PERFORMANCE REPORT

As Required by

FEDERAL AID IN SPORT FISH RESTORATION ACT

TEXAS

FEDERAL AID PROJECT F-30-R-33

STATEWIDE FRESHWATER FISHERIES MONITORING AND MANAGEMENT PROGRAM

2007 Survey Report

# Calaveras Reservoir

*Prepared by:*
Randy Myers and John Dennis
Inland Fisheries Division
District 1-D Office, San Antonio, Texas

Carter Smith
Executive Director

Phil Durocher
Director, Inland Fisheries

July 31, 2008

TABLE OF CONTENTS

# SURVEY AND MANAGEMENT SUMMARY

Fish populations were surveyed using electrofishing in fall 2002, 2003, and 2007, bass only electrofishing in fall 2005, gill nets in spring each year from 2006 to 2008, and trap nets in 2004. This report summarizes the results of the surveys and contains a management plan for the reservoir based on those findings.

- **Reservoir Description:** Calaveras Reservoir is a 3,110-acre power plant cooling reservoir located within the San Antonio city limits. A near-constant water level was maintained by pumping from the San Antonio River during periods of low rainfall and runoff. Angler access and recreational facilities, maintained by the San Antonio River Authority, remained excellent. Both boat ramps were renovated in 2007. Aquatic plant coverage in the reservoir was <1%. Blue tilapia (*Oreochromis aureus*) and sailfin catfish (*Pterygoplichthys multiradiatus)* populations have become well established in the reservoir.

- **Management History:** Important sport fishes included red drum, palmetto bass, and channel catfish. The red drum and palmetto bass populations were maintained by stocking, with palmetto bass stockings occurring in 8 of the last 10 years and red drum stockings in 9 of the last 10 years. Northern largemouth bass (NLMB) have been stocked to increase genetic diversity; however stocking success was short-lived. Hybrid and sub-adult white crappies were stocked to re-introduce the species to the reservoir; however a self-sustaining white population did not result. Orangemouth corvina and Orangemouth corvina *x* speckled trout hybrids were stocked to provide an additional sport fish; however these stockings were also terminated because of low success. Angler harvest of all sport fishes, except largemouth bass and red drum, was regulated according to statewide size and daily bag limits. A minimum size limit of 18 inches and a 3-fish daily bag limit were implemented in 1990 for largemouth bass and harvest of red drum was restricted by a 3-fish daily bag and 20-inch minimum size limits.

- **Fish Community**
  - **Prey species:** Gizzard shad, threadfin shad, and bluegill were the primary prey species and present in sufficient numbers and sizes for utilization by predators.

  - **Catfishes:** The reservoir contained an abundant population of channel catfish which supported a popular fishery. Blue catfish were also present, but were not as abundant as channel catfish.

  - **Palmetto bass:** Population abundance varied somewhat from year to year. However, the stockings provided a consistently popular palmetto bass fishery.

  - **Largemouth bass:** Population abundance for this species has increased since 2002, but remained low overall. This species provided a limited fishery.

  - **Red drum:** This species supported a popular fishery; however standard fisheries sampling gears were ineffective at collecting sufficient individuals to monitor trends in abundance and population size structure.

- **Management Strategies:** Continue to stock palmetto bass and red drum to support these popular fisheries. Also, continue to monitor the largemouth bass population response to the current special harvest regulation.

# INTRODUCTION

This document is a summary of Calaveras Reservoir fisheries data collected in 2007-2008. Its purpose is to provide fisheries information and make management recommendations to protect and improve the sport fishery. While information on other species of fishes was collected, this report deals primarily with major sport fishes and important prey species. Historical data are presented with the 2007-2008 survey period data for comparison.

## *Reservoir Description*

Calaveras Reservoir is a 3,110-acre power plant cooling reservoir located on Chupaderas and Calaveras Creeks in the San Antonio River Basin. It was constructed in 1969 and is owned and operated by City Public Service (Table 1). The San Antonio River authority regulates access to public facilities at the site. A near-constant water level was maintained by pumping from the San Antonio River during periods of low rainfall and runoff. Boat and bank angler access was excellent and both boat launches were renovated in 2007. The controlling authority was granted TPWD funding to facilitate the boat ramp renovations. Blue tilapia and sailfin catfish (*Plecostomus* spp.) were abundant.

## *Management History*

**Previous management strategies and actions:** Management strategies and actions from the previous survey report (Dennis 2003) included:

1. Conduct annual stockings of red drum (200/acre) and palmetto bass fingerlings (15/acre).
   **Action:** Palmetto bass fingerlings were stocked at the recommended rate in 2004, 2005, and 2007, and 569,569 fry were stocked in 2006. Red drum were stocked in three of the last four years. No stocking occurred in 2005 because of low hatchery production.
2. Monitor for habitat change and subsequent largemouth bass population response to native vegetation establishment project conducted by City Public Service and a private consulting firm.
   **Action:** Electrofishing surveys were conducted in 2005 and 2007, and habitat was surveyed in 2007. No significant improvement of the aquatic vegetation or largemouth bass population resulted from the vegetation establishment project.
3. Monitor crappie population with trap nets subsequent to a 2002 crappie stocking.
   **Action:** Trap net surveys were conducted in 2003 and 2004 and only one 6-inch white crappie was collected. The stocking did not yield an improved crappie population. Trap netting was discontinued.
4. Assist TPWD-IF research staff evaluate fingerling northern largemouth bass (NLMB) stockings in the reservoir as part of a special research project to increase the proportion of northern largemouth bass genotype in reservoirs with $\leq$1% NLMB genotype to 10% within three years of stocking and evaluate dispersal of the fingerlings as they mature.
   **Action**: Assistance was provided, project completed and the results are summarized in the largemouth bass section of this report. Refer to Garrett (2006) for the complete methods and results associated to this project.

**Harvest regulation history:** Since impoundment, harvest of all sport fishes except largemouth bass and red drum was managed according to statewide regulations (Table 2). In 1990, an 18-inch minimum size and a 3-fish daily bag limit were implemented for largemouth bass. There is no maximum size limit on red drum in Calaveras Reservoir.

**Stocking history:** Various species, including non-native fishes, have been stocked into the reservoir. Hybrid black-white crappie and sub-adult white crappie were stocked to re-introduce crappie to the reservoir. Orangemouth corvina and orangemouth corvina-speckled trout hybrids were stocked into the reservoir to provide an additional sport fish. Non-native fish and crappie stockings were terminated because of low stocking success. During the last two decades red drum and palmetto bass were the primary species stocked. The complete stocking history is contained in Table 3.

**Vegetation/habitat history:** Structural habitat and aquatic vegetation in the reservoir has been sparse since impoundment. Aquatic vegetation has occurred in only shallow water shoreline areas. Cattail and bulrush have been the predominant species, but together usually occupy less than 5 surface acres (Table 4).

## METHODS

All surveys were conducted according to the Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2005). Fishes were collected in by electrofishing (1 hour at 12 5-minute stations) and gill netting (5 net-nights at 5 stations). Catch per unit effort (CPUE) for electrofishing was recorded as the number of fish caught per hour (fish/h) of actual electrofishing, and for gill nets as the number of fish per net night (fish/nn). Sampling station locations are shown in Appendix A.

