

188°, 24 m. Silver Mark on Rim Rock

Silver Mark – 286°, 17 m. ~~Cav~~ Carols Cave:

50 m.

73 m. A.

A – 298°, 14 m. B

B 232°, 8 m. C

C 317°, 8 m. D

D 261°, 31 m. E (Bamy Site #31).

17
50
73
14
16
31
20 m.

#31 Bauri Sc 146°, 35 m. A
Δ 250°, 118 . & C snow AJ
800 ft or
Post Gar with
Deer Bk

Walk N Slope & N. Hills

1578 → 6 cm Bathing
3 bats each followed by
preening - joining the
Dam to H_2O . to back
repeating.

1520 Gone +

Brown Towhee
RC Sparrow.

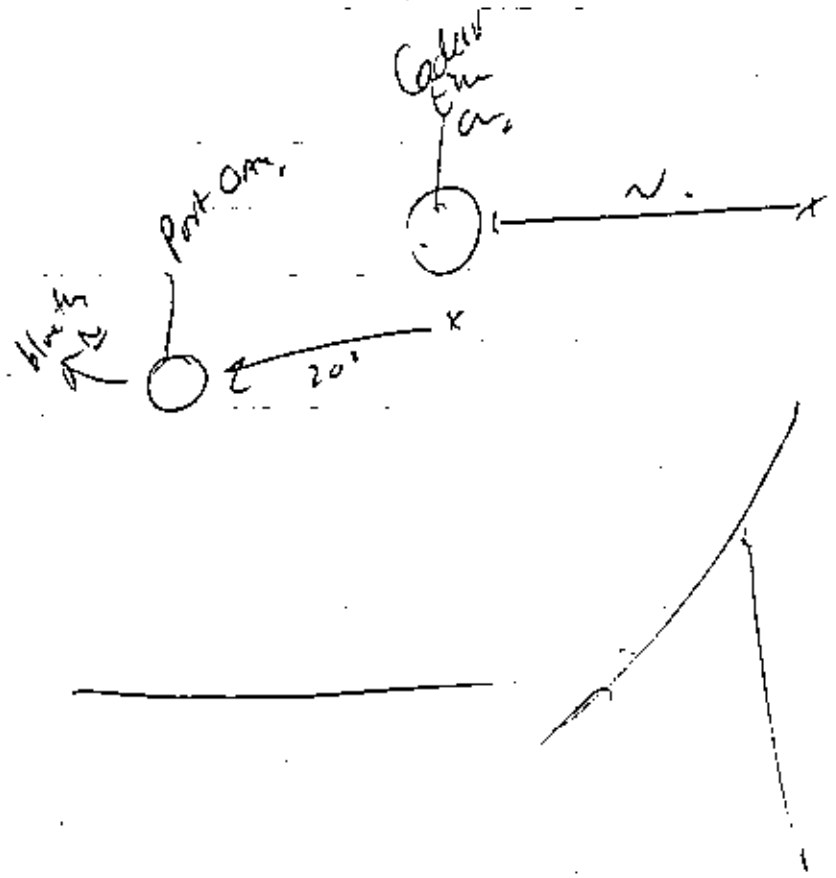
BATHING

1547 — Bathing
Bandar. male.
Bath. —

Bath Area → AJ Bush
fellow on stream with
by side-branching
stem :

1543 .50 → Bath.

1544 → Empidonax → white-eye ring + wing bars


Port Oar
20'

~~EE~~ Ex. N.

GPS File, - Welsh. File No.

(1) NW Fence Corner - BØ52613A -
596809 X 3380720 ~

(2) W Gate 596518 x 3378997.
(BØ52613B)

(3) SW G. Corner BØ52613C.
596292 X 3378284

(4) Quarry on Entrance Road.
BØ52613D.
597163 x 3378044.

(5) Y-Road on Entrance BØ52614A.
598439 x 3378178.

(6) Quarry on Road to Ch Crossing
BØ52614B.
598266 X 3378208.

(7) Ch. Xing. BØ52614C.
599250 x 3378630.

(8) Xing on Side Branch. BØ52614D.
598664 X 3379160,

(9) Cedar Fence Rm (See Map)

598170 X 3378960

BQ52614F

(10) Turn-off Meadow to Hanging Rock Spr

BQ52614F.

596934 X 3378395

20 m?

26/5/93 #29

0940 09 SC @ #1 VIC A7.

0949 #2

F upstream S. side, in Cedar Slope

#3 VIC in Pecan Area.

#3 VIC 58°, 23 m to CK.
31 m to Pecan. (near Jim. Red Fly.

Pecan 109°, 24 m A
A 137°, 23 m B
B 108°, 35 m CK (A)
CK 42°, 13 m. CK (B)
CK (B) 94°, 17 m. Big Hackberry (C)
(C) 175°, 30 m Rd.
Rd 216°, 11 m. Dead TO next to truck

Map to Old #29 Perihelion

WEB29 182°, 39 m (A)
(A) 222°, 30 m (B)
(B) 240° ? maybe to fine (~ 20 m?)

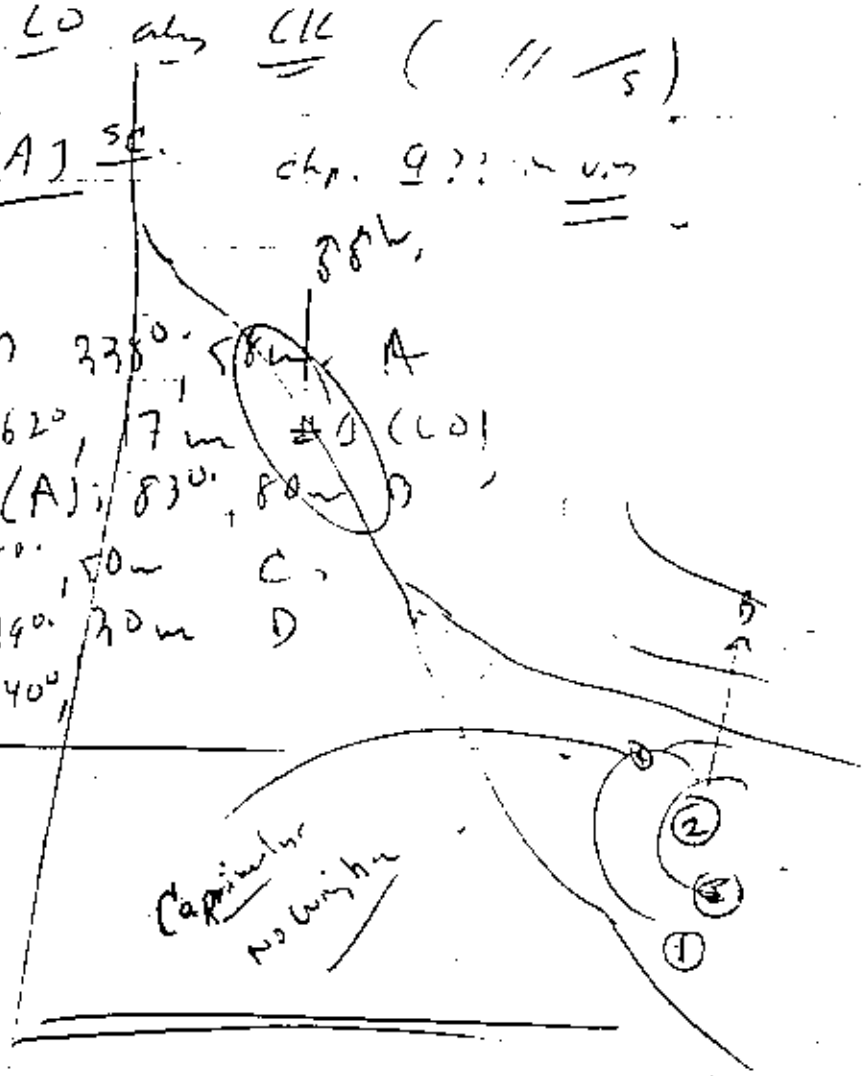
(B) 119°, 43 m (C)
(C) 159°, 19 m (#1 21/5) # 29?)

1019 1020 Bine #1 @ LO SC alg CK (// /5)

1025 1028 #2 A1 SC. chp. 9?? in vis

88 W,

#2 A1 338°, 58 m A
A 62°, 17 m #1 (LO)
#2 (A); 83°, 80 m B
B 5°, 50 m C
C 49°, 30 m D
D 340°,



26/5/93

GPS BQ52616A.
596777 x 3379599
Elm above #27 on middle cn

GPS BQ52616C. above #27
596787 x 3379434 site.

#27 Map. ~~[illegible]~~ 138°, 23m TD (A)
Barrett 5.2

(A) 99°, 31m B.

B 133°, 21m. #5/24/5 } EL on Ch

#5 24/5 124°, 20m to #1.
150°, 15m to #2
162°, 10m #3.
250°, 15m A

A 198°, 14m. to #s 6a, 6b, 6c ATT.

#6. 143°, 23m. B

B 229°, 10m. #4 LG.

#5 LG 21/5 — 180°, 22m. #2 DPICA 25/5

#2 DPKH 25/5 314°, 18m. #3 DPKH 25/5 ✓
#3 DPKH 25/5 234°, 24m. #1 DPKH 25/5 — TO.

X Ch A

214°, 15m to #5 DPKH. 24/5.

#5 DPKH 24/5 88°, 36m. #7 LG 19/5/93.
Jun. Bench A7

#1 LG 338°, 10m. #2 + #3
AJ QS.

(2+3) 35°, 16m. #4 LG. TO.
#4 12m. #5 TO.
" #6 TO
" #7 AJ

#5, 6+7 67°, 16m. #2 LG 25/5 AJ
#8 AJ.

GPS BØ52617A → Next to #8 in top. (#23)
596934 x 3379516.

L82

26/5/53 ⊙ Bark Site in Ni Hollow
·1350 RC Sparrow not heard in area

20/5/93 ⊙ Bath Site in No Hole

1350 RC Sparrow [illegible] brown
but dia not bath

Camera probs

1447 RC Sparrow [illegible]
b 2 SK, Dr. & finishing
lean

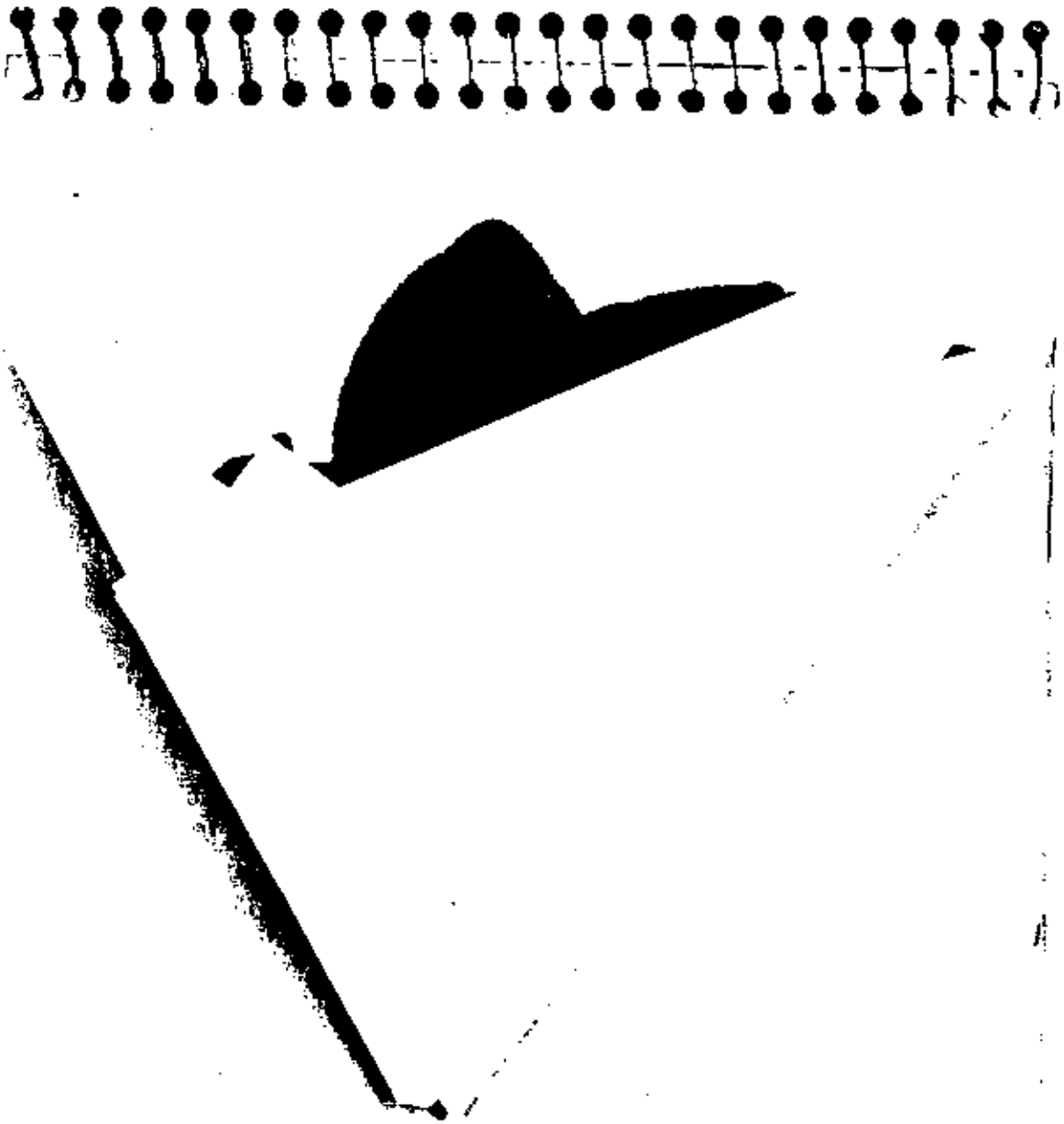
1458 "

~~1521 LEAVE~~

2 Field Sparrows [illegible]
[illegible] lean (2 white wing bars.
rusty [illegible]
pink bill

NOTE:
2 Keeled Green Sm.
+
3 ~~[illegible]~~ Tx. [illegible] Bar. Garden Sm.

GPS B052620B. Front Gate.
598905 X 3377457 [illegible]



291

(93)

WIRELOCK® WIRE WILL NOT SCRATCH DESKS OR SNAG CLOTHING

Name DPKil
Book No. # 7
From ~~[illegible]~~ 1 Jun 1973
To 4 Jun 1973

AMPAD

NOTE-PERFECT™

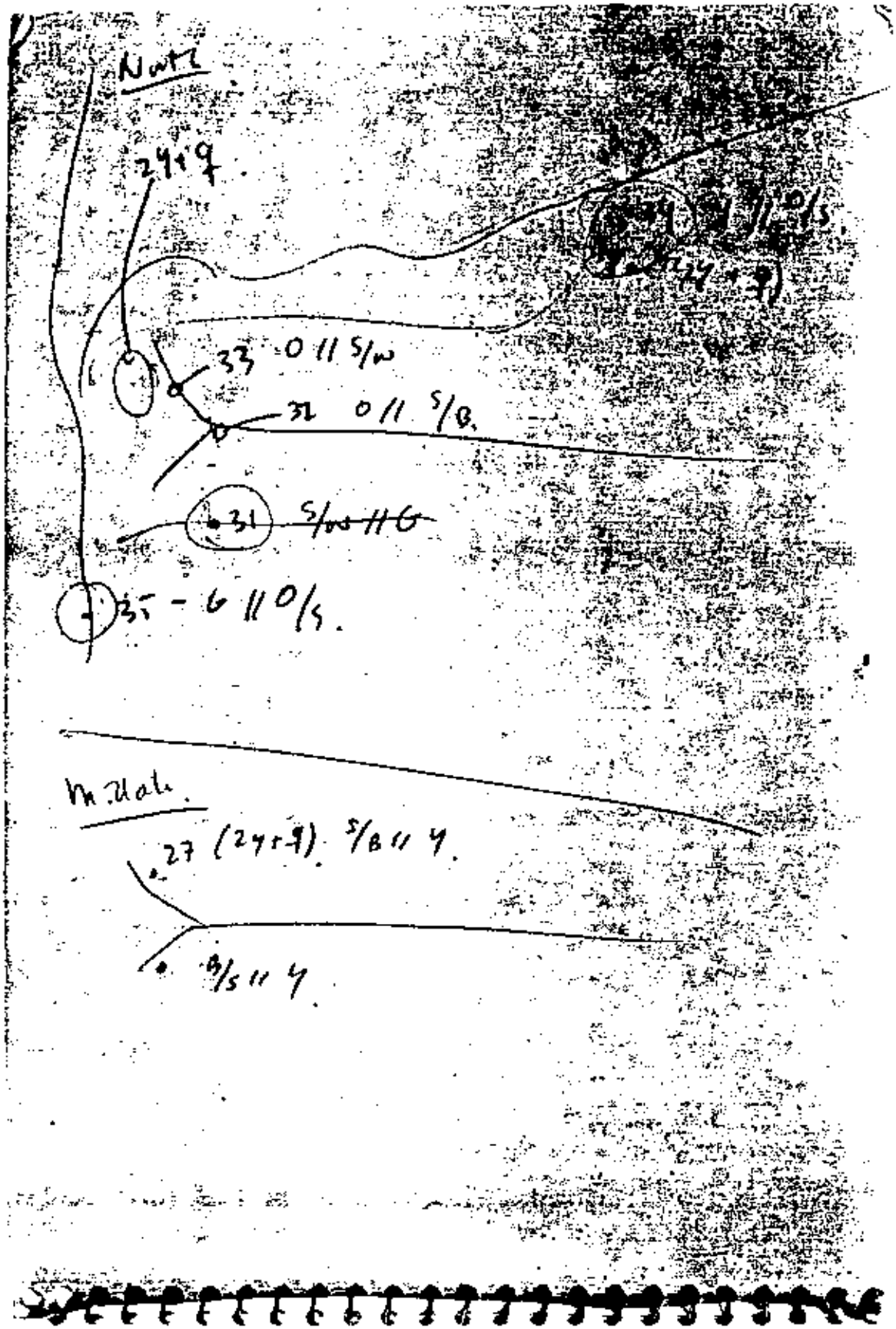
Steno

BOOK

6" x 9"
70 sheets greentint paper
Gregg/narrow ruling
with center line

0 74319 25272 6

reorder #25-272



13 Nov. 1952 Montgomery Co. Tpt

[redacted]

13 Nov 1992 Montgomery Co. Tp.

Bay State Fm.

Southern Red Oak (Q falcata)

("Turkey fruit")

Ulmus alata Winger Elm

Q. nigra

Liquidambar.

Ilex.

Callicarpa.

White Oak.

Tundra

Carolina Wren

Robin.

Waxwing.

Red-bellied w.p.

Ring Lt ??

Solid, V. neu ?? cal

#36 Bird = $\frac{B}{S}$ - O 1790-91857

over the fence bird

05-28-93

#37 Bird ♀ (c̄ #27 ♂)

SAME BANDS # $\frac{S}{B}$ - Y

AS #27 = $\frac{S}{B}$ - Y

#1790-91858 ×

12 GMS

Black Bum!

Nissa sylvatica

294

Sabal

Sassadras

Wood Duck

Bald Cypress @ middle lake

Sylvilagus aquaticus

Hypericacum

Hypericum (shoreline)

virginicum. St. John's

Q. phellos Willow Oak

Phoebe

Nuthatch

Sumac ??

Catharta aura

Umbrella sedge Cyperus

Bidens

Sorry Cleaning - on Roadway 295

Bluebird

Carolina wren

Cowa Syrs cotvat

Blue Jay - Mitch RSL

Phoebe

Rufous - crowned Spar ??

Blt Nuthak

Yankee Weed,

Trideny flaring

Y R Warbler

P. leatoe W.P.

Empidonax ??

Golden - eagle

Bl Titmen

Accipit nisus

Pine Warbler

Liatris

Eupatoria Blue mist Fl.

Carolinum

Arhmeri Fen Lygodium Japonicum

1 June 1993 ♂ #6 T.

0848 Airplane fault

B+W [illegible] [illegible] [illegible] [illegible]

0855 GCW Fault Cap

#1 LO

#2 AJ

More Cap.

HO by Y+A

#3) LO

#4) Y Fol, HO/FC

0858 ♂ SI

[illegible] 3 yr. no

[illegible]

0901 #5 LO

[illegible] Succ of LO - AJ

in [illegible] Succ. →

Y forgetting [illegible] -

[illegible] ♂ pm

0503 ~~[illegible]~~ 11 B/S ~~[illegible]~~? #6

Xing round 70 N. to

Shine Oak, LO, EL gone

~~#6 – EL~~

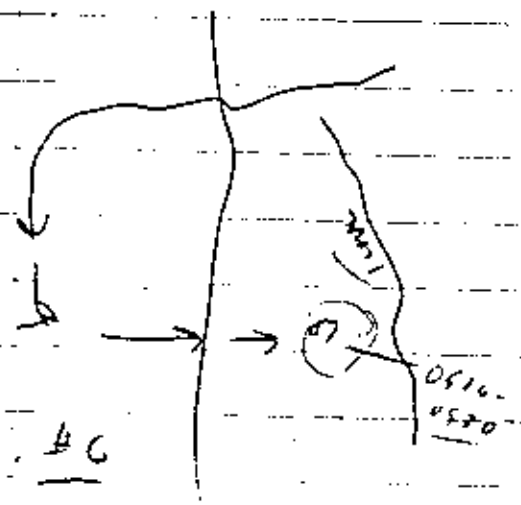
#7 – LO.
#8 – QS. } 87 with 45.

#9 – QS.

#10 LO

0521 87 S1

BACK X RU



0524 87 B/S 11 M. #6

with at least 3 [illegible]

#11 LO FM UB, IB LO

#12 A-7.

0529 87 SL to S. X same NA

@ #13 A7 w. STRAIGHT 12
#14 TV

@ LAST yr

245 orange mus 45

0530 ALL SILENT hen

Further cacophony of warble ~~chip~~ chitter, calls on 3-4 yards chase the nearest parent, forgive in their own - white - the omnibus sings mutual short-calls - perhaps attempt to lure 4's back into Tent - ~~attempt~~ maintain the 4's attention.

#9 T

1005 #1 ~~A~~ S, UB LO Thru.

1012 #2 TO ~~A~~ SC UB

1014 Sicon

PAUL'S AIDS

TO 2

3 LO

BITCH

250 - 5864 (H)

482 - 5436 (W)

482 - 3500

1020 Sinclair ~~A~~ SC / Nc.

1021 #9 SC new new site.

O/S 11 M

#2 LO UB; UB

1033. 2F yr: clear,

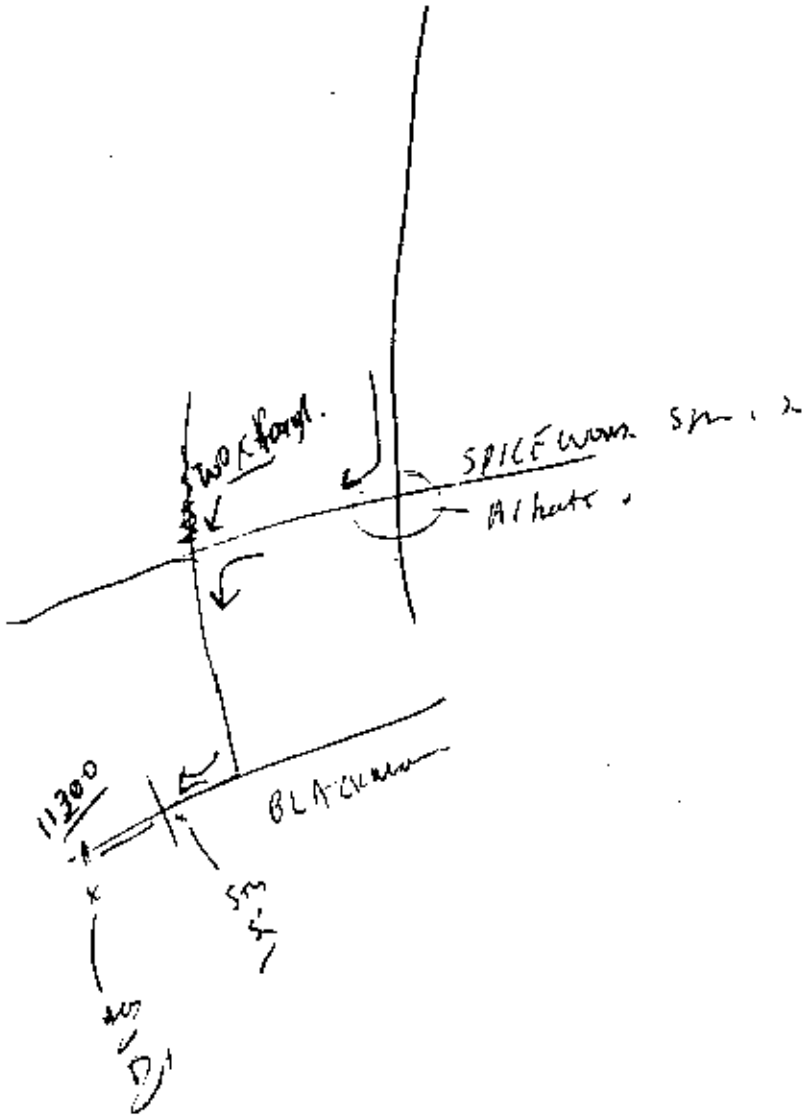
12 AJ FG/HG/

Carol Beaver →

Jane Lyons

1156 →

Carl Albuquerque →



Cougar, Kyle.
Paul ~~[illegible]~~

Routh Ridge Tony Stan.

1206 W 38th.

26 Doors →

Seton Hospital.

2 June 1993 Corner Neck

0748 RC Spar. Bewick Wren, Totanus
BCV Quail. Blue Grosbeak, BHCB
Field Sp. RC Hummer, Lark Sp.
Painted Bunting Cardinal
Mc Dove. Chickadee.

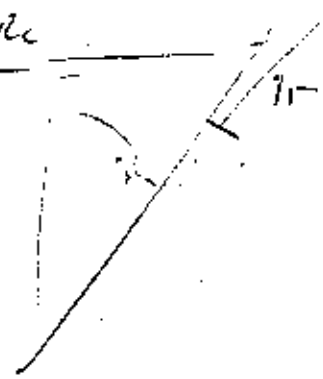
Collected Forestier hemi

Corner Woodlot Campground
~~AJ~~ US/Ing = AJ, CC, LF

MS = Bum, AJ,

US/GC = AJ, LC, Dio,

@ 2 @ Bog AJ. Also old RC
Parthenocissus, Forestier



0837
0858 Finish
Yes hem in N side
Vanny

1.

0916 [illegible]

[illegible] SW [illegible]

BHCB [illegible] Clear [illegible]

0929 #6 Tenuity

BHCB @ Small Clay

0938 #1 -3+4 [illegible] [illegible]

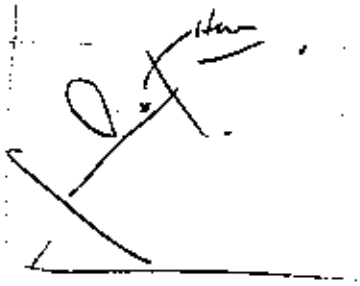
LO

BHCB along [illegible]

Found 4; @ Same area when observed yesterday

0949

1021 Pon. GLW family group
West Side Straight Rc. NC
R West Side Clear.



1025 BHCR alg Road

MAP 6/1 Pevita

#9 QS

#10 LO [illegible] → 120°, 20m. #9.

1153 @ Paul's Alley

unhamtar ♂ @ Ly. TO at

JCT -

flew to [illegible]

Sinclair

1216 ♂ GCW [illegible] → x ?

not see

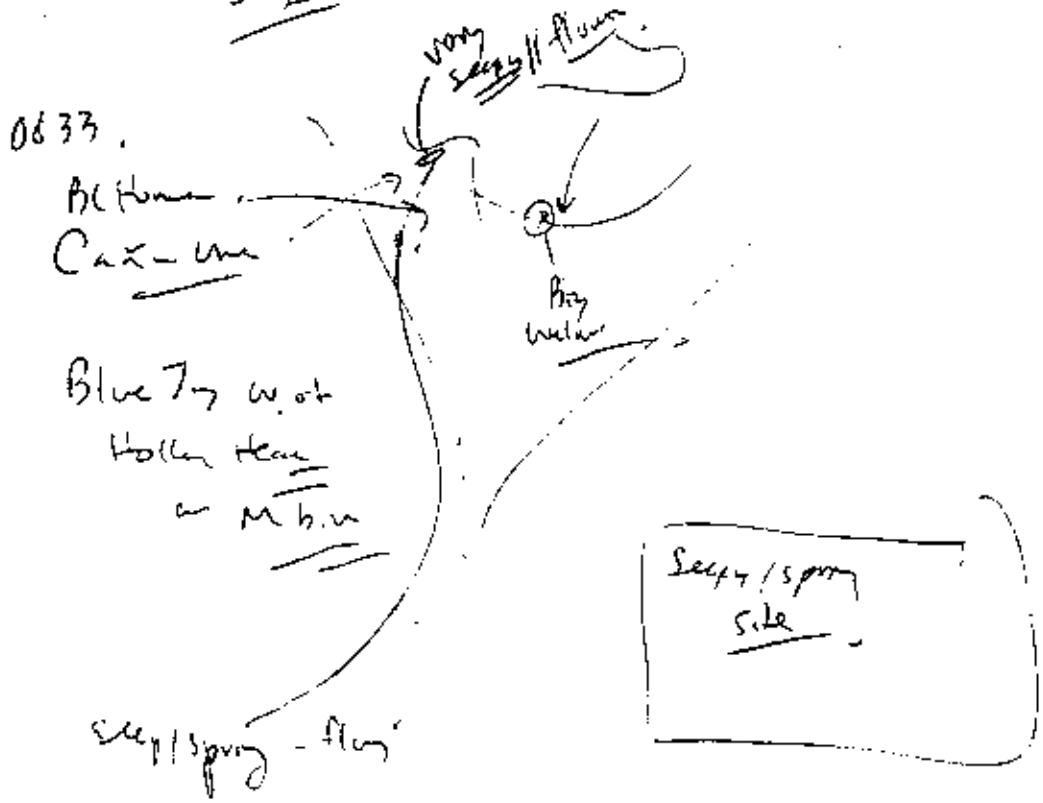
Cockfail

1237 - Bruce @ Paul's [illegible]

3 June 1993 @ HN Holly working along S. Fork to look for 4T.

0625 distant ♂ lc in S. fork Cain Slg

0633.



0712 BHCB in Cain Slg

0845 - 0855 Follow ♂ gives ♀ mother
lc to edge of downslope mean

Y ∥ S/B ?? Yellow Nt +
Blue left dot
Sec

#1 AJ. - FG, OB, SB, → heavy
leather @ Rd + mean Jc.

#2 JUG
moving up slow

#3 in AJ grass FG through UB/OBJ
Chips intensity

0901 2 ♂♂ present

0902 2 ♂♂ + mean Chips @
#5 A7 +
#6 A7.

→ 1 ♂? 5 → 2 ♂+ 6

0503 Y 11 S/B ♂ ~ top

#7 AJ OB/UB - tip-top

Pencil + chipping steam

0503 → ♂ lc to F to #8

0504 #8 Jug OB, on Bone tuning lc

the F 112°

Follow to #1 the Slope @ 332° to #4.

#8 Jug → 34°, 26 m → #7.

#7 AJ → 43°, 19 m → #5

#5 AJ → 123°, 8 m → A

A → 207°, 5 m → 4

#4 AJ → 64° 11 m → B

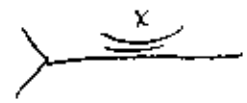
B → 154°, 5 m → C

C → 48°, 3 m → 3

#3 AJ → 128°, 13 m → old Trail

Old Trail → 343°, 11 m. D.
D - 33°, 8 m. E
E - 63°, 8 m. F
F - 76°, 12 m. 6
6 #4 Jrg 161°, 9 m. #2 JUL
#2 JUL 70°, 22 m. H. 0913 lc ♂
H 149°, 10 m. I (Rd. Jct). w opp.
I (Rd. Jct) 243°, 10 m (#1)
#1A + 1B 2 AJ1.

slope



From Rd Jct RA Wrong

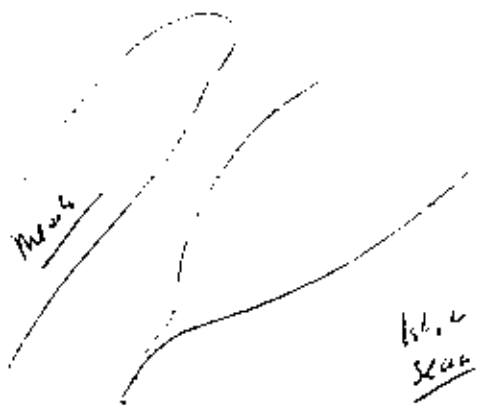
♂ @
4°, 310°; ~~330°~~
points a 3 m
@ 330°

S. slope
mass.
Head or Cam

3 Jun 1993 Working up. S Fork HN Hr

Tx. Spring Swell

0934 @ #4, 17/5 Big Cedar Ck



Basic Field Tasks

1. Spot-map Ts. + near Bank
2. Begin Trapping
3. Search for ff + nests.
4. Search for Yt.
5. Search for persist bank + 2 m nests

0940 Red-tail Hawk at Stop

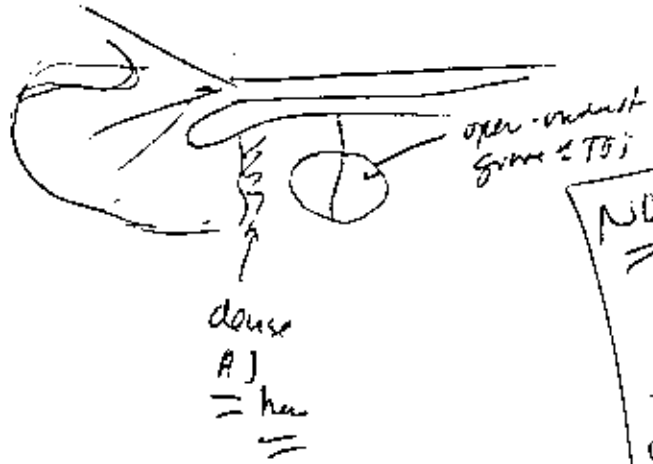
0944 @ Pause in S. Fork.

Note: Sw. N. erythrogaster be dn 1st cover

0951 @ Middle Site
Move Single-frontier Chevron —
TOi at head of this Cañ

0954 Now on S. Elev
Cicadas calling

0952 Near Probable edge of T



NOTE:
Over Three Build up rates of OZC, of 99 + flashes 99, as fuel of landing ins clouds, etc

1006 ♂ SI x meadow

1007 BHCB @ downslope meadow

1015 2 pomity 3 ♂♂
X Cañ SC.
No JLE LC.

1018 Cañon Head Near SC [illegible] 313

Big [illegible] at [illegible] Mean

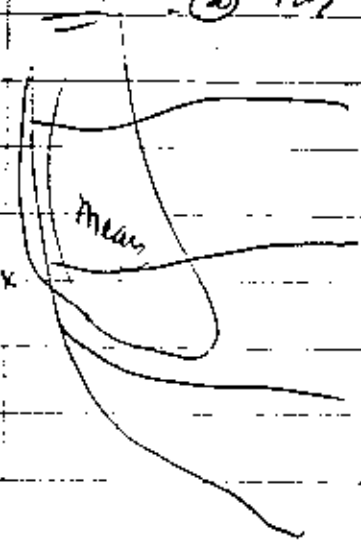
1023 Cañon Head ♂ Side SC @ Big CE

RC Spanish

1038 B7W W [illegible]

[illegible] Side Cañon

Big [illegible]



Scan Brown Ozn

Hd [illegible] Belt.

Closer. Lapp - AJ

Wood

2° grass AJ.

Rip. Bottom

UPLAND // SLOPE // Bottom

Shinoak / PO / BJO.

1100 Walker dies
Ck. on trail -
- Through dense
Cell Brake to
Bay LE + JUG

1136 Battles in Stream
New Walker Base
to Truckee
ROAD

How do 88 evaluate
T-quality?

Presence / Absence qq.
then.
Explore to find qq
then
mobility → i.e. attempt
to vary T's with
qq present.

Says though Habitat Improvements

Walker to Watelich

C. RAVEN

Cophosaurus Lex.

3/June 1923 (W) Bathing Site in N. Hollow

1231 START

Carolina Wren WE Vireo

Chickadee

GCW (Rc)

RC Sparrow

BC Hummer

Cardinal

Database

Tract / Woodlot / Terrain

Veg. Descriptors

Pond Tree Descriptors

L. Goldfinch

Locations & Bird Counts

1308 ♂ Glacier

0 // " 11 0

88

99

99

Cardinal bath

1321 ♂ continuing to Rc. " Slope to W.

1426 Cardinal bath

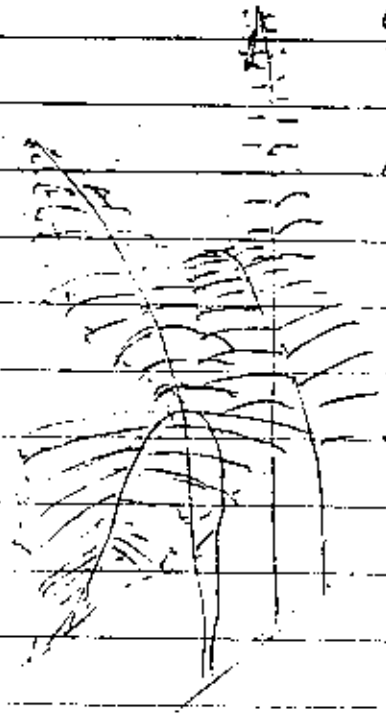
1430

1430 WE Vireo sing

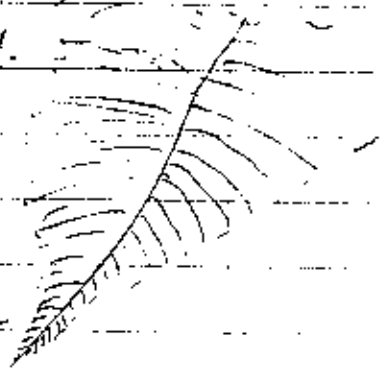
1431 WE Vireo dive-bombing into H_2O ∞ old site

GCW essential habitat
Feature.

For ♂♂:
Good Display Powder
Things ♀♀ look for.
Bathing Site!!



For ♀♀:
Indication that food is plentiful within a Territ
Numerous nesting sites + nest construct mate
Bathing Sites!!



Test for Fun-2
Bath:
① Species ID
② Diet & Species
③ T_a + T_{ses}

1433 Field Spawn Bath at dam site

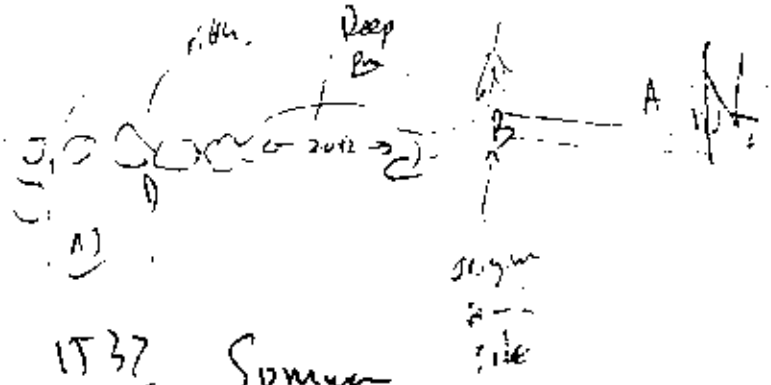
1447 2nd GEV. on one grayish bow bathing downstream, near small waterfall.

1455 Chickadee @ D spot – flying into water prob. drinking.

1501 RC Spawn Bathing upstream

1516 – F. Spawn finishing bathing at upstream site.

1526 – Another bird in (gray – dark eye ?!) to H2O at old bath site



1537 Summer Tanager bathing at A

1534 Tur. GLU perhaps 2 orchard

1539-1590 RC Spanner –
Painted bunt on V. Plycatz ?!
dark wings + red body ?!

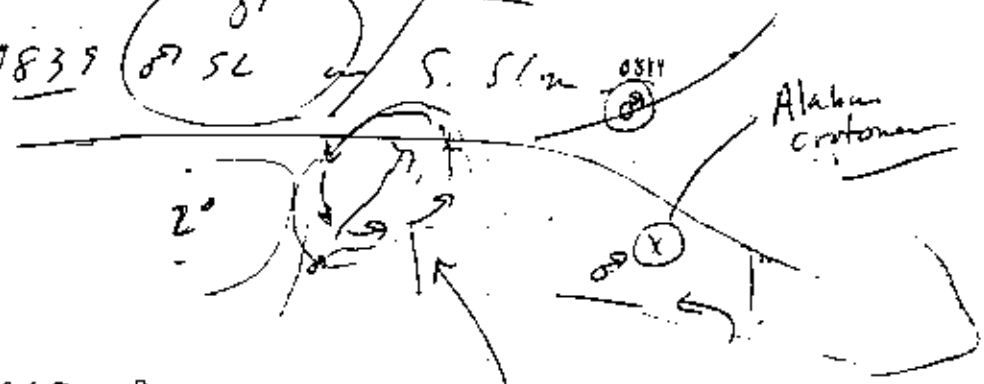
1548 STOP
RETURN TO TRUCKS

[redacted]

4 June 1993 WEBSTER - N. (BARNES) HOLLOW

SEARCH FOR 4/T

0839 ♂ SL ~ S. Slm

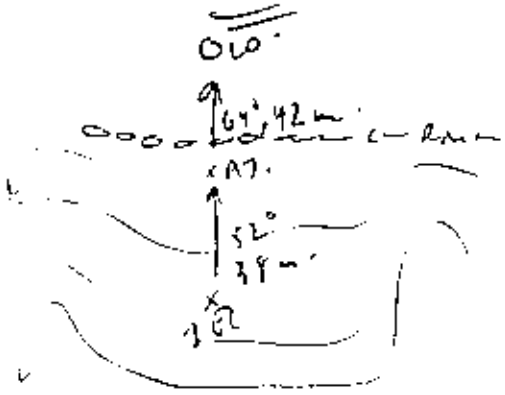


0853 ♂ SL.

0900 pick same ♂ SL, back to Big EL #1

Parker A.

0913 ♂ SL back to vic. #3 EL

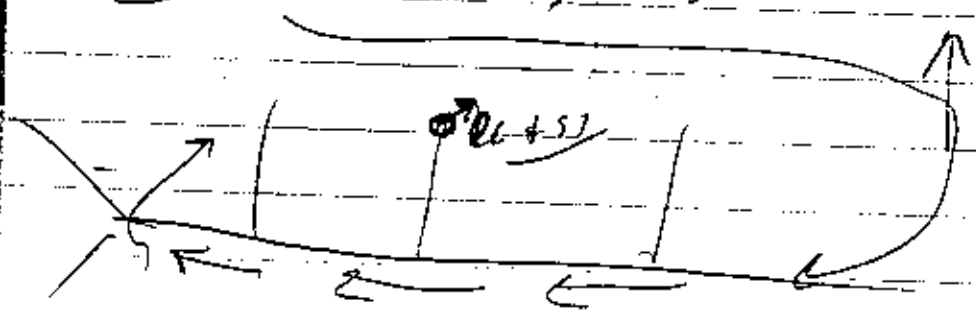


See key.

0952 Walked to Road & Drive to Barnes Hollow Ch.

4/6/97 @ Bonne Hollow Ch.
Mostly Pensive + 20 yr. Old Ash
along Ch — but thick SM
on Ch NC Spm.
Field Sp.

1012 Chinkapin along Ch.



1030

Lodge water with Fungus ♀.

1057 end to walk up slope to Truck

Zum bis Ende

322

324

WIRELOCK® WIRE WILL NOT SCRATCH DESKS OR SNAG CLOTHING

(93)

Physics

Name D. P. [illegible]
Book No. 3
From 26/4/53
To - 6/5/53

AMPAD

NOTE-PERFECT™

Steno

BOOK

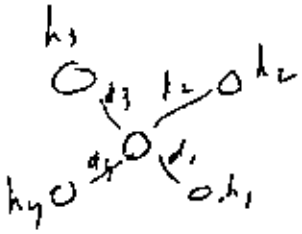
6" x 9"
70 sheets greentint paper
Gregg/narrow ruling
with center line

0 74319 25272 6

reorder #25-272

Perch Descript: (Substrate use F (feed) D (display)

1. Tree/Shrub Species. (Bloom?) ♂ —
2. DBH (1x, 2x ... trunks) (Overt Insect Sign. — ♀ —
3. TH (total ht.) Cacoons, Caterpillars, moth, etc.
4. NNSS (distance to nearest neighbor of same species).
5. Slope (est. degrees)
6. Slope exposure.
7. SIO (woody stems within 10 m by Species.
   AJ
   TO
   QS.
   ⋮
8. 4 Nearest neighbor distances + Hts. Species ID (as map)
   e.g.



