# FINAL REPORT

As Required by

THE ENDANGERED SPECIES ACT, SECTION 6

TEXAS
Project No: E-1-4

ENDANGERED AND THREATENED SPECIES CONSERVATION

Job No. 18

Ocelot and Jaguarundi Habitat Restoration

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#### ABSTRACT

This three year project was aimed at restoring habitat for the endangered occlot and jaguarundi through replanting of native brush species on deforested land. Areas which provided corridors between existing habitat tracts or which expanded existing tracts were targeted. TPWD provided assistance to other parties in reforestation efforts as well.

A primary accomplishment during the project was the construction of a greenhouse which will allow TPWD to produce a dependable supply of seedlings at low cost. In total the three year project resulted in the purchase of 14,500 seedlings, the production of 55,000 seedlings, the planting or scheduled planting of approximately 200 acres on approximately 15 tracts, and assistance to at least six other federal, state, local, and private organizations in brush restoration efforts.

### FINAL REPORT

STATE: Texas PROJECT NO.: E-1-4

PROJECT TITLE: Endangered and Threatened Species

Conservation.

PERIOD COVERED: September 1991 - August 1992

JOB NUMBER: 18

JOB TITLE: Ocelot (Felis pardalis) and jaquarundi (Felis

yaqouaroundi) habitat restoration.

JOB OBJECTIVE: Initiate native woody plant species restoration on public managed lands at a rate of at least 100 acres per year conducive to use by endangered ocelot and jaguarundi.

#### **SEGMENT OBJECTIVES:**

 Restore ocelot and jaguarundi habitat on at least 100 acres on management areas belonging to the Texas Parks and Wildlife Department, United States Fish and Wildlife Service, National Audubon Society, and other interests in the Rio Grande Valley.

# ACCOMPLISHMENTS

Several neotropical wildlife species are known in Texas primarily from the Lower Rio Grande Valley (LRGV); however, wildlife habitats in this portion of the state are composed of small and highly fragmented tracts. For several years the Fish and Wildlife Division of the Texas Parks and Wildlife Department has joined efforts with local, federal, private, and other state interests to restore habitat and decrease fragmentation through replanting native brush species. For highly mobile species, such as the endangered ocelot and jaguarundi, this effort at connecting and expanding habitat through creation of corridors has the potential to increase the habitat available to these species beyond the acreage actually planted.

Prior to initiation of this Section 6 project, a major limitation to reforestation efforts was a lack of a dependable supply of seedlings. Consequently, a portion of the three years of funding was directed at constructing a greenhouse to enable TPWD employees to produce the seedlings needed. The actual reforestation efforts accomplished are described in the following paragraphs.

#### 1989-90

Brush restoration activities came in many forms this segment. started with the loaning of the Department tree planter to Laguna Atascosa National Wildlife Refuge for their reforestation efforts. Then 14,500 native tree seedlings were purchased from the Madrone Nursery in San Marcos and Texas Natives Nursery in La The seedlings cost a total of \$7,730.56 of which 56% was covered by Section 6 monies. Roughly 60 acres were planted by the Department personnel to future potential endangered cat and whitewing habitat. The acreage includes 20 acres at the Resaca de la Palma State Park Site, and 20 acres at the Taormina Unit of the Las Palomas Wildlife Management Area. Additionally, 20,000 native tree seedlings of brazil, granjeno, anacua, ebony, ash, tepeguaje, and huisache were successfully germinated and grown by Department personnel for reforestation efforts during the next Also initiated this year was the construction of a 48' by 34' greenhouse and water well system on the Taormina Unit. estimated \$9,500 cost will come entirely from Section 6 monies. These additions will be used to propagate native plants for future reforestation efforts for endangered felines in the LRGV.

#### <u> 1990-91</u>

Twenty-thousand seedlings of brazil, granjeno, anacua, ebony, ash, tepequaje, and huisache produced by TPWD personnel during the previous year were used during this year to plant 20 acres on the Taormina Unit of the Las Palomas Wildlife Management Area to future potential endangered cat and white-winged dove habitat. Additionally, the seedlings were used to assist other LRGV restoration efforts by giving 5,120 seedlings to the LRGV National Wildlife Refuge (NWR), 2,000 seedlings to Laguna Atascosa NWR, 768 seedlings to Bentsen State Park, 1,200 seedlings to McAllen Parks and Recreation Department, and 2,000 seedlings to local church, boy, and girl scout troops. Also accomplished this segment was the completion of the 48' by 34' greenhouse and production of another 20,000 seedlings of granjeno, brazil, ebony, ash, tepeguaje, huisache, wild olive, anacua, coma, persimmon, sugar hackberry, and sabal palms to be used during the next segment.

# <u> 1991-92</u>

Reforestation efforts continued during this year, although no Section 6 funds were expended on the particular tracts planted. Fifteen thousand seedlings of fourteen species were started in the greenhouse. Of these, 6,000 seedlings have been planted on 15 acres of the MacWhorton Non-game tract (a parcel in Hidalgo County owned by the Texas Parks and Wildlife Department). An additional 21.1 acres has been obtained in Cameron County near the intersection of US Highway 281 and FM 2556. Of this area, 15 acres will be planted at a density of approximately 250 seedlings per acre. Five acres near the Las Palomas Wildlife Management Area have been donated for planting of seedlings at similar

densities. Lower Ric Grande Valley National Wildlife Refuge personnel have identified three privately owned tracts where most of the remaining seedlings will be planted. Any seedlings that remain after planting the privately owned tracts will be planted on lands administered by the Lower Ric Grande Valley National Wildlife Refuge. Work to identify potential tracts for brush restoration and actual planting of brush species will continue on an annual basis. Monies previously obtained through the Section 6 process will be used in these efforts.

The following table outlines the species composition and numbers of plants remaining to be planted:

Species	Number of Plants
Fraxinus berlandieriana	384
Ehretia anacua	2304
Condalia obovata	1088
Ulmus crassifolia	448
Zanthoxylum fagara	128
Bumelia celastrina	704
Pithecellobium ebono	1280
Celtis pallida	1152
Celtis laevigata	approx 50
Acacia smallii	896
Ziziphus obtusifolia	512
Diospyros texana	192
Leucaena pulverulenta	approx 700
Cordia boissieri	approx 150
Total	approx 9,988

# SIGNIFICANT DEVIATIONS

Section 6 funding was not utilized during this segment for the purpose of feline habitat restoration. Although scheduled as a five-year Section 6 project, Section 6 funds were not determined to be needed beyond the three years accomplished. Section 6 funds enabled the essential aspects of greenhouse construction and initial operation; reforestation efforts will now continue under alternative funding sources.

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