Sampling statistics (CPUE for various length categories), structural indices [Proportional Stock Density (PSD), Relative Stock Density (RSD)], and condition indices [relative weight ($W_r$)] were calculated for target fishes according to Anderson and Neumann (1996). Index of vulnerability (IOV) was calculated for gizzard shad (DiCenzo et al. 1996). Relative standard error (RSE = 100 X SE of the estimate/estimate) was calculated for all CPUE statistics and SE was calculated for structural indices and IOV.

Ages of palmetto bass were determined using otoliths.

Microsatellite DNA analysis was used in the 2007genetic analysis of age-0 largemouth bass.

Littoral zone/physical habitat, vegetation, angler access, and facility surveys were conducted in accordance with Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2005).

## RESULTS AND DISCUSSION

**Habitat**: In 2007 eroded bank occupied most of the shoreline (91%), and bulrush and cattail were the predominant aquatic vegetation species present which together covered <5 acres (Table 4). Hydrilla was found in 2007, but it occupied only <1 acre of surface area. Because of the physical and chemical characteristics of this reservoir, minimal potential exists for hydrilla to expand to a problematic coverage level.

**Prey species:** Gizzard shad relative abundance fluctuated widely during the survey period with electrofishing CPUE ranging from 40 fish/h in 2003 to 355 fish/h in 2007 (Figure 1). However, gizzard shad IOV exceeded 75 in all three survey years, suggesting that most fish were small enough to be suitable prey for predator fishes. Threadfin shad were also abundant evidenced by a CPUE of 221fish/h in 2007 (Appendix B). Bluegill abundance was also highly variable during the study period with CPUE ranging from 211 fish/h in 2007 to 501 fish/h in 2003 (Figure 2). The bluegill population continued to be comprised of $\leq$4-inch fish.

**Blue catfish:** Relative abundance was greater in 2008 (8.0 fish/nn) than in 2007 (3.2 fish/nn) and 2006 (1.8 fish/nn). Size structure of the population was good in 2008 as the majority of fish collected were >12 inches (Figure 3).

**Channel catfish:** Relative abundance remained high with gill net CPUE at 33.0 fish/nn in 2008 (Figure 4). Size structure of the population was excellent as about half of the fish exceeded the minimum length limit (>12 inches). Catfish provided a popular fishery at the reservoir.

**Palmetto bass:** During the last three survey years, relative abundance was greatest in 2007 at 6.4 fish/nn (Figure 5). Population size structure and growth were sufficient. Palmetto bass grow to harvestable size (>18 inches) in two years.

**Largemouth bass:** Relative abundance fluctuated during the report period from 9 fish/h in 2002 to 128 fish/h in 2005 (Figures 6 and 7). Population size structure remained poor. No fish $\geq$18 inches were collected during the four electrofishing surveys (Figures 6 and 7). Florida largemouth bass genetic influence in the population remained high, with percent FLMB alleles at 90.7% in 2007 (Table 5). Division researchers conducted a NLMB stocking project at this reservoir to increase the proportion of the largemouth bass population having the NLMB genotype. In 2005, three years after stocking 200,000 northern largemouth bass, 24% of the fish collected at stocked sites and 17% of the fish collected at non-stocked control sites were of the NLMB genotype (Garrett 2006). Although initially successful, the impact of the stockings was short-lived as no NLMB genotype fish were collected in 2007.

**Red drum:** Sampling gears were ineffective at capturing a sufficient number of this species to facilitate a population assessment (Figure 8). However, the reservoir provides a popular red drum fishery based upon media and angler catch reports.

## Fisheries Management Plan for Calaveras Reservoir, Texas

Prepared-July 2008

**ISSUE 1:** Palmetto bass and red drum are popular sport fisheries and stocking is needed to support these population of these two species because they do not successfully reproduce in the reservoir.

**MANAGEMENT STRATEGY**

1. Annually stock palmetto bass at 15 fingerlings/acre and red drum at 200 fingerlings/acre. Determine if the controlling authority would be willing to purchase additional palmetto bass and red drum fingerlings from private suppliers for stocking.

**ISSUE 2:** The reservoir contains a poor largemouth bass population despite the special harvest regulation.

**MANAGEMENT STRATEGY**

1. Conduct additional electrofishing survey in 2009 to gather more information to assess the effects of the special regulation and possibly justify a proposal to revert the harvest regulations back to the statewide standards.

**SAMPLING SCHEDULE JUSTIFICATION:**

Biennial electrofishing surveys (2009 and 2011) are necessary to gather information about the largemouth bass population response to the special harvest regulation. Biennial gill net surveys (2010 and 2012) are needed to monitor the populations of palmetto bass and red drum (Table 5).

## LITERATURE CITED

Anderson, R. O., and R. M. Neumann. 1996. Length, weight, and associated structural indices. Pages 447-482 in B. R. Murphy and D. W. Willis, editors. Fisheries techniques, 2nd edition. American Fisheries Society, Bethesda, Maryland.

Dennis J. A.. 2003. Statewide freshwater fisheries monitoring and management program survey report for Calaveras Reservoir, 2002. Texas Parks and Wildlife Department, Federal Aid Report F-30-R, Austin.

DiCenzo, V. J., M. J. Maceina, and M. R. Stimert. 1996. Relations between reservoir trophic state and gizzard shad population characteristics in Alabama reservoirs. North American Journal of Fisheries Management 16:888-895.

Garrett, G.. 2006. Contribution of stocked northern largemouth bass in selected Texas reservoirs composed largely of Florida largemouth bass, 1996. Texas Parks and Wildlife Department, Federal Aid Report F-145-R, Austin.

Table 1. Characteristics of Calaveras Reservoir, Texas.

| Characteristic | Description |
|---|---|
| Year constructed | 1969 |
| Controlling authority | City Public Service Energy/San Antonio River Authority |
| County | Bexar |
| Reservoir type | Tributary |
| Shoreline Development Index | 5.96 |
| Conductivity | 1,512 umhos/cm |

Table 2. Fish harvest regulations for Calaveras Reservoir.

| Species | Bag Limit | Minimum length limit (inches) |
|---|---|---|
| Catfish: channel and blue catfish, their hybrids and subspecies | 25 (in any combination) | 12 |
| Catfish, flathead | 5 | 18 |
| Bass, palmetto | 5 | 18 |
| Bass, largemouth | 5 | 18 |
| Crappie: white and black crappie, their hybrids and subspecies | 25 (in any combination) | 10 |
| Drum, red | 3 | 20 |

Table 3. Stocking history of Calaveras Reservoir, Texas. Size categories are: FRY = <1 inch; FGL = 1-3 inches; and ADL = adults.