9. OS - Overstory Dominant. } List those spp. observed.
   MS - Mid-story Dominant.
   US - Understory (ground cover dominants)
   (Collect unknown)
10. "Stumps" (Presence/Absence stumps, sawed off limbs or bull-dozed debris).
    (Human Veg. Management - Signs ↑)
11. Geol./Soil.

8:50 Start
♀ on nest + very alert
♂ short call to the north
very windy gusty
8:56
♂ long call in canyon to the NW
8:59 ♀ off nest
9:02 ♂ long call to the NW in canyon
9:03 chipping to the west ♀?
9:05 ♂ long call to the N in canyon
♀ has not returned
♂ Black chinned hummer Buzzing
around close to scope
9:07 chipping to the north ♀?
9:11 ♀ returned ♂ long call from NW
in canyon closer to nest than before
9:21 ♂ long call to the north
9:22 ♂ long call the the north ♀ closer
than before - Birds were NW
in canyon
9:28 2 ♂s are to the N one NW
north ♂ long call NW ♂ short call
9:31 ♀ shifting in nest moved around
turning often times.

9:31 2 ♂ calling again ~~and~~ an to the N shortcall and to the west long call

9:39 ♂ short call to N
♂ sort call to W

Break

9:50 ♀ Left nest

9:55 chipping from canyon then she returned

10:01 ♂ long call NW in canyon

10:02 Chipping from north of me
♀ response but does not leave the nest

10:04 Bunks to the SW ♂ long call from N

10:07 Tit mouse AJ next to scope

10:10 Tit mouse in area of nest can not see.

10:11 ♂ calling close to nest 100 ft up the canyon then down below nest

10:29 ♀ Left nest

10:38 ♀ returned from the N in canyon chip all the way to nest

10:41 chip from the stone wall + Road area flew overhead could not ID.

10:42 ♂ calling W across canyon

10:45 ♂ still calling,

10:48 " " " "

10:51 S owl to SE may be the tape for banding?

11:00 wind Died off still some slow gusts

11:12 ♀ Left nest

11:25 ♀ returned did not chip as much as before when returning

DKH

↓

12:22 S owl from north

12:35 ♀ Left nest ♂ calling NW

12:42 ♀ returned NO chip as she returned

1:03 chip from around nest not the ♀ ♂? he did not go to nest

1:06 ♀ Left nest

1:14 ♂ ♀ shared call from Road at wall

1:15 ♂ chip + short call from AJ NE of scope
1:18 ♂ From above AJ to Rd and back chip + short calls moving ~~[illegible]~~ all the time unbounded

1:20 ♂ moved NE along ~~[illegible]~~ canyon Edge Quit calling ~~[illegible]~~ only chip. ♀ not with him + not in nest
1:22 ♀ in Toy Oak about 10 yd from scope chip, for,
1:24 ♀ back to nest

1:28 ♀ in nest looking around with mouth open ~~[illegible]~~ sun is on nest for the first time
1:38 ♂ moved to NW side of canyon
1:45 ♂ in canyon N of nest short call
1:50 Both in canyon N of nest
1:55 ♀ left nest ♂ call from NW side ~~to~~ of canyons
2:01 ♂ calling from NE side of canyons.

2:16 Q returns chip on the way in

28 April 1973

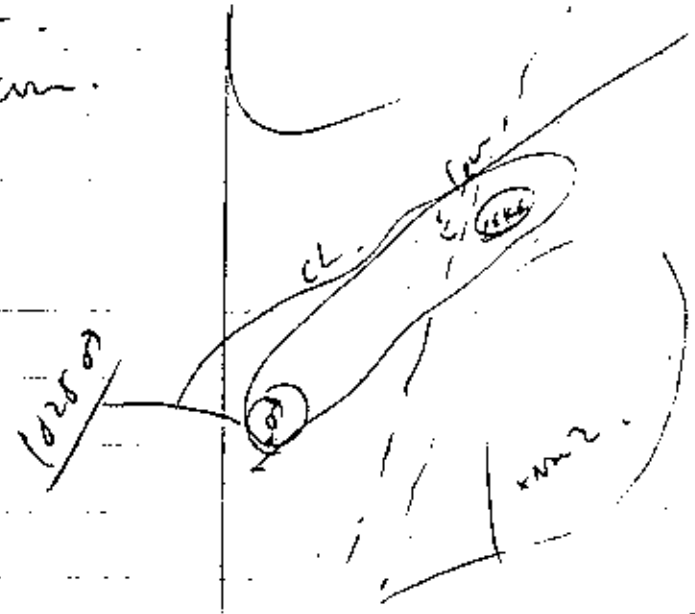
28/4/93 Drizzy 60+°.

Nest #2.

1028 ♂ lc. E. Elmer. (Clear slowly)
steady.

Screech Owl.
Blue Jay.
Bob white. – flew through the area.
B. [illegible].
Carol. [illegible]
Myiarchus
C. Chickadee.
Mourn Dove.
Cardinal.
Cañon [illegible].
– Clit Frog.
1037 – ♂ to st
Chip. 3x.
X fence

Houses present the weather



1041 ♂ SL along Ch just X fence
screech and in vicinity
in grove of big Tax Oak +
Prom. just S. Ch X.

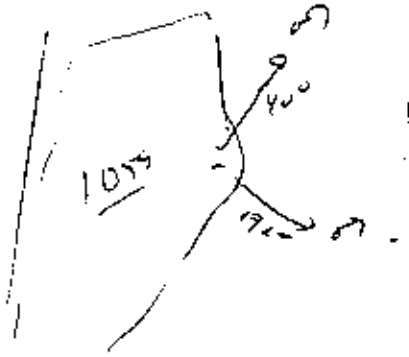
♀ chip X fence

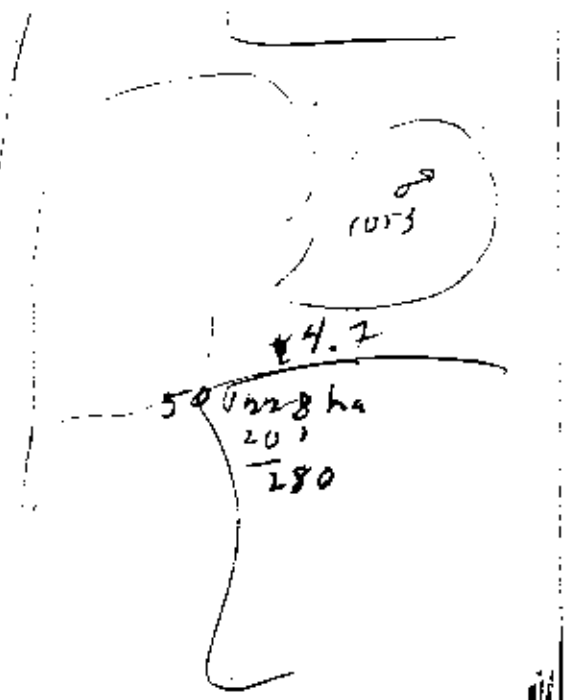
1043 ♂ GCA chip + other wood
~~[illegible]~~ folk.
Thrasher Scolds

1046 ♂ active. just S. S. road

Regional in Ch
Scrub Jay

♂ to E of Rd 2
Room @ 1053
points "Leitner Mill"





50 | 570
100 m 50 5/2
40 m 20
2 | 570
114
5 | 570
55
20
228 km

1059 2 ♂♂ (SC) at 40° – (lc) 172°,
from tree in circular drive.

Sinkhole Neighbor

#1. 1140+-46 lc. in AJ. F 172°.
chip ∞X ; 0°-1°. UB,

1147 lc at nose P
#2 Bar. Ch. 1° AJ, UB.

F. b 159°

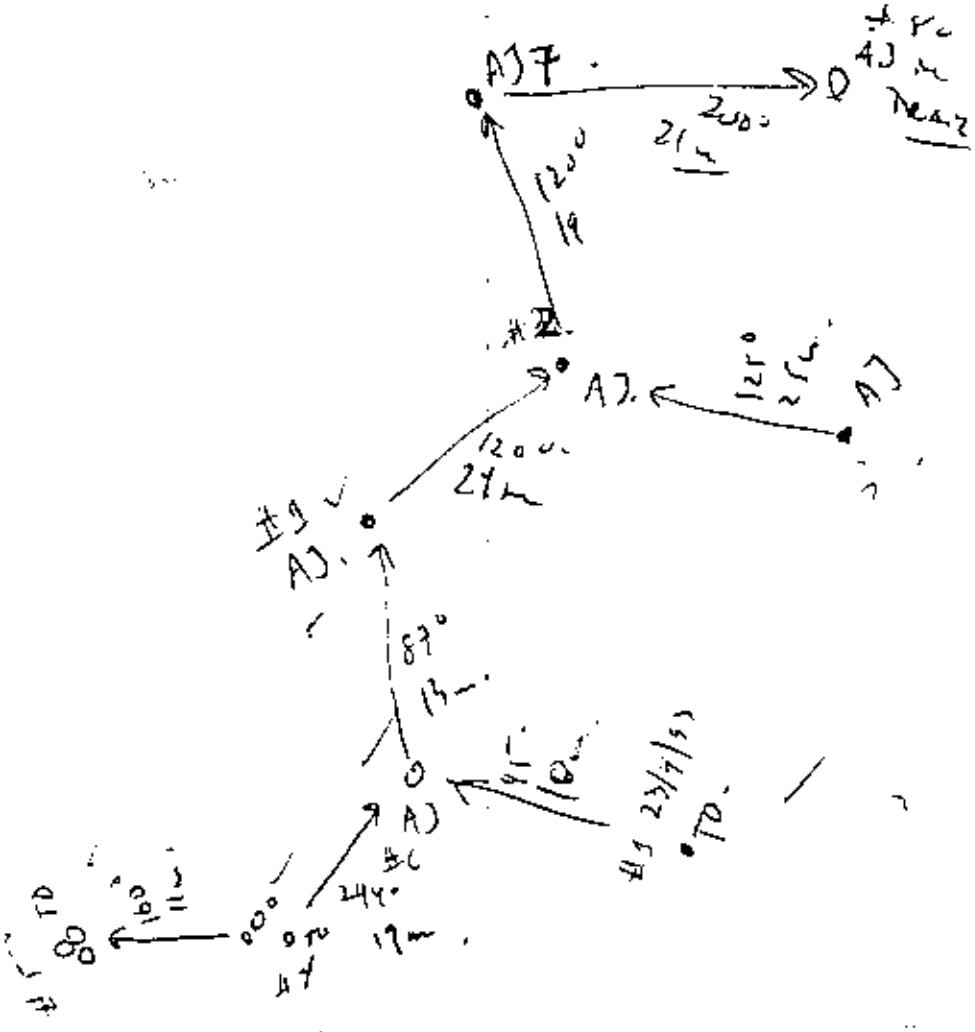
#3 1150-1155 ♂ lc - chip ∞X 1° AJ.
UB, OB

#4 1156-1157
1° TO. UB, OB, lc. chipper.

#5 1201 TO. lc. UB, 1°.

F ?

#6 1212 AJ lc 1°. UB, OB.
#7 1221 ♂ AJ lc. UB, OB. 1°-0°.


AJ 7
200°
21 m
120°
19
#2
AJ
AJ
120°
21 m
#3
AJ
87°
13 m
AJ
#6
244°
19 m
#5 23/7/93
TD

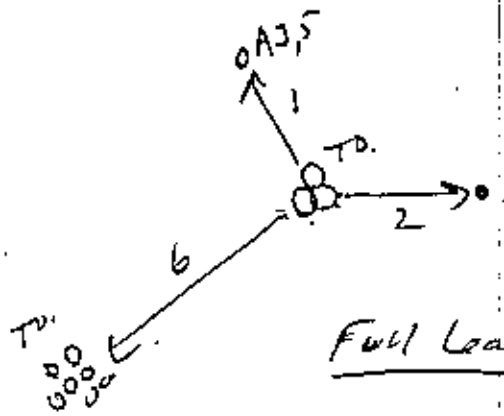
#5 TO - 2 (18 cm) + 13.5. 1°, ~~[illegible]~~ 5x ~~[illegible]~~ m

NNSS - 6 m.

S/O - 45.

DEds - 20 m. (Trial Rm)

(10-15 m)



Full Leaf

AJ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ |

TO. ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ |||

QS - |

LO - ||

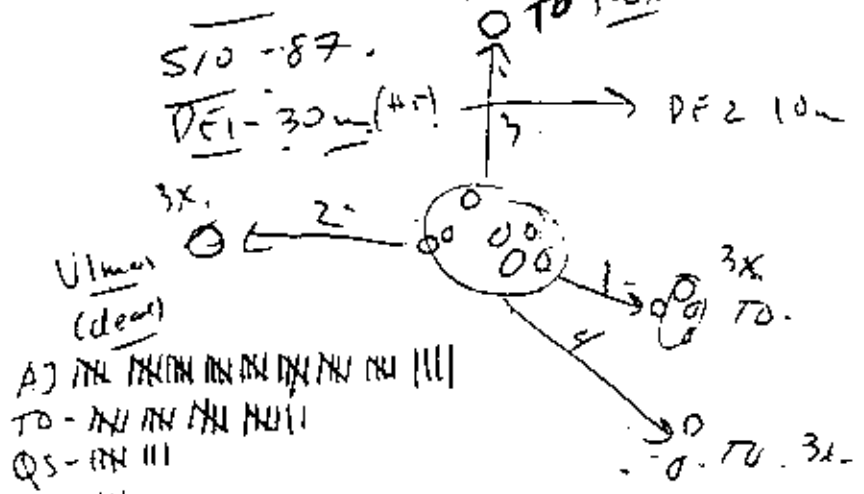
#4 TO - 1 (14 cm.) + 5. 1°, ~~[illegible]~~ 5x

NNSS - 1 m.

S/O - 87.

DE1 - 30 m (#5)

DE2 10 m (Clear 10x5)



Ulmer (dead)

AJ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ||||

TO - ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ||

QS - ~~||||~~ |||

LO - |||

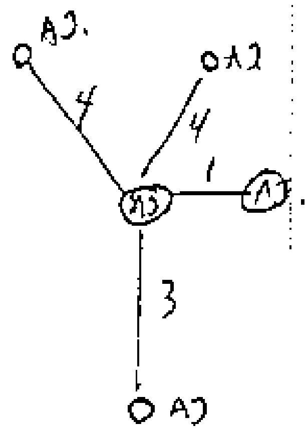
~~[illegible]~~. Over Dm AJ, TO.,

MS - QS, AJ,

VS - AJ, TO, LBlank, Leaf Lid, Yucca

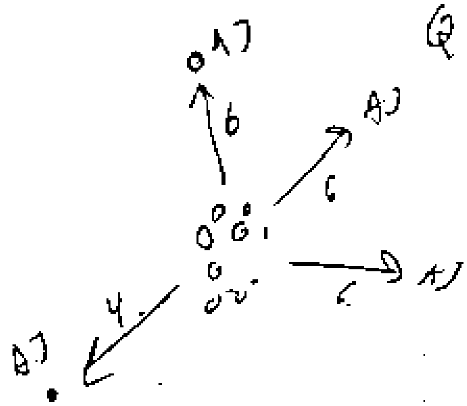
Posting Signs + 7 stages

A6 . AJ, 1°, 4X, (stick nest) DBH - 105 cm
TH: 4X, 510, AJ [tally] 37
DE = 10-20. (small clearing) TO ||| 4
Stumps = 4 QS - [tally] 5
46



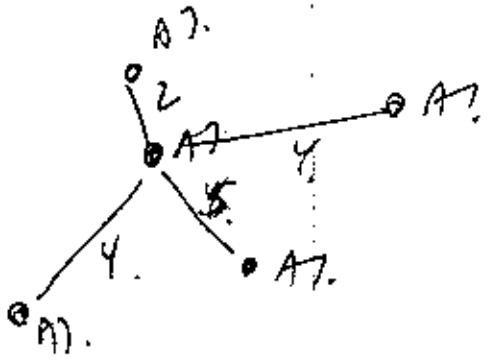
OS AJ, TO.
MS AJ.
US 7oxzo, AJ,
LR,

AJ 23/4/93 (Old Pa) TO, '='
DBH - 9, 15X, AJ - [tally marks]
TH . 3-4X, TO - [tally marks]
DE 20-30m. LO - |||
QS - [tally marks]



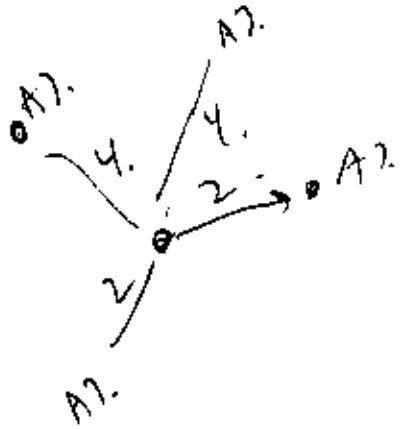
#1. 28/4/22 AJ. 1°,
DBH -20, 4x,
TH = 4x.
DF = 40m.

SIO. AJ. IIII IIII IIII IIII II
IIII IIII IIII IIII IIII
IIII IIII IIII IIII IIII
QS - IIII IIII II
Stump 8.



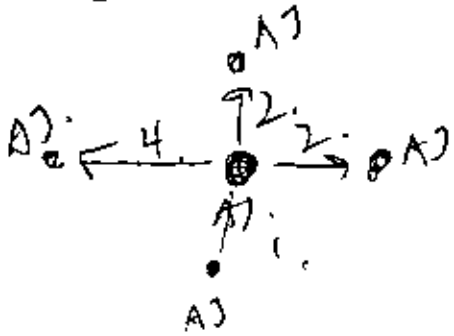
#3 AJ. 1°.
DBH - 35.
TH - 4x.
DF 10m (5m); 40m.

SIO. AJ IIII IIII IIII IIII IIII I
IIII IIII IIII IIII IIII IIII IIII
QS. IIII IIII IIII IIII
TD - III
LO - I



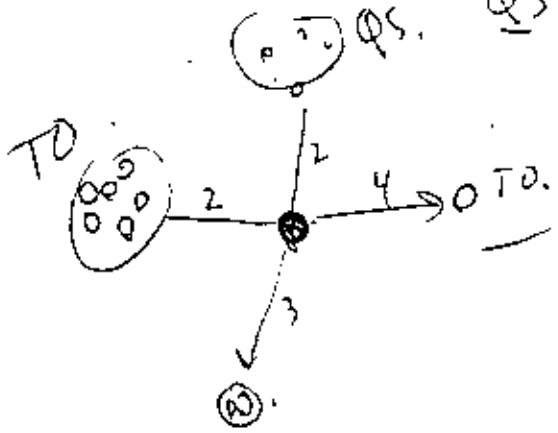
#2 . AJ, 1°, ~~TO~~, DBH 30.
TH, 5X.
DE = 30m (Trail was 10m)

S10 AJ. 11 ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~
TO ~~QS~~ ~~||||~~ ~~||||~~ ~~||||~~ ||||
~~TO~~. LO ~~||||~~ |



#7 . AJ, 1°,
DBH 17
TH 4X
DE = 5 (10x10); 20 (10m Row)

S10 - AJ - ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ||
TO - ~~||||~~ ~~||||~~ ~~||||~~ ||||
LO - ~~||||~~ ~~||||~~
Brush - |
QS - ~~||||~~.



28/4/53 Cosmic Bird

→ By Bumel Vaden

1428 ♂ 51, LO 1°, UB, #1

Lark Spar, Bloom (Lab),

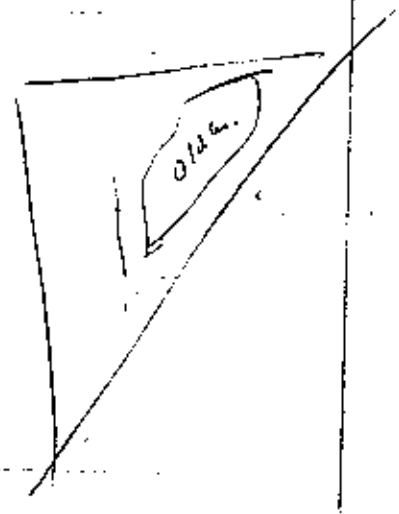
E. Phoebe

BHCB (Alm. @ Nest 2 & Sick Lot)

to Field Sp.

1446 BHCB - up

This is more of a Cedar Elm, LO Community. w/ AJ filling gaps



1507 ♂ weird lc – ~~[illegible]~~
bin wiping (? // O).
#2 ≤0 1°, Blow (almost fm.

1513 BHCB ♂ TPK

1542 ♂ SC #1 F 300° ??

30 Ap. 1997, 0857,
Bokwhile
S. Jay
Sunny, 87 [illegible]
BUCB
Sum Tanga

Nest 2 Destroy

OS – AJ, TO, EC.
MS – AJ, Pt, QS.
Bumelia, Garuga,
GUS – Least little.
Some terms,
Pt. seedling.
Smilax, Toxicodendron
TO seedling
AJ seedling
Grapevine

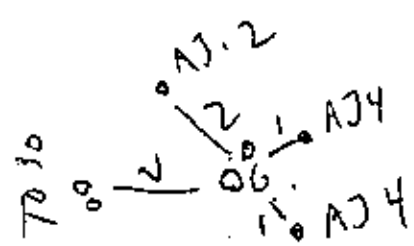
0901 @ Nest 2 [illegible] little more

Nest 2 Description, TO 1°
DBH 10cm. x 7.
TH .. 4-5x.
NNSS – 2

S10
AJ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~
TO ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ |
QS. ||
Pt. |||

~~Slope~~ Sleep Slope
4 WNW. – TO, Clay Zone.

DE – 30m. (Trail Row (5-10m / 60m))



2/3 (32-37)

Non VISIARD

Albany +
Hoauz - 50%/00
Rite - +

30/4/93 Sunshine 07

30/4/93 Sunshine ♂

0950 ~~#1~~ ♂ lc. #1 AJ. 1°

0954 → F ?

(No other ♂♂ ~~[illegible]~~ singing),

Area heavy pore

1001 ♂ fr. E early in sunshine field

1015, #2 lc. 1° AJ.

1016 F to neighbour tree.

1020 #3 AJ 1°. lc.

F to 95° (E) 1-2 Chips to 195°

1025 #4 Dying AJ. 1° ~~[illegible]~~ SC 5-6x the lc

the F? to Trappis set-up. [illegible] to SW.

1030 Scrub Jay flies in [illegible] underbrush

~~[illegible]~~ 1044 Walking circuit ~~[illegible]~~ around

Sunshine Neighbours Woodlands

~~[illegible]~~ Next 2 ♂ SC

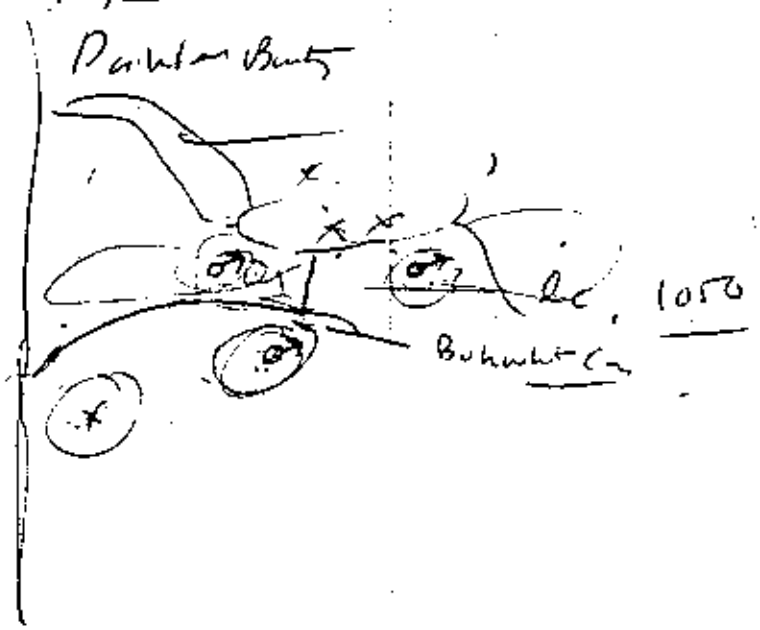
Cannon ♂ lc

30/4/93 Airplane off

1047 from Canid Trace

Myiwaki –

Painted Bunting



o – Sikhh

• —— SH Pr.

SUBSTRATUM ~~of~~ Type

1121 ♀ Fem Clip. in TO

1. ♂ DISPLAY
2. ♂ Feeds
3. ♀ Feeds.
4. FLEAGLING ?
5. Next

#2

1122 to AJ next.
Clip ∞x.

1130 ♀ LO 1° Feed. ♀
♂ Clu by. in TO

1135 Fleaging 2+ in TO 1°.
#3 + AJ #1/0

SHA

Mud interaction be ♂ + ♀ + 4T

#4 AJ.

1140-46 TO 3 ♂♂ 9 ♀. Ag. int
2 unbanded

1145 #6 TO M/1 (?) ♂ 1°

1150 lc mud S chp. OB, UA

↓ ft.

1150 A7 #7 1° (50° fm 28/4 – #1)

1204 Flag 4 ♂ GCW

↓

1210 ♂ SC L. negrus A7

#8 Pack unknown

1213 ♀. chi fond in hill

♂ ovate S1

1215 ♂ min abc ♀. in OB/UA

of small A7,

♀. lam 4-5 ft up.

1215 - ♀ Chip L water ♂

ovate.

1218 ♂ dark in Big A7

♀ stn with 4 ft.

Next Found 3-4 41 on ground.

1257 Bam @ Neu!

1259 q ~~attack~~ Feen 4i -,

in Feen in ~~?~~ AJ Brandt OB

glean / hom small moth ?!

So q ~~?~~ is foraging in vicinity

4i, with 20-30 m.

1300 ♂ SC -

1303 q Feen 2? 4i.

quick → ay

1305 q Fe 3? 4i.

1310 q F.

1312 q. F.

Bill wipe
alt.
ear
Fee.

1316 q. F in AJ ±s. Hover / Oke - SB/OB.

1317 q. F in QS #2 " / " (UB/OB.

(Note: Gran wing Flutter when I moved near nestling)

30/4/93 NOTE: Titmen [illegible] to 9 Chryst.

1321 9 [illegible] with [illegible] [illegible] → [illegible] [illegible] [illegible] to [illegible]

1322 9 Feed

1322 ~~9~~ [illegible] AJ's with [illegible] caterpillars. [illegible] AJ [illegible] [illegible].

---

9 · Feed Pencil

#1. AJ. ≈ 0°

DPH 18.5 cm.

TH 3x.

DNNSS - 1.

∠10° Slope, N. (330°)

DE = 30m to 5x5 clear.
60-100m to [illegible] Part.

S10 [illegible]
AJ [illegible]
QS. ||||

OS - AJ
MS - AJ, QS
US - AJ, QS, [illegible],
TO [illegible]

~~#2 QS ≈ 2°~~ (Ure)

#2 QS - B

DBD - 4.5

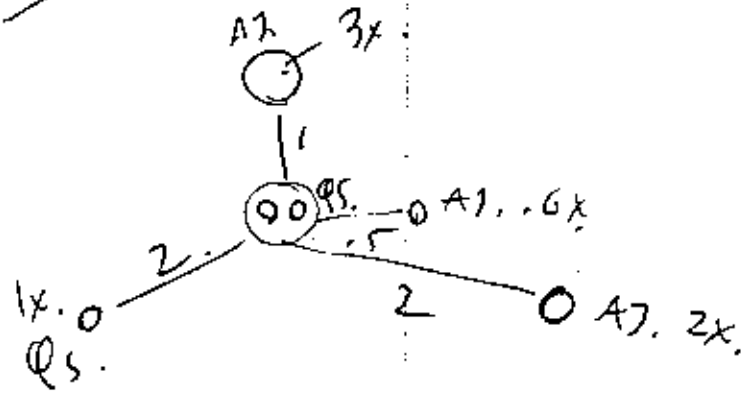
TL - 1.5X.

NNSS = 2m.

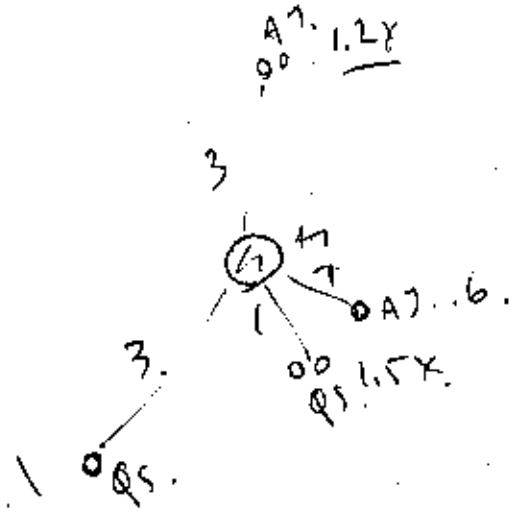
Other data - same as #1.

Q Fer

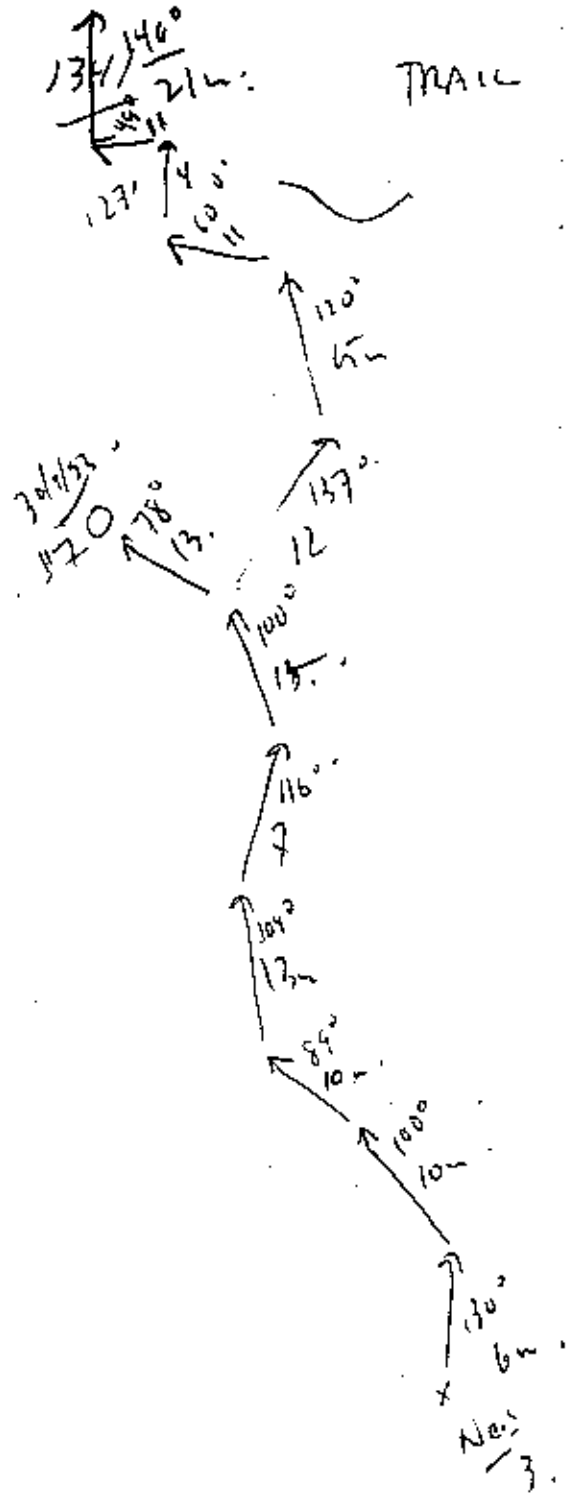
#2



#1.



TRAIL TO NEST #3



3 May 1993

0850 - 0900 - visit to Nat 3

yi heard - but moved - watched
♀ collecting small moths for TO,
outer leaves + carried to invisible
but heard yi - Perhaps @ 2
dif. locs within 20 m of
Fiddler site.

- BHCB whistle near nest.
Roadrunner @ clearing.

Diane + George Pell Rayne Outer Moore

1135 in Man Hollis ♀ chips →
♂/♀ interaction - Location pattern
sharp slope + downhill on ~~SE~~
E facing slope

1237 #2 TO ♀ Fem, Chips
OB, MB - Hover/glass.

1237 ♀ Hom/Gh / Folc/Gh
TO #3

1240-1050 ♀ feed 1y 2-3x
Then collect insert 5-6 + L
adjacent small scrubby AJs on
takes to 1y in 15 ft, 1 trace
AJ.

Before + After - obs' follows Scrub
Jay - which were silently moves
through trees, - on ground +
working up into canopy with ♀
following chippers.

1324 ♀. Fous bar.
2 AJ. new ♀s the.
Feed ♀ quick the

5 minute break to preen.
the F bar. 5-6 AJs the. 2
#5 POi the. AJ. the D.var
flight to 2nd ♀.

1330 ♀ in with. mom

1424 New OD$_p$ 8 cm
OD$_i$ 9 cm
ID$_i$ 5 cm
ID$_p$ 4 cm

OD$_i$

OD$_p$

1440 Al. Nut #2.
♀ feed 1 y.
Then to Bring AJ to
Hover-Glow

1441 AJ. H6. | little Supp
AJ
AJ. hauler in M.2-a.
AJ
AJ.
AJ.
AA Hour gl
3 of: ★ AJ - Bring ...
AJ
Supling ♀ PO → ★ Bring ...

1448 AJ.
PO.
AJ.
AJ.
1449 AJ.
1451 AJ
AJ
AJ.
1452 stop. PO Hourglass.

2
2) Watermi Hawk, S

1502 Four 2nd y ♀. Feed.
1508 Leila watches these - while I watch [illegible]
* 1525 ♀ in (g small gone 6 Happy)
♀ 1527 TO. Pner. in FG.
* 1530 AJ. ♀.
1532 ♂ appears briefly in pack with 10m.

1595 ♀ BACK but 5 Jay nearly
♀ prob. Chy @ SJ.

1552 ♀. with wingset insert.
1552 ♀ + ♀ + Leas ..

AJ. FG
TO.
AJ.
TO.
AJ. FG.
TO.

Sott. chgs (vs. hand-chgs)
while Leas.

1555 Feas 95
1555-70 AJ.
↳ ♀ all

1559 ♀ BACK -

4 May 1953

(B/S) // M ♂ Vicki Ohm
feed y. at
~~cent. wood~~ Straight Rd Woodlot.

Poor flying Ability of Y1. suggests
a clear causal relationship between
physiology + flocking success. i.e.,
young fl.'s need closely-spaced
trees + a success of branches. —
AJ. or other. (US, MS + OS) to
accompanied movement of Y's to
uppermost branches.

OFW ♂ SC for vicinity of BJO RG + AJ
gm. #1.

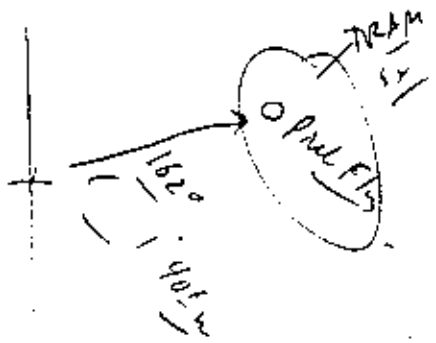
0907 9.
TO. FG.
0903. AJ. FG.
?
0904.16 Q; HG. ♂ SL.
AJ.
AJ - catapult on back.
0906 - Fear & off.
0907 ♂ SL.
0907.44 9 lb of AJ. PALM
0908.35 9 Fear at. Fear .5m
above ground on side branches
of AJ
0909.15 main thm. lB; of AJ
NO LEAVE
0909.51. 9. TO. LO
LO. LO. FG
AJ. 0911 AJ. foam in hole
TO. 0912.14 Fear complete.
AJ
TO.

0912.27 Screech Owl Tape Begin.

♀ Trapped — 14 min. trapped to release

0935 ♀ release.
but

0539 ♀ chipping.



Vicki reveals, ♂ as low as ♀ + chippi along with her at close to ground.

Also yesterday Vicki shows ♀ hill-snapi + chase another bird

Go to Next 3

Nest 3.

1004 ♂ lc.

100936. AJ
.17 AJ.
.03 AJ.
F6

Lun

1011.29 AJ.
12.15 - AJ Lun y.
12.44 - Lun.
12.57 . Lun.

Gm

At both sites - recently fledge yi attempt to move into outer-most branches of AJ's + just sit quietly.

1023 clap.
1024 - ♀ has wk green caterpillar.
24.47 - Lun
25.28 ♂ SC.
25.46 ♂ SC in close.

Screech Owl Playing.

1027. ♀ trapped. !!!!!!

* ♂ ~~a~~ prob. attracted by screech owl ~ ♀ movement.

1035 ♀ relax

1050 ♀ picking @ hammer.
♂ SI + chip 1x.

1051 ♂ lc to E.

1153 ♂ l.

1124 MAIN GATE ♂ AREA LOOKING
FOR ♀.

1123 ♀ [illegible] to Screen [illegible] x.

1128 [illegible] TO + LO search screen
[illegible].

1132 (S/B) // ? | (F/G)
Chasing [illegible] Pauline with Yellow Bee
Chip stone.
FG + chase [illegible] wabbers

1133 SC.

1135 2 ♂♂ press chase

1137 ♂ HG. (T/B) 4 ; lc.
Neighbor ♂ lc. [illegible]

1138 Neighbor s.c.
TO

1141 ♂ in LO l.c.
+ HC/FC.

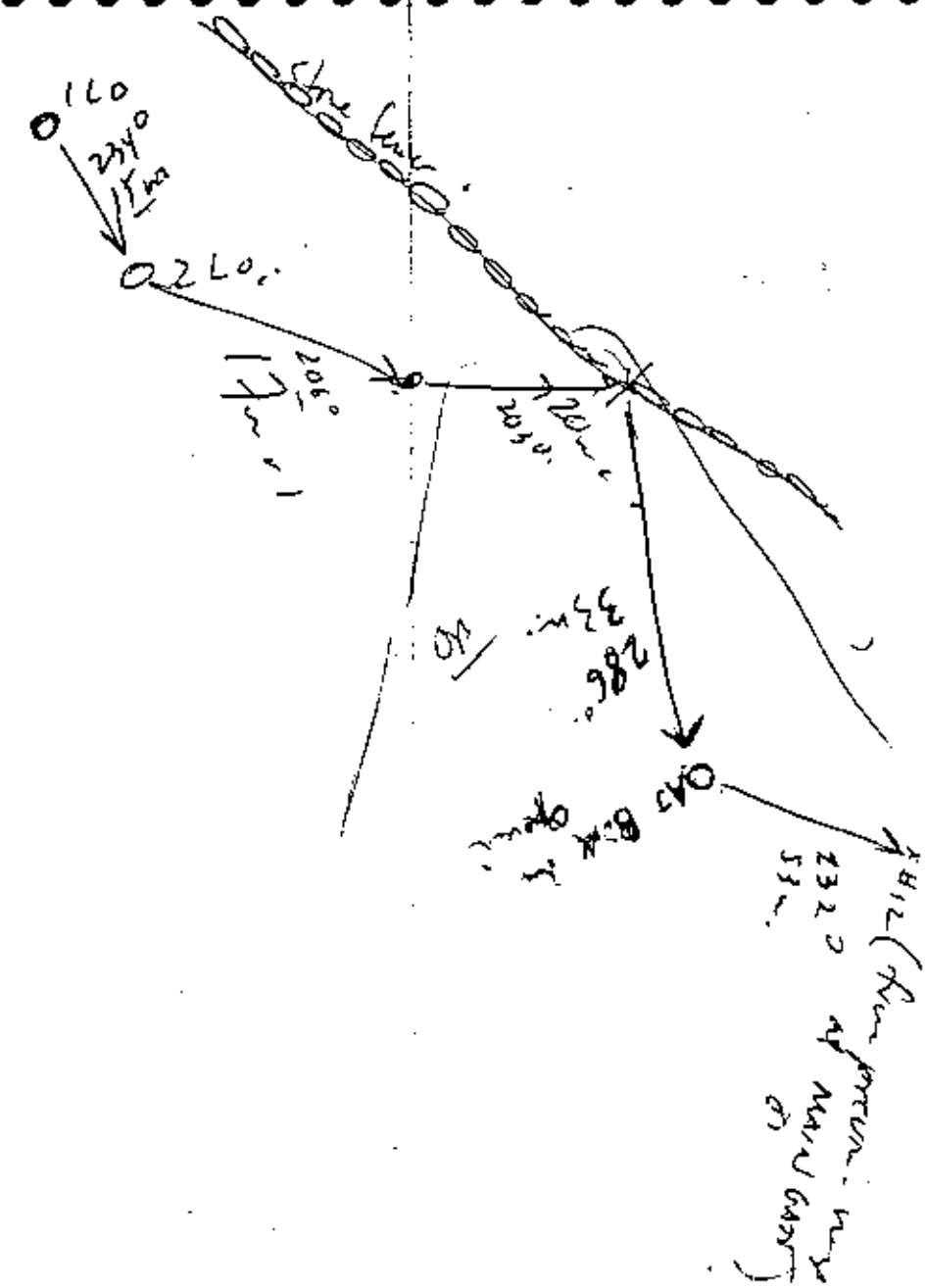
1142 Airplane up.

1143 Steady Charge
Bubbling reaper to Second Chg,
+ ♂ GLW s.c. near 50 tape

TRAPPING Begins

1147 Cardinal loading in.

1150 Airplane off


1LO
234°
2LO
206°
203°
286°
33m.
OAS Box in open
232°
53m.

4/5/93

#1 LO, 1°, NOT IN BLOOM

DBH 45.5

TH 40 ft

NNSS 4 m

Slope 0°

SA NA

OS - AJ, LO, QS.

MD - AJ, some Diospyros

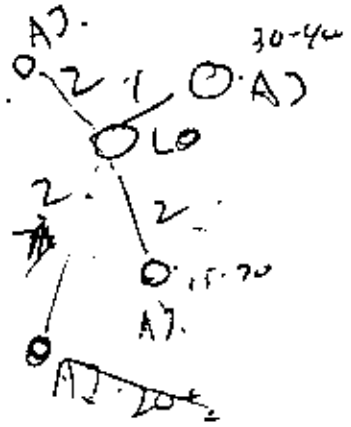
US - leatherwood, AJ

Smilax, Cedar Sedge, Grapevine.

SIO AJ

LO //

Dios //



STUMPS: +, Porting evidence.

Old fence nearby, 8+ stumps visible

DEBGE 40-50m.

4/5/93

#2 LO, 1°, finished blows

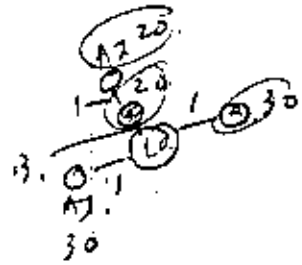
DBH, 45.5 cm. SID. AJ. ~~||||~~ ||

TH 40+ ft. LO |||

NNBJ = 4 cm.

Slope 00

SA - NA



OS. AJ, LO

MS. AJ. (not normal

VS - leaf lit., cedar seeds, small cone (mostly cones 1/4)

STUMPS: 3 + stem wave

DEDGE = 40 rows. See my Young my move into areas of relatively dense AJ

4/My 1993

@ Measurement of Old Powder [illegible] by MC

[illegible]

#11 LO, ? 7°.

DBH. 56.5cm.

TH 40-50 f.

NNSS 6m.

Slope 0°

SA - NA

Geol: Edwards.

Dead - on trail (10m)

US - AJ/LO + Open.

MS - AJ/Dior.

US leaf lit (Oak + Cedar Lean)

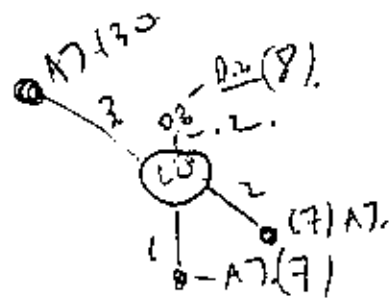
Cedar Sedge, Dior, Smilax, Grapevine.

Stump: 3 -

S10 AJ. ~~||||~~ ||

LO ~~||||~~ ||||

Dior. ||



#14, LO, 1°.

DBH 27.5 m. (2x)

TH 30-40 ft

NNSS 3-4 m.

DE On → on fence Row, (10 m)

Stone 0.

SA - NA

SOS AJ, LO

MS. Bumelia, AJ.

(much regrowth AJ along road)

VS, Oak leaves, Cedar leaves, AJ, Smilax, Diospyros, Ilex, Toxicodendron, -

Geol EDWARD STUMPS: 2 But

much sign of clearing for ~~row~~ fence Row -

510 AJ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

LO. ~~||||~~

Bumelia: |||

Ilex:

#13 LO 1.0

DBH — 27 cm. (1x)

TH. 40+ft

NNSI 3 m

DEDM 10 m. (closing near [illegible])

SL = 0°

SA = NA

US = LO, AJ., PO.

MS: AJ, LO, Ilex (1 plant)

US, leatl.ll, Oak bam.