| Species | Year | Number | Size |
|---|---|---|---|
| Threadfin shad | 1969 | 3,000 | ADL |
| Blue catfish | 1969 | 20,000 | FGL |
| | 1970 | 4,580 | FGL |
| | 1973 | 19,596 | FGL |
| | Total | 44,176 | |
| Channel catfish | 1969 | 90,000 | FGL |
| | 1970 | 41,580 | FGL |
| | 1972 | 30,342 | FGL |
| | Total | 161,922 | |
| Fathead minnow | 1985 | 10,590 | ADL |
| Striped bass | 1971 | 50,000 | FRY |
| Palmetto bass | 1975 | 34,500 | FGL |
| | 1976 | 50,874 | FGL |
| | 1977 | 70,560 | FGL |
| | 1979 | 35,995 | FGL |
| | 1980 | 35,022 | FGL |
| | 1982 | 35,600 | FGL |
| | 1984 | 71,300 | FGL |
| | 1985 | 35,261 | FGL |
| | 1986 | 68,980 | FGL |
| | 1987 | 104,500 | FGL |
| | 1988 | 71,340 | FGL |
| | 1989 | 76,500 | FGL |
| | 1991 | 52,170 | FGL |
| | 1992 | 30,341 | FGL |
| | 1994 | 52,550 | FGL |
| | 1995 | 61,400 | FGL |
| | 1996 | 53,330 | FGL |
| | 1997 | 51,789 | FGL |
| | 1998 | 51,943 | FGL |
| | 1999 | 24,452 | FGL |
| | 2000 | 51,000 | FGL |
| | 2002 | 26,240 | FGL |
| | 2004 | 46,716 | FGL |
| | 2005 | 46,643 | FGL |
| | 2006 | 569,569 | FRY |
| | 2007 | 46,997 | FGL |
| | Total | 1,855,572 | |
| Green sunfish x redear sunfish | 1969 | 13,500 | FGL |
| | 1970 | 48,500 | FGL |
| | 1971 | 38,575 | FGL |
| | 1972 | 52,000 | FGL |
| | Total | 152,575 | |

Table 3 continued. Stocking history of Calaveras Reservoir, Texas. Size categories are: FRY = <1 inch; FGL = 1-3 inches; and ADL = adults.

| Species | Year | Number | Size |
|---|---|---|---|
| Largemouth bass | 1969 | 36,500 | FGL |
| | 1973 | 4,400 | FGL |
| | 1987 | 10,707 | FGL |
| | 2003 | 32,653 | FGL |
| | 2005 | 34,502 | FGL |
| | Total | 121,762 | |
| Florida largemouth bass | 1974 | 80,950 | FGL |
| | 1978 | 79,919 | FGL |
| | 1988 | 22,636 | FGL |
| | 1989 | 13,000 | FRY |
| | 1990 | 22,500 | FRY |
| | 1991 | 62,754 | FRY |
| | 1992 | 177,000 | FGL |
| | 1993 | 172, 800 | FGL |
| | 1994 | 175,120 | FGL |
| | 1995 | 172,000 | FGL |
| | 1998 | 175,937 | FGL |
| | 1999* | 100,910 | FGL |
| | Total | 1,255,526 | |
| White crappie | 1985 | 24,150 | FGL |
| | 1986 | 172,500 | FGL |
| | 1987 | 9,009 | ADL |
| | 2001 | 244 | ADL |
| | 2004 | 850 | ADL |
| | Total | 206,753 | |
| Black crappie | 1969 | 10,000 | FGL |
| White *x* black crappie | 1993 | 172,887 | FGL |
| | 1994 | 174,490 | FGL |
| | 1995 | 172,830 | FGL |
| | 1997 | 78,434 | FGL |
| | Total | 598,641 | |
| Orangemouth corvina male *x* spotted sea trout female | 1984 | 14,500 | FGL |
| | 1985 | 24,550 | FGL |
| | Total | 39,050 | |
| Orangemouth corvina female *x* spotted sea trout male | 1986 | 36,485 | FGL |
| Orangemouth corvina | 1986 | 766,831 | FGL |
| | 1987 | 13 | ADL |
| | Total | 766,844 | |

* Denotes genetically marked

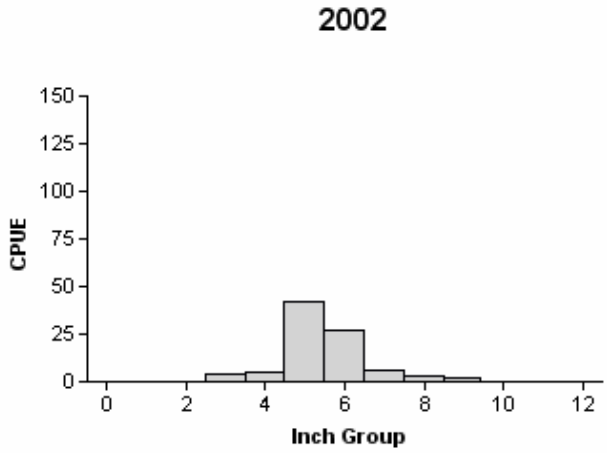
Table 3 continued. Stocking history of Calaveras Reservoir, Texas. Size categories are: FRY =<1 inch; FGL = 1-3 inches; and ADL = adults.

| Species | Year | Number | Size |
|---|---|---|---|
| Red drum | 1984 | 27,575 | FGL |
| | 1987 | 738,000 | FGL |
| | 1989 | 2,700 | FRY |
| | 1991 | 787,255 | FGL |
| | 1993 | 385,026 | FGL |
| | 1994 | 318,078 | FGL |
| | 1995 | 349,693 | FGL |
| | 1996 | 349,253 | FGL |
| | 1997 | 305,159 | FGL |
| | 1998 | 309,762 | FGL |
| | 1999 | 433,350 | FGL |
| | 2000 | 437,626 | FGL |
| | 2001 | 455,813 | FGL |
| | 2002 | 166,844 | FGL |
| | 2003 | 607,487 | FGL |
| | 2004 | 635,302 | FGL |
| | 2006 | 2,309 | ADL |
| | 2006 | 109,338 | FRY |
| | 2006 | 582,245 | FGL |
| | 2007 | 600,122 | FGL |
| | Total | 7,534,967 | |

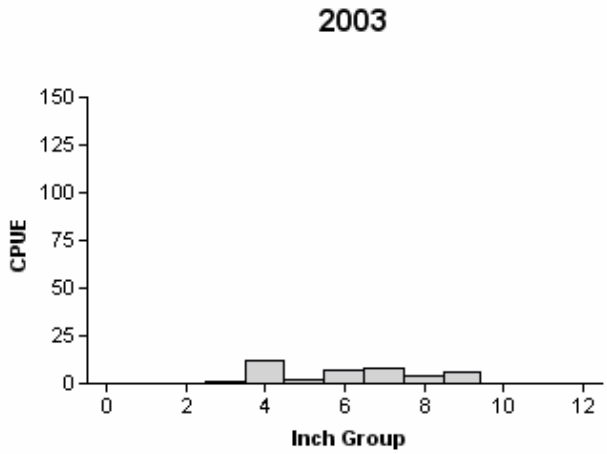
Table 4. Survey of littoral zone and physical habitat types, Calaveras Reservoir, Texas, 2007. A linear shoreline distance (miles) was recorded for each habitat type found. Surface area (acres) and percent of reservoir surface area was determined for each type of aquatic vegetation found. Water level was at conservation pool level.

| Shoreline habitat type | Shoreline Distance | | Surface Area | |
|---|---|---|---|---|
| | Miles | Percent of total | Acres | Percent of reservoir surface area |
| Eroded bank | 33.4 | 91 | | |
| Rip rap | 1.1 | 3 | | |
| Rocks | 2.2 | 6 | | |
| American lotus | | | 0.96 | 0.03 |
| Brittle Naiad | | | 0.16 | 0.01 |
| Bulrush | | | 3.03 | 0.09 |
| Cattail | | | 0.69 | 0.02 |
| Smartweed | | | <0.01 | <0.01 |
| Duck potato | | | <0.01 | <0.01 |
| Hydrilla | | | 0.25 | 0.01 |

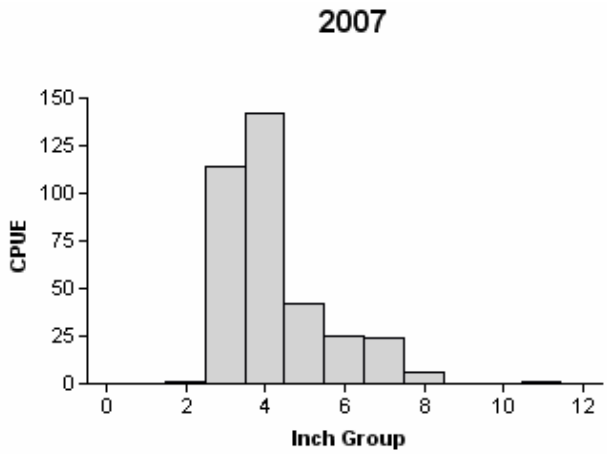
# Gizzard Shad




Effort = 1.0
Total CPUE = 89.0 (57; 89)
IOV = 94.4 (2.7)




Effort = 1.0
Total CPUE = 40.0 (18; 40)
IOV = 75.0 (14.9)




Effort = 1.0
Total CPUE = 355.0 (24; 355)
IOV = 98.0 (0.8)

Figure 1. Number of gizzard shad caught per hour (CPUE) and population indices (RSE and N are in parentheses) for fall electrofishing surveys, Calaveras Reservoir, Texas, 2002, 2003, and 2007. RSE is used for CPUE values and SE is used for RSD and PSD values.

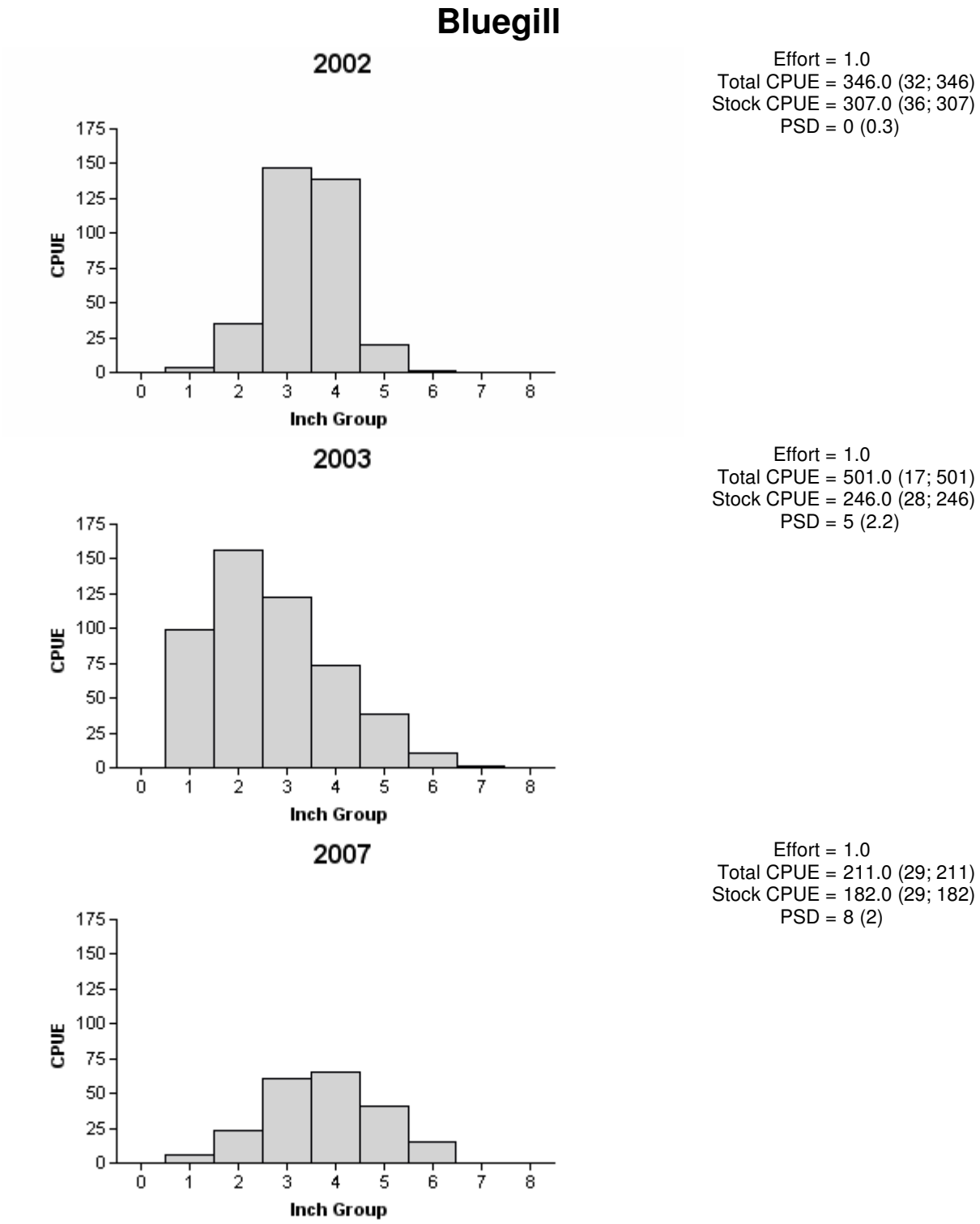



Figure 2. Number of bluegill caught per hour (CPUE) and population indices (RSE and N are in parentheses) for fall electrofishing surveys, Calaveras Reservoir, Texas, 2002, 2003, and 2007. RSE is used for CPUE values and SE is used for PSD values.