Schizachy, Cercocarp, Bouteloua,

Smilax, Celtis seedlings,

AJ seedlings.

EDWARM

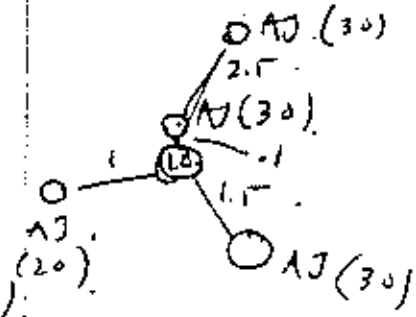
S10 - AJ ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||

LO ||||| ||||| ||

QS ||||

Ilex 1

PO ||

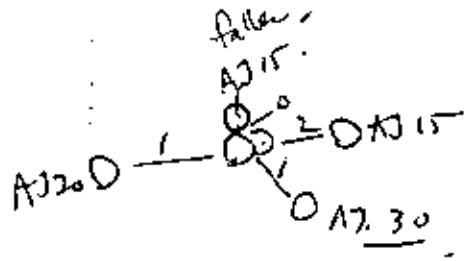


STUMP: 9. [illegible]

old stump [illegible]

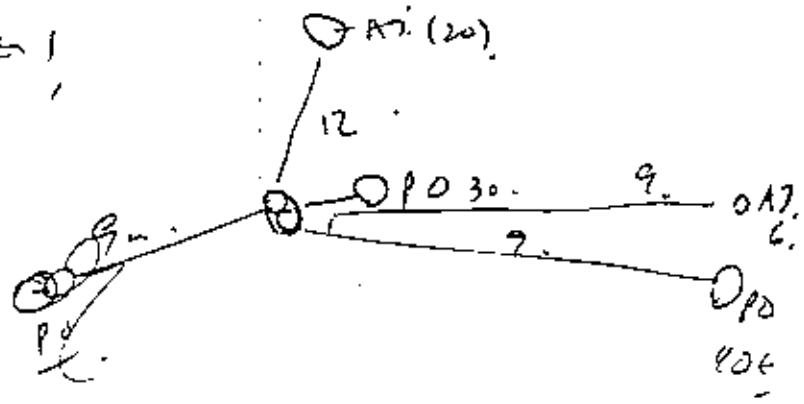
#13, PO. 1°.
DBH. - 42cm (2x)
TH - 40.12.
NNSS 4 m. DBH - 17cm.
DE = 6m,
SLOPE: 0°
SA - NA
OS - LO, PO, AJ.
MS - AJ (regrowth @ edge)
US - PO leaves, Prunus o. seedlings, AJ,
Smilax, Cedar seedlings, LBluestem,
LO seedlings,
Edaphic /

S10 AJ ||||| ||||| ||||| ||||| ||
LO ||||
PO ||



5 Stumps + many AJ's
tipped over by Bulldozer - in
chain

#6 PO . 1°. Isolation quite ♂ Fem.
DBH 44.5 . 101 in M. Gate
TH . 30 ft . entrance meadow.
NNSS 1m. (28m) S10 . PU . 11
DE (NE - O.m. in AJ ||||||
Down S12 meadow
S = O.
SA = NAN
OS = PU (only)
MS Same region AJ



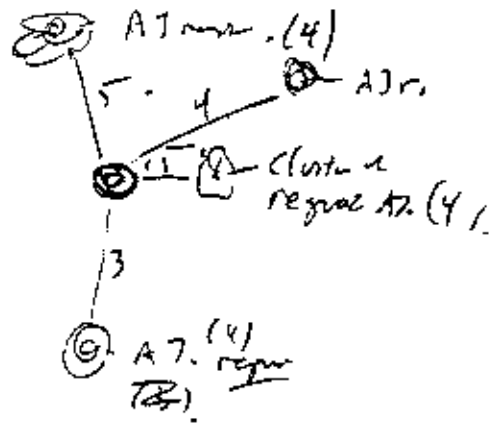
US - grass . KR Blue
AJ. Sampling .
EDWARDS . -
STUMP . O but lg. brick pile nearby -
CR = 6m

#1. PO x BJO. ??. 1°.
DBH 32.5.
~~NNSS~~ THs, 40+.
NNSS 7 m. DBH 34 m.
~~DE~~ 0. (in meadow).
S = 0.
SA = NO.
OS P.O, LO, mouth open.
MS. AJ. + sm Bacchar
OS. PO leaves, grass, Opuntia, Brach.

EDWARD.
D (wooded) 14 m.
CR = 5 m.

♂ Fem., Main Gate.

S10 PO ||||
AJ. ||||||||||||||||||||||||||||||||||||||||
LO |
Bacchar |||



Stems - like #6.

CANOPY - 7m.

#3 LO, 0°-1°

DBH 27m.

TH 40+.

NNSS - 2 DBH 14.5

DF - 20m (continue cleaning / a meadow.

S = 0.

SA = NA

OS LO, AJ,

MS AJ, TO, Ilex,

US Oak Leaves, Similar.

TO seedling,

LO Seedling) few.

EDWARDS

STUMPS - 14+

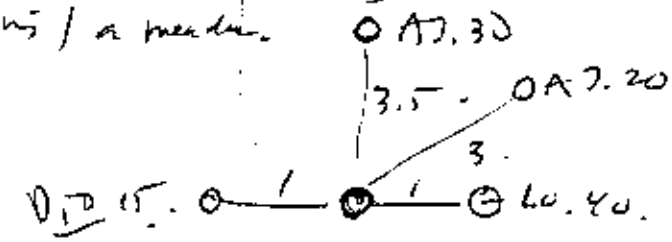
8 Feet Maybe

510 - AJ ||||| ||||| ||||| ||||| ||||| ||||| ||||

LO ||||| ||||| ||

Diosp. |

TO |||



1432 - 2 Fox Squirrels

#4 LO, 1°. ♂F. M. Gale

DBH > 55.5 m. S 10 AJ 卌 卌 卌 卌 卌 卌 卌 卌 卌

TH. 50 m. LO 卌

CR = 7 m. Dio. 11

NNSS. 6 m. DBH 27. Ilex. 卌 卌

DE = 20 m. Bimeta 1

S = 0 QS. 1

SA = NA.

OS LO, AJ.

MS. Ilex., AJ.

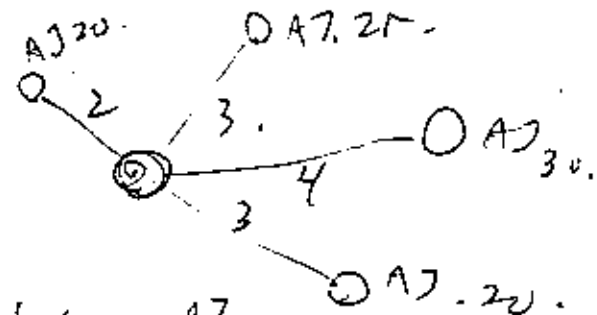
OS. Oak leaf, Smilax.

LO seedlings.

Prunus e. seedlings.

Grapevine, Cedar Sedge., AJ.

CDWARM, 25 Stumps. even saw oak stumps



6 May 1983 Heavy, steady rain + T-shower.
yesterday with wind. Clearing to partly
cloudy - tony.

0924 @ Nest 2 site.
♂ SL. x fence in lower Ay.
SL made seem to remain
x the fence.

0925 Now x fence ♂ to lc.

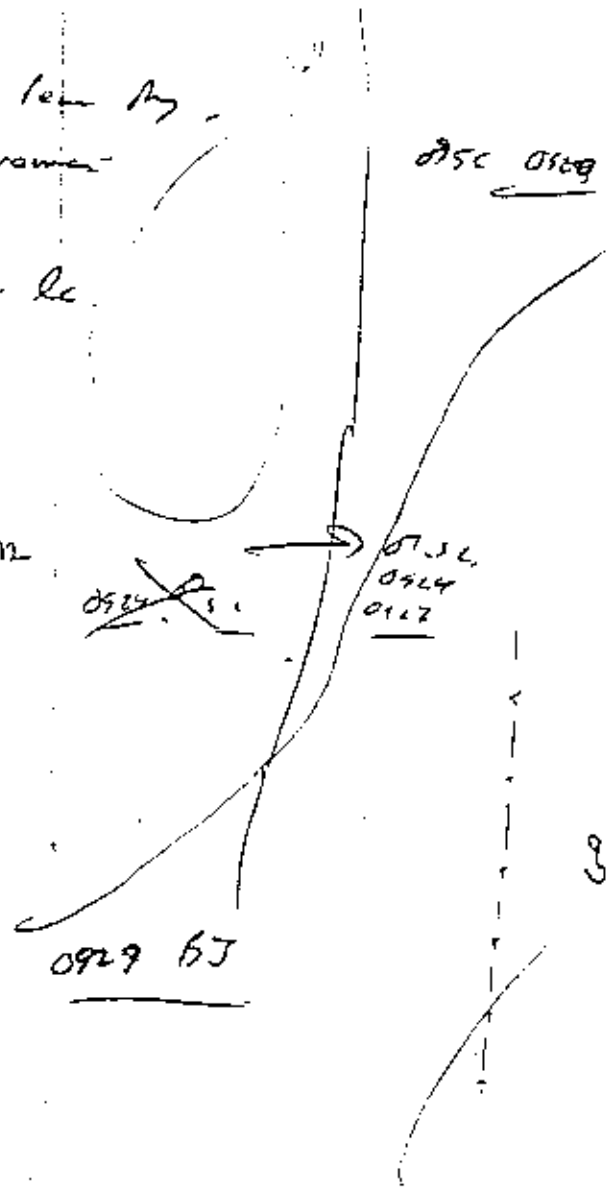
0927 Blue Jay Crow
w/ Doodle.

0925 Dogs Barking in Real Ch
Dead

Myiarchus crinitus
Titus
BJ.
Cardinal - Rose wave
Cardinal,
~~Bushtit~~.

Bewick - Wren.

♂ BHCB flying over
Cly



6/5/93 0942 Sm out

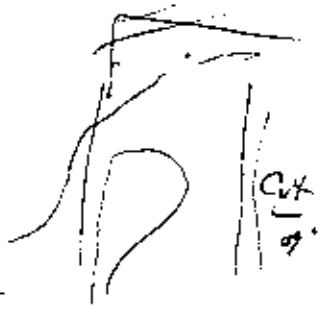
Sent Jy

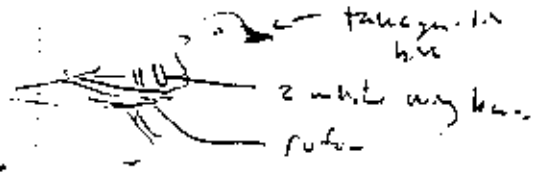
Seme Tamiga Say

Titan Say,

GCW of SC to E x NS Col

0951 of lc. m u..





1006 - No male say

* 9 chips heard here

1015 of Cam of -

lc. + chips, ...

Pen in AJ.

1016.17 AJ / HG

1016.57 AJ. lc. HG.

1019.48 AJ HG + lc.

.49 QS.

20.05 AJ.

1021 F to S. + SC L!

within 50m

they gone ?!

6/5/93 ~~Golf~~ Rolling Rock Lawn

1100 ♀ observed near Big Ashley

1106 BJ in ditch

1110 ♀ - TO chip ??

1114 ♂ chip in TO

Hen F into Shinwal + AJ

of upland

Accoupers overhead

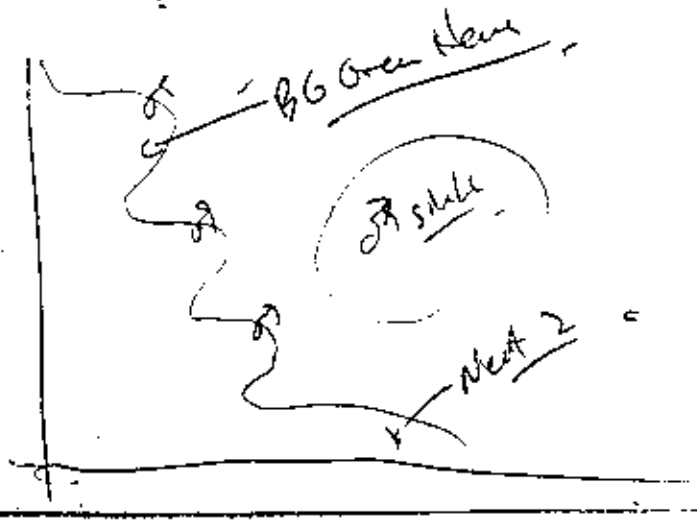
1128 Winds beginning

1138 Pointing BG Green

- gives

Sun "Yoo-too-too-too"

Indistinct from packer



6/1/93 Smith Hole Vaughn
1228 ♂ SC

Probe [illegible].
① Jurow [illegible] + [illegible] blown [illegible]
② Debris dislodge into [illegible]
③ [illegible] / [illegible] [illegible]
④

1344, S of Pauli
Alley Same
really Huge A Ti
[illegible]

1547 ♀ GCW Glen [illegible] Trunk [illegible]
BIG A? S. Pauli Alley

1553 Ample + ♀ Chis.
♂ SC

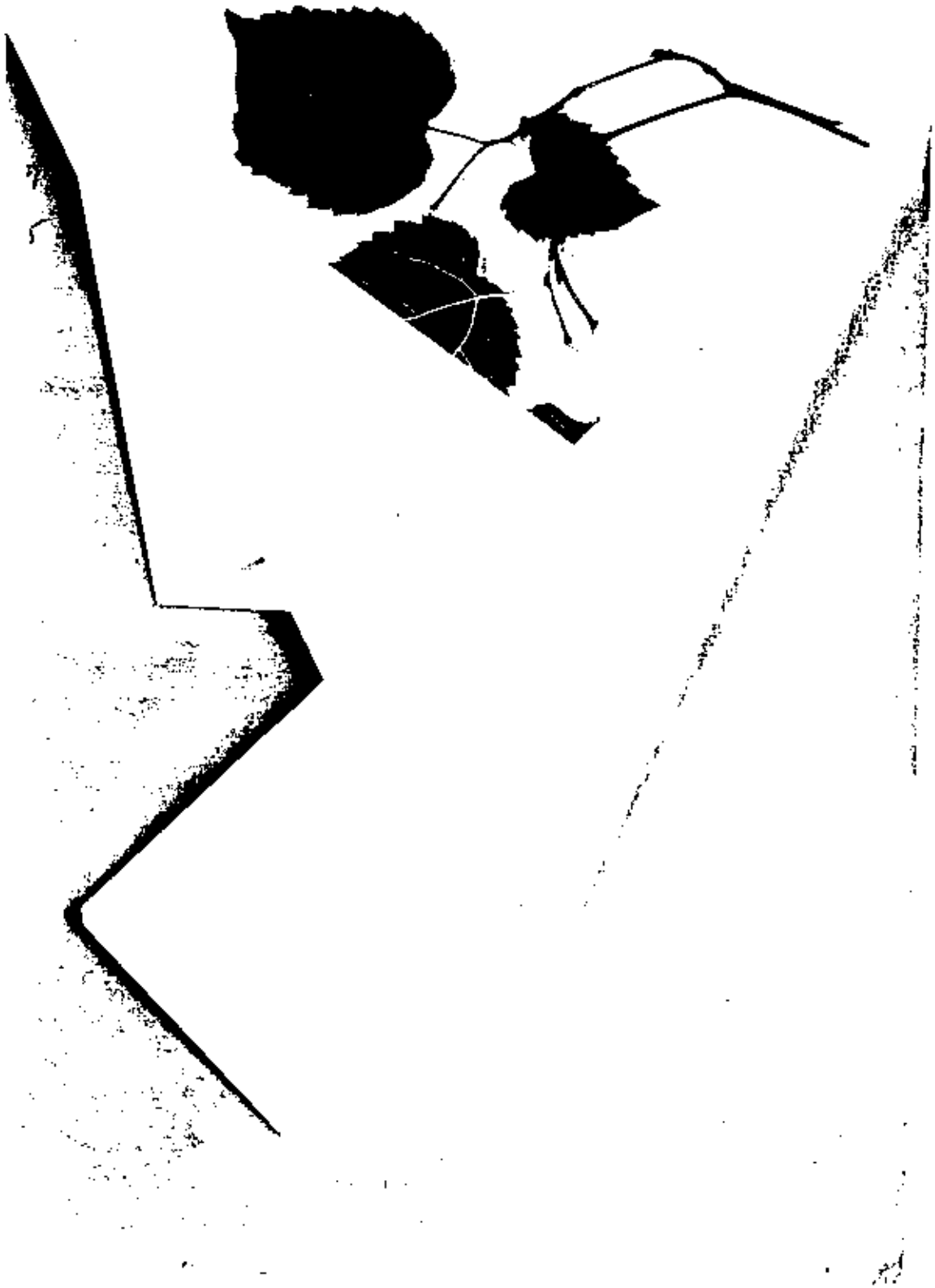
80,000 sh m = 8 ha

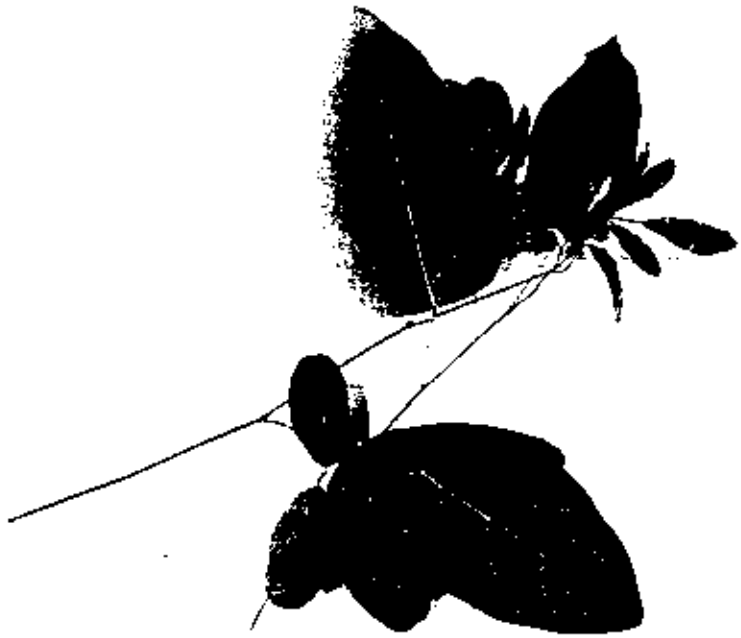
10,000

10,000
12,8,000

12.8 L.

12.8 L





1. Spot-map [illegible] Territory [illegible]
   esp. peripheral [illegible]
2. Color-band [illegible] many [illegible] [illegible]
   esp. [illegible]
3. Reference Territory [illegible]
4. Recorded [illegible] + Display [illegible]
5. [illegible]

no
ebook

11 June - @ Hanging Rock Spring. Webster. 384

0821 E. Phoebe ⊘, calm.

BC. Hummingbird

RC Spanner

Cardinal

Fossil sea urchin.

O.C. Flycatch.

~~Pa~~ Painted Bunt

B+W Warbler

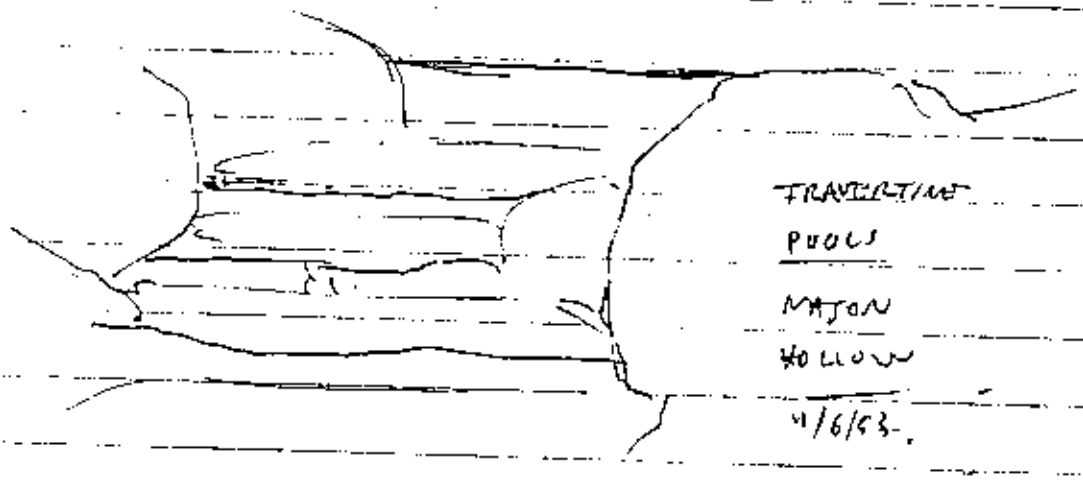
1310 @ VICTORIA - MASON HOLLOW.

Head of Hollow - WE Vireo

Carolina Wren

Cañon Wren

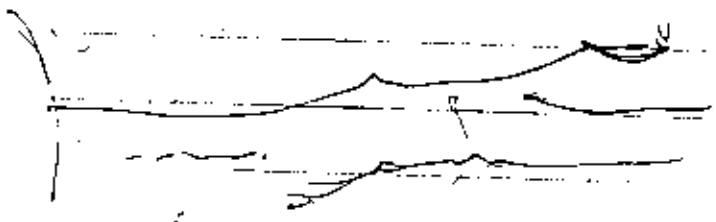
Songs



TRAVERTINE POOLS

MASON HOLLOW

4/6/93.



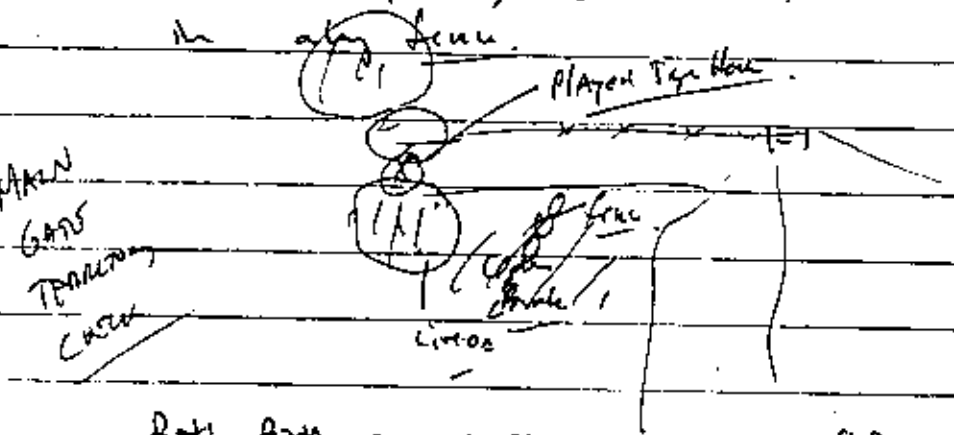
14 June 1993

385

Released injured ♀ at Amphitheatre Hollow.

0926 – 0930 Played tape at Main Gate Territ.

2 birds possibly juv. ♂ & ♀ came in along fence.



Both birds appeared ragged and poss. ♀ juv. no black throat marking + yellowish ventral wash. ♂ also looked ragged but with well-defined throat band.

♀ followed ♂ but came in from different area from S x fence in scattered lineouts with dense regrowth juniper under story.

0945.13 TAPE START. @ STONE FENCE on E edge MAIN GATE MEADOW.

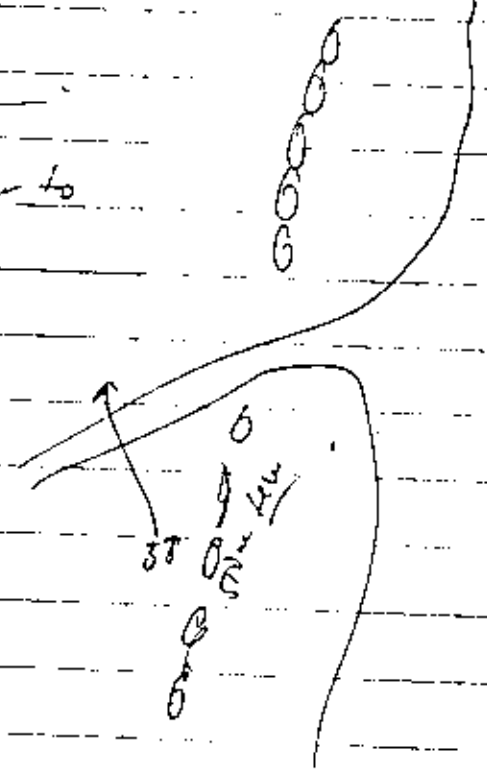
YB Cuckoo

Scrub Jay.

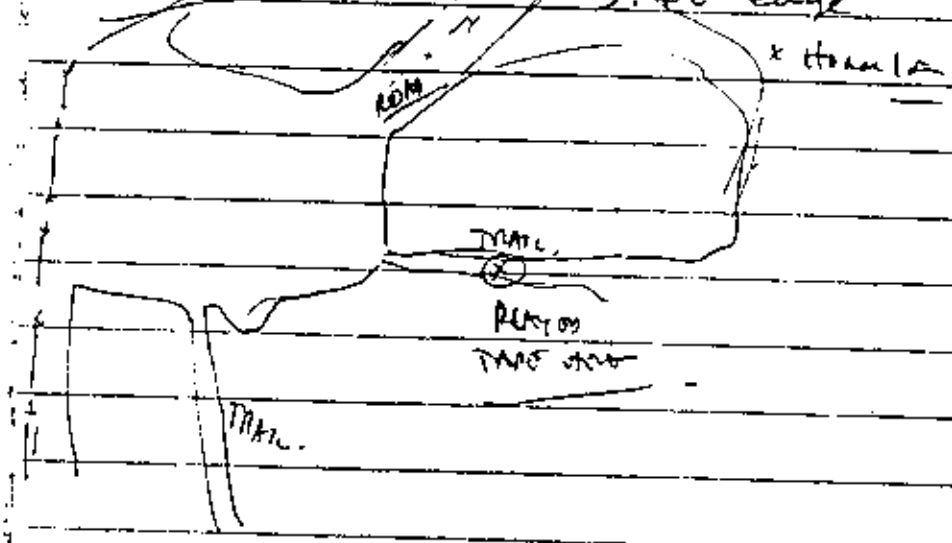
Sl. 25 – ♂ Arrive

0953 8 2nd GCU lem distinct
neck band present
1st, ♂ very clear wt
2nd bird lem well-defined neck band +
0959 1st ♂ F in LO Th
Fly to "chip" nearby
2nd bird possibly a ♀ at Fly
Prob. both birds are flagged ♂♂
1004 Bill Snapper
Moving Fly LO: ~ o — x — x — x
in vic. po.
meadow.

Then disappear to



1012.45 - Horselot ♂ S. + E edge



15.52 GCW in indistinct throat calls
briefly HGS in LO near
speaker

1023.07 ♂ responding obviously in molt,
SC + LC mottled

Both Bird Trap in Lot // THIS IS DEFINITELY a 2nd Bird.
1st bird may have been a ♀.

1028.33 BHCB near Horse Ave.

1034.42 TAPE STARTS @ HORSELOT
OAK GROVE

37.14 Chipps

1048.08 → STOP

1057.45 TAPE STARTS @ W side MAIN GATE.
06.20 TAPE STOPPED TO REWIND

1115.50 TAPE STARTS @ #1 ♂ Site
S. Fem. near S. Hill

18.13 Gen
prob. FY NO. BLACK COLLAR
FO + HZ no. LO, SQS, + AJ,
11.25 FG/HG/ + FY. Yellowish Vermilion Wash
STOP

START
27.58 Next Site START → from dom. ~~[illegible]~~ 60°
29.00
30.54 → Bird Ins. → ♂ maybe but
whitish feather in Darker Background
possible jur. ♂ ♂ head + throat rolls
Throat Band + Flank dark
1135.00 STOP

1202 @ HORSE TRAIL

B+W & GCCs HG F. in LO.

the HG in TO

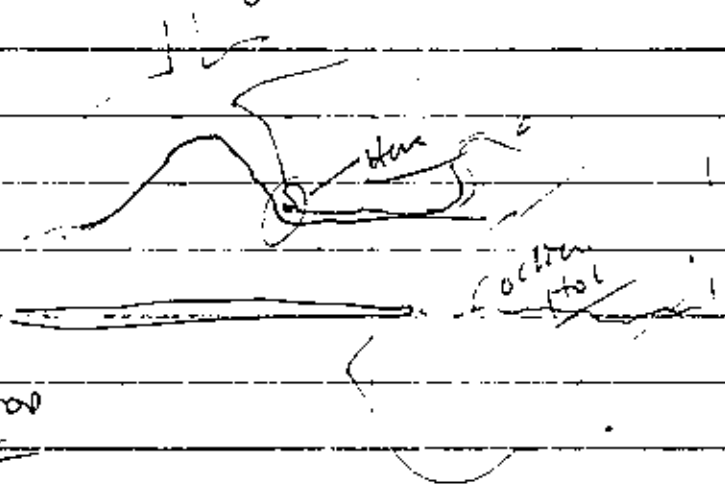
TAN GAP

1205 TAPE STARTS

1205.30 8 GCCs unhandled Black colla

Pr. + FG. stopping for

rel. long periods



1210 STOP

1221.09 STARTS - HORSE-TRAIL "KICK-ASS" TERRAIN

@ CANYON - E/S edge

OVERLOOKING CANYON.

YB CUCKOO

1232.11 STOP

1237.10 HORSE-TRAIL CAÑON -- E/S Side.

Cañon [illegible].

Airplane O/C

1243 BLACK VULTURE NEST WITH 2 EGGS.

UNDER OVERHANG

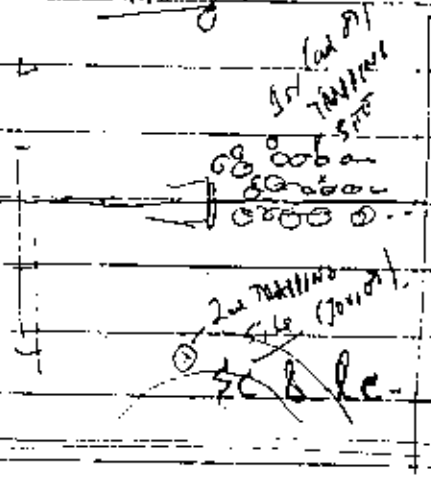
1245.00 STOP

RETURN

15 June 1993 Belted Kingfisher on site

0945.16 Net up TAPE START } TRAP. upstream
0952 ♂ in Full Adult. } Fan Olympic size pool

*** At Collier Hollow site in Bottom downstream from. →
(♂ in Singing - lc. full adult plumage)
♂ in Frag. overhead HG/FG
Chipping.



Belted Kingfisher.
WE Vireo.
Carolina Wren
Cardinal.

1112.23 @ 2nd Trapping Site. SE Slope
Collier Hollow - between E fence + P-line now.
a ♂ JUV. approached previously.
HG/FG/ Free-Fall.

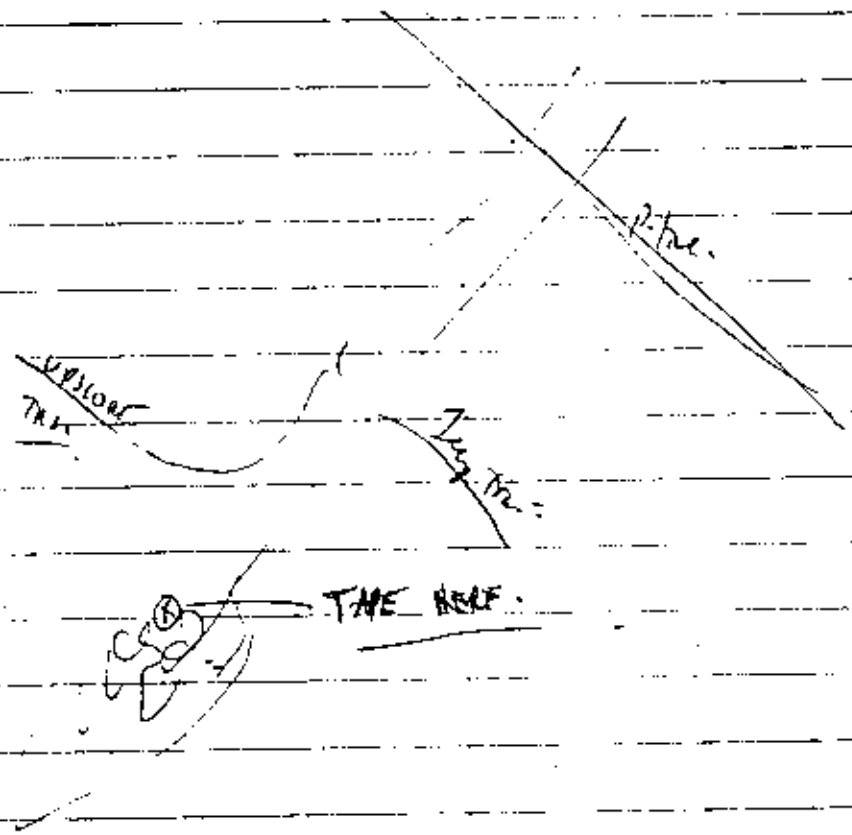
1126. B+W Warbler foraging low near trapping site.

1132 TAPE STOPPED

#1213 M // S/W ~ S/W // M

Possibly 2 birds present on tape site, #2 + #3 or banded upslope

Bow M



16 June 1997 – Webster Tree ⊕ Calm

BANDING – N. Holm

N. Holm between ⅄ N + S Farm.

0902 – TAPE STARTS.

Ad. ♂ + Juv. ♀ present.

Bill clattering → Juv. wrong flute.

bill F. in TO, AD + TO

0927 TAPE START @ Jul. Tree site.

Scrub Jay in – Live Video + all

birds mobbing Jay – Diving, strike

+ bill clapper

on B A a RE Video

Juv. Gcw thinking insect nearby

ad. unhanded ♂ present.

Juv F in JUG + TO

0951 Banded 1 Juv ♀. Green Dam Heavy

Near no need band Juv ♀.

6 // (M/S) USFWS

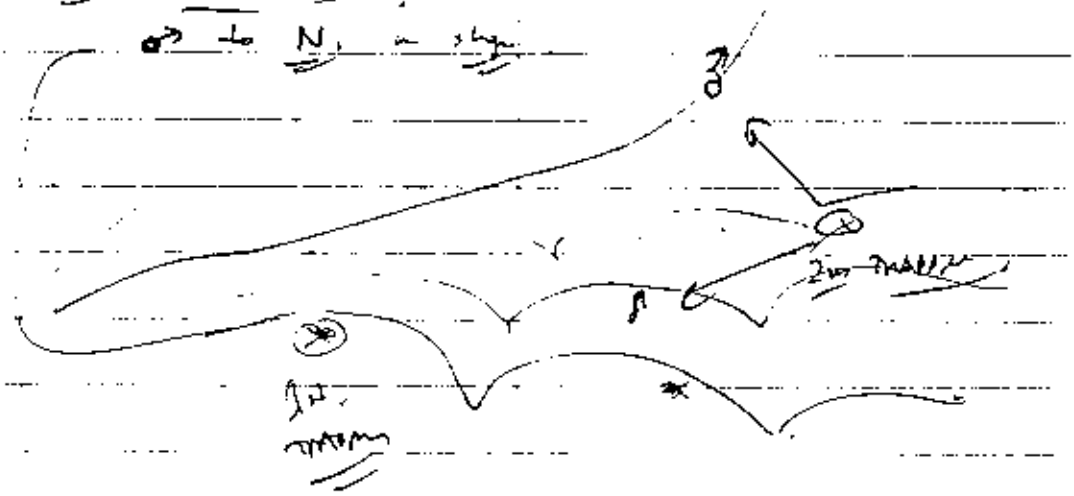
1910-09901

One unhanded ad ♂ + 0 // S/W at ⅄

⊕ 1020 – leaves

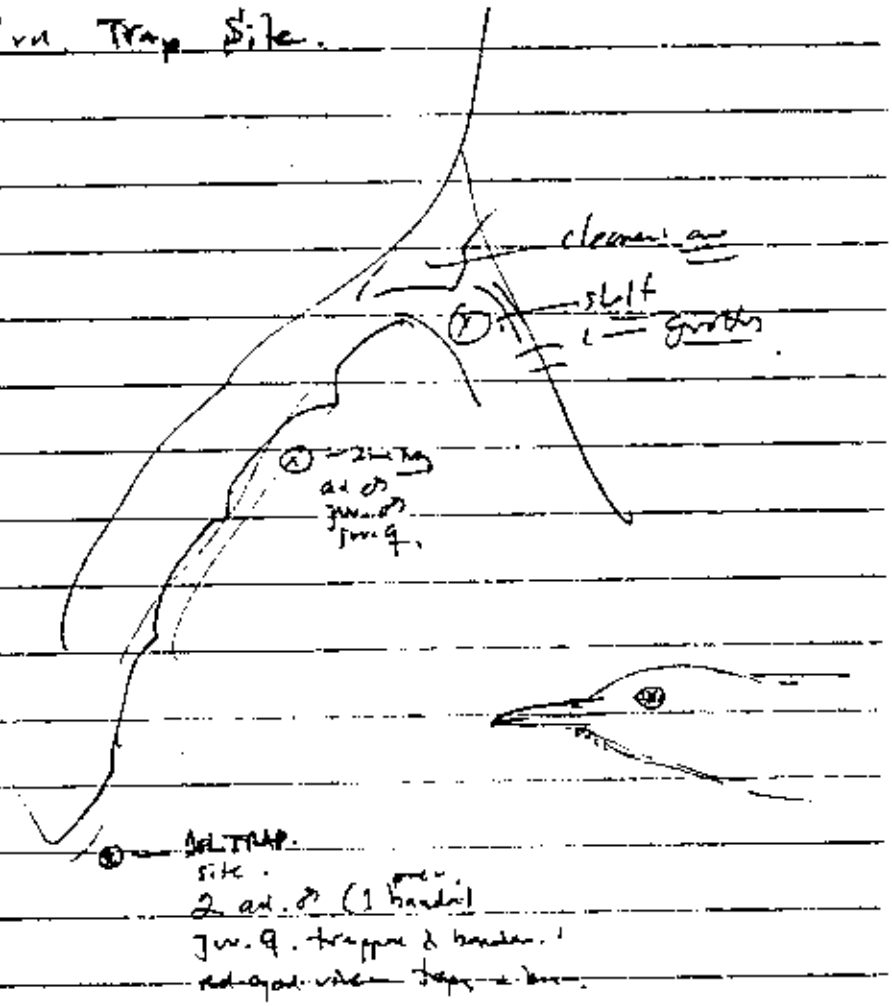
♂ mottled lc. + mod chipping
while FG in JUG.
B+W Warbl FG my have
bounced out of net.

2m TRAPPING STA
♂ to N, in shape



1118 2 JUV. OCW's ♂ + ♀.
+ 1 ad. ♂ Ga
one ♂ @ 320°
one ♂ @ 64°

1143 3rd Trap Site.



16 June 1993 WEB

1313

4 ft. banding site.

LO grove between N. + Middle Hollow –

Juv ♂, ♀ + ad. ♀,

+ ad. ♂ all present

Juv ♀. O//(M/S)
1910 - 09902
@ Oak Grove - North

at least 4 ♀'s present - all rapidly working through LO's + along branches + often chasing small aerial insects when they flush — in flight to ground.

17 June 1993 WEB -

0845 @ Hilltop Oak Grove

Looking for Juvenile Warblers

0847 mixed sgp. F. Flow
Bushtit, Chick., Tuttle +
juv. Gcan.
in Lineoak along west fence

0914 → GO-H. Not up. plug Tenth. lc + s.
Sayg.

BHCB's @ Hilltop Sycamore

0921 ~~[illegible]~~

GCW group 2 juv. 9.
1 poss. ad. ♂

0954 → LG + DPK Lower Fung Flock
Titmouse Family group. "Chip" & Pavo
& more metallic than ♂ or ♀ CCW

E. Phoebe.
S. Tanager ♀ @ Oak Grove S.
Titmouse Side along Road
Bitter whistle.

* Prob. at least 2 sep. family
groups here.

1021 Juv. ♂ gin mottled "weird" sng.
Fav. in LU, grave near W. Rom
2nd time present Bill Clapp &
one chases other to W.

1025 Blue Jay in oaks

1035 @ Trappe St.
juv. ♂

Bandit
Juv ♀ 1910-09903 1 (M/S) // O

juv ♂ 904 Juv ♂. O ∥ (Y/S)

(Y/S) ∥ O 905 Juv. ♂.

Juv ♀. O ∥ (S / M) 906

~~(S / M) ∥ O~~ 907. ♂ M
908 ♀. LM

♂		♀	
Breeds	Un	Breeds	Un
	∥		∥
	ad.		ad.

22 June WEBSTER. @ ROR Oak Savan.

Gastrophryne olivacea singing in old stock pond to W. of fence. Many eggs - present.

as a single-layered - surface floating sheets in ephemerally flooded old stock pond -

At least 2 ♂♂ present

Brown Towhee Fledgling : B'rejays.

BHCB ♀ whistle.

♂ rattle call.

Painted Bunting.

Field Sparrow.

RC Sparrow.

B+W Warbler.

Chickadee.

Cottontail.

Titmouse.

0530 - B+W Warbler Foraging + Singing

Watch G. small moth fr.

live oak mayan limb

0532 ♂ GCW: + Chickadee + Titmouse (unbanded)

0533 juv. ♂ GCW "wire call"

0534 ♂ GCW unhang

♀ GCW: Chipping grey caterpillar

0936 Bushtit juv.

0936 " weird calls

0938 unhamm ♀ juv.

" ♂ juv.

m GCWi. FG. Field Spar

L tarsi + lens.

m LO?

Summer Tanager

0942 vh ♀ GCW

2 vh ♀ GCWs

/ Hu 2-3 ♀♀ } visible w audible

2-3 ♂♂ } (2 separate cms audible = weird calls

0944 L. Goldfinch.

♂ GCW vh

♀ GCW vh

♂ GCW vh.

♂ GCW vh.

CF Isolation

0948 ♀. vh

♂ vh

0947 Next tree LO

♀ J. vh.

♂ J. vh.

0949 Drifting into CE grove

(11 ♂ 111 ♀)

Glen for all sides of LO + CE

'Same then capture a ... on pressure

in flight if insect takes flight

0958 - ♂ in AT need to CE grove

555 m

1003 I with Big Wingers meant with semi-trap

[illegible]

J I 42 s. No. F + Cyr.

1007.14 LO grove (Barn Swallow)

Fig 1

CE

1005 Next tree.

13.45 11 A

14.26 111 B.

14.51. 1 C

15.24 .45 STD

15.54 . A . 8 . 1
16.32

16.43 } P . 7 . 1111
18.22

CE
↓
BJO
↓
RO

~~18.39 C Pr. 9.~~

~~18.19.~~
4.6 Bind 6.
20.26 } . 1111 11 aerial chaser 4.6 bind
21.32

22.10 } 1111 1 aerial chaser 4.6 bind
24.31

25.26. CE !

1026 [illegible] #8 [illegible] near [illegible]

Painted Bunting

1031 [illegible] PO. [illegible]

1032 B. STOP. BACK TO CAR

At Netting Side.

1058. [illegible] Parus F. flow present.

1059 Jn ♀. (R/S // O)

CAPTURED Juv. ♀. NOT FLYING - held.

1145 [illegible] ♂. [illegible] - in. CE -

in ♀ Juv. VR.

in ♂ Juv. VR

1150 4 B Cuckoo + Green Kingdom,

1202 - Clouding Up.

Caught. ♀ BC Hummingbird.

1221 - Playing Tape.
Brown Towhee.

23 June 1993 Victoria. | Alto strain/corn. Crouch - [illegible]

0815 ♂ lc. to E of Sinkhole ~~[illegible]~~ [illegible]

0839 CHECKING LOOP NEST.

SINKHOLE ♂ - W side trail

0850 TAPE START. | @ Big Juniper Display Perch

#1

Bewick's Wren -

YB Cuckoo.

0900 STOP.

NO. GCW

Note: Blue Grosbeak Courtship display Observer at gate. at 0730 - ♂ wing fluttering from semi-crown with tail up + fanned. ♀ arrives + crouches with tail up. Attempted mount. interrupt.

#2 At. LOOP (#2 NEST SITE)

0908 - START -

Juv. BG Gnatc.

Juv. Titmouse.

Cardinal.

0912 Juv. ♂. - present. bladish bill + white wall

YB Cuckoo.

0918. STOP

0925 START W. Fence. Ck. Bottom
below #2 Nest Site.

(3) ✓ 0928 ad. ♂ in pn molt. central
retrices dropped. – white outer r's,
visible both sides
Carolina Wren.