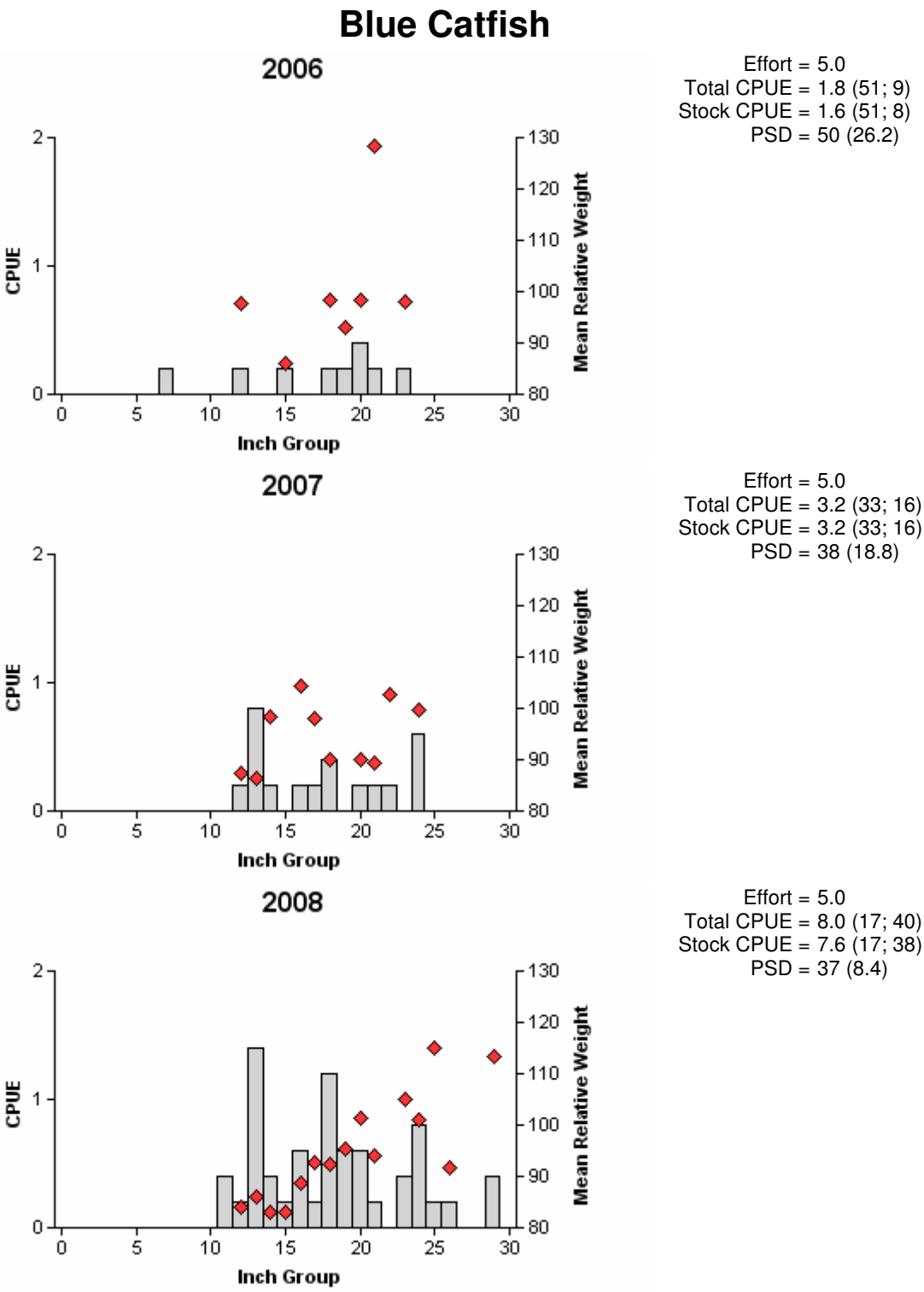



Figure 3. Number of blue catfish caught per net night (CPUE, bars) mean relative weight (diamonds) and population indices (RSE and N are in parentheses) for spring gill net surveys, Calaveras Reservoir, Texas, 2006, 2007, and 2008. RSE is used for CPUE values and SE is used for PSD values.

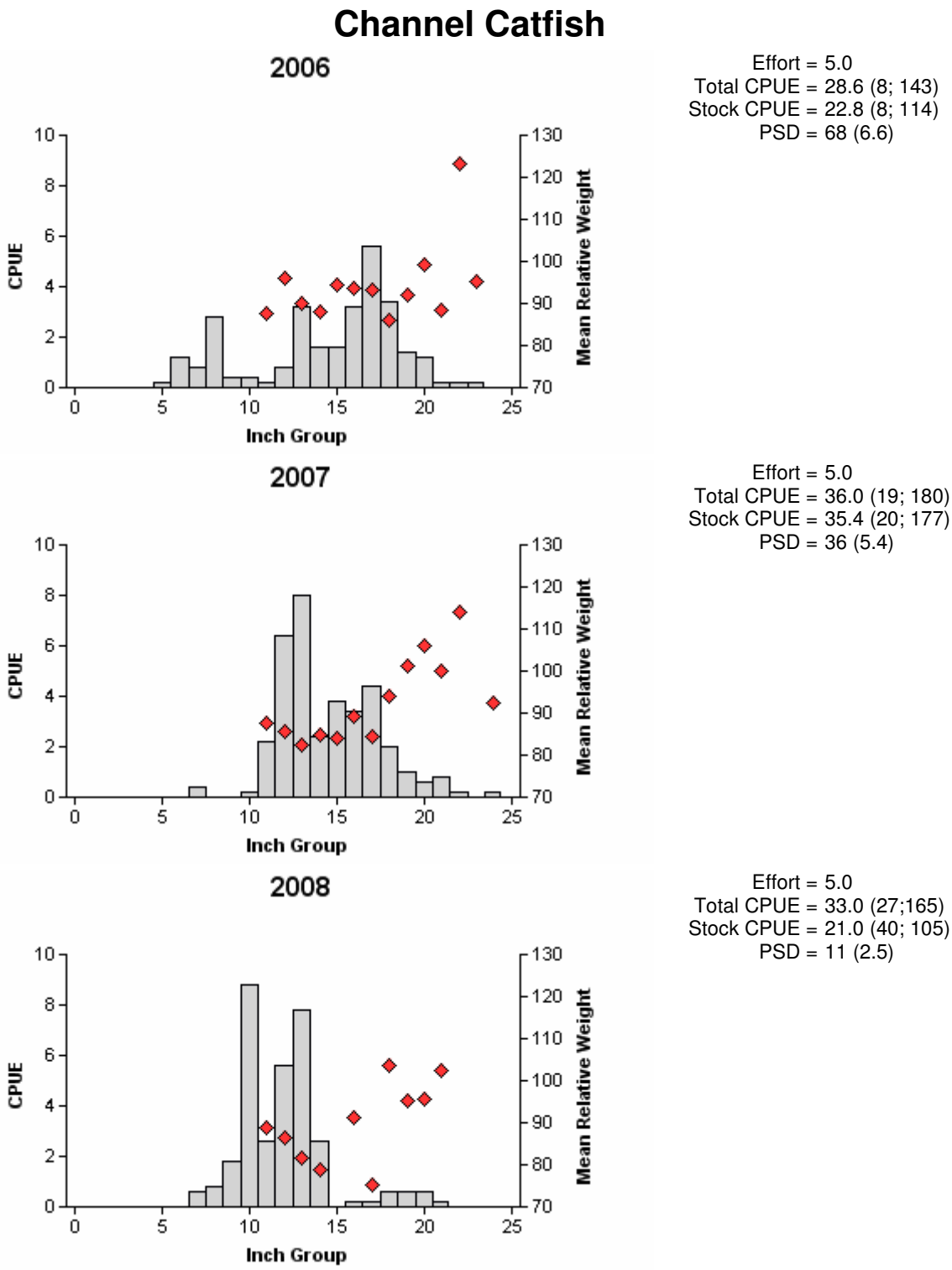



Figure 4. Number of channel catfish caught per net night (CPUE, bars) mean relative weight (diamonds) and population indices (RSE and N are in parentheses) for spring gill net surveys, Calaveras Reservoir, Texas, 2006, 2007, and 2008. RSE is used for CPUE values and SE is used for PSD values.