0935 → STOP

0950 START @ DRIVING RANGE ♂.

(4) 52.39 Juv. ♀. being chased by
– B+W Warbler
Sarah Jay. CAW below

1000 STOP

1021 – START @ SINKHOLE N. Perches
Chimney Swift., BH/B
(5) * ~~possible~~ GCW in N. Perch Jump. prob ♂
before ply tops.
top location in old 2° growth
flats between sinkhole &
N. Hollows

1031 STOP.

1045 START PAUL's Alley. – Wen

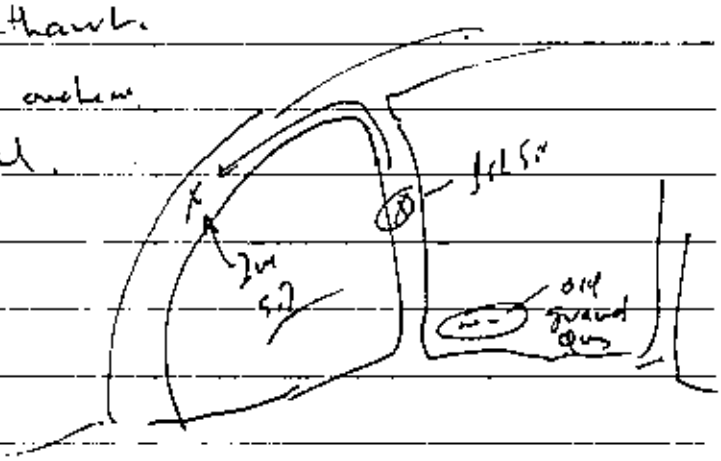
51.53 Juv. ♀, no bands, flying in
from N side Tenor

HG + AP + FC in LO, AT:
on both sides of Paul's Alley.

Flying back + forth X alley

1055 STOP

1156 START @ E ROW Central Woodlot.
near OAK in center of ROW
C. Nighthawk.
1159 Airplane overhead
Cardinal.



1206 STOP

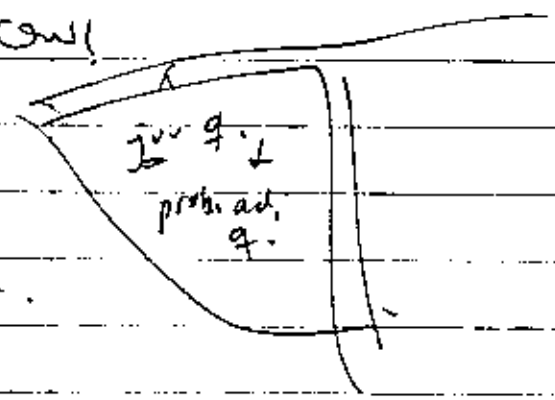
409

1214 Stand @ E Rd. Row

1234 Stop.

Nm Screech Owl

1237 Michelle fixes.
fly juvi with
Chickadee. in corn
small woodlot.
"E Lot"
nt Lfl.



****** B/S // G ♂ observer. for with
Juvi. #19 ♂ (note: this was the bird handed with q in mid side bag.

1244 Screech Owl from center of
woodlot. E Lot.
Chickadee.
unhanded Juv ♂ GCW ??
adult ♂ unhanded → tail in molt
pos adult q. wing.

1329 Screen Out Tape @ →

1343 Tape Rouin Screen on
Central Woodlot
of West Road
lc & Screen out

25 June 1993 VICTORIA

TRAPPING @ E. Woodlot. when
♀ + ♂ observ. on 23rd Jan

0502 TAPE STARTS. – GCW TAPE

Field Sparrow.
Chickadee.

Reasons: bird injuries

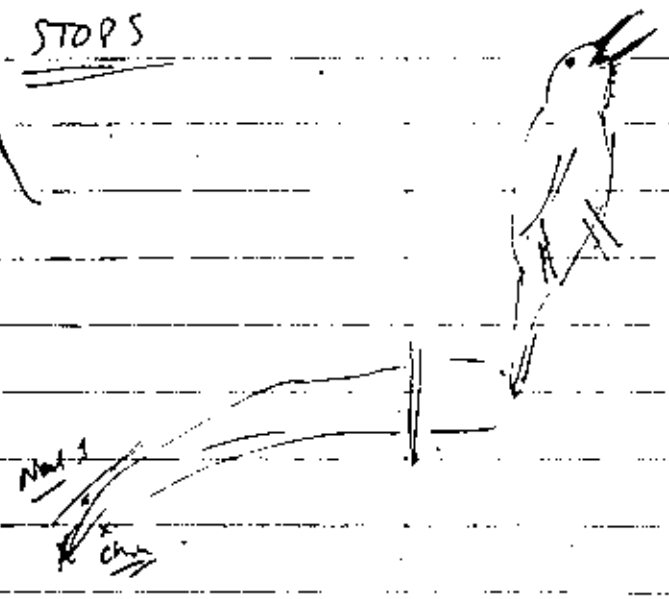
① DDing on Acetone.
② Overheating
③ Myopathia.
④ Shock (Anti-predator response)

0513 Screech Owl Tape.

Gnatcatcher.
Cardinal
Bewicki W.

⑤ Juvenile poor skeletal devel. injuries.
⑥ Injury due to threshing on paper seal.

0535 STOPS



Note: "AH" = Aerial Hawking.

1040 @ Chimney START. GCW TAV
Juv. ♂
2 Juv. ♀,
B+W
Both 4 birds total.
Ad. ♂ chases juveniles with
much HI Chippis + bill-snapping.
Very Agitated.
Ad. ♂ FG + HL, AH in Shim Oaks (Q.5)
near trap. site.
– ad. ♂ unbanded. No sign of
PN Molt
♂ gives "weird" song (WS)
1100 Screech cowl Tape.
Immediate silence.
No. Response.
Found old GCW nest near
chimney.

1415 TRAPPING BELOW #1 NEST and
N. Slope M. Hollow.
Collodion BC Hummingbird nest
found day #1 NEST location,
TRAPPING ON SLOPE.

1418 GCW TAPE START.

1426 STOP

1426 SCREECH ONLY

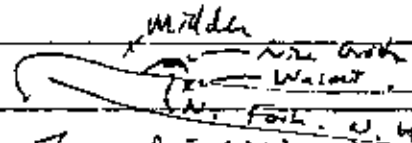
29 June 1993 WEBSTER -> @ N. Hollow

♀ Released at OAK Grove.

Found Midden Site @ N. Rim of N. Hollow

(A)

1057 START GCW below N. Hollow Midden



1101 Juv. RE (??) Vireo.
to JUG

1106 GCW ad. ♂.

1109 non GCW pch BW.
♀ B+W song

1111 STOP.

1112 Screech Owl Tape

1114 Bin in
YB Cuckoo w/R legs
BW.

1116 Juv. ♂. vh

1118 GCW chan BW.

1121 Cardinal.

1122 YB Cuck, TITS,

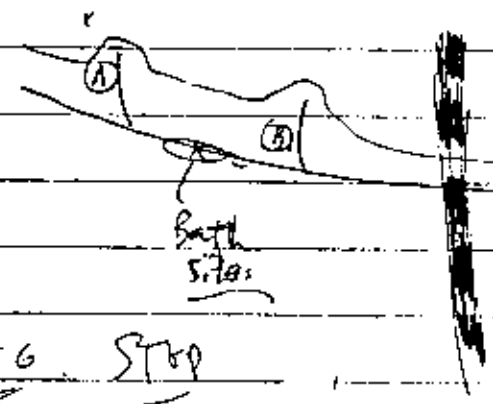
1122 STOP

Juv. ♂ HG, AC.
Chip loud.

1135 (A) Hummingbird Nest .. empty
in Cedar Elm S. slope by
bath site

(GCWT)

(B) 1146 START GCW in AJ dominated slope



Wing Dry
Carolina wren.
Cardinal.
BtW

1156 Stop

1158 Screech Owl Tame. (SOT)
1159 Tits.
1200 BC Gnat Catch .. (BGG)
BtW
1201 RE Vireo.
1208 Stop.

Zeiss
Leitz
Bushnell

American Elm on Ck. 77 cm DBH

(1) (2) confluence of N. + S. Forks

1127 STARTS OCWT.
Juv. Tit
BGG.

Note: This site has huge Green Ashes. — well-developed ~~[illegible]~~ - ~~[illegible]~~ mid-story of

Ilex:
So. FRAX., CPT, + JUL. overlap with Ilex, Viburn, Ungnadia + Cornus mid-story.

1238 Stop

1238 Screech Owl —

1240 Titmouse
BGG still present.

1242 BW. [illegible]

1244 - Chick.
+ CAROL WREN

1246 WE VIREO

1248 BC Hummy.

1250 STOP

1) 1332 START: 6 CONT. @

LO Grove Trapper Rd

1334 Juv. ♂ UB.

1335 Juv. ♀ UB.

1338

@ least

6 bill prob

more like 1.2 in prob. over

sex ratio

possibly an adult ♂ present

1340 Stop

(E) 1422 START GCWT.

(D) HNH Ch. Crons. Downstream bands site #30.

** 1424 Thrillers Bird, in ~~Pg.~~ Laboral flight.

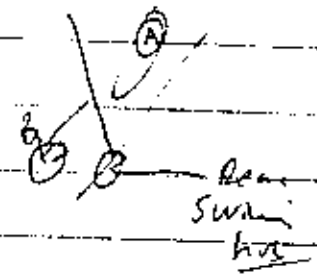
BC Hummer.

1432 STOP.

{ THRILLERS GCW. flying to perch over tree - prob. multi ad. of. Chippy Indian

1433 Screen Owl

1443 Stop



E 2 1448 -

1455 GCW

W? " B?? S?? Prob. all away

1509 Screen Owl ~~Start~~ START.

1515 STOP

(E) 1422 [illegible]

(C) HNH. Ch. (Kont. Downstream

421

(E) 1422 START GCWE.

(D) HNH. Ck. Crossing - Downstream

bandit site #30.

** 1424 Tailless bird, in - ~~flag~~ laboratory flight.

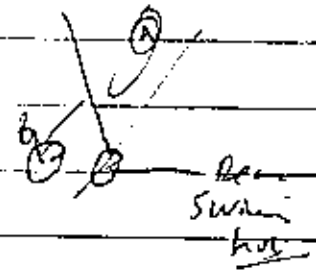
BC Hummer.

1432 STOP.

{ TAILLESS GCW. flying to perch over tank - prob. multi ad. ♂. Chipping Intense.

1433 Screen Out.

1443 Stop



1448 -

1455 GCW in

W? " B?? S?! - Prob. all way

1509 Screen Out Start.

1515 STOP

30 June 1953 Webster 5.

A. 0920 S. Hollow @ Midden site

— Titmouse

0930

0930 SOT [illegible].

Cam[illegible] [illegible]. Scolding

Bewicki [illegible] — Scolding

BHCB whole.

N. Hollow has many characteristics of HNHCL. — that is. [illegible] [illegible] & ~~[illegible]~~. By [illegible] — A. [illegible], [illegible], & the same place [illegible] [illegible], [illegible] [illegible], [illegible]. Plus more [illegible] [illegible] [illegible].

RF [illegible].

NFW.

0955 ♀ feeding. dependent Y looked
"scrotty" (John M.)
Anthony bone intensive chirp

(B)

SOT dependent Y (2) → Jun. ♂
at least 2 YT.
Prob. at same stage as 1 mo
ago at #6.

♂ Cardinal chip. + appear
♀ Cardinal appears.
BW appears.

GCWT

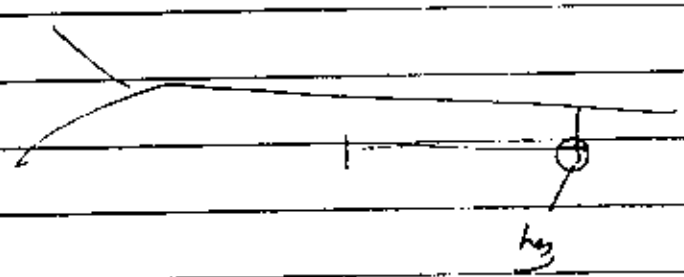
BG.G

B ♀ with 2.3 YT

NO BHCA

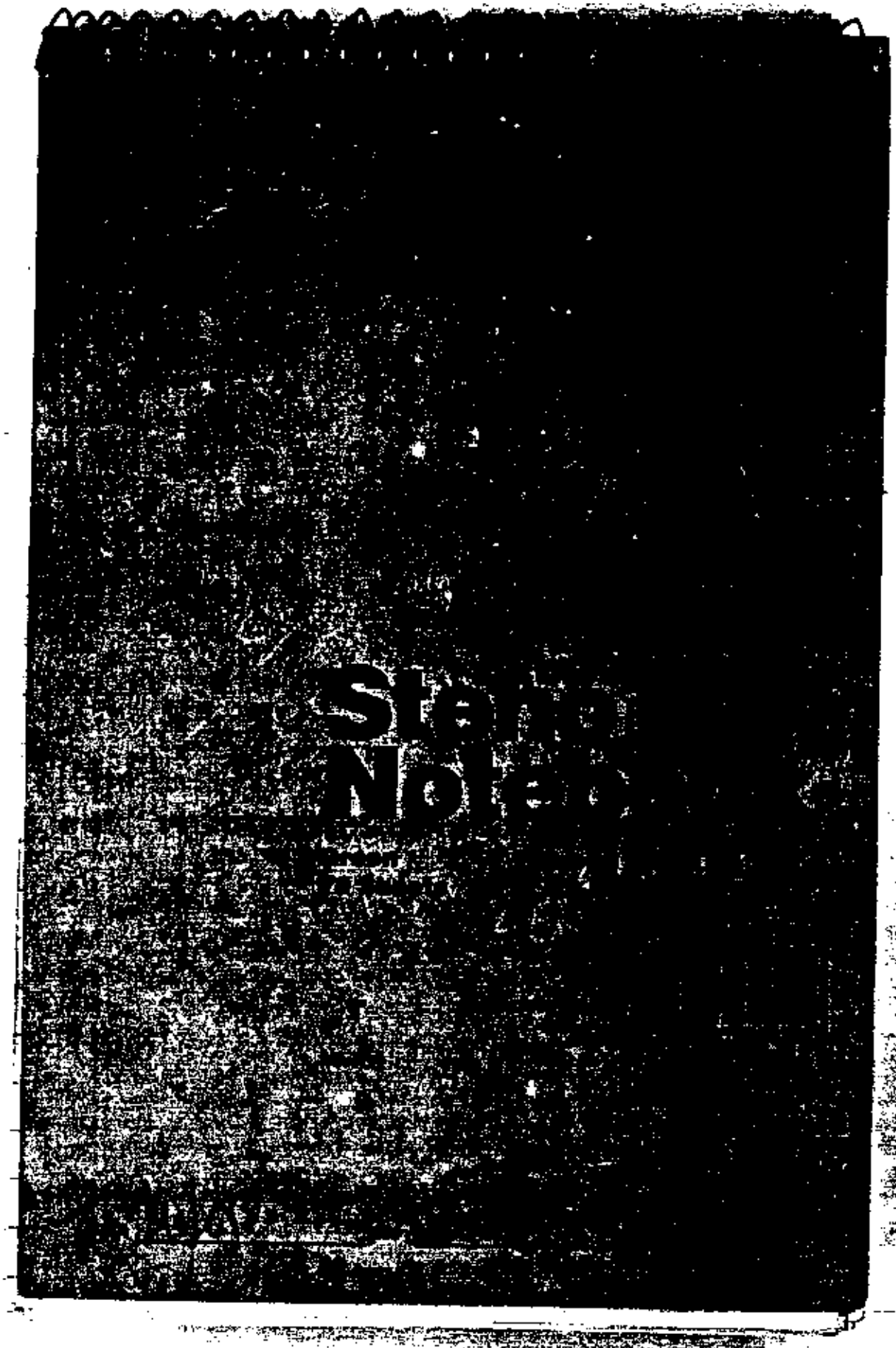
Note: Possibly Y's of 2 ♂/Here
stages → possibly 2 broods

1034 SOT at ~~site~~ site below e. end of
#27(!!) ♂♂ T. on S. Holm



* ♂ Bob-tailed – tail feather cg. 1/4 grown
O // (W/S)
greatly moving through crown
TO Eng.

* JN ♂ responds to GCWT.
chippi steadily & coming
in close to tape



14 July 1993 428

1001 @ #4 Nest ~ Shin OAK.
Titmouse
1014

1015 Schedule Owl Tape
1021 @ 4 // ?: possibly B left ?
in distinct collar - molting
possibly molting

1025

1150 Bathing Site - GCW Sy.
1200 - Lark Sparrow
Pigeon Tape at OAK Grove
Not @ Tape
Wilk ♂ & ♀ - Both Molting
Unhandled fem. Juvenile.
Cowbird

Plus @ Tape - 2 adult GCWI
+ 1 immature
Bit @ Tape Site.

[illegible]

[illegible]

1202 Scratch out Tape at Bath Site 429

Ard.

[illegible]

[illegible]

1217 [illegible] TAN.

16 July 1993

430

1045 #6 Tennis

↓ 110 response

1055

1105 SiL 2 #C.
Titmice

↓ BHCh

1115 Y // W/S x S/W ? !!
Molts ... ! outer rectrix

1118 #6 Screen Owl Tyr
1120 Titmice
21 Bth

1126

Tuesday Leila
chasing molting ♂ +
[illegible] with 3 yrs
at Wolston
top area

1153 @ #9 T. = 3 Nov

GCW Tape —

1203

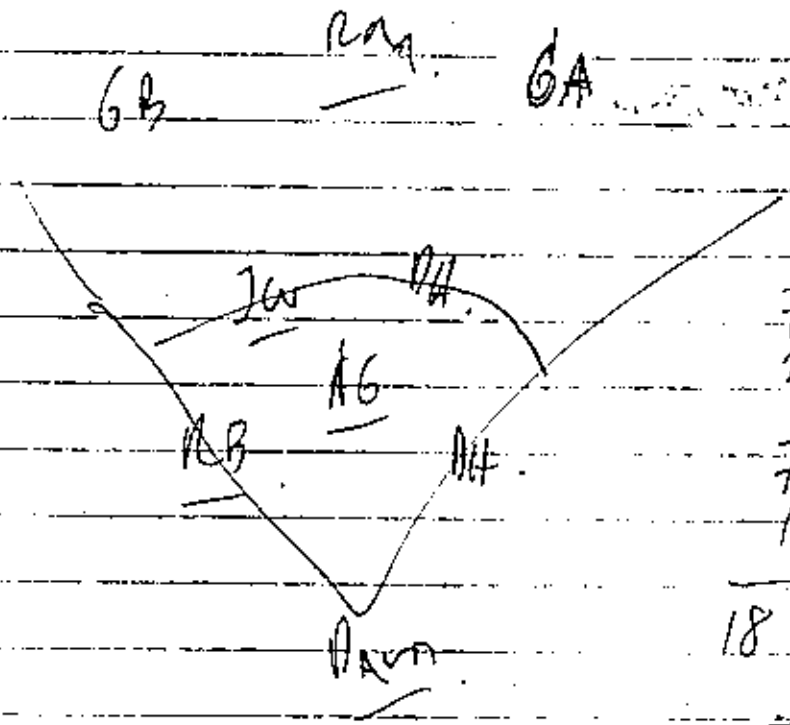
1207 GCW Tq

1217

1218 Scratch wl Tq

1223

432



7	0	1
2	0	0
1		
7	1	4
1	0	
18	1	5

.055

81 1.00

90

100

.005

7

0.385

	W	L	
Brem RD	GT	Brem	433
SA	1	0	
Gaiten	Fly. Mex.	Gaut.	
Steph.	Nu	Trans. Fly.	
Texar.	Tex I		
	Tex II		
	7	4	

Pan Am Pcoa 434

Gary A. $80
[illegible] B. 15.
[illegible] B. 15.
[illegible] 35.
[illegible] 15.

M 2200 → 435

LOST

BRITTANY SPANIEL, {"MAGPIE"}
LIVER & WHITE,
FEMALE
~~NEAR HAYS CITY STORE,~~
~~KYLE, DRIFTWOOD, BUDA AREA~~
(HAYS CITY STORE - DRIFTWOOD
ON, FM 150.)
IF FOUND OR SEEN ~~CALL~~ PLEASE
CALL 512-858-1732 OR
DEAN AT 512-448-4311

26th Lost 4:30 $13.32.

Arth Hum Soc.
478-9325.

Sam Mann Animals
~~383-4444~~
353-4444

Reclaim
Pure
Vets

Austin American Statesman ✓ 436
445-4000 Call by 20th to rem

San Daily Record. 18.00 1
392-2458. 1 week

Kyle Eagle - C. ✓ Call by Firm to rem.
268-0562

Dripping Springs Dispatch.
858-7893. (left message)

Onion Ch. Free Press. ✓ ~~Call Sat & Wed~~
No Ans 268-7862.

Wimberly View. ✓ Call Sat & Wed
847-2202.

Add Place in
Austin AA.
Kyle Eagle. ✓
Wimberly View

Call Dripping Sp.
Onion Ch.

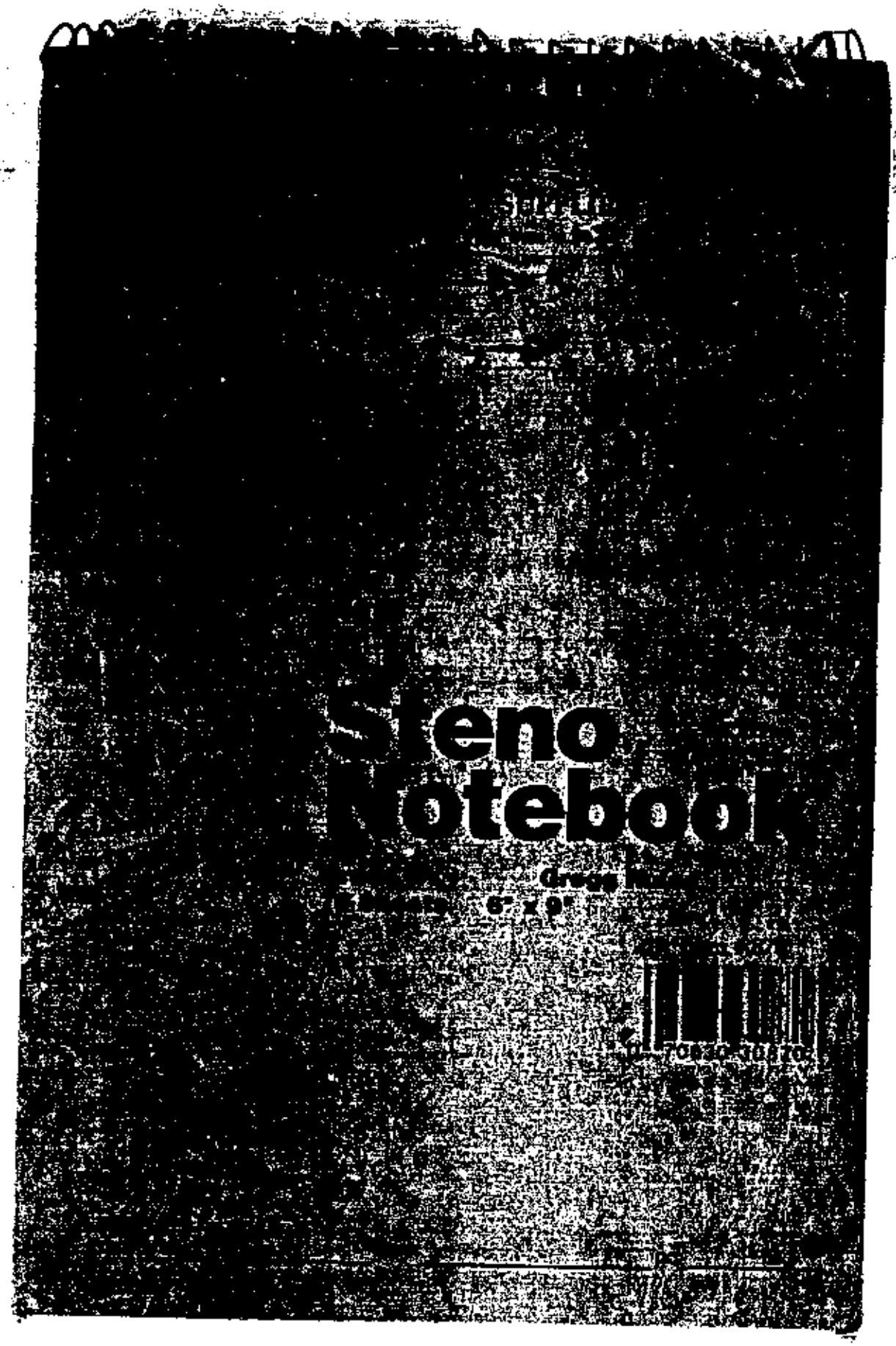
① Their name, ~~+ address~~

*①. Telephone #

② Did they see Magpie?

③ Where?

④ Daddy will be back in 1 hr.


Steno
Notebook
6" x 9"

10 Aug 1983 VICTORIA #6 Tem 440

0943

Am. Kestrel observer
here land week [illegible]

Bernie [illegible]
?? [illegible] B+W
~ GCW

→ mystery bird - possibly GCW
came in quickly the dragon
- while [illegible] hawks [illegible]

0956 STA

0956 - STRAIGHT GCW [illegible]
COM [illegible] STA

Bernie [illegible] Carolina [illegible]
[illegible]

1018 ♀ ⇒ Y 11 S/W

♀ F in LO | FO, HG.

1020 Angle

1021 AJ.

21.21 LO FG

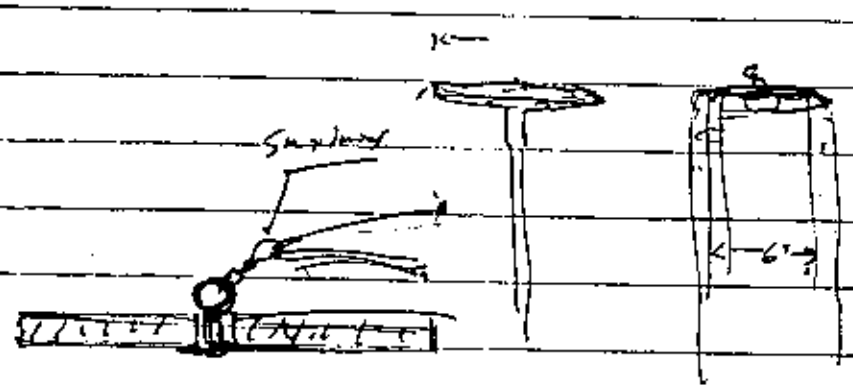
Quiet. FG in LO.

23. Short Flight - - Low

1025

#580-585,

10-11-12.



Bamboo Skewers + Super Glue

GCW Projects

~~Q behavior~~

Habitat Selection

1. Movements with regard to
   a. territory boundaries
   b. clearings
   c. distributions of various tree species
   d. location of rivals
   e. location of nest
   f. location of mate
   g. location of offspring
   h. energy transfer considerations
      - insolation
      - convection = forced parcel
      - conduction
      - cooling efficiency
      - parcel stability (wind shear)

microclimate

   i. nature of movements
      display
      foraging
      predator defense

Habitat Quality

Dependent Variables

a. production of Y's (specific T)

b. presence of q. (specific T.)

c. density of males. (general vicinity)

d. dispersal to/from site (general vicinity)

e. number of qq. (specific T)

f. number of ~~[illegible]~~ production
mating attempt (specific T)

g. sanguine species diversity.

Independent Variables

a. Foliage Volume → Total, → Hardwood, → Juniper.

b. Tree Species Diversity + Evenness.
(evenness ~ # indiv./sp. + foliage vol./sp.)

c. Spacing of Tree Species.
- clumped v. ~~[illegible]~~ regularly Dist.

d. Open Space → Total Clearing.
Total Internal Clearing
Total Marginal Clearing.

Habitat Qualit

d. Open Space (cont'd)
Clearing Dist. → many small
→ single lg.

e. Age of Community.
- (need DBH vs. Age Calibration for various species. →)
- time since last clearing but
-

f. Physiognomy
tree spacing → Random Pts.
tree ht. → vari. + $\bar{x}$
→ + by species

foliage ht. profiles. (especially to detect under & midstory)
canopy coverage.

Abiotic Fact

g. H_2O → presence/absence & distance to nearest + type

h. Slope Aspect + degrees.
i. Geology.
j. Microclimate.

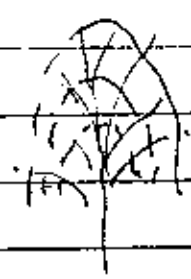
k. abundance of potential competitors / predators

B + W warbler.	Scrub Jay.
Chickadees.	Blue Jay.
Titmice.	Carbines
Bush tit.	Owls
WE Vireo.	etc
RE Vireo.	Squirrels

Note:

Wind Shear Effects

* Talk to Sam Tarsitano about using his video equipment to ~~[illegible]~~ analyze effect of winds of various intensities on external branches of various tree species; i.e. video tape external branches of Texas Oak, Live Oak + Ashe Juniper - ~~then~~ the standardized vantage point the analyze moment of outer branches with kinematics.



to construct diagram of form of stabilized. & then relate to distance to nearest edge. (over)

So the object would be to relate wind shear + proximity to edge to pond stability. At what point ~~do~~ in a wind shear gradient ~~to~~ do various tree species in various size classes become unsuitable for display & ~~var~~ forage.

Predicts → as wind increases forage & display can only be conducted increasing at stable pockets → ~~at~~ in center tree species in interior locations

Behavioral Ecology

Roles of the Sexes

Factors Governing Female nat-site Selection

Male-Female Communication → Funct

→ of chip calls → Voc. & context matrix

→ Relative Movement & Voc. Patterns of ♂♂ & ♀♀.

(Synchronous obs. of ♂♂ & ♀♀ during inc. & other periods.

Male vs. Female Habitat Selection

Need A/D Connection & Set-up

Male / Female Behavior in Response to Microclimate.

e.g. male → Display vs. Forag. f(~~[illegible]~~ T_a).

Natural ♀ Infidelity →

relate to habitat variables + outcome of breeding attempts

[THIS IS LONG-TERM STUFF DEPENDENT ON COLOR-BANDING + INTENSIVE SEARCHING]

♂/♀ SEASONAL ACTIVITY BUDGET.

Switch in Song Type - Accented ⟷ Unaccented

Mockingbirds as Imitators of GCWT. →

Population Biology

♀/♂ TURNOVER RATES.

♀/♂/JUV. MOVEMENT 1°/2° DISPERSAL.

BASIC RATES OF RETURN.

Dispersal distance // DIRECT n. SEX

HABITAT.

etc.

Shorebirds I know (only one)

Solitary Sandpiper.

Greater Yellowlegs

Lesser Yellowlegs

Black-necked Stilt

American Avocet.

Killdeer.

Marbled Godwit

L.B. Curlew.

Willet

Wilson's Phalarope.

Upland Sandpiper

LA Ranch Forney &
Wood Stuck Sight 713-652-5282

Arcola Tx. S. of Houston.

Hwy 6 → 7 birds. have in
some woods

2x
1 bird lanning.

Tx P+W New Park.

Hwy 6

Colombany Project

Objective

(1) Pop. Turnover / T. fidelity / dispersed distance

(2) Influence of Past Land-use Practices on GCW Territory Quality (Fidelity, Productivity, Presence of ♀, # of ♀♀, # of broods).

Land-use Practice → Time since last clearing bout.

(3) Time to Regeneration of GCW Habitat → Aerial Photos & knowledge of GCW present occupancy.

(4) Use of Space by GCW
- What is the true territ.
→ Canyon vs. Upland.
→ Movements of ♂♂
→ movement of ♀♀.

(5) Use of Vegetation by GCWs.
Foraging vs. Display vs. Ad.
Male vs. Female.
Adult vs. Sub Adults.

(6) Use of Canyon vs. Upland & Bottomland Forests by GCWs.

(7) Evidence of Competitive Interaction GCWs & other Species
Courtesy - est. of parasite rate as function of ~~[illegible]~~ territory characteristics
&

Bowers. } evidence of
Vines } diffuse cages.

(8) Characteristics of GCW nests.

(9) Movement & Behavior of ♀♀ & ♂♂ in vicinity of nests.

(10) Influence of BJi & SJn on GCW BA

(11) GCW anti-predator behav.
respon to BJ gu.

↓

Sub Project.

BJ Radiotagging or BJ
Nest watches.

Peregrin

1. Eyrie Production Monit. — Call Matt. } Pr

2. Color-banding Adult ~~&~~ in Eyrie

3. Sampling Contains in Pg. (Swallow & Smith & Shaeberner) during laying pre-laying phase.

4. Plus Mesin wars S. del Carmen

5. Aerial Flight

Willow Flycatcher

2 - 3 years

Remote Sensing - Inventory of Cottonwood-Willow Complex to determine availability & suitability of Habitat..

→ Aerial Surveying with F-wing Aircraft to spot-sample - Quality & remote riparian strips.

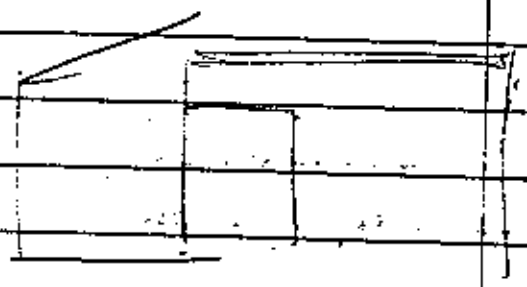
→ % Riparian Strips → Cottonwood
→ Salt Cedar

↓ Restoration of Cottonwood-Willow Cmp

↑ Aerial Surveys.

See Oberholtz & Propose Rev

- Ferrogram Hard Sorg → Wint.
  → Brown



Sherrod - Bartlesville -
918-333-8346 - (Home)

Lurinda Burge - 405-377-9208.

1993 GCW C8. – Sunny Note.

Webster

N. Hollow - Barnes Hollow.

31, 32, 33, 34, 46, 48

Central Hollow

26, 27, 37

South Hollow.

N. Fork.

25, 39

S. Fork

22, 23

S. Slope

21, 24, 28, 43.

$\Sigma = 32$

Hawk's Nest Hollow

29, 30

Fence line & Neighboring Tract

45, 47

35, 36

40, 41, 42

44, 50, 51, 52, 53, 54, 55

Victoria Bending Summary.

Mason Hollow

10, 8, (19 (20)), 15, 14, 12, 14.

N. Hollow (Amphitheater) 3X (4)

Sinkhole.

(17, 9) 18.

Front Area (Main Gate & Straight Rd.).

(16, 6), 7, 4.

S. Fence

4, 1, 5, 2, 3.

$\Sigma = 20.$

16 ♂♂

4 ♀♀

- Ed Ballinger

194

2/4 -	♂	F/D	PO	SC		
15/4 -	♂	?	LO	LC	VB	
	♂	?	LO	LC	VB	
	♂		AJ	LC	VB	
	♂		?	SC		
	♂		EC	LC		M // (S/W)
15/4	"		AJ	LC		
	"		LO	LC		
	"		EC		VB	
			AJ		"	M // (S/W)
			LO		"	
			AJ		"	
			TO		"	
			LO		"	culminates with [illegible]
			AJ		"	
			EC		VB	
15/4			EC		1°	
			AJ		1°	
			AJ		1°	

All mapped

463

16/4/93

♂ #6 B/S // M – All in LO Grove

♂	lc	LO	UB + IB.	Bloom.
	chp	LO	UB 1°	"
	lc	"		
	chp.	LO	NB 1°	

16/4/93 M // (W/S) "main Gate ♂)

♂	sc	PO	OB	f.
	sc	LO	OB	f.
	chp sc	LO	UB	? Bloom.
	chp.	LO		HG.
		LO	UB	f.
	sc	LO	UB/IB	? Bl.
	sc	PO	1°	fg/Pr
		AT	?	more fut.
	sc	LO	1°	Bl
	sc	PO	1°	
	sc	PO	1°/UB	f.
	?	Bum.	fg.	?
	chp.	LO		
	Ch	PO	UB	
13 10	chp.	PO	UB	? ?
13 29.	Chp.	PO	?	?

1324 ♀ chp. LO / ♂ + ♀ together.

Bush #2

20 Ap '93 Victoria, Horsefoot ♂ M// (S/B)

1439	♂	SC	TO	UB/IB		#1
1440	♂	SC	TO	UB/IB		#2
1441	♂	CP ~~SC~~ CP	AJ	?		#3
1442	♂	SC/CP	TO	F		#4
1445	♂	CP	LO	UB	Bl.	#5
1448	"	CP	LO	F	Bl.	#6
1449	"	SC	LO	F	Bl.	#7
1452	"	SC		FG		
1455	"	le				
1504	"	SC	LO	F.	UB/IB	#8.

20/4/93 unpaired ♂
n = 8 pieces.
TO 3
AJ 1
LO 4

21/4/93 M // (S/W) VICTORIA, HONEYMOON

1408 - ♂ lc AJ 1°/UA/3A Pr. #1
" - AJ #2
" cp/l. ?
" sc LO 1°/UA f
" sc TO f/Hz
" sc AJ f/Hz.
1424 " ? LO/AJ - - #4.

n = 7.

LO - 2.
TO 1
AJ. 4

2

22/4/93 VIC: Mason Hollow Chirping ♂

1500 ♂ sc QS UB/OB/IB f.
1506 ♂ cp. FRAX. UB/IB ?

23/4/93 – "EN #1" ??

1239 ♂ lc. LO, AJ, TO? #1
♂ lc QS ?! #2

N. Leng
N-S Ave
Golf-hall
Hollow

26/4/93
#1 ♂ sc FRAX ? #1
#2 ♂ TO UB F.
1325 – ♀ cp. TO UB/IB f.
♀ cp AJ " f.
1326 –
1330 ♀ cp PRUN. ? FG
1332 ♀ – AJ f.
1332 ♀ – PRUN. f.
1332 ♀ – AJ ?
1335 ♂ ? GAR. f.
1340 ♂ BUM. f.

26/4/93 (S/W 11 M)

1409 - ♂ lc AJ 1°/VB F.

1414 ♀ ? cp.
♂ — ? FRAX

Book #3

28/4/93 VIC. SINKHOLE NEIGHBOR

1140 - ♂ lc/cp. AJ VB f. #1
1147 ♂ lc AJ 1°/VB ? #2
1150 ♂ lc/cp. AJ VB/OB ? #3
1156 ♂ lc/cp. TO VB/OB ? #4
1201 ♂ lc? TO VB/1° f #5.
1212 ♂ lc AJ VB/OB — #6
1221 ♂ lc AJ VB/OB/1°. #7.

28/4/93 Corn Bend.

1424 ♂ SC LO 1°/VB #1 B1
~~1446~~ 1507 ♂ lc LO 1° B1

30/4/93 SINKHOLE ♂

0950	♂	lc	AJ	1°		#1
1015	"	lc	AJ	1°		#2
1020	♂	lc/cp.	AJ	1°		#3
1025		sc/lc	AJ	1°		#4

♀/♂ Pavi. Atty F group. (Complication where ♂/♀/fr. + ♂ ♂.)

1121	♂♀fy	cp.	TO		f.	#1
1122	♂♀fy	cp.	AJ			#2
1130	♂♀fy	–	LO	1°.		–
	♂	lc.	TO.	–	–	
1135	♂♀fyj.	–	TO	1°		#3
	♂♀fyj.		AJ.	–		#4
1140	♂♂♀.	Ag.	TO	–		#5.
1145	♂	Ag lc cp.	TO	1°		#6
1150	♂	AJ	AJ	1°		#7
1200	♂	sc	AJ.			#8.
~~1213~~	~~♀~~	cp. ?				
1215.	♂♀.	?	AJ.	–	–	
1219.	♂	cp.	AJ.	1°.		

Sinkhole height Near Dining ↑.

30/4/93

1259	q	AJ	OB	f / Hz / fz	
1316	q	AJ.	SB/OB	f/H6	①
1317	q	QS	OB/OB	f.	②
~~13[illegible]~~	~~q~~	~~AJ~~	—		

~~[illegible]~~ ?

3 My 1993 – { H3 [illegible]

1237	q	cp.	TO	OB/MB	Fd / H6 ②
1237	q	—	TO		H6 ③

~~1240~~

1324	q	—	AJ	f/H6	—
	q	—	AJ	"	
	q	—	"	"	
	q	—	"	"	
	"	—	"	"	
	"	—	"	"	
	"	—	"	"	
	"	—	"	"	
			PO	"	
			AJ.	"	

1941 -

	q.	AJ	F/Hz	
	"	AJ	"	
	"	AJ	"	
	"	"	"	q fear
	"	"	"	4j at
	"	"	"	next
	"	"	"	#3.
	"	"	"	
	"	"	"	
	"	PO.	"	
1948	q	AJ	P/Hz	
	"	PO.	"	
	"	AJ	"	
	"	"	"	
	"	"	"	
	"	"	"	
	"	"	"	
	"	"	"	
	"	PO.	"	
1925	q.	TO.	"	Rn
	"	AJ	"	

1553	♀	AJ.	FG
	"	TO	"
	"	AJ.	"
	"	TO	"
	"	AJ.	"
1555	"	TO.	"
	"	AJ.	"

4/5/1553 (B/S) 11 M. ♂ (

♂.	SC.	BJO.	—
"	SC.	AJ.	—
0507 ♀.		TO.	FG.
"		AJ.	"
"		QS	"
"		AJ	"
"		AJ	"
♀.		AJ.	Br.
♀.		AJ.	FG
"		TO	"
"		LO	"
"		AJ	"
"		TO	"
"		AJ	"
		TO	"

HGT.

♂ + ♀

@

STRAIGHT ROAD

"MUDHOLE"

9	LO	[illegible]
"	LO	FG
"	AJ.	Neal

Neal #3

1009.	♀	AJ	FG
	9	AJ	"
	9	AJ	"
	9	"	"
	9	"	"

6 May 1993

#2 Neal.

0924 -	♂	black, AJ	HG.
		lc. AJ	HG.
		lc. AJ	HG
		[illegible] QS	"
		SL AJ.	

6/5/93 Golthaus Ca.

1100 ♀ FRAX

♀ Cp. TO

♂ Dp. TO

1114 { ♂ — ~~S~~QS.

AJ.

6/5/93 · S. Paul's Alley.

1547 ♀. - AJ. FG/HC

~~7/5/93~~

11/5/93. Mason Hole.

♀. ~~AJ~~ AJ. FG/HC

1106 ♂ Lc. AJ. F.

11/5/93 ♂ W/ [illegible] in M Hole.

1356 –	♀		AJ	HG	①
	"		CE	FG	②
1403	♂	SC	AJ	FG	
	"	"	AJ	FG	1
♂ (B/S – ?	"	"	TO	"	2
4" s/w"	"	"	AJ	"	3
	"	"	AJ	"	4
1407	"	"	AJ	"	5
1408	"	"	AJ	"	6
	"	"	AJ	"	7
	"	"	AJ	"	8
	"	"	TO	"	9
1416	"	SC	AJ	"	10
1417	"	"	AJ	HG/FG	11
1424	"	SC/Qz	AJ	"	12
1426	SC	SC	CE	FG	13
1431	SC	–	–	–	13

12/5/93 B/S // ? @ Strapone. J. with Bandon q

1016 ♂ lc. vB EC. –

1020 " lc. vB TO.

♂ ? vB AJ.

12/5/93 Harold Gratto. (O // W/S)

1121 – ♂ lc. ?

1123 – ♂ lc/cp. TO – FG – 1

1124 – lc/cp. TO FG 2.

lc. TO 3

1127 lc TO W/TO FG 4.

1129. lc. AJ FG. 5.

1132 – lc/cp. TO FG 6

1134 lc. cp. TO FG. 7

1135 lc EC vB/N. 8

1137 lc/cp. TO W/TO FG. 9

1138 lc/cp. TO " FG 10

1139 " TO " " 11

1141 – TO " FG 12

13/5/93 Plm X.15 — when ♂.

0857 ♂ lc AJ VB/OB FG ①

| ♂ lc AJ " lc FC.

0914 ♂ SC/lc AJ VB/OB FC.

0927 ♂ SC/lp /TO

" " " FRAX

[Y // (B/W)]

0933 ♂ SC AJ VB. ②

0937 ♂ lc AJ VB/OB/10

0944 ♂ lc TO VB ②

♂ lc AJ VB/VB. ①

0956 ♂ lc TO VB/IB FG.

" ? AJ — FG/HL.

0957 lc/lp TO F. D3

lc AJ FG. D4

lc AJ FG/HL D5.

lc AJ VB/OB.1% FG D6.

1008 lc AJ HG D7.

1009 — AJ HG. D8

— TO VB/IB FG 13.

17/5/83 Website - Mat - S. Hollan.

4 // (?/S) : (W/S) // 4.