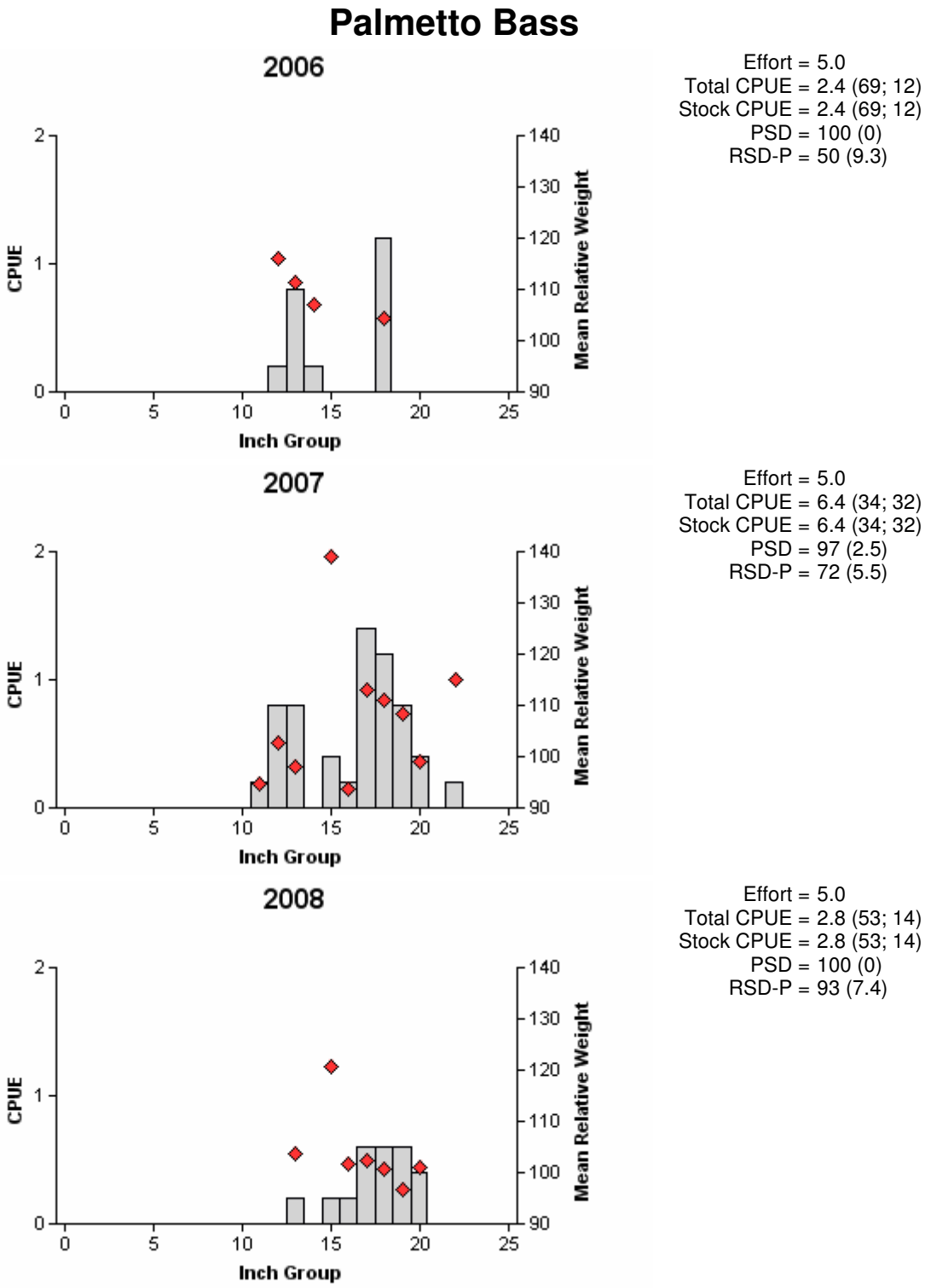



Figure 5. Number of palmetto bass caught per net night (CPUE, bars) mean relative weight (diamonds) and population indices (RSE and N are in parentheses) for spring gill net surveys, Calaveras Reservoir, Texas, 2006, 2007, and 2008. RSE is used for CPUE values and SE is used for RSD and PSD values.

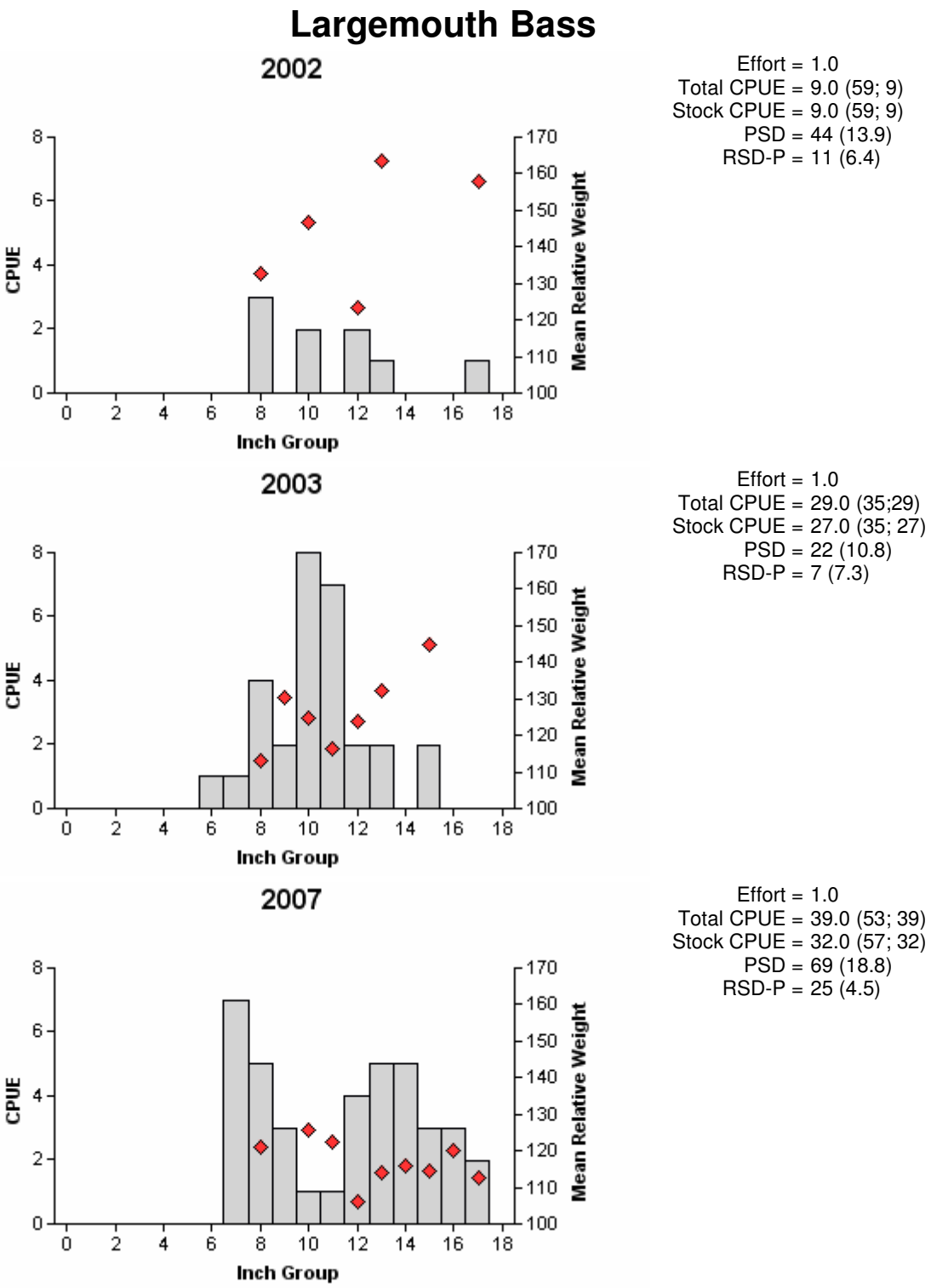



Figure 6. Number of largemouth bass caught per hour (CPUE, bars) mean relative weight (diamonds) and population indices (RSE and N are in parentheses) for fall electrofishing surveys, Calaveras Reservoir, Texas, 2002, 2003, and 2007. RSE is used for CPUE values and SE is used for RSD and PSD values.

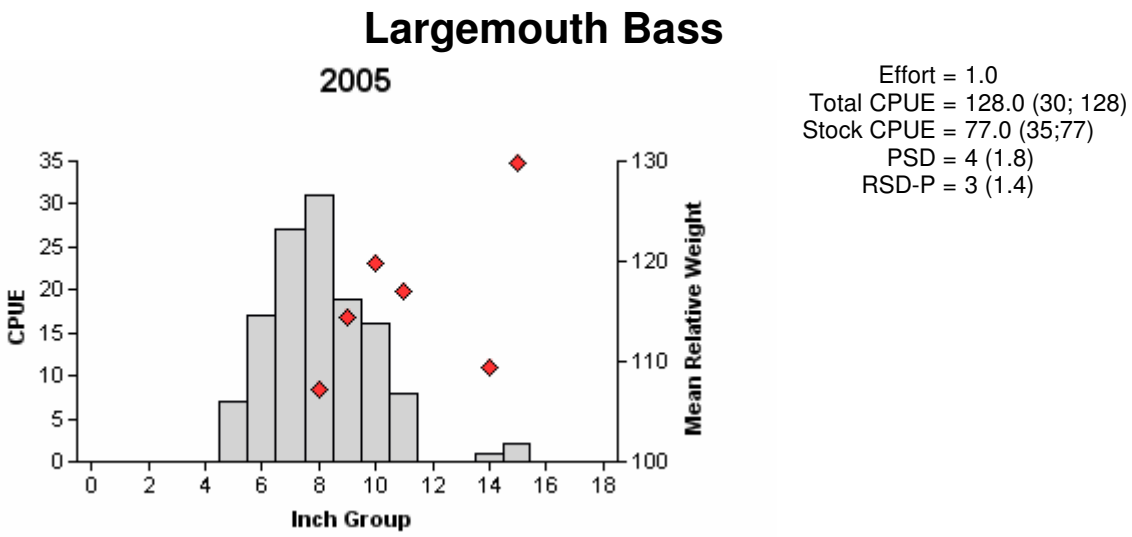



Figure 7. Number of largemouth bass caught per hour (CPUE, bars) mean relative weight (diamonds) and population indices (RSE and N are in parentheses) for fall bass only electrofishing surveys, Calaveras Reservoir, Texas, 2005. RSE is used for CPUE values and SE is used for RSD and PSD values.

Table 6. Results of genetic analyses of age-0 largemouth bass collected by electrofishing during fall from Calaveras Reservoir, Texas. Hybrid fish are those with both Florida largemouth bass (FLMB) and northern largemouth bass (NLMB) genes. Genetic analysis procedures changed from the electrophoresis method to the micro satellite DNA method in 2007. Thus, comparisons of genotype proportions across years are not valid. Comparisons of percent FLMB alleles are valid across years. Both FLMB and NLMB bass have been stocked in the reservoir.

| | | Number of fish by genotype | | | | |
|---|---|---|---|---|---|---|
| Year | Sample size | FLMB | Hybrid | NLMB | % FLMB alleles | % FLMB genotype |
| 1998 | 30 | 29 | 1 | 0 | 99.2 | 96.7 |
| 1999 | 64 | 36 | 28 | 0 | 85.9 | 56.3 |
| 2001 | 23 | 20 | 3 | 0 | 93.5 | 87.0 |
| 2003 | 229 | 129 | 38 | 62 | 66.7 | 55.2 |
| 2007 | 30 | 12 | 18 | 0 | 90.7 | 40.0 |