0923 -	♂	SC	JUG	UB/OB	FG	?
0949 - 0951 -	♂	SC	JUG	OB/IB.	—	1
0952	♂	SC	TO	FG/HG.		2
0958	♂	SC	JUG	Pr.		#3
1022	♂	SC/[illegible]	CE	UB/OB	Pr	4
1029	♂		TO	F -		5
1032.	♂	SC	JUG			6
1037	♂	SC	TO	Pr/FG OO		7
	♂		EC	1°/OB/UB,		8
1049	♂	?	EC	?		9
1050.	♂	?	JUG	?		10
	♂	SC	TO	UB/OB/1°	STAT.	11

1053

18/5/93 WEBSTER

0 11 W/S #24 ♂

0825 - ♂ lc/cp TO — 1

0828 - ♂ — EC UA/SD. 2

0830 - ♂ sc/tlc. TO ~~UB~~ 3

0838 -

↓

0124 — (WW)

(1) Territory #

(2)

(1) Woodlot Outline.
(2) Vague Territory Outline.
(3) ♂ locations.
(4) ♀ locations.
(5)

Key

0 Powerline.
(1) Fence line.
(3) Road.
(4) ~~Hardwood~~ Bell
(5) Clearcut Woodlot

GPS Reference Port Trib

2 Apr
5 April 1953.
6 April 1993.
8 -
9 -
12 -

VR.

26/5 —

[illegible]

NOW — EXTEND-A-CARE MEN

Sat. Retreat? → 8:30-12:00 AT OFF

Fritz Piler — Dx. Nat. Resource Conservation Commission
Marcia Hornblower — Independent Prog.
Neil Kimmelman — Eaves BD.
Nancy Cook — Lounder.
Brenda Kalapani — Eaves BD.

Laverne Rodriguez — Ex. Director Dir.

Parent Rep Staff.
Survey Approach.

482

str

pfinder

WEB

* Paul Shinkawa –

Personnel Manual →

not so much the legality
as how people key view

484

GPS Files

PFRRU / DATA / PFINDER / SAMPLE

		STS Date	Time	GPS week
VIL215	A STS -	4/12/93	15:05	692
	B			
	C			
	D			
	E			
216	A	4/12	1602-1604	692
	B			
	C			
	D			
	E			
217	A	4/12	1716-1718	692
	B			
	C			
	D			
	~~E~~			
V·220	A	4/2	2019-2022	692
V 418	A	4/14	1856-1857	692
419	A			
419	B			

419	C	4/14/93	1927 - 1929.	692
	D			
	E			
515	A	4/05/93	1532 - 1536.	691
	B			
516	A	4/05	1617 - 1622	691
	B			
519	A	4/5	1949 - 1952.	691
521	A	4/5	2120 - 2122	691
617	A	4/6	1722 - 1725	691
618	A	4/6	1805 - 1807	691
621	A	4/6	2114 - 2136.	691
622	A	4/6	2200 - 2203	691
821	A	4/8	2103 - 2106	691
917	A	4/9	1954 - 1958	691
919	A	4/9	1915 - 1917	"
919	B			
	C			
	D			
	E	4/9	1939 - 1941	691

WEB 613A 5/26 13:14-1325. 698
B
C
D
614 A 5/26 1401-1402 698
B
C
D
E
F
616 A 5/26 1616-1617 698
B
C
620 A 5
B 5/26/93 20:55-2101 698-

GREEN NO. 8011 GREGG RULED 70 COUNT 487

Stenographic

NOTE BOOK

BY TOPS

0 25932 80111 2

Book No: 1 From 3 23 To 9-15 1994

3-23-94

① 8:20 NO bands 488

② 8:50 no bands disp over water
incounter over water with SE
m ♂

③ 9:30 Did not see

④ 9:58 NO bands stamped in
oak growing

⑤ 10:14 Did not see

Vocalization in General slowed
Down about 10:20

⑥ 10:50 NO band calls from
both sides of Crk

♂ at 525m-mark with mate

⑦ 121 did not see

28/3/94 Windy & Mat 489

very cold in the Am

~~[illegible]~~ worked the webster following

♂ found to banded in Am

~~[illegible]~~ O W/S see map #1

O S/B see map #2

mapped ~~[illegible]~~ see notes windy

#7

352 / 180 / 176 — 180 / 52 / 236 — 142 / 180 / 322

#2 male O S/B would call from NW slope then fly over opposite slope and quit calling.

sign of heavy posting, fire [illegible] 1:24 PM ~~[illegible]~~ no calling [illegible] period.

1:40 unbanded ♂ ~~[illegible]~~ following for sight ♀, ♂ [illegible] [illegible] with no other ♂ in [illegible] calling

490

~~[illegible]~~

May be with female

~~M~~ east is calling see map #3 & 4

2.15 went after #4 ~~Ø~~ see map

R-Yellow-O/S on TX Oak calling and Farmsing

flew south

29/3/94 Mat 491

temp Low 35-40 - warming up. sunny

Hawk nest Hollow

one male see #1 on map

unbanded -

~~[illegible]~~ ♀ in area chip. Foraging

in area no nest gathering. Flag. ♂ [illegible]

tree for ♀ see map #2

There is a last years Flag north of

♀ Flagged tree, It is Blue marked #5

11:00 Am Back to car only one

pure in area see map

2:03 South Hollow Mat, Paul, Harold

unbanded

~~[illegible]~~ ♂ Foraging and calling in large

Juniper, very active area See #3

Cedar Way wing 10+ Canyon wren

Ruby King

Fly ~~[illegible]~~ ?

Black & White

T mouse

492

may be another ♂ across the dining at #3?

493

3-30-94 not a good day one
female at hanging rock spring, she did not
do much. I observed her in a cedar break for 10 min
no nest activity some grooming. (did not have any fog...)

5-31-94 Mat

west side of Web over fence
♂ one slope somewhat vocal will not
sit still unbanded
possible nest location see map #1

♂ road south Hollow very vocal ♂
from a Esc Cherry see #2 unbanded

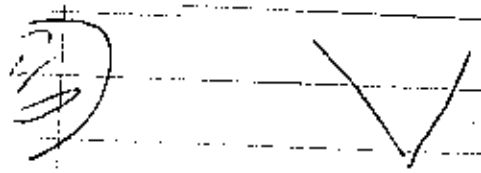
Cloudy ~70°

4-5-94

494

Banding: Mat, Paul, Harold, Dan

used # 50 by 2nd gate
see #1 on map #80 may
be wrong ack Dan



net
~ did not get combo
to net, would not
Level. He was Foraging

combo #6 from last year

1910 — 1070 2

O/G Y/S

10:06 victorian see map #2
next to clearing

6

Y/m S

1910 - 1070 3

Did not use

~~S~~ ~~B~~/B
~~B~~ ~~K~~
m B/S #6

#3 no ♂ came to net
#4 Banded male came in did not get combo
#5 unbanded ♂ came to net, would not
come down to net Level. He was Foraging
most of the time;
#6 Sink hole ♂ Band combo #6 from last year
K m B/S

4/5/94 496

all Birds Quit in early afternoon,
a huge storm was blowing in.

4/6/94 497

combo #65
NO Luck at Chim by Mason Hall
Y/m S

4/7/94
combo #65 No Luck
see #1 Bird came in fast but
stayed away from net

see #2
No Luck same as #2

see #3 Birds at all

see #4 12:14 2 came to
net showed agression
to each other. Lost
Int in Tape

Sect #5 ♂ 2+ good shape
Band #65 Y/m S

#1910-10703
Took for 2nd mate he never
came in. #65 released doing good

next #61.

P/m S
S=10751 = 1910

Sec #6 2:10 2♂ in net area
by 2:13 (No Luck)
need to come back with good tape
or one that doesn't suck

#7 2:50 No Birds in net
area ♂ came in during
net take down set net
back up 3:15
Take down 3:25 it was
the #65 Bird

~~#8~~
3:48 Pm 2 min ♂ in area
wind started blowing and he
left.

4-8-94 Poul, windy
#9 P/m S
8:55 Am Back at #4 area I think
we are south of Dot #4??
WSPW 1910-10756 2+
released 8:46 Am resumed full call
8:50 Am He is doing great.
used combo # 61 P/m S

#62 m/s G/O 1910-10752 ✓
#10 9:22
I thought we moved enough
but # 61 ♂ still came over.
Take down 9:30

Back at the #6 Site

Sun came out the net is becoming very usable. Slow wind may be a problem.

10:13 start

[Banded Bird came B/S Y #14 from 1993 (Windy ID)]

#11 12:07 on mass Hollow

12:11 made in net combo # 62

M/S G/O 1910-10752

~~Stu~~ released 12:17pm flew south and started calling by 12:19pm.

2nd year

Combo #64 1910 10753 M/S R/P

Skipped #6 because R/m will use it last

#12 by power line

2:40 Came in after about 5 min, the could see the net flew over it about 5 times then caught in the top. Little shade and a lot of wind caused problems

used combo #64

#12 cont. released 107 flew east
Looked O.K.

~~#67 Combo~~

used combo #64 - on 12 W/S R/P
S= 1910-10753

combo #67 P/S L/B

1243
#13 Pair came in After 1 min
9 avoided the net. Q went SW
then returned a few min later
♂ was in area the whole time
but did seem interested. They flew
off to the SW.

#14 moved East of B into a head of
wash where ♂ went after B
♂ calling for #13 Location. There are
Chips in the area. ♂ came in once
but was not very interested.

4/11/94 Paul
Banding
Pauls Alley
Overcast day 10mph SE wind
morning Temp ~70°

#15 we found a flag marking
an unbanded ♂ but it had no
date.
no ♂ calling in area, very
Quite in general.
One ♂ in area of net but not
very aggressive. A second ♂
in area for a brief moment
[illegible] ♂ left then Returned
with 2 mins
2 ♂ returned did not see
if it was banded
NO Luck
The Two ♂ were not that
concerned about the type ♂ or
each other

L-B/S R Y/Y ♂ by the horse
corral with ♀

#16 10:20 AM
had bad net ~~[illegible]~~ trouble
♂ showed interest but will not
come ~~[illegible]~~ low enough!
Starting to rain, ~~[illegible]~~ ♂ lost
interest and started fading

4-12-94 Pam / Victoria
cool morning mid 50's
{Back at #2 clear ocasional clouds
warming rapidly.
8:55 started tape

P/M S #61 came in 2 birds came in
Quickly. 2nd was a ♀. We tried
for about 15 min to get with the s.owl
she never returned. ♂ continued calling
around net but was not to concerned
~~with~~ with the ~~cat~~ owl.

10:00 #17
mid wind - but we have a very
good net setup. Wind is picking
up may be a problem. 15 min at
tape 2 ♂ birds in net area.
One unbanded ♂ 2nd?
No luck

#18
1120 Sun Came Out ♂
Calling in area parts of the
net are very visible
~~#67 B/S L/Blue~~
~~1910 10754~~
♀ came after Owl she was interested
put could not find the speakers
needed Owl decoy.
no luck. Male chased of
next male and did not come back.

217 Back to #16 partly cloudy
very little wind, we have exact
net setup.
large # of cedar wax wings ~~[illegible]~~ about
10 m north of net. very loud
♂ never came in

~~#6 took 1:30 of Tape Time~~
~~into net~~
~~[illegible] #67~~
~~#67 B/S R L/Blue~~
~~S= 1910-10754~~

#19 hand ♂ from Rd had problem
320 with net. 506
♂ GCW came into net about 30 second
into tape
#67 P/S L/Blue
S
2nd?
Took 1:30 of Tape Time
into net
used combo #67
#67 = L P/S R L/Blue
S = 1910-10754

After Release Picked at Band
+5 min was not a happy camper
then started to return western
Numbers call Looked fine
may have been high on acetone

~~#68 L/G L/S~~

#20 ~~S# = 1910-10755~~

4.13 ♂ overnight low ~~mid~~ 50s, & clear cool sunny warm

♂ Colour Pool

8:30 several ♂ calling in area. down Hill net set. very little wind, ♂ already ~~Band~~ Banded could not get Band Combo. L P?

#21

4.45

#68 combo L/G L/S S# 1910-10755

On second time to net got him 2nd year male 2nd ♂ in area bagged 1st and tried for second. released after 10 min of tape time PBs for about 2 min continued calling

#69 combo L/G L/S

~~S# = 1910-10756~~

#24 windy net somewhat visable
unbarded ♂ came to net [illegible] very
Quickly but will not ~~[illegible]~~ come down
From above net after his initial
visit. NO lunch

69.5=1910-10752 Y/W Y/S

#22 12:40 Bunded ~~[illegible]~~ ~~[illegible]~~ cure
in fast B/P G/S would not
leave

#23 1:31 PM Good net set
2 males calling area ~~[illegible]~~ the
real close, 3rd came in a few
minutes into tape will is
picking up ~~[illegible]~~ occasional strong
cust.
Male ran of the 2 others
then sat over the net, about
10-15 ft, grooming. ~~[illegible]~~ He did
not seem to care about the
GCW or screetch owl tape.
~~[illegible]~~ Or time ran out. [illegible]

Paul 510

4/14/94 cloudy cool Low in the 60's
in the area of 22 (rib on net broke 20 min
setup. 922 Tape start wind is
making the net very visable, could
be a real Prob. 923 ♂ in net area

♂ combo m/s w/w came
to net area so we left after
his west friend

#25 wind died down 10:02
Tape Start. can hear 2 GCW calling
in the distance. ♂ came in 10:09
second a few second later. After
the fight he seemed a little less
interested in the tape.
~~Best~~ R/P G/S ♂ ran off unbanded
♂.

S West

Nest Location walk down ~~west~~ ~~Hollow~~ fence along Col Hollow 511
until you get to dears white
sock tied to fence, nest tree
is at 38° at 20m. Ashe Jun
about 12 ft high. Looks to large
to be GCW but is made of cedar,
also looks inactive.

4/15/94 cloudy (Cam Crew) Paint
#26 power line nest ① over cast, overnight low ~65
warming
4/15/94 9:30
Sn #69 Y/W Y/S
1910 - 10756
♀ ~~Cam~~ Came we tried the owl
tape about 5 min
Going back to GCW 9:40

M/S G/G Came in I think
he was just passing thru.
9:48 Am restart Tape.

10:52 Am 512

#27 2 ♂ calling in area of net. ~~[illegible]~~ 2nd

used combo #69 Y/W Y/S

♂ GCW ~~[illegible]~~ came into net ~ 5 min of tape time.

#69 combo = Y/W / Y/S

S = 1910-1076

in net and ~~[illegible]~~ released in less then 15 min. PB for about 5 min then started Lazy call.

4/18/94 Paul 513

Clear warm two poles so we are mapping in cal Hollow Looking For RP/G/S

① 8:48 R/S could not get a read on bands so I moved on.

10:08 found Band combo R/P G/S in cal Holl

2:05 mapping R/P G/S Terr

#1 live Oak ch, C, F only used early when other birds were not calling. 90° to #2

#2 TX Oak only used early as in #1. about 90° to #3 at rim.

#3 TX Oak at rim. used very often

#4 TX Oak C, F
used only ONCE ? all warning
90° to #5

#5 TX Oak C, F
North edge of Ter. used
to answer next GCW over
200° to #6

#6 TX Oak C, F center of
ter. most often used of them
all. 120° to #7

#7 Esc Cherry? only used twice
Briefly before going to #6
120° to #8

#8 Larg Pecan or W nut(?)
Eastern most Perch during
Neighbor birds active period.
he went much further during
early hours when other ♂
were not calling.
#9 270° to west fence

#9 on ~~fence so~~ south fence
he land in second ash Juniper
130° from flag. then back up hill.
#10 flag 310° from #9.

#10 used ~~m~~ all the ash Jun
along the shoper & see in
area several times. may sill
use both sides of fence

516

HA - 161 00

SW 158

United 800 241 20522

800 - 23 - 9292

Awes 241 6522

aus 26

Sept 5

221 212

- 167 00

Belize -

AA 4876 716

201

Cont

SCM OFFICE SUPPLIES, INC.

Steno Notebook

Green Gregg Ruled
70 Sheets 6" x 9"

Item # 870

0 70630 30870 8

from 4/19/94 to 6-8-94 no. 2

19/4/94 Bandin Pond
(Mason Hollow)

Overnight Low 60°, cloudy Low 60's
#28 on new Large map
8:46 started tape only took One min. to come to net, in net within a Total tape time of 2 min. used combo #70 W/S R/R S=1910-10757
released P.B. around 1:30 sec. started calling.

#29 9:28 Tape start
9:32 in net
M/S B/G 2nd S= 1910-10578
would not fly after release
injured Left wing.
Location market with yellow tape.
on Road 349° — along mossion

(End of day)

20/4/94 Paul 02~65 cloudy, fog burning off

back in mass on Hol.

9:13 #30 Tape start, with bud net set. Two males came in, I think they could see the net.

After 30 min of tape S Owl was started. No luck

#31

10.10:52 had to drop ~~into~~ off the rim due to vegetation. ♂ came in within 2 min, was very interested but would not drop to net level. S Owl had no effect at all.

#32 11:06 Am ♂ in area during set up. we are back on ridge remained in net area for 10 min but never reacted to it.

#6 33 11:50 storm closing in
GCW very active around us. I
can have 4 ♂ GCW from net.
G? / S came in early.
we shut down.
flagged main perch

#1:53 starting rain but the
sun is still out
2:00 2 males in area
2:10 ♀ came in foraging
she almost flew in the net
by accident. S Owl had no
effect. She flew N-E to
Masson H

MO 25/4/94 Paul overcast 40% 521
chance of T storms overnight ~~on~~ low
around 68°-72°. Very windy occasional
drizl.
9:29 Am (35)
Black dot on old map. not a
very good net set and the
wind is making it very visible
Dean had flagged this as containing
an UB ♂, we set the net in the
center of his flagging.
♂ came-in after 12 min of tape
Y/S, 1/W came in film crow bird.

522

In the Vicinity of #13 on old map #13

10:15 Tape start, still drifting a little wind. This may be a problem. We have a good net setup under a large Juniper.
Two ♂ came in one returned after scuf. ♂ came to net several times but would not come ~~down~~ down from canopy below net level. ran out of time.

12:38 #34 south of Messa Hollow
Light wind ~~shot~~ shouldn't be that much of a problem. when tape was started there was a jay in the area. Stopped tap 12:50
Jay nest west of net.

523

1:45 36 by main Gate at an stop
♂ in net area by 1:46.40
he is mainly singing with tape
net to open would not come
in. Did respond to the S. Owl
but would not go in the net

~~[illegible]~~ 26/4/94 Paul in Pauls alley
Cloudy but clearing, Low in upper
60s high 85° 524

9:27
— good net set, ♂ is very
#37 vocal in ~~the~~ area. Rapid chip in
area west of net sounded like
a ♀??
9:39 ♂ came into net area
Left and ~~[illegible]~~ came back 3 or 4 times
9:46 cut tape started S. Owl
9:57 cut tape ~~[illegible]~~ a pair
~~[illegible]~~ came in to net area but
would not go down to net
Level.

525

2-4-94

Sw. of sindhole ⊘
is the #6 m B/S

2-5-94 Cool cloudy heavy fog early
low around mid 50's 526
Looking for fleg in ~~area~~ area N of
Bowls Alley. (Using yellow flag
to mark area)

9:19AM Cowbird in the area, ~~very~~ vocal giving
the water call.

♂ GCW fairly active in area
fog and calling periodically.
No luck ~~finding~~ finding fledg.
Left ~~[illegible]~~ at 10:00 AM

~10:10 Looking for Pastel ♂
Found him 10:32 at banding
night. Lo. Lost him there also.
He is very ~~[illegible]~~. Quite.
Left at 10:35 raining harder

#38
Banding 527
1:13 00 start tape
no lower over top of net By
front Gate across col Hollow
Rd.
No Reaction within 15 min
no Reaction to E.S. Owl

5/3/94 (39) Paul Cloudy cool Low ~50

8:41 start tape

51 sec to get to net area 528

842; 48 in net.

He hit the net hard and was in there bad. Right Wing was twisted and he had to be cut out.

Combo #73 P/S L/BLK S=1910-10759

Released 8:58 PB for about 5 min then flew of south (no call). Wing did not look like it bothered him.

* Bounced out then flew back in, in less the 1 min. While removing him from net he got away from Paul and flew back into net.

#40 in some wind each time
good net set, canopy may be
a little high. wind is picking
up but should not be a problem.
~~Tape start~~
no ~~[illegible]~~ calling in area at
tape start
Tape start ~10:12
2:54 ~~[illegible]~~ of tape time to catch.
used Band Combo #74 O/S L/L
S= 1910-1076 O
released 10:20 PB for a few
then started eating and calling.

him there

530

#41 Hard to find a good net spot, and when we did we had to clear alot of Juniper. Net is set mainly in Juniper clump with a few scattered Oaks.
we have a fairly good net set, all things considered. One rib line broke again
11:27:29 Tape start
11:39:17 in net
Combo # 75 Y/4 Y/S
S= 1910 - 10761
released at 11:37 PB for a few, started eating

? what the [illegible] is [illegible] 4Y

note on #41 he ~~can~~ came over from other side of the rd. followed him in and caught him there

531

#42 Just off edge of Rim

12:45.05 Tape start

12:46.30 8' came to net area

~12:50 in net.

Combo #78 G/W Blk/S S=1910-10762

released 12:55 flew fine did not

PB at first perch.

*while Banding he kept yelping like

he was injured but looked just

fine at release.

2:02 pm 532

(43) on slope interesting net set. Sun is coming out and the wind is starting up. Parts of the net are visable

~2:15 ♂ came in net arm looked very int. but I think he could see the net. ~2:19 second ♂ came in and they chased each other around. ~~At~~ After a little while he would not come down out of canopy.

We tried the s Owl with no luck.

5/4/94 Paul overnight Low 61
Cloudy warming 533

44 GCW calling in area
8:22:05 Tape start
Came into net area within 2 min
but flew around the net area
and going for about 10 min
During that 10 min, once he
looked at net then left. The second
time he became real interested in the
tape he flew in. no prob binding
Combo #79 Blk/S Blk/Blue
S = 1910 1023
when released he flew into
net again. He was fine after
second extraction. PB resumed
calling

5/5/94 Cloudy warming up
Low in the mid 60s. 534
We used our last band combo on
5/4/94 so today I am trying to
map the "inland woods" band #39.

He has a ♀, nest
?. I flushed a total of
8 ♂♂ perches but could
only relocate 6. 3 ♀
locations were mapped
one, #8, was both a ♀ + ♂
perch.

5/5/94

220 in

he is still picking shin bands

535

1 AJ

2 Oak

#8 @ separate flags for Her

3 Oak

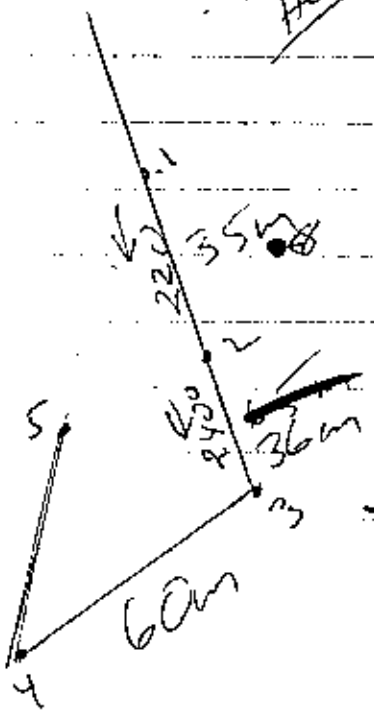
4 oak 20° next 60 m
60° Rec 32 m

5 oak
200° Rec 60 m
80° to #2

6 oak

7 oak

8 oak

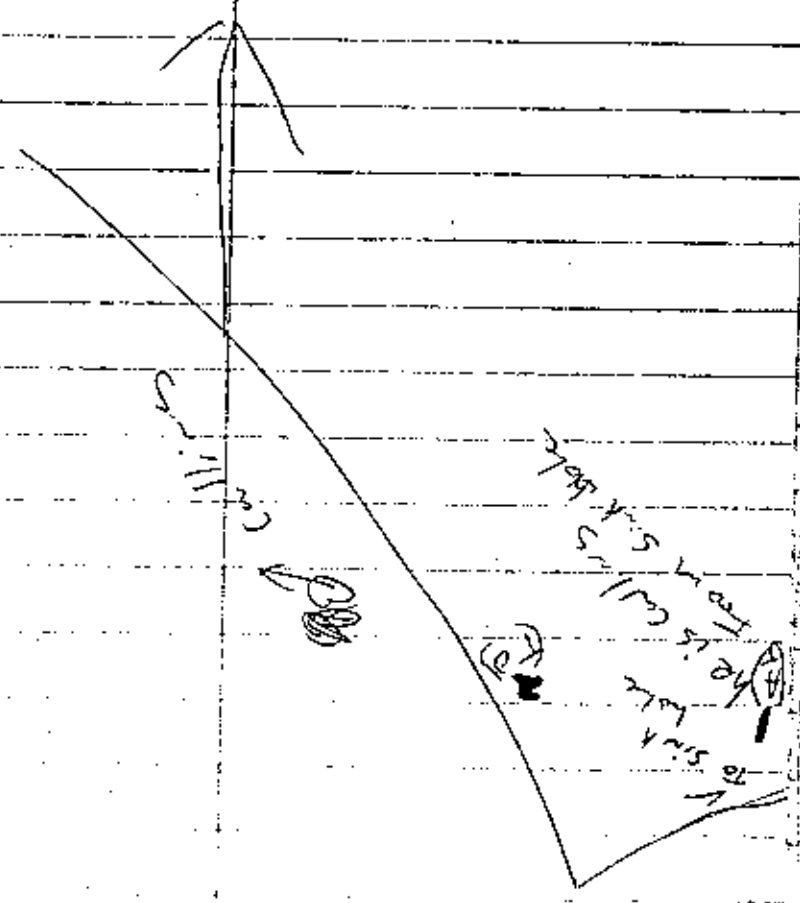


(using Yellow Flags)

536

SE end of Pan's alley
2 ♂ calling. One cowbird
also calling - at corner of
Pan's Alley ♂ go through a
cycle of extreme vocalization
followed by long periods of nothing.
Go figure, those crazy birds.

537



5/6/94 Paul 538

Clear Partly Cl Sun Comms out, mod wind.

45

8:15 Am Pauls Alley SE End. ♂ Come in but was not very interested banded bird come in but was chased away before I could get the combo. Tape Rane out, S Out had no effect.

#46 9:15 Am Ave net set in
Low AJ
♂ in net cover in 1:30 min
flew down in (brush) Dead AJ
7:15 min second ♂ came in
and one was run off.
♂ into net 12:15 min
Combo #161 P/m V/S S=1910-10764
released 9:35 Am PB, resumed calling within
5 min. (SY)

540

#47 windy may be a problem
10:40 hard to find a place
to set the net, because there is
very little mid story.
From the ~~sto~~ top of the hill we
can hear the sink hole male.
~~Combo #~~
5min to go in net
Combo# 162 w/L O/S S=1910-1965
ASY. After banding flew
into net twice. when released
he flew out of sight for post obs.
Second ♂ came to net area while
removing #162 from net, we continued
playing the tape but it didn't work

5/9/94 Paul Cloudy Hum.
Low in upper 60's no wind 541
8:43
#48 not able to get a good net
set. There is very little mid-story
Played the tape for 15 min, no
Luck.
Other birds were very active in
the area, including BW, Card,
Tm, Tow, W.V.

542

(49) 9:50 hard to find a good place for the net, too many ~~[illegible]~~ AT. We did a lot of limb breaking.

♂ GCW was calling in the area ~~[illegible]~~ before net set.

♂ into area within 1 min, in net at 2:30 min.

Combo # 163 O/1 W/S S=1910-1026

~~[illegible]~~ released 9:53 AM, PB and resume calling SY

543

SO 10:32 Am by the Y.

Rim set up, wind is picking up stalling, making the net visible 15 min times WD NO Luck

never come in

544

57 11:27 ~~n~~ in AJ Brant
Good net set 35 sec ~~0~~ in
net area.
Combo S/W 0 came into
net. ~~[illegible]~~ #11 from 1993.
removed and released ~~to~~
he was fine

52 12:17 PM massen Hollow
used the Harold & Mat Methl
it was a desc [illegible]
♂ in net area 1:21 min
would not go in net, he
didn't look that concerned
with the tape but he would not
leave the area After 15
we cut the GCW and went
to the S Owl,
After about 5 of S Owl
he ~~ex~~ kept calling but did not
come down.

53 1:55 PM

By "main" Gate. Canopy is to high, so we could only find a net set with veg. on one side.

5 min of GCW answering tape. At about 8 min he came into the area but never left the upper canopy. We gave up after 17 min so the doctor won't get used to the tape

2:55pm 547

54 across the car
stop on horse lot.
I think he is banded
but we will soon see.
At 6:30 min of tape time
a plane took off making the
usual noise
we gave up with a
no show after 14 min

5/10/94 Pay. Cloudy was raining ~~[illegible]~~ early. O L ~70°
High to be around 85°

55 Pauls Alley trying to get this guy for 2nd time during net set he called 3 or 4 times in the gen area. Good net set we ~~[illegible]~~ moved west of trail to get away from other banded birds that ~~[illegible]~~ came over last time.
Came in to net area 4 min 8 min in the net
#164 S=1910 10767
P/Y W/S

2nd ♂ in area Playing tape again with # 164 in bag.
no luck on second ♂
#164 released 8:23, he flew out of OB range.

9:00 Am 549

Back at #37 at end of Pauls Alley.

9:08 can in net area calling
never came down to net level
9:15 S. owl
9:20 stop tape nothing at all

550

10:08 Am Back at #1
♂ calling in Hollow.
wind is starting up making not
very visable.
10:10 ~~[illegible]~~ ♂ came in not aware he
is chipping and calling.
he never came out of upper
canopy.
10:28 Gave up one him

56 11:49 After the Eclipse. 551
real good net set. I am not
shure if there is a GCW in
this area.
After is no Shear, to
quote Paul "that sucks"

57 552

12 45:05 No place to set net, the canopy is to high with no mid story. we slup under a ~~[illegible]~~ AJ next to a small Oak looks kinda ~~[illegible]~~ shifty

12 49 Pm ♂ Came in. The wind has started and he ~~[illegible]~~ can see the net

12:51:45 went in anyway

#167

Combo BLK/S L/P S= 1910-10768

released at ~~[illegible]~~ 1:00 Pm PB for about 3 min resumed calling. SY ♂

#58 ♂ GCW calling in the morn
also chipping, may see B&W.

134:02 Tape start. Sun is out
but net is not very visable, the
wind may be a problem

#167 male come in to area
soon after a large GCW fledge
come in demanding food. fledge was
large with yellowish face and
able to fly well. made several
Fly attempts on its own.
Heard a 2nd down the drainage.
Did not see the ♀.

Mother from Rd using yellow
flag trail to nest. Vic only

554

59 2:28 starting to

~~[illegible]~~ Rain

2:33 stop and raining sun is coming out. NO GCW yet.

After 15 No SHO

555

556

5/18/94 paul, overcast
cool warming to ~90

60 still don't have my master
Banding attempt map. Had
a flat looks like it might rain
not a good sign.
In the the area of #1.
8:30 – Start tape with ♂ calling
about 100m away.
5min never see came in.

557

61 along ~~Flower~~ Power line in Massa Hollow we may have a banded ♂ in the area I am next shown

9:12:50 start tape

R(m) 6/0

R/S ~~0/0~~ (mine in)

5/19/94 Paul Sunny Clear sky High~90 Low~65

#62 by "main" Gate tried to set in lower canopy north of Gate close to west fence. Good net set but no bird came in area. we ~~to~~ used the ~~[illegible]~~ new tape, which to me sounds fine. After 15 we shut it down.

558

559

63 9:15 Am south of "Main Gate", once again he has stymed us with his natural coming ability to avoid the net areas after 15 we tare down.

560

5/20/94 Suzanne Perry
Clear warming to ~90 Low ~65

#64 back at Pam's Alley
by the Large AJ used ~~[illegible]~~
~~[illegible]~~ by undaunted ~~[illegible]~~ good net
set but the sun is ~~[illegible]~~ starting to
(outside at net) show on the net

~~9~~ 57 Tape start
Two ~~[illegible]~~ were ~~[illegible]~~ forg around the
net area.
8 20 mile would not ~~[illegible]~~ come
down after 15 shut down.

561

#65 ~~9:01~~ 9:11 Am Golf Ball
Hollow T Oak, AJ mak
hard to find a good net set
9:13 Tape Start

9:13:51 ♀ came to net but was
only mildly interested. Fog
in area for 7 min then lift
down the drainage.

AFTER 15 NO Show

Played S Owl for about
5 Cardinal came in so
we shut down.

562

#66 on the upland by Golf Bull Hollow.

♂ came in about 10 am away but never seemed that concerned with the situation. After 3 D we shut off tape

Soul did not work absolutely nothing came in.

5/25/94 Wendy warm 563
Clear very little wind.
Low ~70° High almost 90°

67 - Back at #1 for another day
He is calling ~~#~~ in the [illegible]
8:30 Tape Start
8:35 Two males come around
with alt
8:40 ~~[illegible]~~ came back looked at
net then ~~[illegible]~~ left.

8:50 Shut Down ~~[illegible]~~ no Luck

S. Owl no Luck.
[illegible] came in during take down.

564

68 along fence line across R/
9:30 ~~[illegible]~~ Start
He ~~came~~ came to next fast but is
very cautious

♀ came in to check things
out ~~[illegible]~~ But saw the net.

~~[illegible]~~ no luche with sowl.

Note next time set away
from fence line. He went across
the AJ ~~[illegible]~~ once and called

565

69 Massen Hollow mid
to High Canopy TX Oak
fairly good met set in seam
small TX Oak

7:40 start
10:56 ☉ called but to tape

Did not care to much
15 Start Dawn.

566

70

In the area of 52
♂ with two fledges in the
vet area but we'd not
come in. ♂ was banded
but we could not read them
11/11 O/Blk

567

71 By East End of Pauls
Alley Det #51

1:45 Pm start, no [illegible] calling
in area at start

15 END show

568

5/26 LG

Spent the AM At Victoria
Looking for Fledg

12:47 by web. nest

12:47 start
12:57 Came to next area

Giving a very strong shaft
call, it had a sort of warble in
the middle

NO Luck after 25 min.

6/2/94 SOLO 569

9:30 Am
Looking for Fleg
#39 wood lot only
found ♂ calling ~~[illegible]~~ no ♀
no young.

10:00 Am
#34 lot no GCW.

11 37 Am
Front Gate ~~[illegible]~~ ♂ ~~[illegible]~~ forg heavy ~~[illegible]~~
using strong short call, and chip.
no ♀ or young

570

6-7-94 Mat ~~&~~ at web

Looking for Fledg.

see mat for notes

571

6/8/94 Dean, met at
web ~~[illegible]~~ observers
coopers nest.

573

~~Job Log~~
~~1/28/90 -~~

~~7P~~
448-2709

photocopied 12/7/95

GREGG RULED 80 COUNT

Stenographic NOTE BOOK

BY TOPS

0 25932 80211 9

Book No. #1 From 7/3/95 To 27/3/95

1995

Previous Bar ... P/S O/B

ST Bar
1st Bar
Bauder

① FLG, Cp. - TO
② TO
③ - TO.

1030 - Going Back. W to Head of MH
on N. Slope

BWW near Head + 3#1(93) Next Sit
RC Span

? @ Honeymoon Grotto on Head
MH - BWW
Chick

@ Head "875 m UP"

Horse Trail

on Road

Back @ Jeep @ 1112

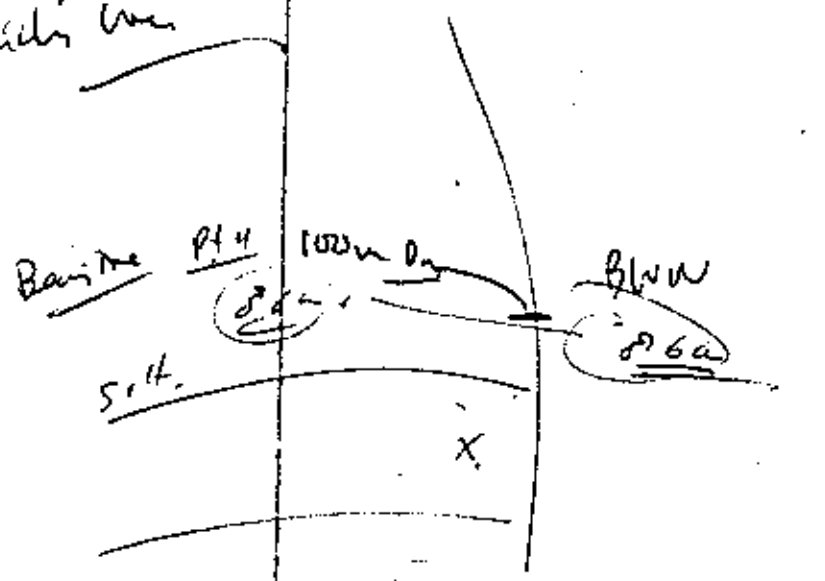
1130 Pouring N to mdt

Cañon ones

Thrust Plane W hole

Reverse ones

(a)



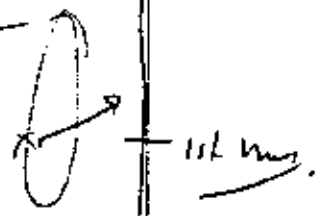
S. Hotter.

UHB ♂ SL AJ UB, TO. +1 SC/HL

UHB ♂ ST AJ. TO/UB. +1. SC/HL.

Field Spm.

Cuttings



Red book Book

TO @ Bus.

CE @ New Leaves

15°C, ⊕, 55K

14 Mar - Web, N. Hol. @ Spring. BHCB @ Upb

⊕ 6CW SC, to SW.

Bauer. L S/L // R P?

Hollow Button

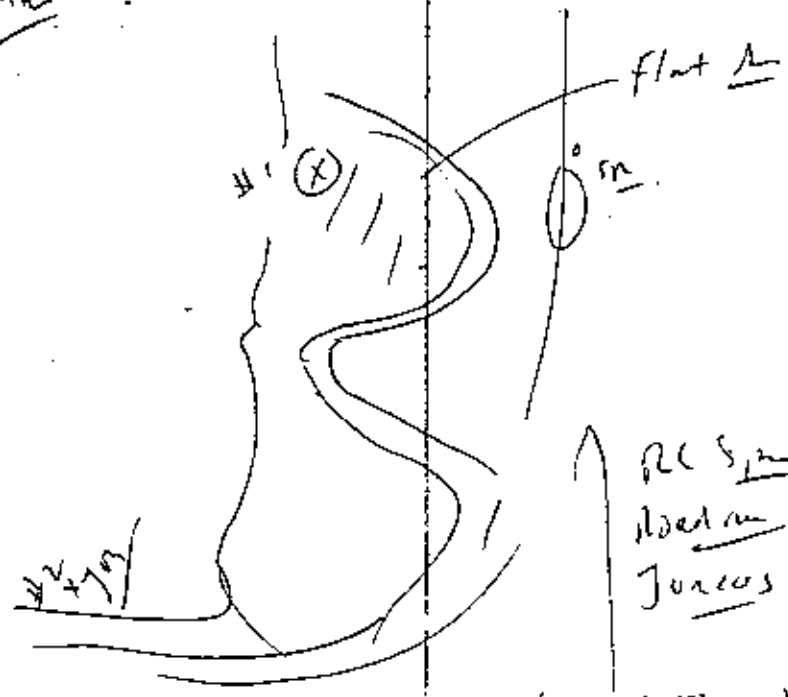
#1 ⊕ SC TO TOP,

AJ VB. PL. SC

#2 ⊕ SC JUL TOP., +1,

(EC, TO, TO, ILEX).

TO (Ath

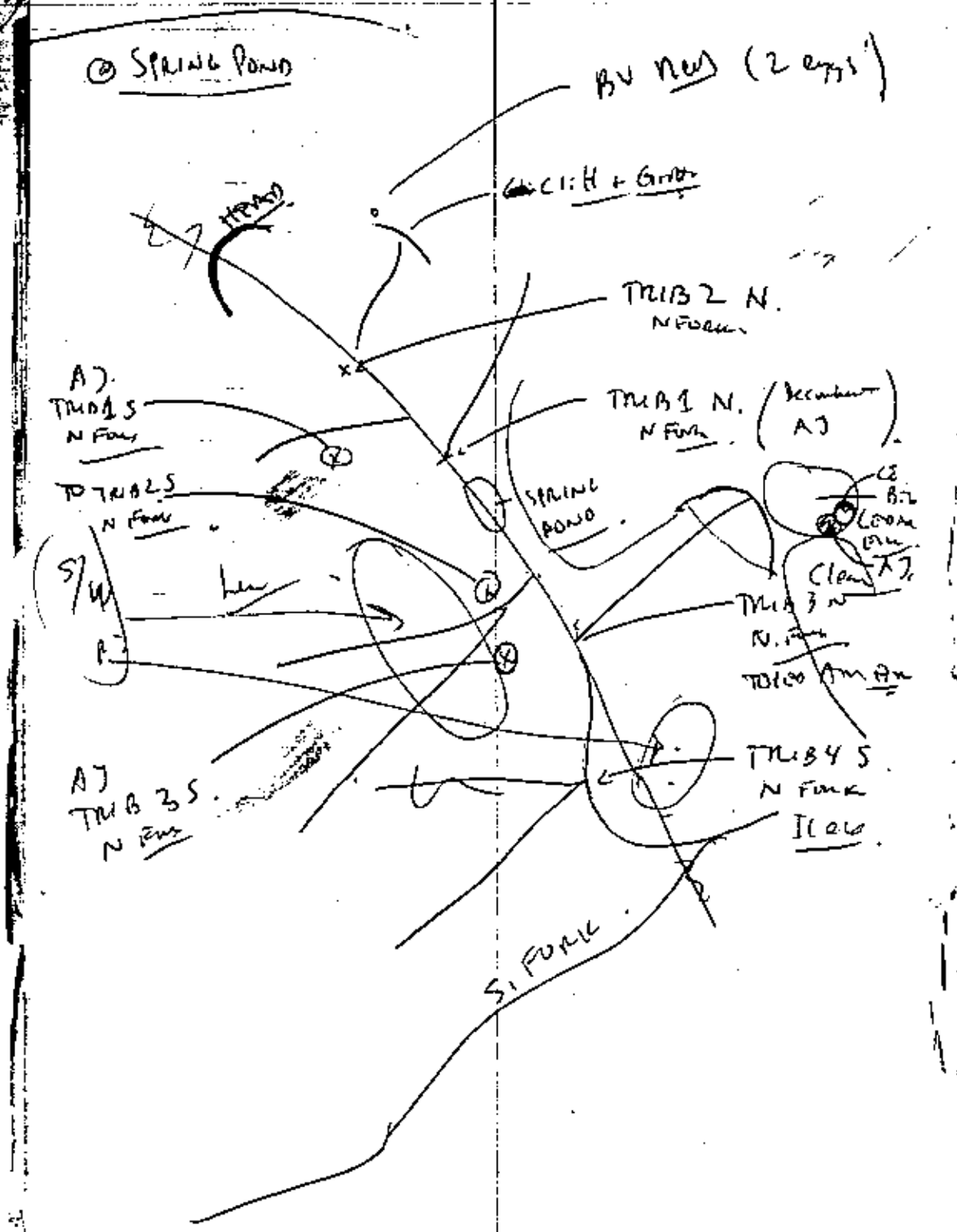


(TO, TO, TO, TO)

#3 XL TMB 4 SC FL. TO. VB +1

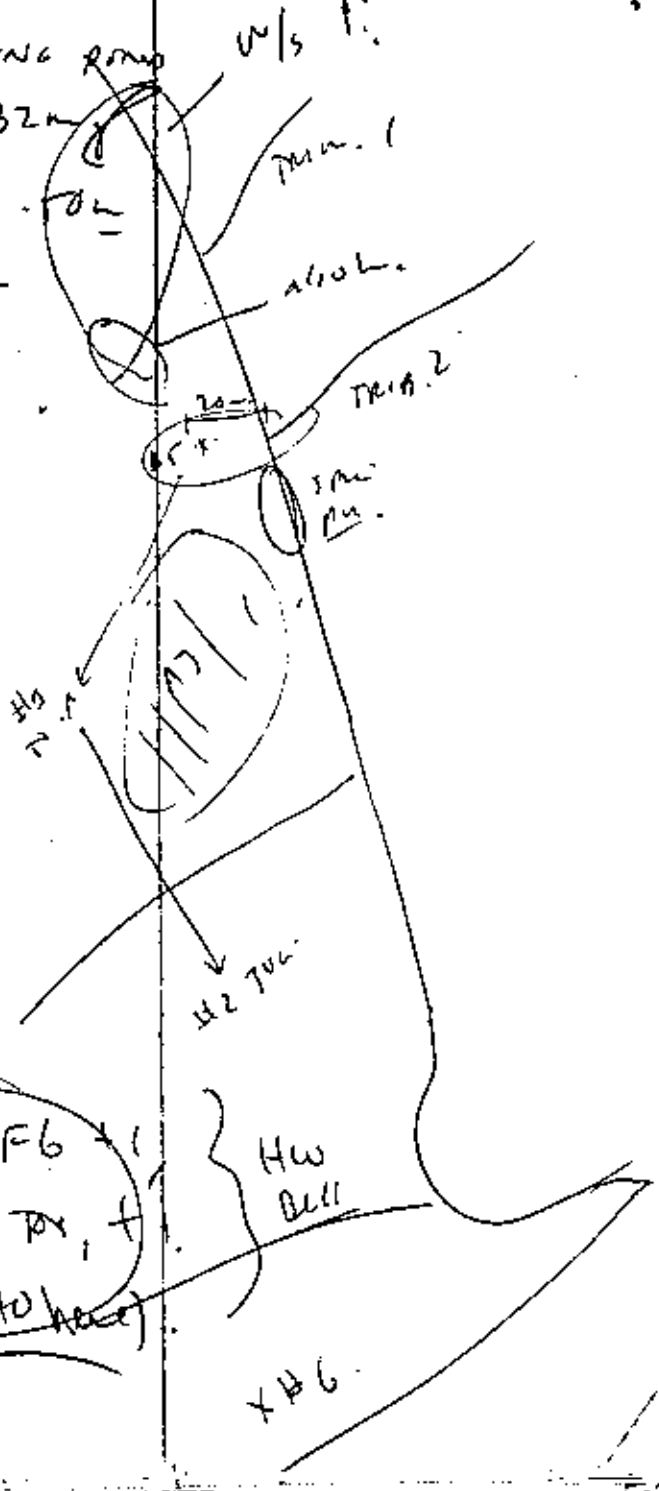
#4 " " " " TO NB +1

F → W


SPRING POND
BV nest (2 eggs)
Cliff + Grotto
TRIB 2 N.
N FORK
AJ
TRIB 1 S
N FORK
TRIB 1 N.
N FORK
(Decombe AJ)
TO TRIB 2 S
N FORK
SPRING POND
S/W
Lee
AJ
TRIB 3 N
N. FORK
TOLEO AM AN
AJ
TRIB 3 S
N FORK
TRIB 4 S
N FORK
ILEO
S. FORK

#5. W/S 17. SC FG. TO TOI, +1
GC Knight. (TO, AJ, TO, TO).

#5 TO 100° → SPRING POND
#5 TO 184° → #3 32m
#3 → #2 164° 50m
#5 → SPRING POND 15m
#6 → up h S. Fan
~~#7 →~~ AJ.



Chihuahua Knight here

#6 TO UH, SC, FG +1
#7 AJ. SC, TOI, +1.
(dead GHO here).
HW Bell

X#6.

S. Fox

Cowshit. in all parts of Hou

& Carrier Wing

Windblown AJ. TO Root Bd

AJ Sea

Gangra.

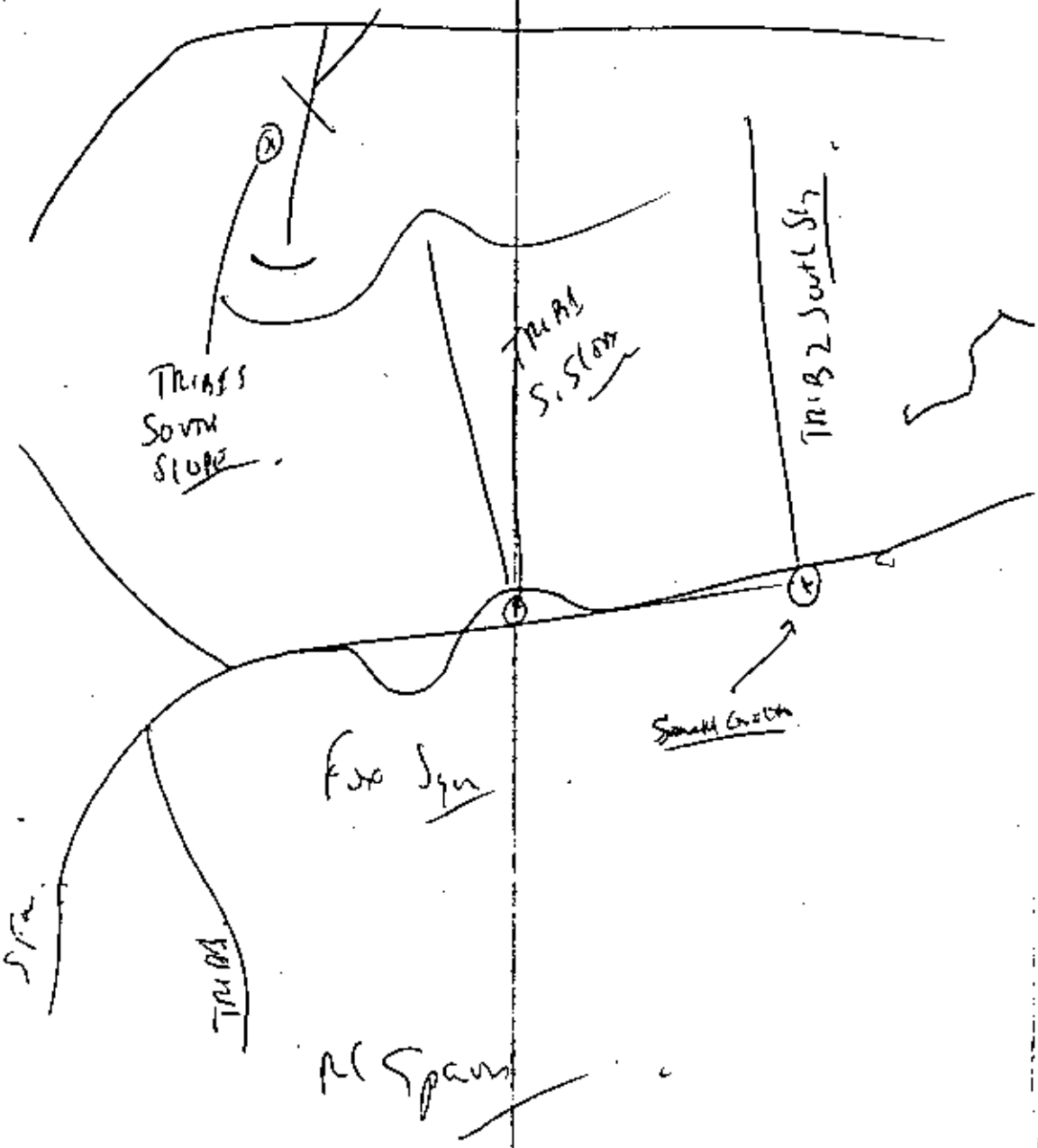
Croton

H_2O in all parts of Ch

Windblown EZ 12" DBU

S. Fox

Bing Amphitheatre


TRIBES
SOUTH
SLOPE
TRIB 1
S. Slope
TRIB 2 South Sly
Small Gulch
Fox Syn
TRIBS
Rt Spans

Bandage D.

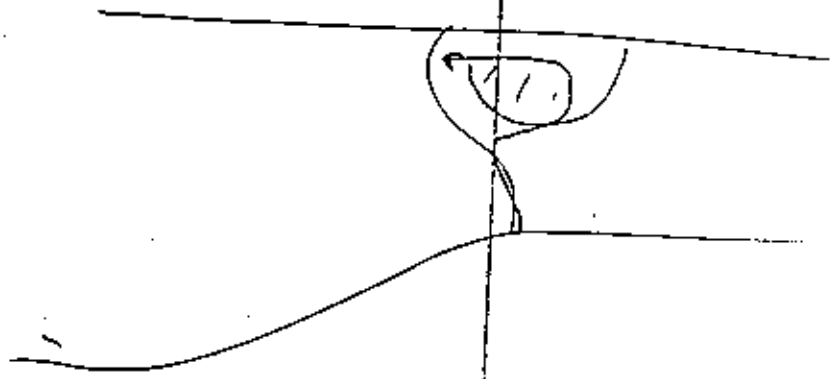
592

4/6 // P/S. – Sy

11 March 1991 VCC N. Hollow Rain Threatening. 583

0801 - 14°C, ⊘, <TK. NW

Walking into North Hollow.



0812 2 ♂ Cardinal. Sing.

Dogs. Hunting to N.

Chipping? pass. GCW

0815 ♂ GCW vol. to N in N. Hollow

Bewick's Wren

Flicker (Yellow S.)

TD (w) Catbird + ½" at new L

0820 ♂ SC to N. in Hollow

0822 ⊙ Ck in Hollow

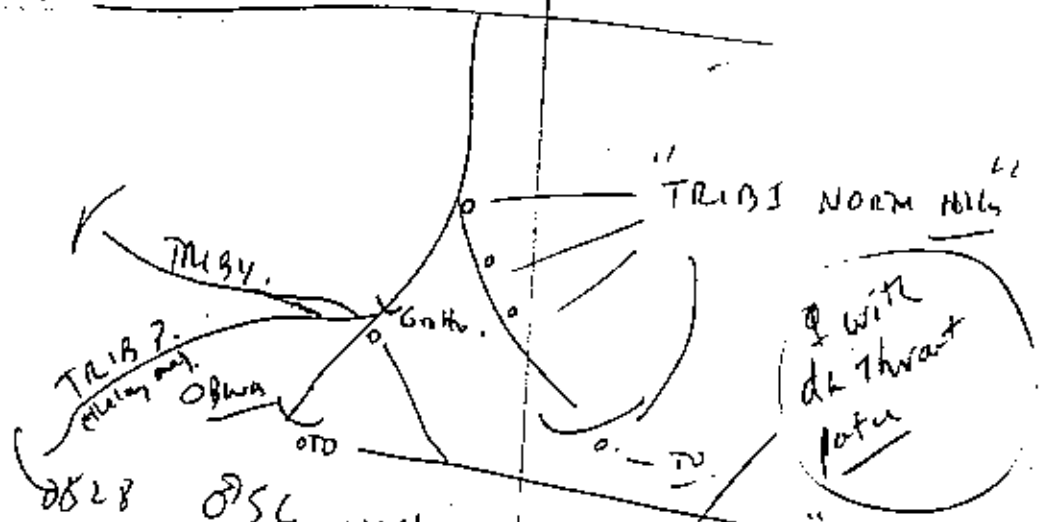
Dogwood small leaves.

Walking up Ck.

Consent Pass

North Holm

584



♀ with dk throat patch

0828 ♂ SC upslope

0837 ♂ SC to N:

0840 ♂ SC + Cp. helm TRIB 2 Cl:ll

AJ > 75%. Both - Slope > 50m to avg. On to Hyp

UB1 0848 UB1. ♂ - soft Cp. upslope

0849 ♂ Cp.

852 ♀ hot side → (3 AJ, 1 FLAX.)

#1 AJ UB & Cp., FC. O | ♂ S.

#2 AJ (AJ, Ax4). O | neuz. ~ AJ.

UB2 0854 #3 AJ. FC. (mock). - UB, O

(THIS ♂ UB2 - (AJ, AJ, AJ, AJ))

0855 #4 AJ. Sal, FC. - Cp.

- O, (AJ, AJ, AJ, AJ)

BWN ♂

915 GCW #51 585

Ca 0915 – 0926 UB ♂ in Gentian uplands
Just N. of N. Holb
♂ SC in CO alt. SC in a succession
TOP +1, std. ♂ AJ
(4 AJ). VOL
UPLAND (AJ > 71%), > 50m to bigger,
< 20m to edge).

Golfball Holes

0935 to Golfball Holes

0937 BJ in Clay Hole Ctr.
Dry Back

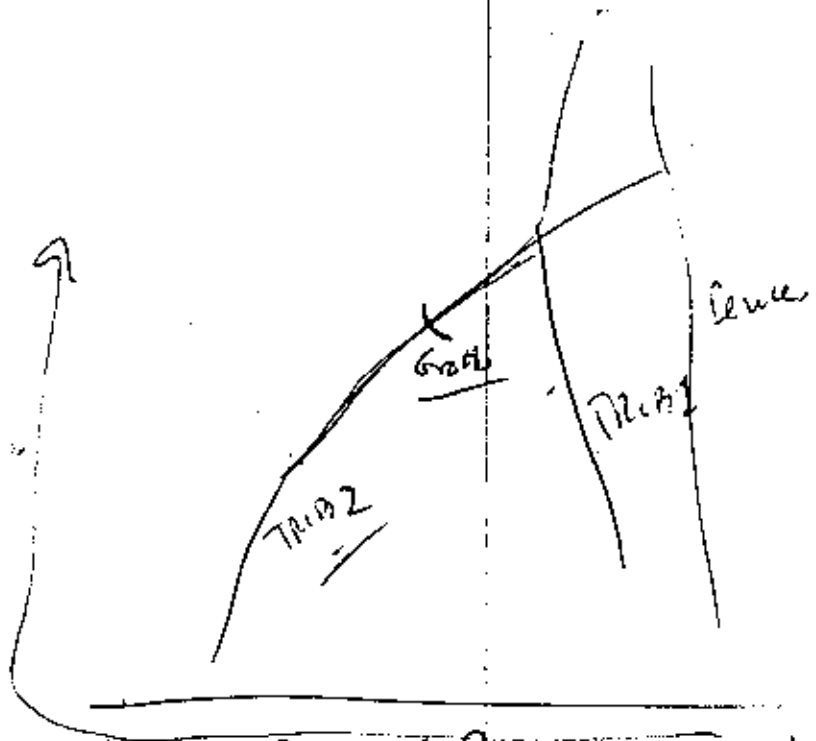
Signs of Mg Dry + Horseback Rivers

0939 @ Break in Stone Fence

0945 @ Rimrock + Fence. - Field Spans

15/3/95 Golfhall

586



1000 2 Days. (Bassett / Brit X)

No new Golfhall

1003 Rd + TO ASH/SINKHOLE Dolly.

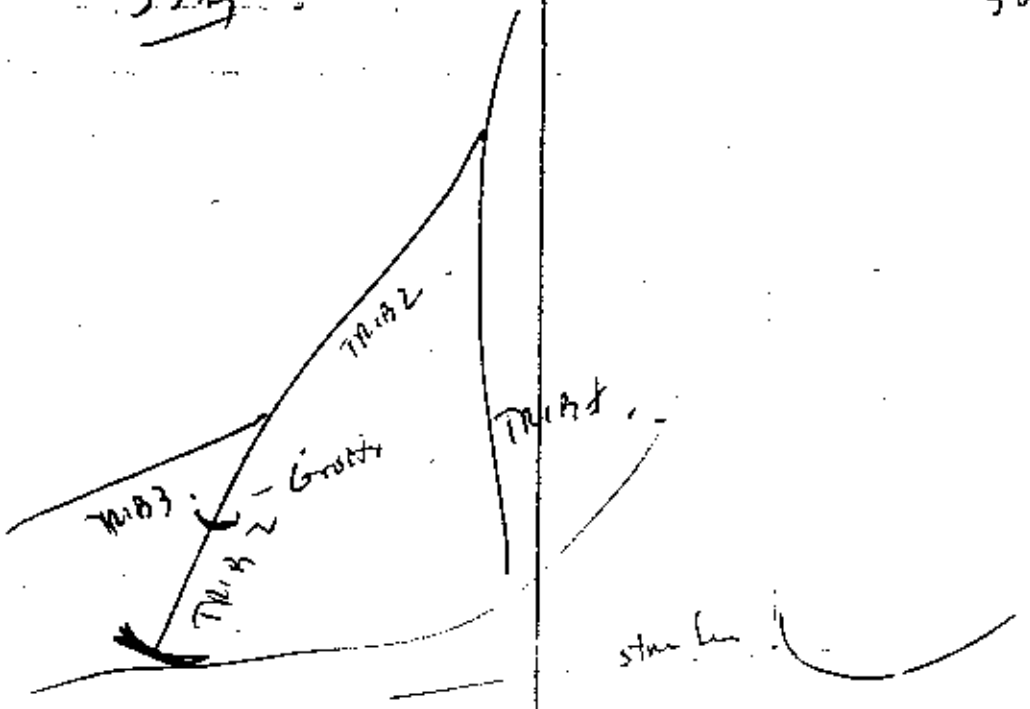
15°, NN <5K, ③

LOUD INTERCOM

15/3/95 AH/SINKH

STM

587



1032 BWU

1037 STM

1039 Long LC towards Quarry

OUT

@ LOOP ROAD

1043 W. up Loop Rd

1043 ?

588

May Have Nack a Loop above Hollow

1047 SC to Paul's Alley

#1 UB AJ, TOP, ~~SC~~, ?, UB, +1.
(AJ, SU, SU, SU)

#2 SU UB/TO., Cp. FG., SC.
(AJ, AJ, SU, SU),

(1052 le)
Chick flow
nar Rd.

#9 T.

1055 Clear

#3 AJ UB, FG, le., Cp.
(AJ4X)

1057 SC
1059 SC
Dat. Sem
@ #9 T.

1100 Paris Alley @ 17°C . 10K . 589

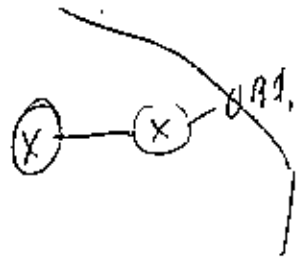
Lineas

1103 SC to S. Paris Al

2 hrs , lc # UB

lc

UPLAND ← <50 to 80
AJ/AD mix



UBI, — , TOI, FI, (AJ, SO, SO, SO)

Buzzy lc

DIS

Sim

LFI Reddish

1108

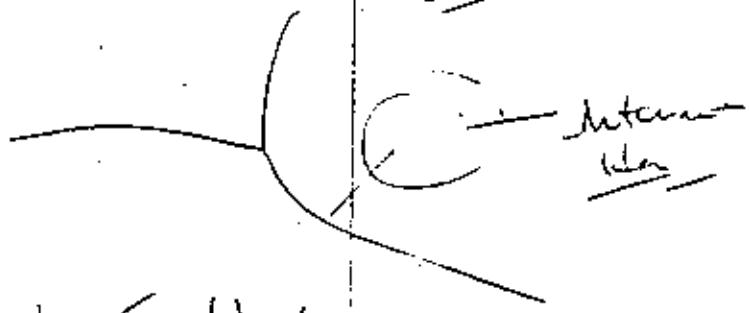
P, R, O.

Rt Dn. Gr / S. lc

Salm - Mol , Fe , UB

SO , (SO 4x) . O

1110 2 88 Stk [illegible] AC 590



1114 to Sinkhole Rd

1119 to N Rd X 2nd Grout

1125 @ N Rd

1128 SC [illegible]

6/5 [illegible] LO, FG, UB, >50 to [illegible]
d1 (LO FG, AJ, AJ) >50 to [illegible]

1134 6/5 [illegible] | AJ >71

d2 LO, FG, SC, UB, UPLM

1138 @ Sinkhole Rd.

M

1145 @ N. Gate.

591

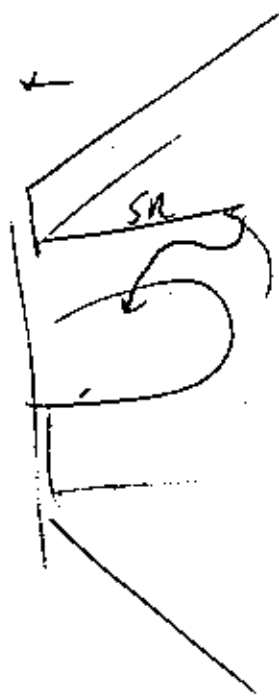
1148 @ [illegible]. Dow

592

16/3/55 0824 15°C, ⊙, 10°K yards

Walking Uplands to S.
Glen @ [illegible] to E
S. ASR

Forces



0845 @ Clearing adj to
Rock (old [illegible])

CEI. - small leaves
Beginning [illegible]

0845 @ Mangate No uplands -
PO [illegible]

0851 @ Main Gate Clearing -
Forces @ Main Gate Clearing
2 almost Full handgun Ammo Case

0853 Glen / SL to E. [illegible] Post Oak Gun

TO - New - Small leaves
BJO - Cathedral - No leaves.

593

0857 entry (Horsetrail) - Track L

0905 Out of Sandwich + down towards (Collier Hollow on Horsetrail)

0900 above Collier Hollow @ 6 cm (140°C)

TO E. TRIBB N.

#1. 0908 SC? AJ TO, DIJ +1 (AJ3, TO).

#2 0910 SC AJ TOP. DIJ +1?. (AJ4).

(BUM, SO(2), TO)

#3 0912 SC FC TO. +1, UB, TOP.

(greenish flock on lateral portion of dam)

UB @ #4

0917 Silent

0923 → BW

927 Cañon over

0928 Gen LC + SC

Can Nu.

Ethy >20, <50.
H2O <20.
AJ >75 // HW >75.
Hollow Slope

E - 20-50
H2O 20-50.
HW, HS.

#1 UB @ TO, UB, SC, TOP, +1.
(TO4)

0933 #2 JUL, UB, TO, SL, -tL, 594
(HW, HS, same as #1)

BV rout at Clark + Griffin
(next hour in 1953)

Tthmm

17°C

TRIB 2 @ Horse trail

0941 Bet T2 + T3 dur
UB ↗ to W
UB ↗ to E

#5 (T3)!!?

0951 R+ (LT) S // LT R?

S1

(TO, TO, JUL, TO)

HW, HS
<20 Hr-0.
>50 E.

#5 EL +1
SL UB, FG, HG
0952 #2 TO +1
(AJ, 3TO)

HW // AJ.

#3 TO +1 (TO, CE, TO, TO)

0558 #4 TO, HB, LE, HG, 595
SAL (2x), SC,
UB, (HS, ~~HOT/AT~~, HOV,
>50 E, 50-70 H2O.
(Pure TO 4x)

all of
TMB3

1007 #5 - TO +1, UB, SC, FC,
Both (Same as #4)
(pure TO 3x)

1008 Traveling
Walking along trail above N
Slope Collin Hill

1011 SC (♂? ohd)
#1 AJ +1, TOP, SC (DLS pure).
E>50, H2O>50 -
AJ (4x) (AJ);

#2 AJ +1 " "

#3 LO UB, FG, +1 (<20 E
>50 H2O
(AJ, LO3)

UPLAND

16/3/53 1023

596

(Cars Wm at Tms B2)

1030 @ Pline N. Collier Hor

1033 Back dn S. Central Rd G
Plan

Fox tracks on Rv

1037 Back to E Sendra & to W.
along it

1040 @ Rearblm E on E Central
Sendra

Winny 20°C

1043 X Central Uplan

1047 Back at Rv

1051 Airplane

16/3/95

10 PC @ Mon

M Dave

57 Ry

597

20/3/95 UIC, OK, O, 22°C 598

0823 8 6cm 2 8 8

APRL 150°R

#1 APR 1700 (20m) Dopper Rep 260° Bcurs

UB, FG ??, SC, —

SC ?, O,

N → mudhole.

#2 APRL ~~1700~~ 1250, 20m

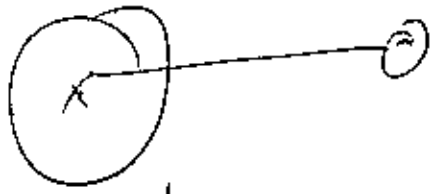
8, SC

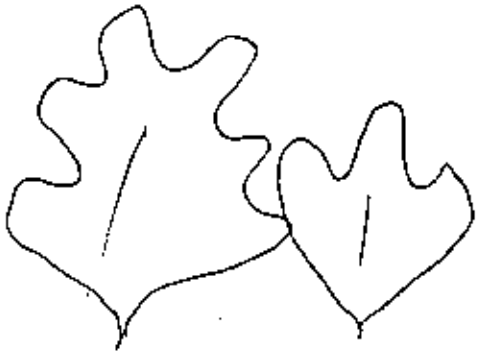
833 — pon of #2 SO, UB, O, 8 SC nearby

#3 AJ. UB, O,

599

#2 → #3 240°
#2 → #1 330°





Bauch.

0904, lon PSC. Bauch (Y // W)

UR, MG, LG,

#1 TO, Ap 250°
330° <10,
+1
Dep. 80° < 10m

(TO 2X, AJ 2X)
20 - 50m
>50 H2O,
VISLAND
AJ >75
CAU >75

CAT 1/2

(AA)

0317 ♂ 57 270°, LH CY,
280°

#2 LO SC, UB, HC, ... 600

DEP (320)

DIST 0

#3 0326 AG 3 ♂ at least 1
Bands near NW Fr
+ W. Pauli Alg

0326 Ap 200°

(W) pon band ♂

#3 0930 ♀ CE → Body, UB, OB, LG,
+ 1 Cp

0535 Ao. 210° — UB SC, 2

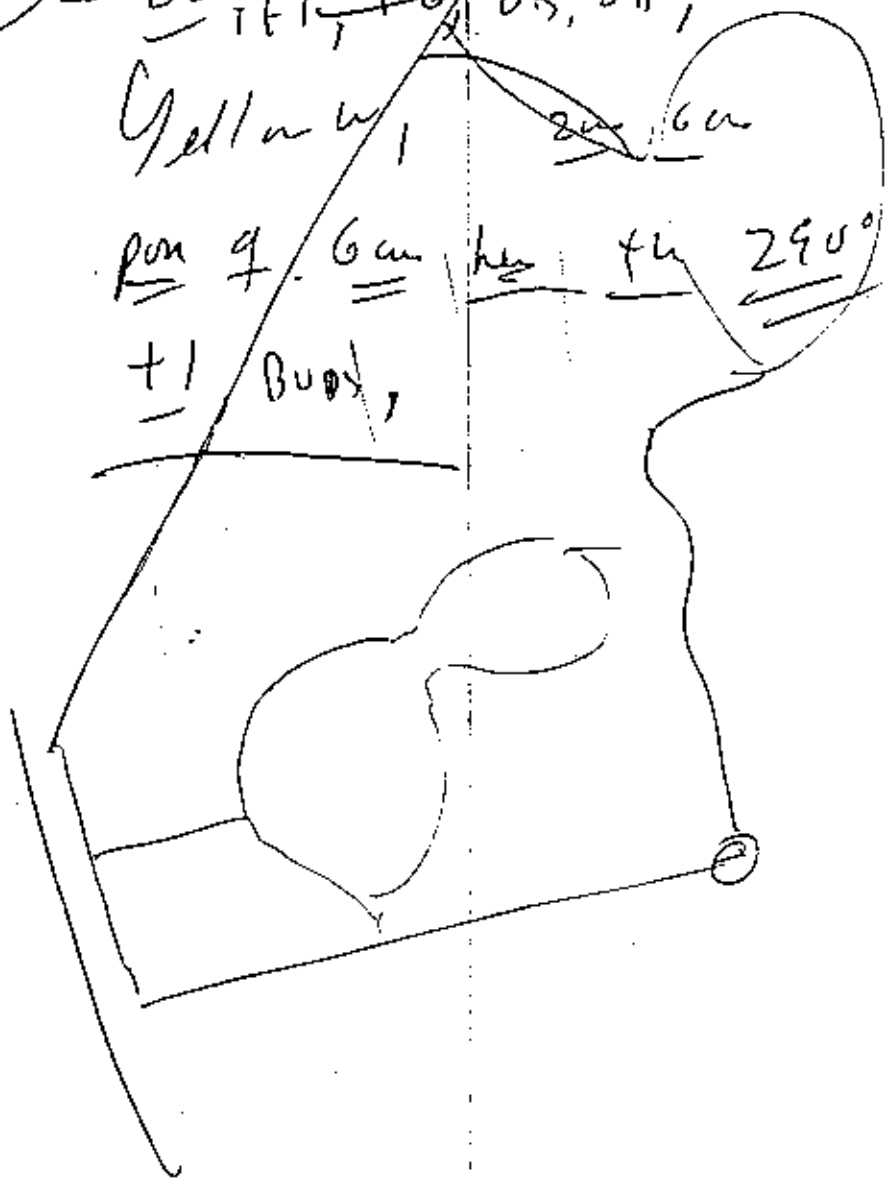
260°, Ow

#4 — LO, TH, FG, UB, OB,

Yellow W, 2cm 6cm

pon q. 6cm hex th 290°

+1 Buds,



0949 # 0957 Ag 180°, Rep. 120°, 15m

#5 LO +1, 0° neg

0953. @ Clearing

#6 LO, ♀ UB, LG, ...

#7 TU ♀ UB

#8 LO, ♀ UB

0959

#9 LO

Sun Board

LFI

Pnk → Bronze

S

Bright →

Faded

Ja Vered.

20/3

1026

#1 ♂ S.C AJ. – UB S7

AP ~~400~~ ~~800~~, 100°

Rg 40° Rep 340°

#2 ♂ S7 ~~[illegible]~~ AJ

AP 30.

+1, UB, S.C

FG;

(Rt LA

Reduce // 4/5)

#3 TU, ♂ FC, UB, –

#4 ♂ S.C AP – 50°, DIS 10 mm

Rep. 320°.

TU, UB, S.5 (DIS) – STAT.

(Rd to Sinkhole →

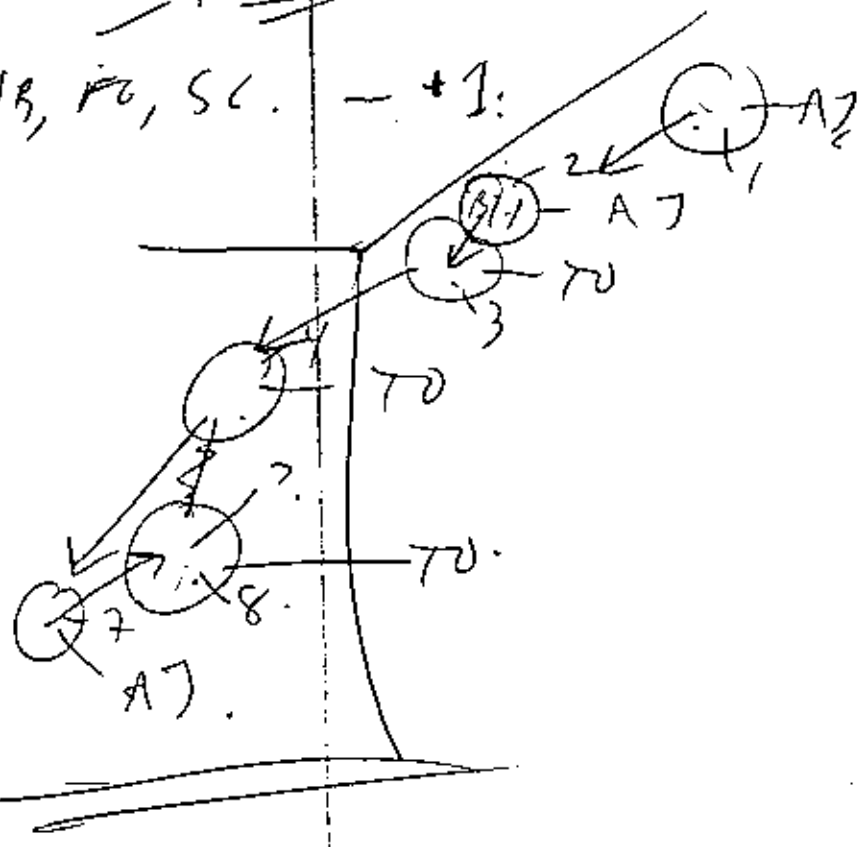
Guess Bare Ri)

1041

#5 AJ Ap. 0°, 10 m
Rp. 180°

#8 TO. - OR, FC, AP.
Ap 210°, 10 m.
Rp. 180°.

OR, FC, SC. — +1:



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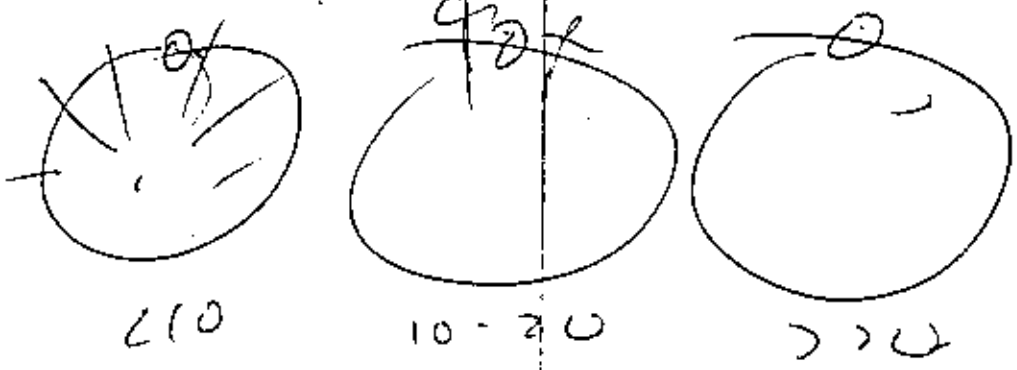

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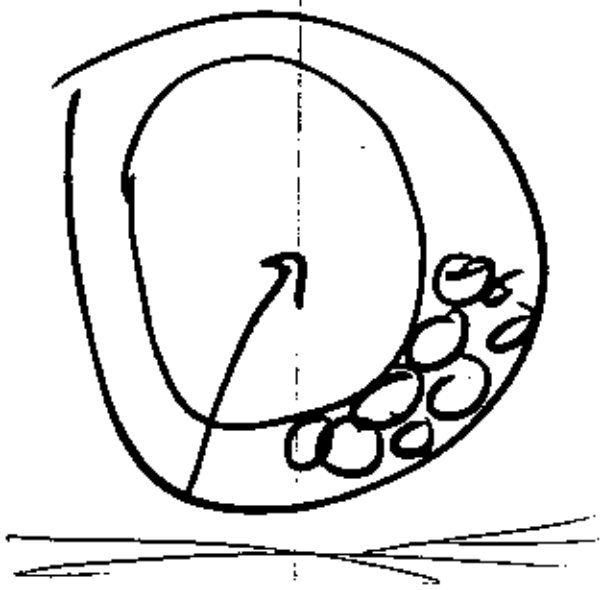


1134 - @ Sand Rd Kng in TO

to S & E towards LOT, at
S. edge + N. Rd.
Beautiful Ones

1143 back at Rd. to Sink

1158 - SR

20/3/95 VIC.

1346 - 28°C <5K, ?, O.

walking SR to ar. for MUD
Green Ash hvds
S/ etopm

1434 8 SC, JB, TOP AT 210° - 20m
#1 UB, UB, HG, SAL, Dyn. - 10m
LO - 0m
systematically, slowly Glen
thru tree

21/3/95 VIL, 17°C, SR, <5, (M). foggy
8 SI to S. .2 SR [illegible]

0805 8 g, UB
Ap. 140°. Dist (0)
Dpl, 320°,
#1 LO, → T.
UB, SC, LO, +1.

#2 AJ. ?? alg. SRN

0815 in SR Nwt. [illegible]
yesterday
CE; - new leaves.

Same opinion
Area as yesterday
0924 Ap. 40° - 10-20m
60°
Hyp 130°
Dist. 10m (0)

#LO UB, ? SC

0930 Gone.

Oiur ♂ 51

1943 ♀. TO. Cp. UB
#1. br. +1. LG.

AP 140'
Ky 260.
10-20

#2 ♀ AJ. UB., O.
?. ♂ ♀ ?

#3 ♂ + ♀. tryer. chitt

#3 TO ♀ UB, ?, ~~[illegible]~~, O.,

#4 AJ. UB, LG.
O, ♂ SL.

#5. LE, lay UB, LG.
O.

#6 TO (O). UB.
dyin. Cp., LG.,

#7 TO (+1), UB., LG. Cp

#7. ♂ Vp. silent

GFS #8. AJ, UB, LG, (0)

#4 AJ LB, FO(SAL). -S.L (0). 8 SL

8 MTO @ 9.

#10 TO 9. UB, LG, Cp. (+1)

#11 TO (+1) 9. UB, LG, Cp.

1003 8 S1

1004.

#12 AJ UB Cp LG

#13 LO UB Cp. LG

#14 AJ UB Cp. 8 S1

1006 #15 LO UB, LG, Cp

#16. AJ, UB, LG, (+1).

#17 A7
#18 A7 Not m.

q F → ? Chk

#19 A7 q Cp. (Loud)
(0)

#20 TO q. Cp. UB, LC, SAL,
(+1) ↓ LB

#21 A7, OB/UB, HO, LC, CP.
(0)

#22 LO UB, LC, CP.
(0)

#23 A7

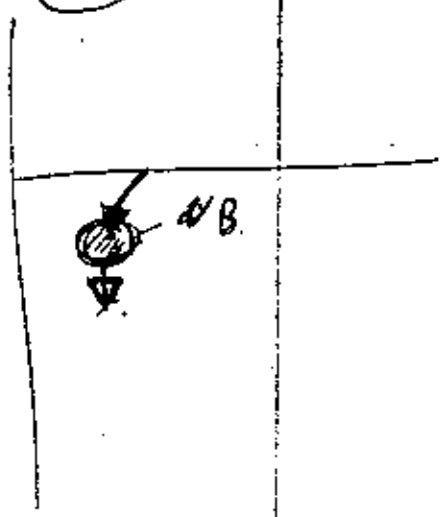
1019 ♂ SC

1021 Silent ??

1122 ♂ SC UB → SRS [illegible]

TO UB, PC, BU

(+1)



24/3/95 WOB S. Slope.

1217 22°, @, SE, 10K.

1217 @ Hen walking along S. Slope,

Water [illegible] at [illegible].

1220 ~~Gap~~

Pour By

UB ♂

1236 ♂ lc. N Slope, → S. Fan

#1 ♂ lc. BIG TO

#2 ♂ lc 110° 10m. By 20°

#3 ♂ S1 AJ MB

BWW.

1257 ○ 24°, 10K SE.

1259 S2 downslope [illegible].

1310 1 8 37 E TRIB 2

VB 8 at TOP TRIB 3

#1 HG, TO +1, Blue. to W
HG, VB,

#2 HG TO +1. Blue. HG, VB
Man W. also upper sky

1338 8 51 N. X Hor
N. Slope

W TRIB 4

Rewind

Bar

1357 TRIB 5

1417 TRIB 6

BACK ~ Ry

C15

23/3/95 VIC - 20°C, O, OK..

0736 - Old entrance - near gate

LO; yellowish

0740 - ♂ SC

@ SR Meadow, NW side

0744. ♂ SC -

LO, UB, SC. ? +1, Blm/Bm

N4N, 4AJ, -

756 ♂ SC

AP 320' → 20m. → ~~[illegible]~~ ?!

→ 0m

759 ♂♂S Cp. - TO. UB, FG

Ap 350°, 10m, (3AJ, CE). -

♀. Cp. TO - UB - FO. -

+1, Blm, Nowleaw,

0803 - F → 150° D.M <10

0817 ♂ SC - AT, TOY, ~~4~~ O.

AP 160° Dm, 180° -

20m

♀ Bs.

820 ♂ SC... LO(4AJ)+1,

Ap. 280' >20m. LO. TO, SC.

Ap 200' ♀ neg.

~~Ag 20/3~~

830 ♂ lc + ♀ cpn to w.
Cardan, Tiffany
→ ♂ lc ~10 put x Sun
♀ cpn

0855 - ♂ + ♀. aqs

903 ♀ cp.
♂ 5° clear
♂ ☿ TOV AT, 220°

#9 906 ♂ 10 AP 220, Ou ♀ ☿
w
By 230° to ♀ cp

0908 ♂ → 208°
Ap. 160° 10y

Neu & Apar Cu

918 ♂ + ♀ x Old Rd to 130°
PS ~ 2 AJs

920 Steady Cp & LO
Roadrun ~ SR ..

934 SR to NWD to Fiona
Airplane Rx
Beach area

932 SRE ~~area~~ ⇒ ♂SC
Ap 120° 20m,
Ag 260°

938 = ♂SC 300°, 20m ⇒ gone

951 ♂SC ages for central area
(28°C)
Loops Am SRE to Sinkhole
wind picks up.

1003 ♂LC Ap 130°
Ag 70° 20m
TU, UB, FG,
+1, NC, CAT. & AJ,

1010 Bob white Cove @ Shelter Mean 10-15 X

1013 ♂ 5/ 320° DIST

L ⊖/S - R [illegible]

+1 TO, VB, FG, SC ...
NL, CAT.

#2 AJ, UB, FG, SC
1021 280°/10m/130°

#3 1021+ 80° to LO UB, FG, SC.
280°/ <10
F → 100°

#4 1024 TO, UB, 220°/15m
F 170°.

X PA's.

1027 ♂ 200°/20m/10m
#5. UB, FG
1030 (5 x TO) +1, NL, CAT
1032 1033 LB. (syst FG. problems catching)
- ⊖ 10m 220°/

N4N = TO, 3 AJ.
1034 - UB
1035 - LB
1037 -
1038 - UB.
1039.

If do not score multi - Name TOs are individual then with underpressure ≈ 0% dominance, 1 dom. has a stance

1039 ?? perhaps reddish
23/3 (cont'd) (4)/S still in #5 TO - CB.
CC. (= "cathin gleam")
40.50. HC,
The yellow may not be yellow - it
seems to have some reddish in it.
Actually, it looks like pink.
so this may be P/S // MaRa

1045 still in same trace. still systematically
coming all cathins.

1050 F → 140°.

1052 OSC, UB, FG. 220°/10/340°
#6 LO CAT, +1, (LO, 3AJ). —
F. OL,

#7 1053 TO, +1, (4AJ), UB, FG,
(CAT). ; 340°/10/290°

#8 ?? . x the Big TO's. other PA narrows
near W. [illegible]

1055 Silent.
1110 Airph.
#1. 330°/20/100

1111 → Fox Sh

1118 → TO (x11) 170°/20m / UB, PZ, + F,

1120 leave to go to SINK

Campfire Ring - Workman

Field Sp

1132 Bar to CAN m · SINK ad

1136 @ SR

24/3/95 816 22°C, CTK ?, @ Lazy
WEST PLATEAU
WALKS N. in Central Rd

0828
@ "WEST TURN-OFF"
130° → ♂ SL
80° → 2nd ♂ SL

842 Mainly Rd S. to WEST FORK TURN-OFF.
850 BACK. N. to 400m S.
814 BACK @ WEST TURN-OFF

858 ♂ SL 180°

8900 @ 200m N WTO

907 @ 400m N WTO ♂ SC 200°
"Old Tree"

917 @ JCT Circle Dr West
6cm SC 50°
6cm SL 80°

923 @ 200m W CD
6cm SC @ 20°

936 @ 357m (Old Deer Blind) → ♂ SC 80°
W. Fork Circle Drive (WFCD)

939 ∂ 220°

945 @ 400m W. CD JCT
∂ SL 200

952 @ 500m W. JCT. Circular Dr
∂ SL 1200
BWD

1002 @ 600m W JCT. C.D.
∂ SL

1013 @ 700m W JCT CD

1019 3 Turkeys

1027 - 700m N WTO
∂ 6m SL 800

1034 @ 800m N. WTO
∂ 6m SL 1000

1036 @ N. Gate
Gate Not Padlock

1040 100m W. N. gate
@ SC/Ir 250°

1043 200m WN gate
Wiord SC

Ap. 280 / 20-50 / 40°C

1051 100m E. N. Gate
Blue Jay 70° x Run to N

1054 200m. E. N. Gate
1109 600m E N. Gate
1116 @ 1000 m E N. Gate
@ CE i alley N. Fan

1127 @ 1.4 km E

1130 @ 1.5 km E

1135 Bohwhite Hen
Can (TOP - [illegible])

Back @ Cans - Move to
HW. Savan

24/3/65 (cont'd) NW. Hole..

1140-1150 at HW Savan

1158 S. on NS Rd

BNW, RC Spr, Cave in upper

1204 [illegible]

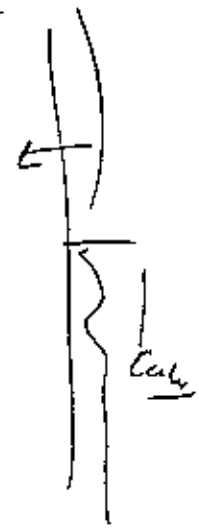
1208 —

~~1208~~

Near [illegible]. Just Bel

Calix Sea

Grey Fly



1230 2 [illegible] in Hollow to

W. but which Hollow ??

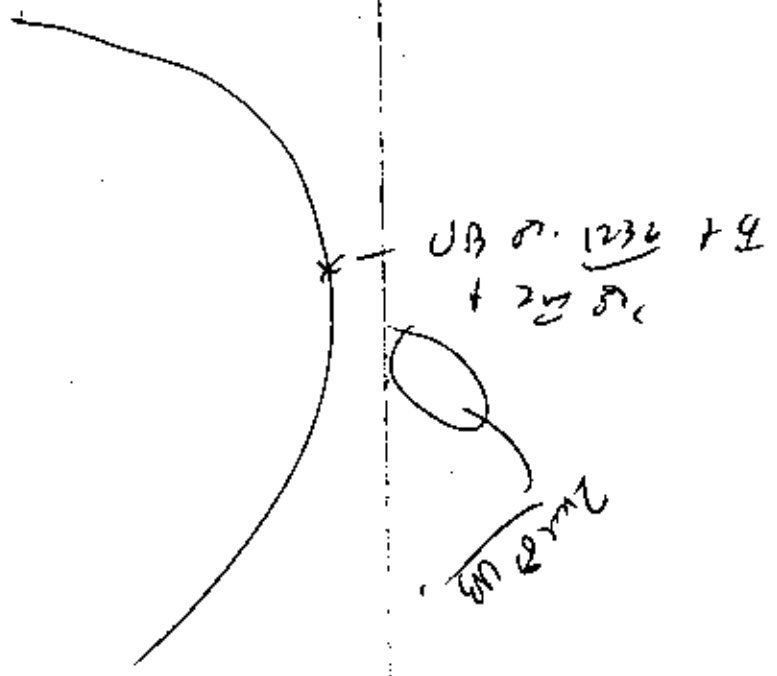
@ Rim Road 235° to

"Signal Peak" ?