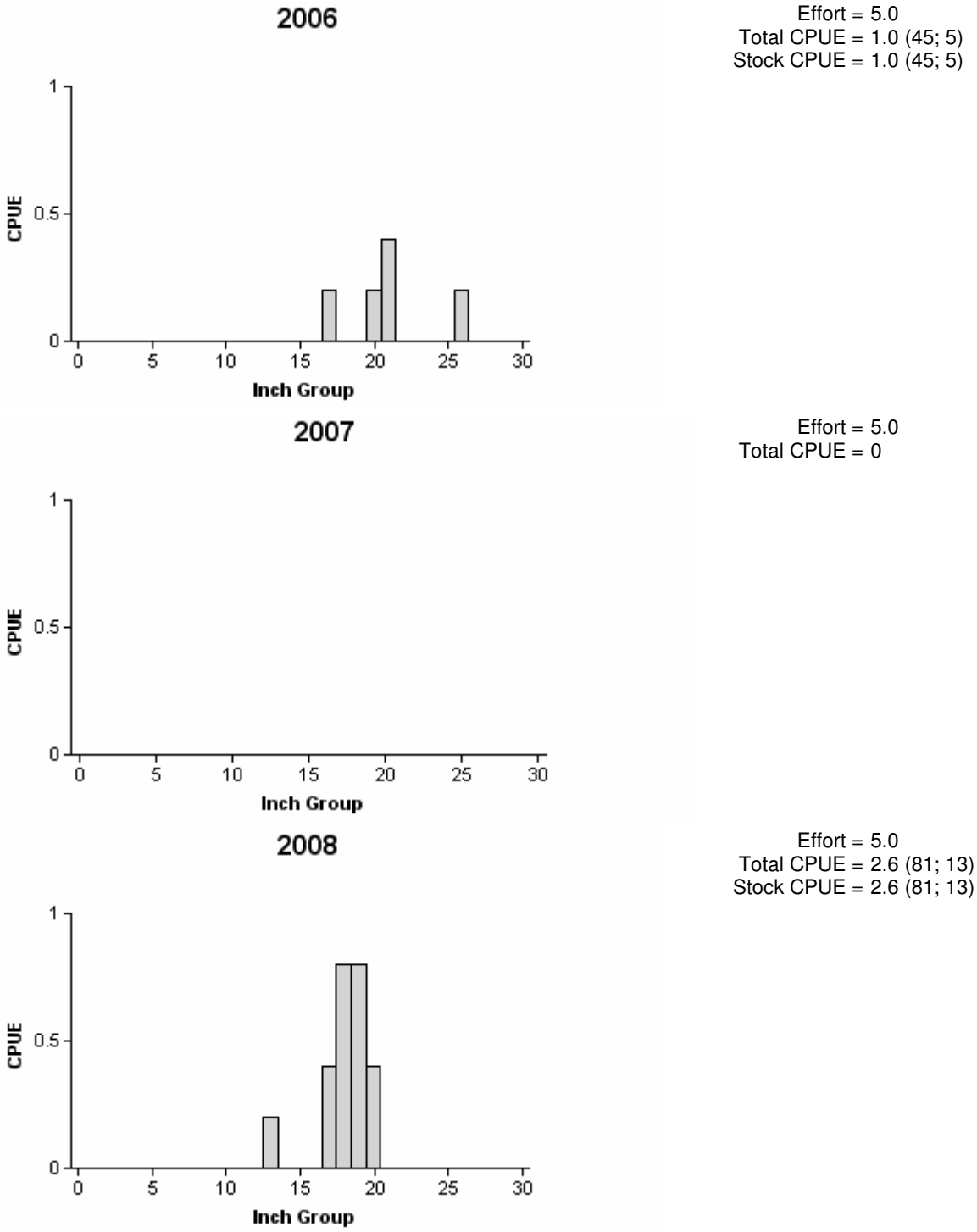
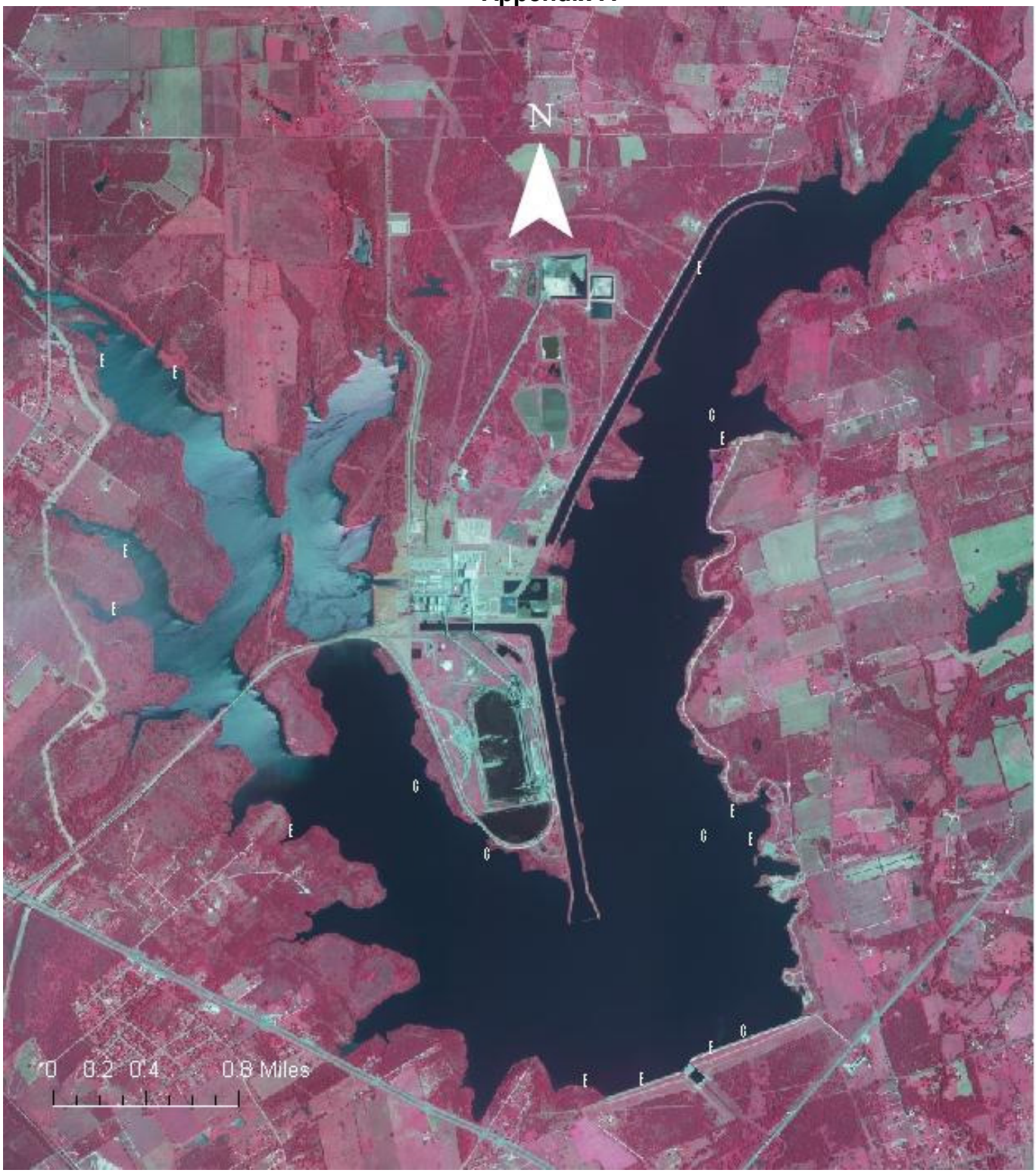



Figure 8. Number of red drum caught per net night (CPUE, bars) mean relative weight (diamonds) for spring gill net surveys, Calaveras Reservoir, Texas, 2006, 2007, and 2008. RSE and N are in parentheses.

Table 6. Proposed sampling schedule for Calaveras Reservoir, Texas. Gill netting surveys are conducted in the spring, while electrofishing and trap netting surveys are conducted in the fall. Standard survey denoted by S and additional survey denoted by A.

| Survey Year | Electrofishing | Gill Net | Creel Survey | Report |
|---|---|---|---|---|
| Fall 2008-Spring 2009 | | | | |
| Fall 2009-Spring 2010 | A | A | | |
| Fall 2010-Spring 2011 | | | | |
| Fall 2011-Spring 2012 | S | S | S | S |

## Appendix A




Location of gill net (G) and electrofishing (E) sampling sites at Calaveras Reservoir, Texas, 2007-2008. Areal photography is from the 2006 survey by the Water Development Board available from the Texas Natural Resources Information System (TNRIS) website.

# Appendix B

Number (N) and catch rate (CPUE) of all target species collected from all gear types from Calaveras Reservoir, Texas, 2007-2008.

| Species | Gill Netting | | Electrofishing | |
|---|---|---|---|---|
| | N | CPUE | N | CPUE |
| Gizzard shad | | | 355 | 355.0 |
| Threadfin shad | | | 221 | 221.0 |
| Blue catfish | 40 | 8.0 | | |
| Channel catfish | 165 | 33.0 | | |
| Palmetto bass | 14 | 2.8 | | |
| Bluegill | | | 211 | 211.0 |
| Redear sunfish | | | 13 | 13.0 |
| Largemouth bass | | | 39 | 39.0 |
| Red drum | 13 | 2.6 | | |