200° to S. Rous wh

it dumps of upper

1236 Middle [illegible]



1236 UB 8 Ap 180° / 10 / ____
FG, UB., cp, cp. Nothing
9 present (well-dev thunderbolt)
Holly, [illegible], >50%, >50 [illegible], ?[illegible]
3 TO, 1 AT. -

1248 AP 0° / 30m / —

80° / 10m / 1400

SC, UB, FL, TO, NL., 4 AJ)
(4x)

Recovery Thru

20° to yellow by Car

1300 BACK @ CAR

Summer & West. Plain

400 m S.	- 2 Gcw.	Minnesota Dist.
100 m S.	- 3 Gcw.	Limerick Lake
200 m N.	2 Gcw.	(AP)
400 m N.	1 Gcw.	5/1 hr a week
600 m N.	1 Gcw	1250 Limerick
200 m W.	- 1 Gcw.	
357 m W.	- 1 Gcw	
400 m W.	2 Gcw	
700 m	1 Gcw	
100 m N.	- 1 Gcw	
200 m N.	- 1 Gcw	
	16 Gcw	

27/31 55 - VICTORIA.
0753 RH 60%, NW - 10.15K,
12°C, ⊗

0759 ♂ 6cm by Chimney
to Map ♀MH N
Walk E on N. Slope to
map Tributary

0802 @ 31 m UP
TRIB 1 N. Jul E. 2 Chimney
W E View

813 - ♂ on N side @ 9. to E only
N. Sign.
2nd. ♂ x Hole on S. Slope

815 ① AJ le +1, TO, JUG, 2AJ, ? slope,
mature wood, <50 - 60 H2O, >50 E, HW
Cam >50. HW + AJ

817 ② AJ le [illegible] + [illegible] >
mature wood, HS, <50 - 60, >50 E, H + AJ,
Sandhill Ca (N4N: FRAY, 3AJ)

823 @ TRIB 2

BC Hmm

835 at TOP. TRIB 3

836 ♂ SC. to E, N Slyz

838 TRIB 4 → to LU. at T4

845 T5 NMT ♂ to E. cp.

① AJ, UB, SC - (NUN AT2, TO2)
Az 320°, 70 / HS, AJ>75, CW>50, <50 HS
>50
280° 10, 310°

849 ② SC (DIS) 310° EC, +1, ♂ TOP, (AT, 350)
270° / 10 / 310° HW>75, Same "

SC x HOB

853 ③ LO, UB, SC - RIMMER, (4 AJ). RIMMER)
330° / 30 / 280 / +1, Blue & NL, HW>75
E>50, HS>75

857 Bl Hums

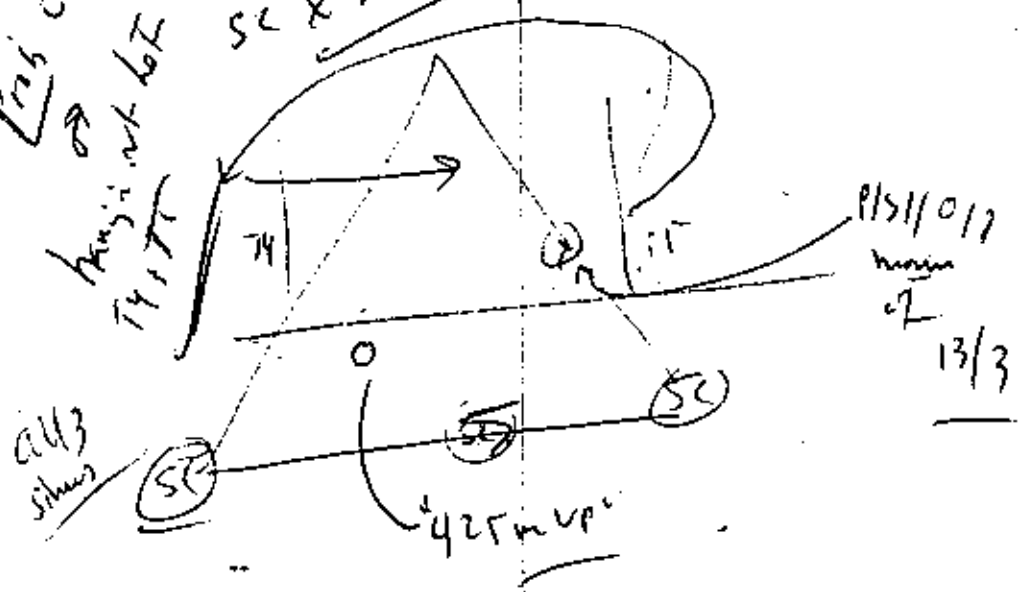
902 (OB) ♂ TOP + UB, TO, SC, FC,
240° / 10-20 / 30°. (2CE, 2TO).

(at, T4)

Hw > 75, C > 50, H),
> 50 E, < 50 H2O
NL.

Prob UB ♂ hangin' at left T4 + T5

mid sky)
SC X Mat



912 FDAO TA, UB, SC, FC (NHW = 3TO, A3).
280° / 30 L)

Hw/A3, C > 50,
HS, H2O < 50,
P > 50

915 lc → 180°

920 lc. ♂ S. A T5

27/3

924 TG Huge AJ, [illegible] Blow-down

2 blowdown

Cpts [illegible] 2000 [illegible] to E TG

932 [illegible] E [illegible] TG

933 [illegible]

Simon Tunney

TG [illegible] MHT

A [illegible] blowdown [illegible] this stage

946 SC

2600

SL

951 100 [illegible]

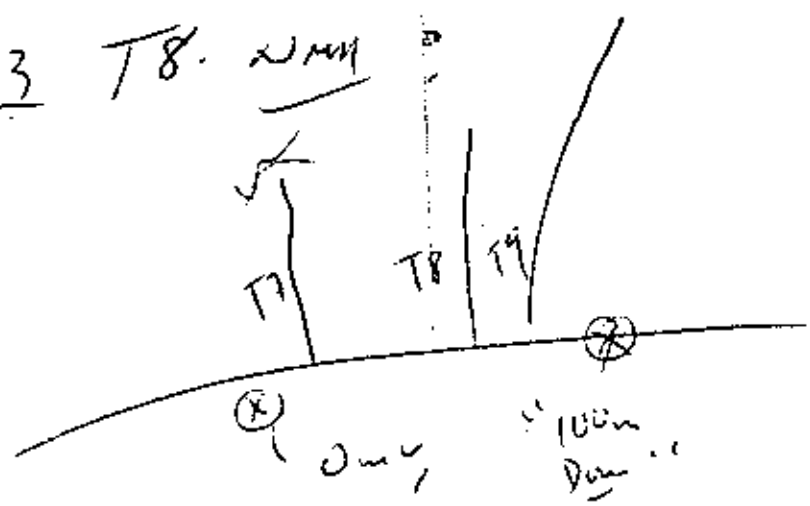
100 [illegible]

BW [illegible] S Slope

9 TO 0 . 0 m up. Colopum ulcer.
T7 at same spot
Blowdown upslope

1007 SC on S. Slope

1003 T8. NMM



1008 T9 NMM

1019 Cp. SC to W of T9
Cp density

1020 @ 7 m E T9 Cp quiet
UB to, STAT to L6.
30 ft up.
Ap 220°/<10 -/
Indistinct hot complete cover
@ SC to E.

9 TO UB, SNT, 100 E, +1,
HW/AJ, <>50, 250 H2O, >50 E,
N4N - 2TO/2AJ. NL.
N4S - 4AJ.

Kight.
Caterpillar [illegible] for TO+

1042 S2 [illegible]
#1 UB TO MB, LG
(N4N - 3TO, AJ) HW 775,
(>50, HS, - NL, +1 -
240/10m/140°

120° to TO
TO
TO

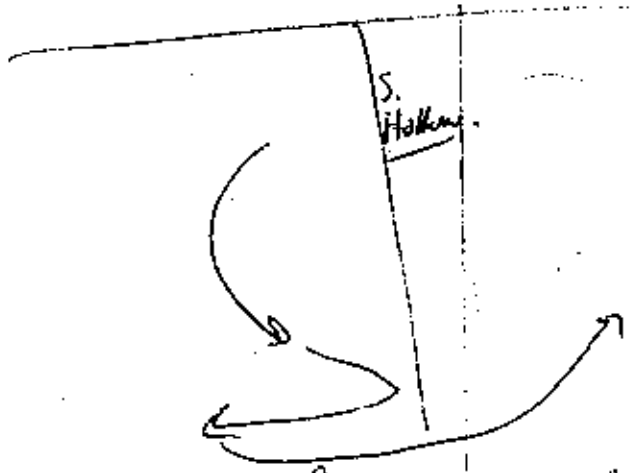
HW net
H Slope

1107 Foot Up Slope for 300m Down

Xing Ch to S Slope

1106 ♂ SC S. Hollow

240° / 30 m / 300° / +40



1111 SC feed 4 130°

1116 Basic W on S Slope

1119 ♂ SC just E walnut head
UB

40 / 10 / 0° cpy

♀ cp. (Chr

(1) AJ UB Nam coll / Old New

♂ guard & next to ♀ her next then.

♂ ♀ AC chit

♀ LG UB.

♂ follows

(2) TO UB LG.

1124 ♂ SC

Titrice

King

1138 2w ♂ to 100°

1144 Blue NSG

1147 Cpy New Walnut Rd

1154 8 SC

(1/2) 2 AT TOP

50°/10~/140°

(4) MHS

(3) -TO

(4) Fixed 60°/20/~~120~~ 40° Next h

Bounded RCB/6

(5) TO 0°/10~/

VB, SC, LC, (2TO, 2AT) +1

1204 ~~[illegible]~~

310° AJ, TO, TO (6) UB, SC,

HS, AJ/AHN, C>50.

1207 TO Lunch

1213 W. MHG at S. Central Ave.

2-3 Deer in W. MHS. Upland

fresh horse print.

1216 @ Cov @ Chimney Gun @ 200°

1218 Jun 8 to 20°.

4/5/18 Chimney Bin

0/5/m

Clell Bond

Antiqu c:\antiqu
Mitiga

Bob Reid

Kishas

M. Voellinger
Keiko R

Cecilia Green
Jerry W
Alford
Swihart
Braun
Mattic
Rose

641

Derek Green
dynasp
LeoTee
[illegible]

642

Jim Jones
New Emp
Dela Rosa
Dreyer

643

Paul Turner
Kerry

644

Martin Arhelger
Mexmms

645

Wayne Glander
GTaylor

13 Mard Victory, Mason Hollow, S. Slope.
T1. → ♂ GCW - Ch, UB. →
N. Slope. MH. Chimney.
SC / FC.

- Banding Attempt #3. N. MH - x Ch
Chimney -
(- Caught ♂ BW - ASY. Banded. CSM.
- Seam Thy.
(♂ GCW cont x Ch.)
(BWW, RC Spar, Cond. / Chit, RB Woodpecker -)
Scrub Jay.
♂ GCW. - SY -

Re acom Ch (NMH)
x Ch Chimney.

2nd Bam. NMH
E of Isl

Add. Dom. Tree spp
to Dot th

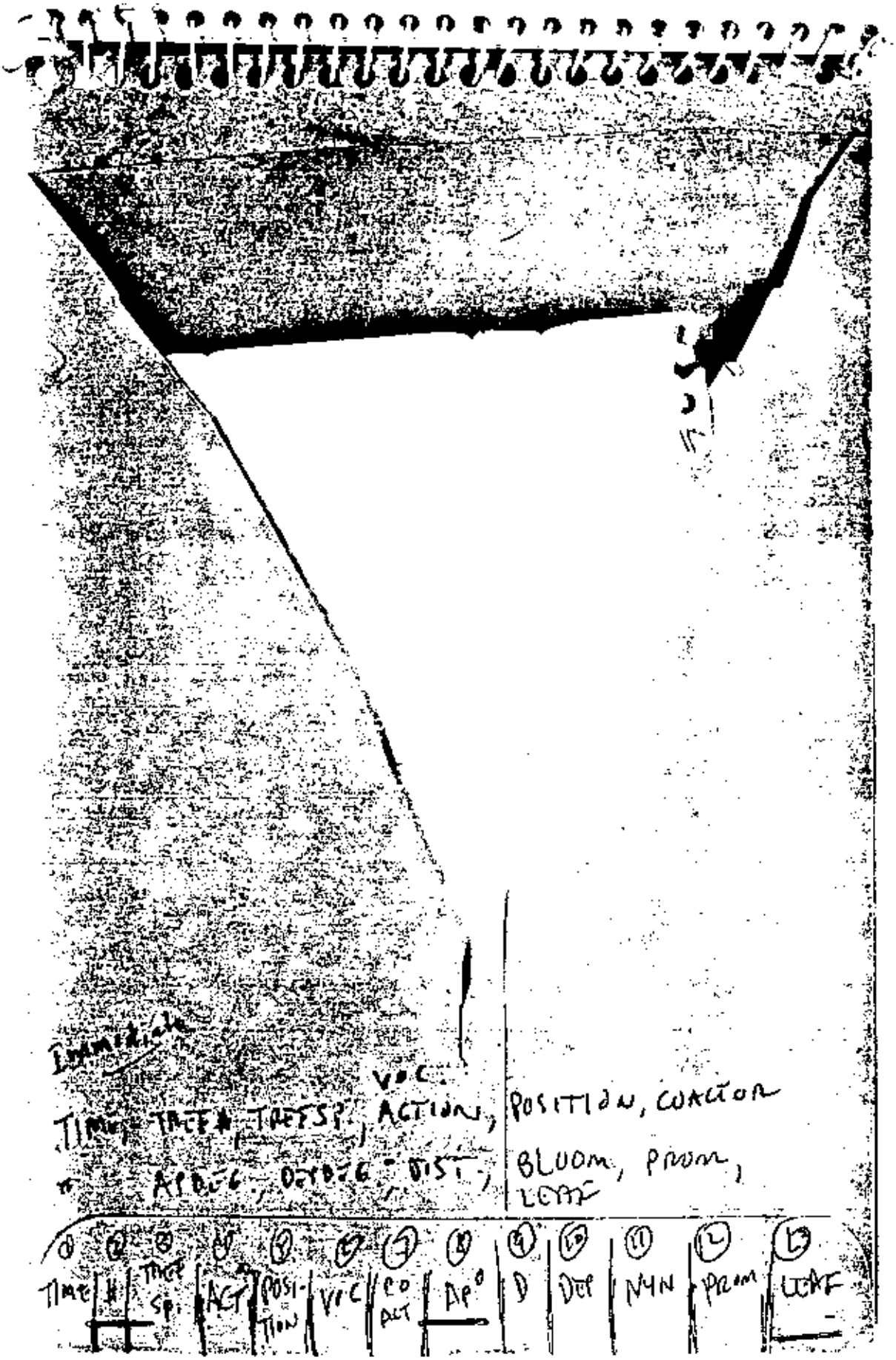
Need ① Rain Gauge.
② The Pocket Thermometer.
③ Wind Gun & Beaufort Scale.
④
Cell Insurance
Payroll
Van.
Bands USFWS
VARM Size

Immediate

TIME, TREE #, TREE SP., VOC. ACTION, POSITION, COACTOR

" APDEG, DEPDEG, DIST, BLOOM, PROM, LEAF

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
TIME	#	TREE SP.	ACT	POSITION	VOC	CO ACT	APD	D	DEP	NYN	PROM	LEAF



648

GREEN NO. 8011 GREGG RULED 70 COUNT

Photocopy: 12/7/95

Stenographic

NOTE BOOK

BY TOPS

0 25932 80111 2

Book No. 2 From 28/3/95 To 12/4/95

28 March 1993 Webster – Hawks Nest Hwy

0771 15° C, 5-10 K. Nw

69 Cooper Hawk, Kate

BHZB – at 100 m

300

50

0715 @ 200 m N Xing

BHZB 51

200

0758 BJays

100

718 300 m NX. 51

802 400 m N. Y.

0

804 500 m N X. (Trib)

RSHaw (Old Stick heat @ 20° 30 m)

RSTT scleaning @ BJys or ne ?

(22)

811 600 m

Raining Back to Car

28/3

931 Back @ 500m. BHCB & white
TOP Pecan

Walking on 1st ave
Mub.

Fresh Cow Dropshit
Fresh Cow Nose

932 BC Hummer
Blue Jay

0955 Back @ Ch. BHCB.
957 @ 500m N " S.

Ch @ H_2O.

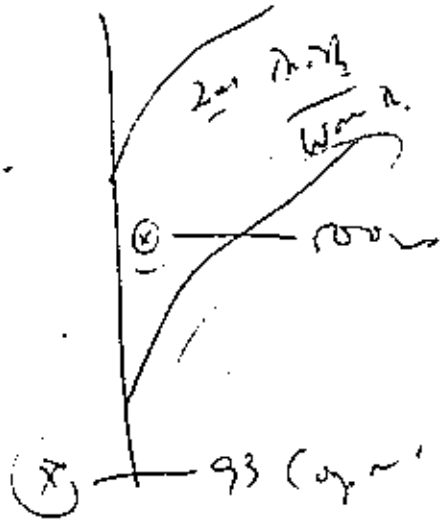
1000 @ 600m N

52

1001 8 Cu
82
2 M Dom

Not pm

NO3
700m N 4 ...
800m.



1007 8 SC Latrine 700 + 800 N

#1 320°/40/200° 2 pages

1007 240/<10/200

JUC, TOP, SC, Bot,

BL NL C>50, Mature, <10 ch 0.

HW>75% <50 E, TO, TO, JUC, TO

BANDM L/S R/R?

#2 JUC

#3 TO DH, SC, UB, TO —
(CE, JUC, TO, TO).

1020 8 SC by CK

+1 #4 CE FO/SC 180/70/~~72~~ 60.

+1 #5 JUC FO, SC +1 CE. TO SC
Catalph #6 A.S

652

L4 Blue w opp ?!
Reddish

1025 Amply

} along S
Slope Cl

13° C

220 // 200 // 320°

#7 TO(0) 37 UB FC H3, +1, (LO, TO, TO, AJ) (4AJ)

#8 TO(0) SC UB (3TO, AJ), 4AJ,

#9 Fran(+1) SO UB (TO3, AJ) // 4AJ

#10 Fran(+1) 350' / 200 / 70'
EC, Fran 2, TO) 4AJ

#11 EC+1 TOP, SC DIS
(TO2, LO, JUG). (DIO3, AJ).

7-10

4-6

700 800.

11

1-3

1048 900m @ Old Pt Time ← old no

1057 1 Km N Xing

1055 1.1 Km. N.

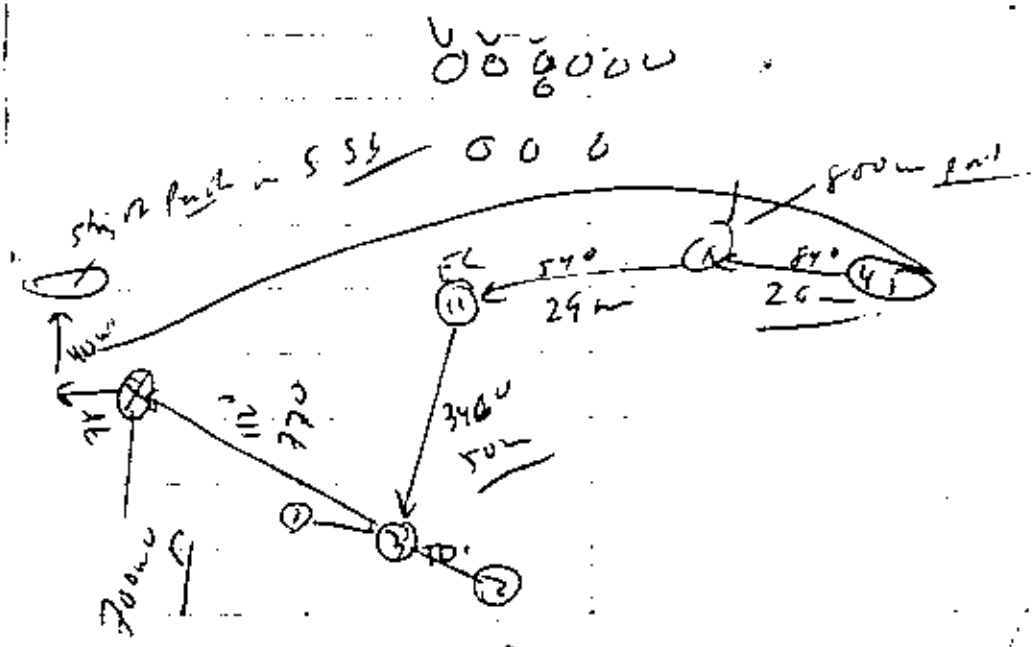
1107 1.2 Km N

88m old cattle Xing

1104 1.3 Km N. Xing

1105 @ Cedar Break to N.
2 MDm

1115 @ Cogen Sam up at S. Slg



doing WP

30/3/95 V.C 130C, NW5-10K, ⊗

⊕ Chimney - within S. Sign MH

8.4 Cp. non chimney

1) ♀ - AJ ♂ SC mark
indicate collar UP, AJ/HV,
non chim - Chilling line

8.18 DHCA x Hom

8.19 ♂ SI (Red/Mon)

(13) TO LC SC UP -1,
(3) Frag LC, SC UP, +1,

(14) Frag, SC >> +1

Cp

(5) Big Jooth, ♀, SC ?!
Rim
Qc x Hom

(6) 870 816 Fray [illegible] 53 [illegible] | 115

[illegible] Cp.

#7 837 TO LC, [illegible] SC, LC

#8 Fray +1, SC LC

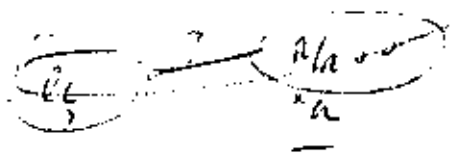
115

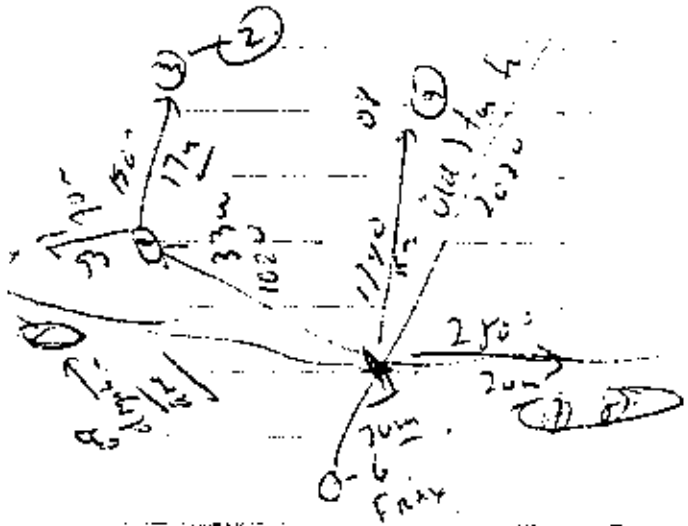
#9 846 BW

841 [illegible] [illegible]

#6 841 TO SC,

[illegible]





847 q ∂ .A] - MR , A]

F6

(8) S O

856 ♂ Dmpn ~ Dmn

♂ SC x Rd to S.

853 [illegible] why Dmnd's dmsly

859 q dmsly cp.

TO+1 Cp Lg?

Cell+1 Cp. Lg?

Im → E

3013 909 P/p main [illegible]
just [illegible] [illegible]
[illegible] [illegible] with [illegible]
[illegible] [illegible]

911 80° / 70 / 80°
[illegible]

160° / 104 / 80°

UB [illegible]
AJ UB, LC

[illegible] [illegible]

1) AJ +1

Same
240° / 30, 20, 0 / cut [illegible]
30+ [illegible]

2) AJ+1 UB, SC

3) AJ+1

926 (4) 50 -1 SC

NZ, IAT

921 (2) 20 -1 63, 51

929 240/ [illegible]

257

[illegible] 50

3 [illegible] Ag

931 [illegible] to E

Flicker

0937 UB ⊕ Ag
AJ FL SC
SU FL SC

936 ol CP

937 at
TRIB

AJ lc MB

939 AJ lc

at least 949

9 AJ lg cp UB
SU lg cg UP
AJ

940 m/s O/W

951 I FL Frax VA CP
AJ VB LO
SU VB LC

954 I TU VA LC CP
FI

955 AJ I

8 LI

I AJ Frax
AJ TU

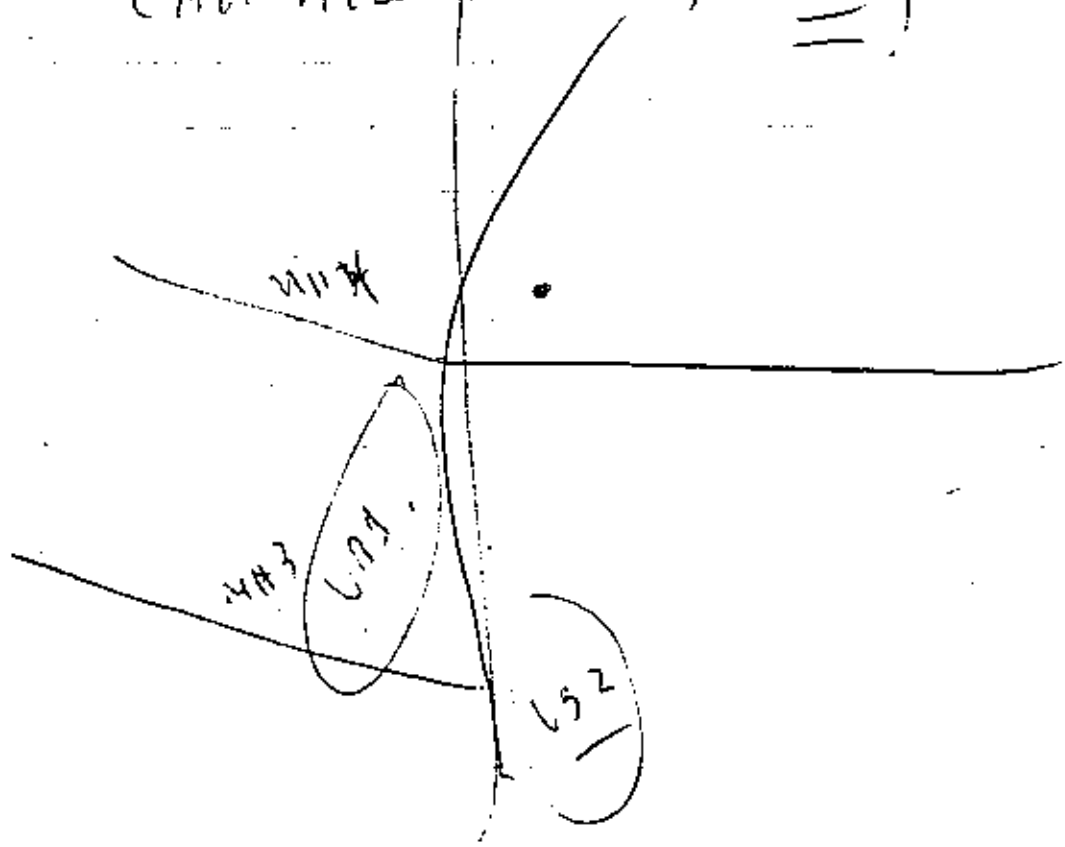
AJ953 → 130° Fm FRAX 913
at Nuuni MH3

Frax 953 → 220° Bm TD954

TD954 → 104° Fm AJ955

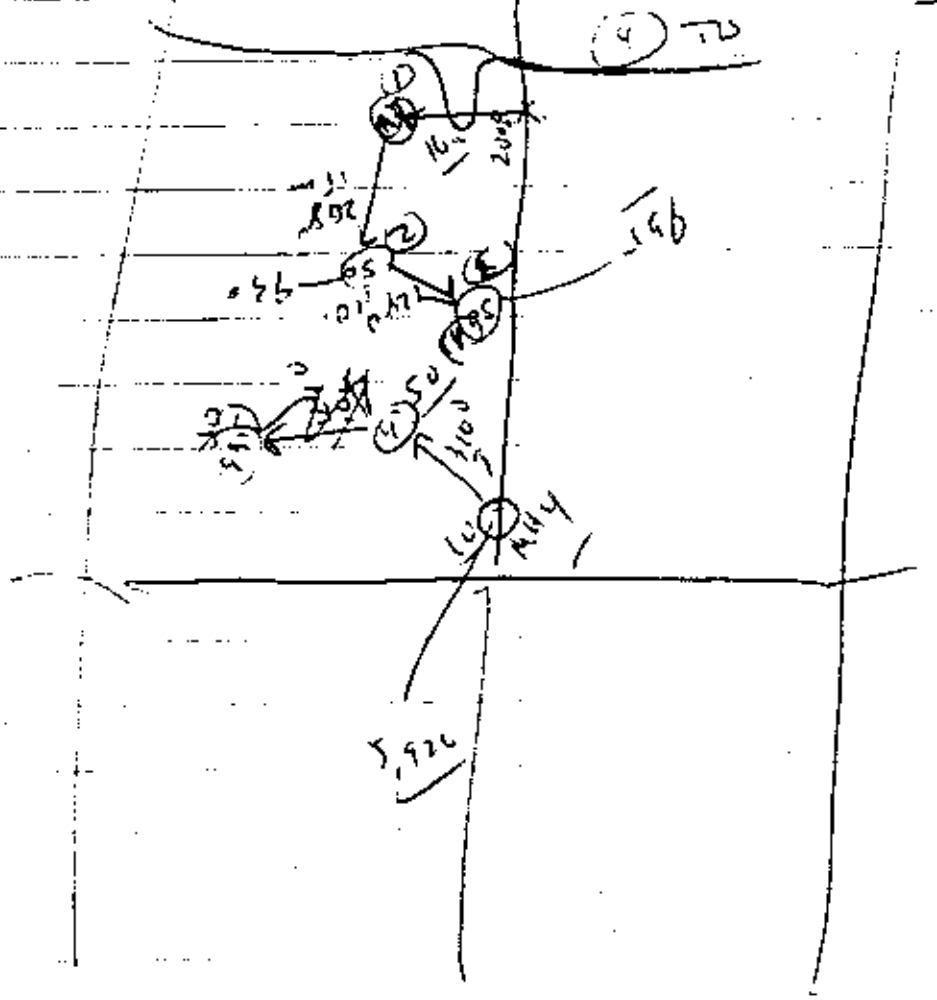
1015 UB of S Side Ro

(All Precedes Nlong MH3)



(2) MH4 to BS, Centre

(1) AJ 208°, 15m (2)
(2) SO 124°, 10m (3)
(3) SO/AJ 242°, 40m (4)
(4) TD



31/7/55 VOSZ 13°C, 10K NW
rain thunderstorm,
<1 mm rain
min ~ +13°C
max ~ 16°C

[illegible] ♂ SL 4/2 NW
[illegible] Fine RL cp.
Near SW [illegible] by [illegible]
Chillwater

0902 [illegible] ♂ SL
Highlight. VOC

918 - [illegible] to [illegible]

930 L 0/B R 4/S

① FG, TO, SC, VB =

LO, 3AJ, ... UPLM, AJ>TT,

C>50, 2 25 E, DNK H2O (>50)

*pos: ♀ →

941 - SO -, UB, FG,

958 ♀ ⓐ Calm

① LO OB LG CY

② LO UB LC GJ

1004 ③ TO Sm → 20 ... - 14 ♀ UB, LG

R

#1 4/S || P failure L. #AJ

#1 OB ? Bill sup

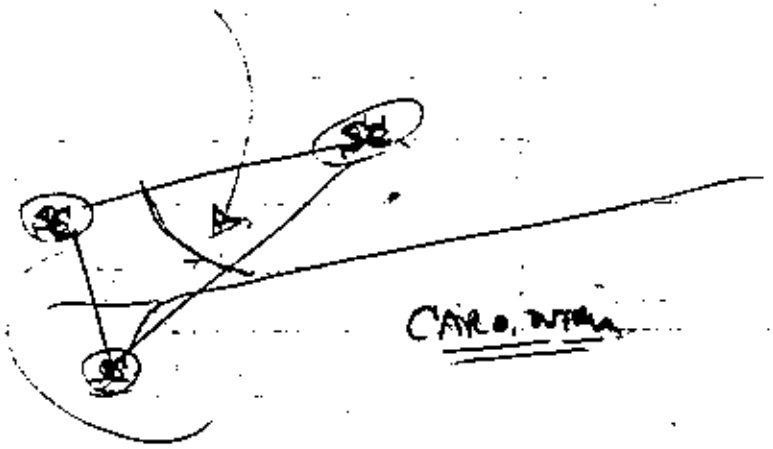
1011 UB 8, [illegible]

By 8 g q to 240

~~1014~~ ~~1014~~ Quiet.
1016

1025 BLKB [illegible] Hmmm

(a) Phoebe Nest ~ Trib 1 Lamy Cavity



31/3/55 → [illegible]

1116 [illegible]

① 730°/10/80° TU, LG, SI, UB, TU

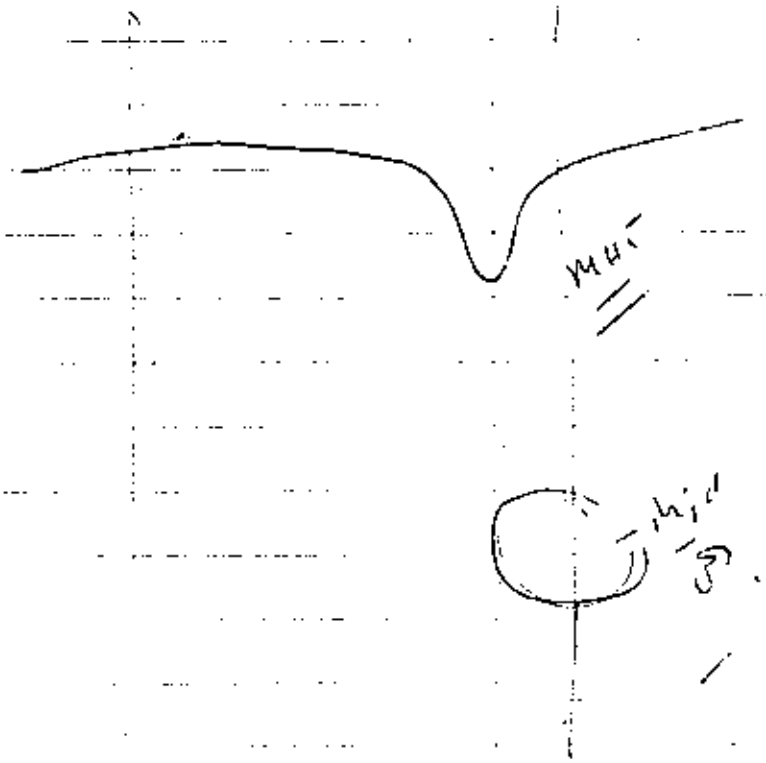
Pwr UB

1127 ② AD, UB, TP, LG,

1125 [illegible] 0°/10 /30°/90° [illegible] 0°

1201 ② MH3 + [illegible] at 53 [illegible]
S.L + [illegible]

1245 "injure ☞" UB, TU, LG
at MHS to E ms



1343 [illegible] ☞ + G (cc) Chang
of (W) Next Month
[illegible] [illegible] [illegible]

14th
Bus @ Rimrow @ Chu.

1437 ♀ in to pu Nest in
Celtic

1439 ♀ in. to yr

Fam. Nest 40-50 ft
up. in Celtic ca. 1/2 Cyn

3 April 1949 VCS MAX. 22°
MIN. 5°
0 [illegible]

Cal, @, [illegible]

1234 Flew over the [illegible]
diffusion [illegible] SR. [illegible]

S

4/Ap. 21 VCC at Mai eat

16°C - 5-10K NW,
rainy weather.
Green rain last night.

902 (1) → SI PU, UB
+1

UB

910 (2) TU 20°/30m/50°
917 - UB, TU, +1
STAT

914 - SI, UB 300/10/ → (4AJ)
(3) CIU +1
STAT

CH.) ↘ 16°C

923 BHCB @ Hamm Bus

928 @ ind. betw. Mus + Hamm

929 180° / 40° / 320
0

933 0° SC / 0, UB +1, (AT, 2TO, LO)

UPLAN

① AT

9 on

935 UA 0° FG, SL, UB

② TO GUSTY CORNER

UPLAN +1, 4AT

0° / 20 / 0° (10 LO next

940 @940 [illegible]

th 320° to distant [illegible]

2nd [illegible] ②

941 ③ 240° / 0 / 942 ④

20 / 30°

LG TO, +1, 4AT, SC.

SLFG, TO EL 4 AJ, E<10°,
944 20°/<10/100 / H, O ...
0 948 GR >10

(5) possible cpt
fault. nearby

948 (6). AJ. O ...
(7). AJ +++ B. (Big ...
(LS, TO, AJ2)
140°/<10/951
STR

951 la

6 Ap. 1985

Rain gauge, 25 mm 2 days

min 11°

MAX. 15°

(?) foggy, calm

0844 to Triangle 0851

dist. along Row Row

Remarks

nothing off, 70T

854 at SC x Rn Rn

Good @ Gate. (Remain in HY Turing - Out)

904 BWW Chg + Chg - N. NW Corn

906 @ ~~[illegible]~~ SR Near SC

to E

913 — interm of SR NW

914 (p nos fence to W

920 SR ♂ ?? SC

923 2 ♂♂ SI ~~at~~ betw SR mom.
I Sub Rd

924 SR ♂ 130 → 80/20m/

SR 94
T

GHCB F - ovch ♂

926 Dc to 30° distr
①

928 ♂ SC etc AJ, +1, 3A, 50
140°/20m/60°, 130°
②

932 ① AJ
230°/20/110°

934 ② SR

③ LU TOP SC (Del) F x Rd 94
4AJ, 160°/20°/340°

#4 vis N or SR

937 @ SR R(4/5)

130° / 30 / 320°
541°

#5 LO, TOP
SI (DIS)

#5 → 300° #3
10 25m 10

#3 → 200° Brush
#3 → 330° SR
14m
(⊥ to SR)
SR pt. → 236° Brush
41m

#6 vis LO, +1
30m, 20m, to Brush
#7 vis LO, +1 270°, 20m to Brush

947 #8 S. SR

Thin ♂ moving rapidly to
+1 pull to +1 pu

BHCO to S. SR

905 F SC at MUD ;

(1) LO +1 , UB

30° / 10 / 30+ft /

(2) AJ -1 FC, SI L (R/B) /

(3) AJ -1 FC, SI

AJ (0)

(4) 40° / 10 / 290

(5) TO FC

(6) AJ Salty Cyst mot

F 290

Cardinal, lime

1008 ♂ +9 cu more - 50+1

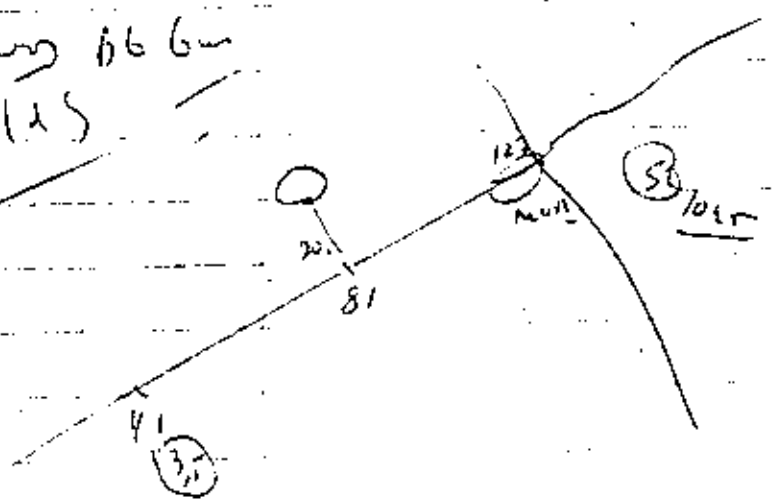
FC, CP, LP

1011 Scrub Ty Sink Mem
1017 10 VIZ (18, 3AJ) E2.25K, +1
1018 O/B 4/5 SL TOP
AJ +1
1022 OR SC TOP. 10. +1 3AJ, 50,
180° → 60° / 10 / 0 / -10 / 350° 40 +1
1026 BHCR
@ 94 SR Mem
1027 BJ. Scrub by SR
2 GB Harm. overhead
1030 8 SR - ST at SR in B
1036 50 FG, SC O/B 4/5 - 0
1036 + 10 " " - +1
(77 94 mem)
36 mm to SR Rm 94 mem

1047 Bar Shoals | E. [illegible]

1050 g.c.p

1056 @ [illegible] 66 [illegible]
Fields



100 in SRE, Tenn (#6193)

1:2 BHCB ♂ [illegible]

Sea Dry @ Sinu [illegible]
Dogs Barking to E.

BHCB - Sinu [illegible]

Paul Allen

1142 ♂ ll TOP + 1 AT, / cpm. stac.

260° / 30m / 1014 F 270

L (O/S):

3 mi. nmiles lc @ 5m/4

1118 ♂ SC mid-1A to E.

9 hrs

1130 ♂♂ - SMC E &

SMC - W.

1141 LB ♂ F 3A

1145 Sink Mas H 4 (44)

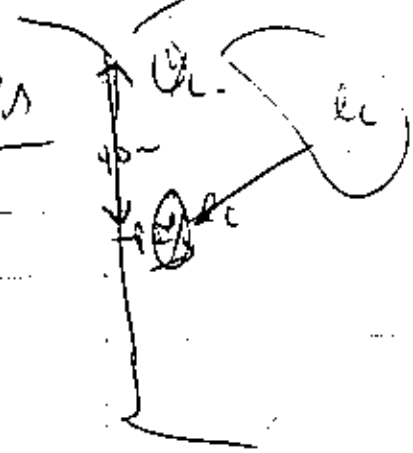
2 m D.

1153 pm Cg Chalk ♂ + Cg hs

~ 27

1202 Bohuhit Cam

1210 L (O/S) - 60°/ UPL
AJ+1, TOP, (B10, AJ) E<50, 150?,
PA WS
18m WR PA



1216 2m ♂ to S, PA
+1 AJ
L - ON // R. DARK (L1 ... L+ ...)
S.
220° - 280°/2m/30ft/ ?
1216-1222
2m ♂ ♀ to 260°
Til

DLS - lc.

1229 L (O/S) - TOP + 1 AJ
(4AJ) - 1 w PA

lc + stacc

- 90°/20/ stud in AL

AG 2 w ♂

20 w PA

1231 AJ (O) LO, 3AJ, 140°/20/ stud

TOP DIS O/S 6/S

lc

330° to 1229
13 w

U3

O/S

1239 ♂ LU+1
(2AJ, 2LO)

AG Cmd

Chr + BGG Cr TO

1242 ♂ TO+1 - 90°/15 w/ 90°
1247

1249 gives SI +1 AJ (4AJ)

50° / 10/0 , 30 / 240°

Plug trail to 93 Nov

SI gives

1251 +1 AJ alg trail to 93 Nov

1253 One of 3 AJs. TOP
gives SI

Follow cam of old trail
pass 93 Nov

Suspicion thus being alg
PA + switch to SI in
interior

1317 9 . of . S . [illegible] of T .

1 R'd Wave .

1336 Shim Clear 23°C

1337 9 . AJ+1

Beam 9 .

R 14 L . 6/S

AJ . UB FC

LU FC .

1314 of L 4/R R 4/S .

at loop –

NW fm

1405 ↑ 5 C

+1 AJ TOP

(4AJ)

100 ° / 110 / 180°

Sun Th

1431 leaving

25° C Cal

20° Wing 10+K. NE, [illegible], 14°-23°C,
10 April 1995 VIC = #9(93) OK

0725

833 ♂ mottled SC at
same Tog as Thurs

0/5

841 gone SC

♂ SC PO, +1, 4A7,
DIS, TOP.

Upland

892- 320°, 40° / 30, 20, 0 / 740
842
♀ Chg.

848 Fence at Green Bulg

VB ♂ @ Fence

VB ♀ @ Fence

817. BJay →
BHCBi. @ Sina Mean

902 ♂ 52 W PA

905 ♂ BHCB F. ovalis

Gnalan X PA tow

917 - UB ♂ SC ~13
+ 1 Bay to to W. PA, same
on ver in 6/4/95.

926 E ear of T

931 V-trem "TRACTOR" tracks
along New fence

Bobwhite

958 ♂ lc X New Fence New Lot

at Green tri -
pick 4 Cp. still hit.

1001 WEV to N.M. ~~[illegible]~~ N.M.

1003 BHCB [illegible] to [illegible] SSW

(1) #9 (53)
(2) #6 (53)
(3) SR ♂ (N of SR)
(4) SR ♂ (S of SR)
(5) Sinkhole. ♂
(6) NW Hole (x fence)
(7) Horseloot + Central 2nd Grove.
(8)

1329 Chin ♂ at Bu, Ag
at Chu SL positions
S. Slope mt., Head

1340 ♂ Ol to ♀ in N Rc

1344 · 600/20m.

2 ♂♂ + 1 ♀ at
W Nanet Blue Eg

UB ♂ at Blue Eg Nanus

1351

♀ AJ, TA.

1358 AJ ♀ + 1 UB

1401 8 le

1406 120° / 10m

379 FC

UB ① A) LB,

② A)

③ A) . Fill Bl2 Tall

mr ④ TU FO.

1406 7

1410 8 SI TU + 1

1413 8 SI A7 + 1

1413 UB 87 ① CB AJ, SC
② MB AJ, SC

1420 87 SC a [illegible]

1 @ [illegible] FG
① AJ
② AJ

1423 [illegible] @ [illegible] [illegible].

1426 9 AJ, TO, AJ.
LG - MB - UB

1511 ② [illegible] 280? ③ [illegible]

UB ♂ ♀/W (Rt) + ♀

♀ in TA F (cator)

♂ in AJ UB

to E. UB ♂ + ♀.

at next Nauser

1T 2" UB ♂ + ♀ - AJ

(1) ♀ ; ++ (AJ) BO, —

(2) AJ FC

AJ FC

AJ FC

[illegible] Chan [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible] UB

[illegible] UB

[illegible] [illegible]

3 - [illegible] [illegible] [illegible]

[illegible] [illegible] top [illegible]

[illegible] [illegible] [illegible] - CP

11 Ap. 1995 WEB / CU. PLATE

0830 7 - 9°, 10K NM

(O),

q Merlin 1 cm slyn. p. - st.

816 8/8 Cp: ny ne S. 400m

(B/4) //. 200 / 210 / 0.2 / 2600

(1) 113, UB - ??
101 115 NB Cp,

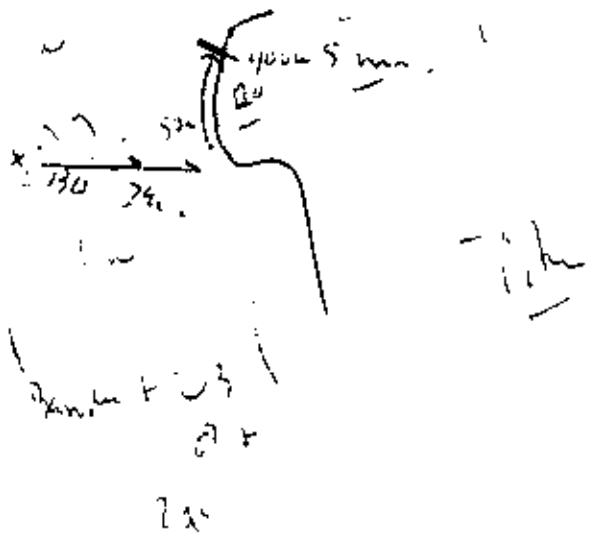
820 9. TO. Cp
13, CU. E

pm Cp

rhyn 101

(9) 400m S.

827 UB 8 SUB 9 TO



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

.016 → P/S ...

♂ l c – UB/TOP. L.O.

Dis

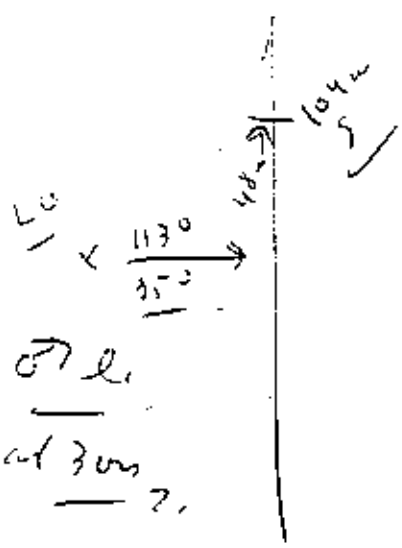
#1

280° / 330° / 180° ?

(320, A3)

113° – 35m 8 m
(... ...)

Stelea



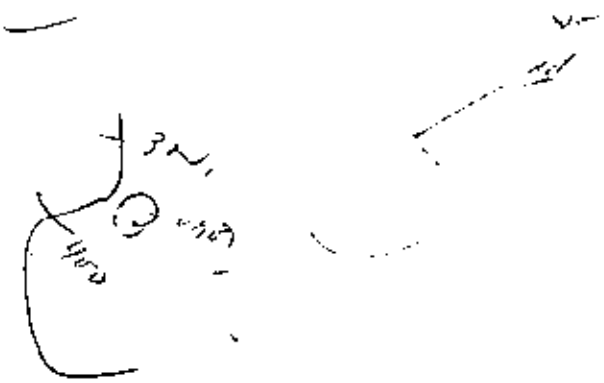
AG
DIS –
SC ...
UNA
FOY
LG
BG
HG
Sal

... ♂ l.
at 3m ?

1157 Bm @ ① Co Sa Lu
Dis

340° / 40-10m / 220° 2 mm

1114 ♂ F 0° L,
1hr [illegible]
Ad Co



1120 W of Rd S @ 400m

260° / 20-100 / 5.6m²

SL 70.

1130 180° / 30m / 270°

1136 HS [illegible] 400 [illegible]

1147 B/4 (at) AJ, UB, -

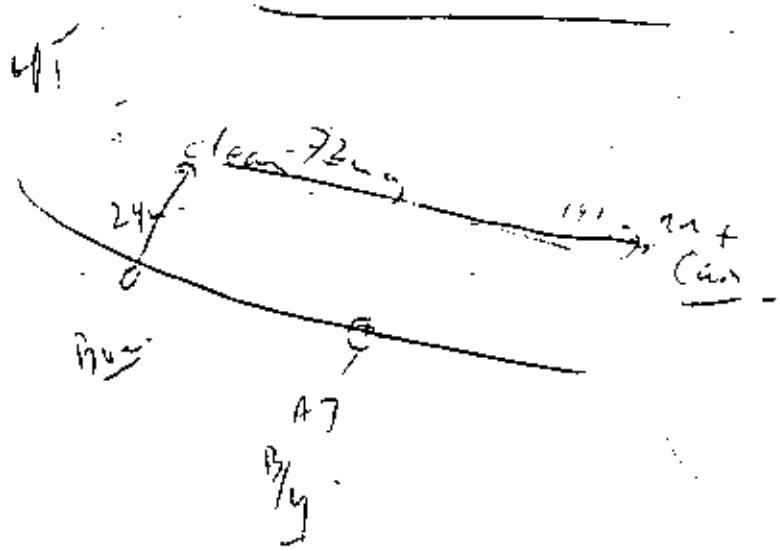
ON [illegible]

[illegible] 320° / 10 [illegible] / 12.49

[illegible]

Bum, TOP, -

+1 ([illegible])



12/4/95 ULC; MH @ Chimney

Air - +5°C, - 25°C 12°C

5 km NW ○.

BHCB → E Lead - F ing.

817 ♂ SC TOP AJ, +1 -

24 hr. VPLM, 3AJ, 50,

C > 50°,

0°/40°-0°/140°

F 140° Cpy

Prob f. L

8:15 @. Chimney ♂ height SC as one

855 UB ♂ Pry ♂ wallsey

17.07 9. 3AJ. Pr. TO Fran

Cp 8 ♂ ms

18.07 Pry Al. FO

19.07 +1 Pr.

700

57, 17 By Ass.

♂ Lem in Hand (Left)

How Lel

00.17 ♀ in Bar, looking,

0704 Ag ♂♂ + ♀ present

♀ A7 ? ?

906 ♂ SC in Left [illegible]

UB ♂ + ♀.

09.34 ♂ SO, A7.

0

10.49 ♀ . TO — PG 0

11.30 ♂ SC.

V.G-DLC, PB6, F?

9. quietly FG many clear shape [illegible]
[illegible] & T

(Birds [illegible] string of [illegible] [illegible]
[illegible] to [illegible])

26.58 A7, LG, [illegible]
29.37 H1 - to Big A7
to Big Ash

9 B-line to Big Ash [illegible]
to E of Big A7

936 UB [illegible] H1 TO
(1) FG, S7

(2) A7 FC

quo Big A7 [illegible]

941 ① ♂ TOP. Fraxetl, B. Sheg

② A) S1 quiet S1

DIS Pre. Bar Brans

941 ♀ 60° on ♂

♂ full

941 ♀ .50 F° LB ⇒ UB

TU FC.

A]

TU

GFY ♂ Bar at Upper Ach

100T PV ... h

♀ TO ♂ | A].

1020 ♂ LC 50°/ ~~40~~ 30m / ~~[illegible]~~
220°/ – 20m / steady [illegible]

R1 B/6 M[illegible] [illegible]/5

① FRAX UB SL (DIS)
++1

[illegible]

1021 Shift to FC in
min UB

1043 Cayuga Sheet

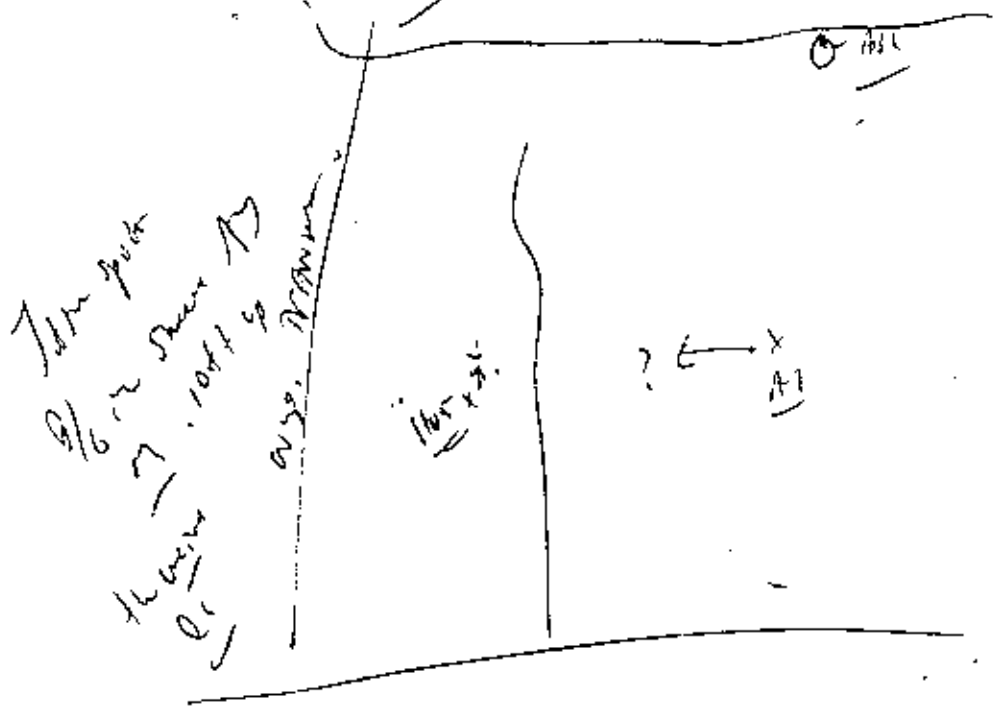
1045 300° / – / 20m. / 260° 301

1053 B/6 ♂ @ 9. low sight [illegible]
[illegible]

1104 B/6 +1 A7 UB/F6

1105 F to TO +1 UB/F

FC



23° 1119 B/6 in +1 A7 (Rim)

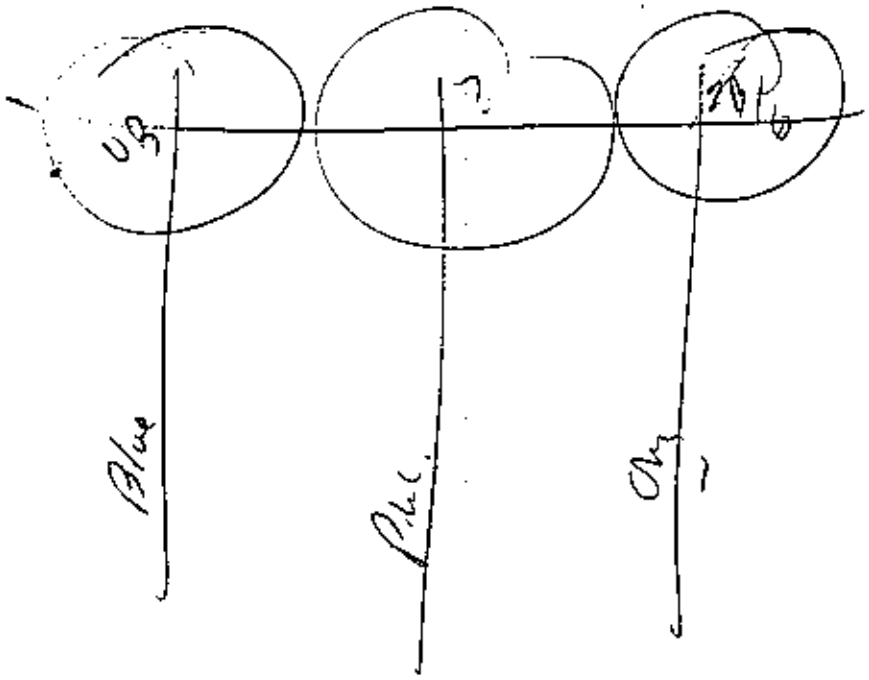
lc stat, lc, pr, stat

14.00 160° → 1118

320° 60° 10 - 260°

Tans @ 120° F 30 m to A13

121 BLCB on Hold



35 One

LOL

GREEN NO. 8011 GREGG RULED 70 COUNT

GREEN NO. 8011 GREGG RULED 70 COUNT 708

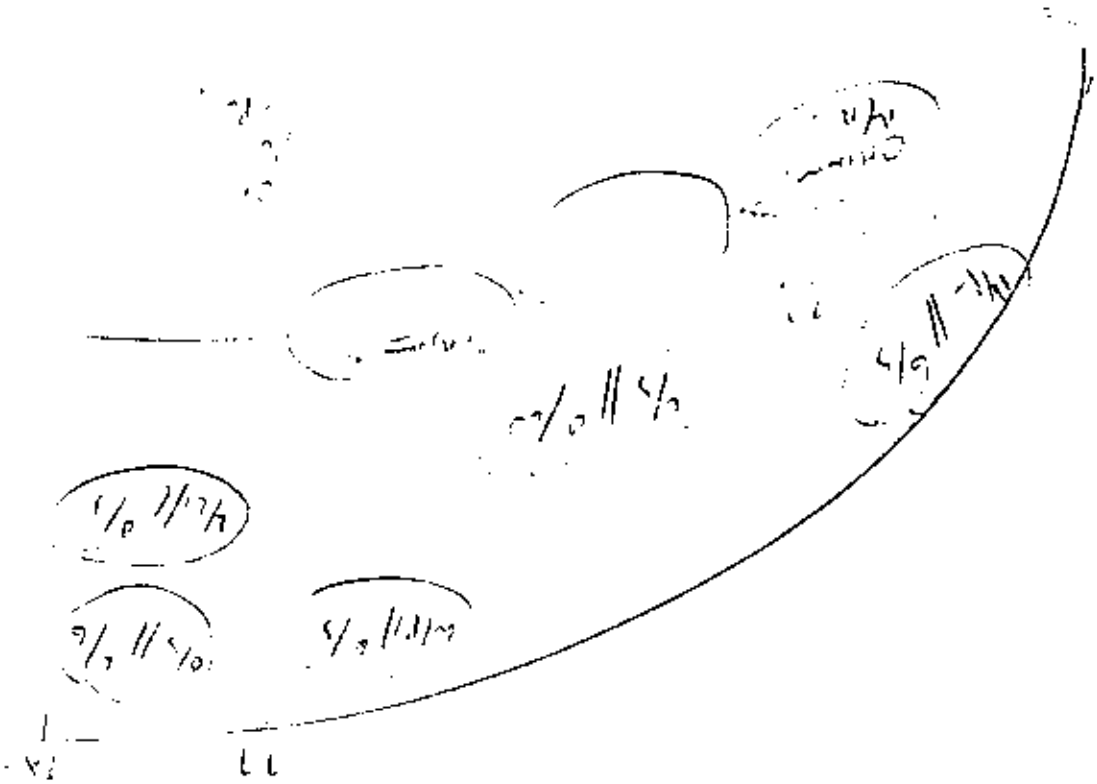
Photo. 12/7/95

Stenographic NOTE BOOK

BY TOPS

0 25932 80111 2

Book No. 3 From 13 Pp. To 21 Pp.



60L

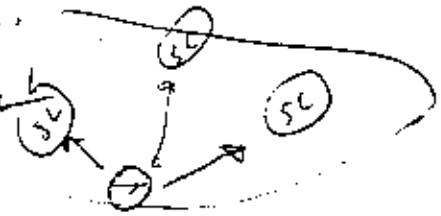
13 April 1995 VIC, WH, Hoan
0736 — ±8-25°C. O cat

710

13 April 1995 VIC, MH, HEAD
0736 — 18-25°C, ○ rain
15°C

0829 ad, Hollow edge just W chimney.
in S. slope
BWW, Carey ~ Wen,

831 lc: 40°, 60m
20°, 40m.
Chirsh, Kingleb



832 N, of Chimney

840 40 lc (2 meters thru N slope)

@ TRIBY 30°, 40m, lc cp.
43.25 F 40°, 10m
① ++1. AJ (rim) CE, 3AJ

846 Airplane. Mat Meter in Hour
sig lc's only

848 SI dmsh

854 R/R ~~Rdn~~ Green Ash UB, Got FL

+++++

856 q Glu in G. Ash

57 Cater by. green CAP

Op

0901 R/R flim in E.

No dyn?

907 q Celt on Wayne UB ~~T~~ + ~~WAF~~.

** NEXT MOE

R/R

907.01 by

931 Plane off Wait @ Gate L Film cm

UB Neale — Now which band (combo?)

Next 12 2 trip.

507.12 dry # 3 trip

fr 100°.

08.31 ♂ 37 to E clm

Near in Rig - Celtic

09.49 in ♂ SE if 2-3 SE

10.41 off. cp.

14.0 in

15.02 off.

here N. side

scootching in

Next cup

fiddling @ rim

0915 leave

Fox Squire

TAPE TRANSCRIPTION

~~TIME~~ ~~ACE~~

DATE LOC TIME

Apiar VIC; NE SI,

SR ♂ .002.10. AJ, Sally,

1002.31 AJ.

09F2 Back @ Chimney Parks Ave

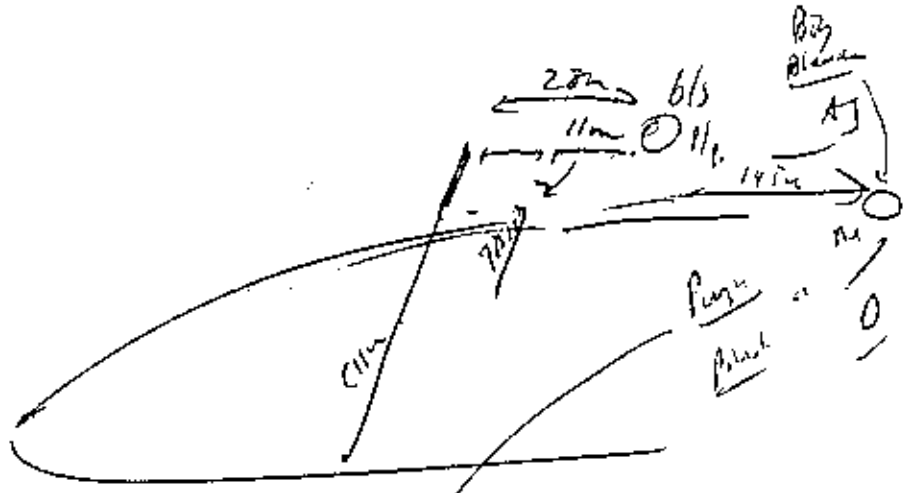
OAKS

Texas Oak
Shin Oak.
Live Oak
Post Oak,
Black Jack Oak
Texas Ash.
Green Ash.
American Elm
Cedar Elm.
Escarpment Cherry,
Bumelia.
Box Elder.

Red-eyed Vireo.
White-eyed Vireo
Black-and-White Warb
Carolina Wren.
Cardinal.
Bewick Wren.
Bush Tit.
Titmouse.
Carolina Chickadee.
Summer Tanager.
~~[illegible]~~ Crane Orioz.
Great-Great FC.
Ash-thrown FC.
Acad. FC.
Golden Lake Woodp
Red-bellied Woodpe
Hairy Woodpe

226 R(O/W) // L(P/S)

FG, TO, TO, FG, Stu



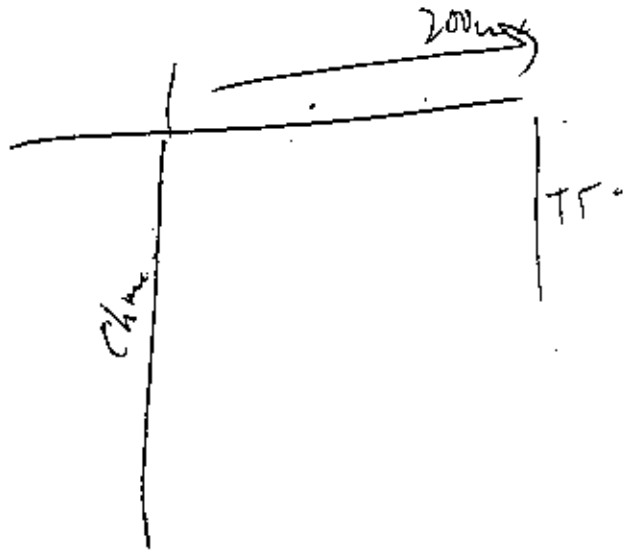
Good View

2:49.53 L(Purple/P) U(O/S)

0° / 40m ⇒ 10m / 258.29
35ft.

① +1 LO, ll + (p)
UB in shade.
(10, 3A) - Upper near Rim

27°C fair E. C > 50°
E > 50m!
UP,



Th mes

3.12.22 ♂ 52 x Cm f TRIB 2 S.
♂ 2C to NW or D2.

Shrink Lygosome.

:23 leaving

14/4/95 UVC, Met, @ Chm. 570K, 17°C
0825 UBO @ Hum Au

0838 @ ♂ S1 T0, +++1, 3A, 1S0.

39.09 160°/40m / 120° ?
↓ 90° / ↓ 210m / 41.53

Cp. Nearly | UP, C>50, E>50,
H_2O 25-50 ?
50°, 52m | HWAJ, Full H.
to W sender

0854 Chm ♂ T ♂ S? at river
R/R @ +++1 Ast Hr. alongside
at stone fan
steaming 5C ing.

0900 lower airplane

912 Chm T. Cp in big Celt.
Cairn
Cairn Cas
BHCB

pos BTGm in
Big HW's upstream
for Chimney.

Med-size Hawk prob. Accipit

921 . BWW Bl in SO
RS Vireo

WIND
INCREASING

938 in N. Slope to
Walk S. in Rim Rock

940 Airplane
BWW airsky

945 distant lc

946 lc close L(Pu/O) R(G/S) Pinkus
① TO ++1 - DIS, LC, ITAT, MB, (winning) +101
47.12 - 20m. (LC x Hooks).
100'
190' 30 ft

HS, HW>AJ; TO, AJ, AJ, TO,
H2O=50m; E=50m; Mature Trees;
cat. Chimney Transect. Mid-Slope
Cardinal.
Cano Wren.

58. WEV.

Bl Gnatcatch Nest. in JUG. cr.
40-50 ft. up.

Next Nerv Complete.

1000.40 [illegible] ... [illegible] ... ⇒

2.10 –

3-9 [illegible] – Cen Pl 5m

Next heavily [illegible] covers

1014 320' / 50m / 10m / Single steady L at least 3m

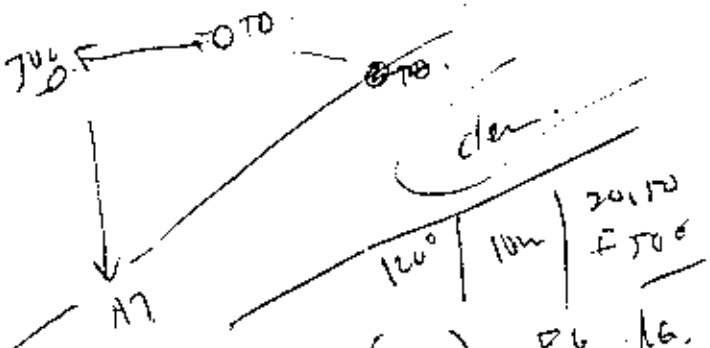
200° / 20 ft / 17.05 F 230° [illegible]

A1 DIS, RC, SIMT,

+1 (250, 2 A1), HW = A1,

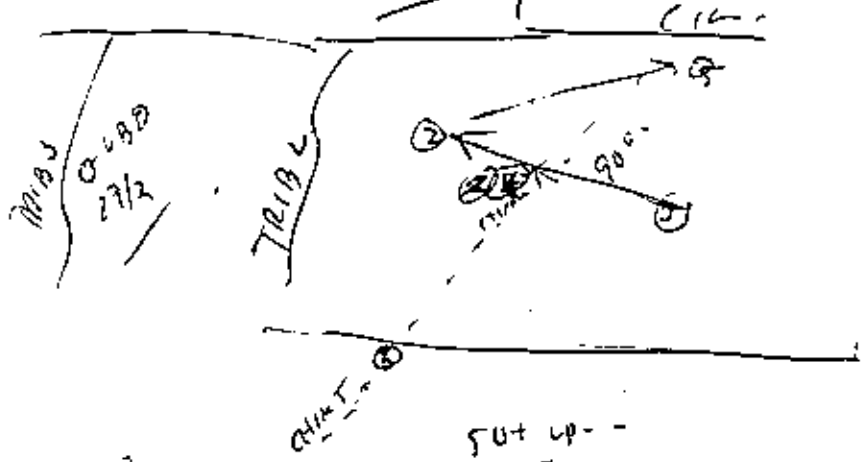
Rimrock / [illegible], E > 50, H, O > 10

(CHIMNEY TRANSECT "CHIMT")



1020 BACK TO TO (#1). PG. 16.

#4 1022 TO +1, (TO, FRAY, A7, A))
HCN > A7, HS, H2O = TO, E > TO,
at. CHIMT



1026 #5 HUGE JOE. MB, lc.., DIS
(TO, 2A7, TO.). H2O < TO
E > TO, HCN > A7,

135 @ T5

041 @ T6

011 - Amplen

158 S1 MB 07 at T

58.30 160°

TO F6
A7

720

1117 folk UB ♂ + q

1118 Solt Chill CP

q. TU Ry A7

cp lans

Ay other ♂

23.20 ♀ FC TU

C.

2342 A7 UB

A7 UB

TU, A7 Olu Ny

2101 TU, A7, TU, A7, ++1

TU, JUC,

2644 TU

A7, A7

28, 28 Sim

A7

(ALL @ T8)

T8

he

I7

1134 (eAum)

1144 (ey

1145 ♂ S/ @ - N Slum
@ "100m up"

1157 @ MHT + 200m up

1201 Rad @ CA

14/4/95 VLC . MH,

BV next to WR MT Ovns

1518 9 Cp @

5 S1 x L T7 → S.

240° / 20m / 320°
30H

1525 @ T8 next

Wayoum

Cam...

Kingfl

1245 AJ SC +1 UB

AJ FG S1 +1 UB

5645 gone AJ ~~86~~ DJ S1 +1 UB

5825 gone

♂ Look 210° downhill

724

+J

59,47 A1

A7

A19

B6

q 3x A7

S0 S0

A7

S0

S0 70

A7 +1 q 0 → l

q stay R

Cpi stenosy ner

Rt D

CF 725

1643 I 12.50, A7

1643 cop in A7

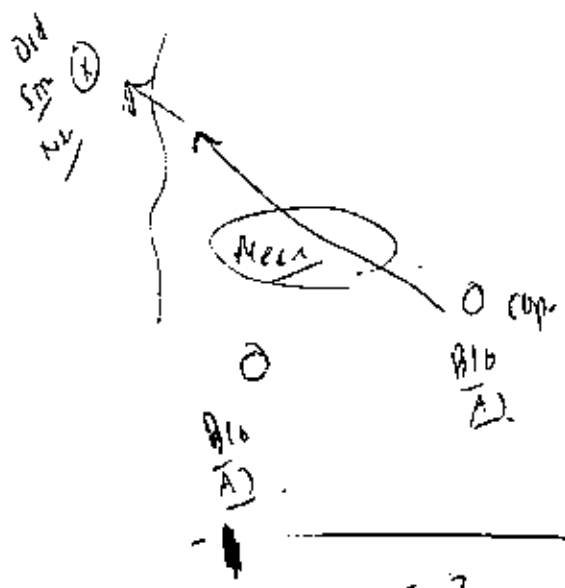
Sub

1650 ∃ q to old Mar

A7

Nar. B10 A7

A6 encount



1657 8 57

1701 8 57 TO +1

1703 leave, "0 m up"

17/4/95 – VIC, MH, –

0802 + trace ppt.; 19-20°C
22°, SE 5-10K

0830 @ T8 Territory

832 ♂ SL to W, R
in HW hull?

835 40 UB ♂ 280° / 30 ↓ 0° / 25 L /
UB
AJ+1
HS, HW > AJ

851 ♂ LL to W. T7 in
N. Slope + in Ch hill

0857 UB ♂ lat T7 + T8
– Stat Pr., SL

mid-sln
mother SL
MH, AJ > HW HS,
LO, SO, 2AJ / /

0500 - AJ2

01.50 → 2300

02.50 ♂ 1C, 9, AJ0

9 Cp AJ2

♂ AJ ++ 11, 115 ne

CK.

FNM to 50° L

Bty AJ

943 Found NOSA (in 1st AJ)

in Smaller AJ

a Produce Slope.

1023 @ Nest #2 .. down
♀ still construct @ feather ..

R(Pisl) // L(S!!)

Probably ~~[illegible]~~ unhaul ♀
color combo.

Flew @ ♀ to 50° ↓
upland →

1032 L(B/S) // G/

F6 ① (S O) up. F 100°
(Chim)
② (TA1) TOP F6

REV

Thwi's Perch

Bowed Nest

NET 2

Thwi's Perch

T2 N Slope

x hr Chim.

1042 BWa, REV.

1044 ♂ chim ♀ w/ Ch. at
P/S 11 G.

1048 ♂ lc tow
Chim.
Cand - cp lay
WEV.

1057 lc VB??
Nest 2
Area

Nashville W.
Yr-Gum Bar.
Bay Hen

B+W Nat, CW Wide

1055 P/S 11 O/W.

M
Bay Ash Nat //

TERRITORY ATTRIBUTES
① BASIC PERIMETER
a. EARLY.
b. NESTING
c. INC.
d. NESTLING
e. POST-FLEW.
② NEST-LOC.
③ ♂♀. CONSORT-
AREAS..
④ POST-FLEDGE
PERSH TRAT
⑤ FORAGING COURSES
of ♂, ♀
YY.

730

[illegible]

[illegible]

Injure of I

(12) [illegible]

Clon S1

Cpts. just to E of 1994
Not S1

of mem BACK + Earth (E+W)

alg slope above CG

S15 in Hour

1211 - 23°C 10+ SE wind

1220 Thjd ♂ T.

1223 ♂ quiet S/ ↓E

1238 .3 AD
Sal;

39.5 - AD . 2 +++ | Just 5.1

UB ♂ + OH ♂ 94 Nov
Tu

Dc gsk
at least 3 GC wn - A

[illegible] 732

1243 UB to E ♀ F > ♂
250

44,57 ♀ TU, FL, UA
101 Cp steam

♀ A7 FG UB

UA ♂ + ? ♂ AG

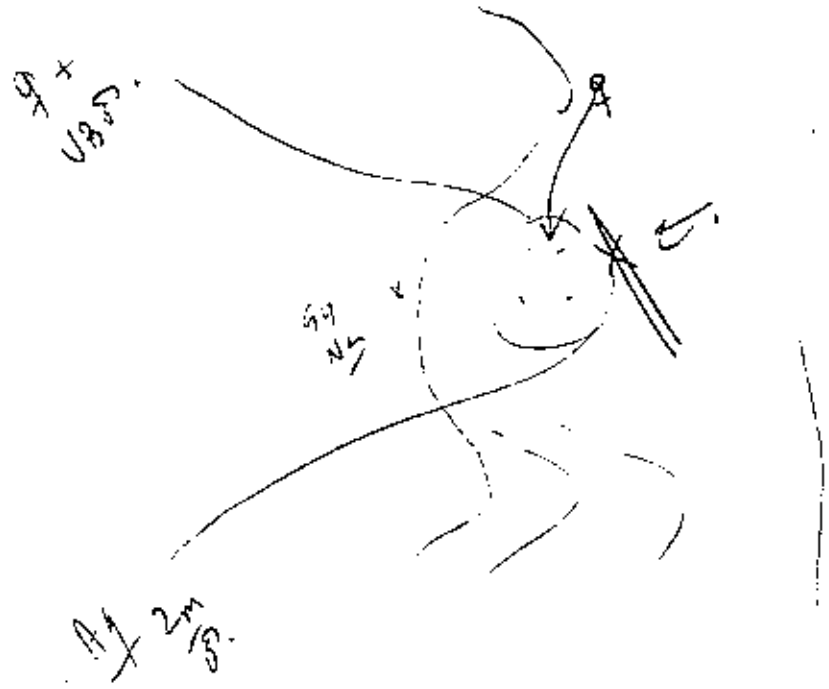
♀ TU

♂ LC R.W.OC

♀ - EL FS

(♀ Morin E along S. Slope ♂
CL by 94 Jub. [illegible])

1302 5 lc ~~[illegible]~~ cpl



17/4/95 WEB, HAWKS NEST

1351 25°C lc

Walking Dunch

280° / 20m / 120°

1571

lc - UB 8.

AJ
TO
TO

lc in + many thy. with UB, rapidly in pure tops

AJ

AJ - FC

AJ

a edge of clearing with AJ > HW but next to the ground.

big TUs

1415 Bew

Wal ~~[illegible]~~ @ Ck + Opr means

Some Tamarac scoring

Horse track along Ck

NPOT @ fence ground-nests bow at base of yucca 4 white eggs NO BHCB

@ E fence row + Ck

Hog platform in sycamore

2 Tits

Huge LC Ant mounds

2 lg. Stick platform

① in Walnut - Pen in Mesh to S of Ck

② in Sycamore near [illegible]

1452 Bird at 1 Rd XX
Cleaning
Fox Squirrel

500 ± White Pelicans
1 200

1y Stick Platform at
500m up

18/4/95 Vic, MH,
24°C, Calm, O, .75 in ppt,
[illegible]

1344 T8 8 [illegible]. TO
A?
T7 8 SX in the left [illegible]

in the left to E or T8

1353 9 gath spider [illegible]
for [illegible] A? [illegible]
[illegible]

1354 9 [illegible] A? T6. E [illegible]
[illegible] to [illegible] A? [illegible]

18/4/95 @ quiet S1 new Ch

L (L/L/2) R (O/)

X Ch T8

TO,

AD

RC Spa

1116 TC (N, stand ...

F 160° X X (4-6)

1442 30 SC, AD, TOP,

(P(S)) ...

100°/100m; 30ft/ 230°

25.55

1430.30 320°/ 10m/ 260°

1431.00

1434 L/L @ Fra, WB, PO

51

10/7/95 @ SR Terrace

9:17 [illegible] SI to [illegible]

100° / 30 [illegible] / 55.04 gm
? gm/[illegible]

A7 to 94 New + [illegible]

57.37 SI
LO
55.15 250°/
1600
@ [illegible]

1000 [illegible] + 9 to [illegible] 94 New

7 FC, [illegible], UP, A [illegible]

Cap + chiller

08 7 FC [illegible]

AL
LO

14.03 9 q

Ag 8/8 to S ly

SR

STOP Rainy.

1248 Stam SN 8.51

Bohwhi LO w ~~AD~~ ?

UB (LO, SO, 2AD)

+++, EE 2UU, UP, HW=AD,

1253 Silver Gu

1301 STOP

19/7/45 0818 Severe Hailstorm
12°C, Calm [illegible] but clearing.
prob.

Bwu
Carlo

Bohun

8 Oc to N & clearing N.
[illegible]

[illegible]
[illegible]

[illegible]

[illegible] Sq [illegible] 330° [illegible] | 47.57
[illegible] 2m | 240°

① CE, OB
+1 DB SC

② 48.55 - 260° / 2m | 44.40 | 30
+1 LC OB. SC 260° | CE

50.02 | 20m | 40
270 | | 0°

2CE, 2AJ

900.28 - SR Norm, SL

190° | 60m | 07 12
0028 | | 200°
0254 — 10m
0649 — 0m

R (P/L) // (4/S)

0421 - FG/SL LC +1°, 03 -
— / (LC, 3AJ)
UPLAN, EE = 20-50,
H_2O ; AJ > HC

~~0818~~ 50 FG 140°/210/930
909 17 200°

A) [illegible]

07 1053 TO FC, OB,
[illegible]
150° / 0m / 1231
20m / 220°

⊖ Cap Bag. (small?)

13.00 A7 220°

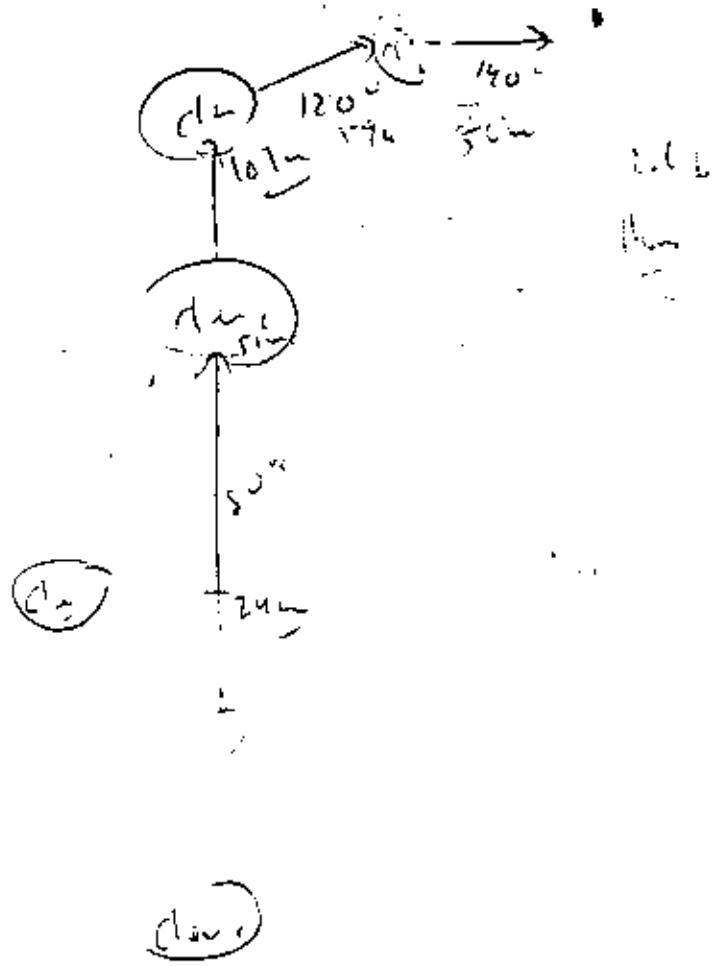
13.12 140° [illegible]

[illegible] 60m.

17.0 A7+1 SC [illegible]

17.44 A7 +1 , OB, SC

80°



47 12 @ SRT

1024 SR ? QUESTS

1029 9 gate [illegible]
[illegible]

3 in DAU AJ [illegible]

to 330°

gate 4-5 [illegible] 4-5 [illegible]

1059
3HCR

8 [illegible] do E in
10 by [illegible] (a [illegible])

This pair [illegible]

1125
[illegible]

1129 [illegible] in AJ 30 ft [illegible]
[illegible] Ave. [illegible]

0825. UCi.

0877 UB 0⇒ @ Home Ar.

29/4/94 1312

R(R/R) // L(W/S)

[illegible] W [illegible] [illegible]

6th [illegible] [illegible]

21/4/95 @ Chin ○, 15°, 5 kNN -
10 - 25° gm
· BIG HAIL STORM YESTERN
Blue Jays in Hollin Hu
15.58 60° / <10 / 0 1713
8 SC ? 160° UP
abn
CHIN FRAY LOUD SC
+1
.518 .70 BJy Scale in Hu
18.45 200° / 30m / 10m / 17.12 / 80°
FRAY
+1 LOUD SC UP
20.31 60° 40m / 2732 ft DIS SC
+1 FRAY
21.13 60° -20m / 240 10
4.5 Scrub Jay → 8 Hu DIS
Scoms + jam
834 TO N. Slu

30.44 ⊕SC in DIS ATL ~ Rhum
R/R "(H in ⊕)

310° / 15m / 40ft / 32.34
250° 6 mt
Jn

31.50 N F2

0340 ⊕ lc's, Both sides of
Hole

41.21 30° / 30m / 40ft / F 310° / 42.00 ~~15m~~ 40m

+1 TO ~ HS UB., lc
Next to Bin Jay

BWW Jn

845 Wear Sn Buzz, Buzz, Bz Bz Bz
1 2, 123.
3T Cu

@TRIB2 Blackthorn Green
⊕ Sin Stn on Fn

751

0847 BTG @ TRIB 2

0°
48.18
30°
10m

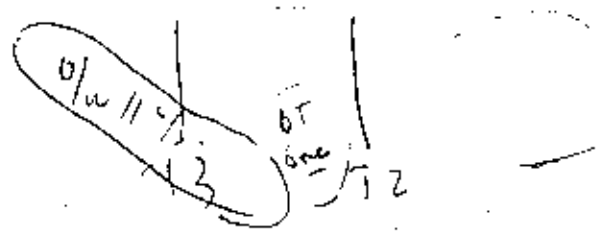
R (O/W) // L (L/S)

A7 (O) Rim
A7 (O) Rim
A7 (O) Rim

at Rimmed to E & T2

@ T3

553.55 80° / 10m / 54.48
le / F6 / 110° to
F6, T0, +1, (4T0) H3, 40m
HWB, E>50, W20, >50 (ca 10m)
CA vgl lg. wingd mix Matm, ca>50



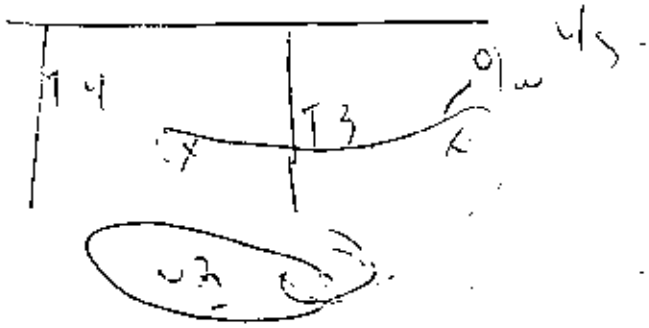
59.47 20°, 10m, CL. UB. – AJ
220°/, C10, F 220°, 01.4.5 Rim

Rim. HW = AJ.
↓, t+1.

904 UB ⊙ – ~~[illegible]~~ 0: ~~[illegible]~~ LO
~~220~~ 220° –
130° →

@ T3
AJ+1
AJ+1
AJ+1
TO+1
UB ⊙ CL, FAC
Rim, HW = AJ.

913 O/W WM. UB JUL
@ T3. WM



0924 @ Blue Transp + N Rd.

0943 OB & Lc FL ++1 HS,

320°, 60m+ → 60°, 15m, 946.5, 40ft. 48.04 gm

@ T5

Just E. Blue Transp

950 Pink Transp

957 @ S1 dense

@ T6

92 .15 180° / 10m / 57.52 50°

+++1 Ast F - 50cm

T4 54 9 FL AD / TL

TU 1A7, AD TU± 130.

TO / Sal (Osprey)

Sal

Sal / Cp. slow.

Sal /

El /

TO / Sal (+)

Turat

To Sal.

Collar Cayuk

not Gone ?!

Meeting to W

[illegible] SC

news

1012.5 ♂ SC in Cm or Big Frax
in Bore.

Dummy Nest in Frax

Mystery ♂ using Big Frax.

1030 Long Flight A
position of 70° L
Frax. also
close to F or
♂ @ 60-70°

Same ♂ used by
UB♂ + ♀ just N.
a "Mystery ♂"

1038 LL. Frax +++

(1) L-B/Pol // R. Blo/S.

HS. (AJ Frax.)
2 to
HW>AJ.

② TO, UB (+1), (TO, 2 AJ, Frax)
HS, HW > AJ. MAT,
C > 50, E > 100m.

~~[illegible]~~ Sick

Some Kings

R/Pp.

L (W/S) R (R/R ?)

Clim ♂ Sr

Bpy to #1 Frax on Rm.

1056 Lem in Chim