

Lake Fairfield

2020 Fisheries Management Survey Report

PERFORMANCE REPORT

As Required by

FEDERAL AID IN SPORT FISH RESTORATION ACT

TEXAS

FEDERAL AID PROJECT F-221-M-4

INLAND FISHERIES DIVISION MONITORING AND MANAGEMENT PROGRAM

Prepared by:

Jacob Norman, District Management Supervisor

David Smith, Assistant District Management Supervisor
and
Quintin Dean, Assistant District Management Supervisor

Inland Fisheries Division
Tyler District, Tyler, Texas

Carter Smith
Executive Director

Craig Bonds
Director, Inland Fisheries

July 31, 2021



Contents

Contents	i
Survey and Management Summary	1
Introduction.....	2
Reservoir Description	2
Angler Access.....	2
Management History	2
Methods.....	4
Results and Discussion.....	4
Fisheries Management Plan for Lake Fairfield, Texas	5
Objective-Based Sampling Plan and Schedule (2021–2025).....	6
Literature Cited.....	7
Tables and Figures	8
Reservoir Characteristics	8
Boat Ramp Characteristics.....	8
Harvest Regulations	8
Stocking History.....	9
Objective-Based Sampling Plan for 2019-2020	11
Aquatic Vegetation Survey	12
Gizzard Shad.....	13
Bluegill	14
Largemouth Bass	15
Proposed Sampling Schedule	16
APPENDIX A – Catch rates for all species from all gear types	17
APPENDIX B – Map of sampling locations.....	18

Survey and Management Summary

Fish populations in Lake Fairfield were surveyed in 2018 and 2020 using electrofishing. Historical data are presented with the 2018-2020 data for comparison. This report summarizes the results of the surveys and contains a management plan for the reservoir based on those findings.

Reservoir Description: Lake Fairfield is a 2,034-acre impoundment located on Big Brown Creek in the Trinity River Basin approximately 7 miles northeast of Fairfield, Texas. The reservoir historically served as the source of cooling water for the Big Brown power plant, but operations were permanently shut down in 2018 and deconstruction of the plant began in 2021. Recreation is the primary water use. Annual fish kills from 2008-2013 decimated fish populations. Another fish kill occurred in 2017, however, the impacts were less detrimental to the reservoir and several species have fully recovered. Habitat features consist of natural shoreline, standing timber, and submerged and emergent vegetation. Hydrilla, American lotus, and common reed were the predominant aquatic vegetation present in the reservoir in 2020.

Management History: Largemouth Bass are the primary sport fish within the reservoir. Red drum were stocked from 1984-2011 and historically offered a unique opportunity to anglers, however, annual fish kills from 2008-2013 decimated the population and no stockings have occurred since 2011

Fish Community

- **Prey species:** Threadfin Shad were present in the reservoir. Electrofishing catch rate of Gizzard Shad was low; Gizzard Shad do not significantly contribute to the forage base. Electrofishing catch rate of Bluegill was high and most were less than 6-inches long. Tilapia are no longer present in the reservoir.
- **Catfishes:** Channel Catfish were stocked most recently in 2011, but very few fish have been collected during population surveys. Catfish recruitment is likely limited by Largemouth Bass predation.
- **Largemouth Bass:** Largemouth Bass were abundant and displayed both a balanced size structure and good body condition. Largemouth Bass growth was fast (average age at 14 inches was 1.7 years).

Management Strategies: Document the quality Largemouth Bass fishery on Lake Fairfield to help guide future management efforts and apprise Inland Fisheries staff of the reservoir's utilization by anglers. Inform the public about the negative impacts of aquatic invasive species and work with controlling authority as needed to provide technical guidance with aquatic nuisance species. Continue managing all sport fish under current reservoir harvest regulations.

Introduction

This document is a summary of fisheries data collected from Lake Fairfield in 2018-2020. The purpose of the document is to provide fisheries information and make management recommendations to protect and improve the sport fishery. While information on other fish were collected, this report deals primarily with major sport fish and important prey species. Historical data are presented with the 2018-2020 data for comparison.

Reservoir Description

Lake Fairfield is a 2,034-acre impoundment constructed in 1969 on Big Brown Creek, a tributary of the Trinity River. It is located in Freestone County approximately 7 miles northeast of Fairfield, Texas and is currently controlled by Luminant Energy. The reservoir historically served as the source of cooling water for the Big Brown Power Plant, but operations were permanently shut down in 2018 and deconstruction of the plant began in 2021. Currently, recreation is the primary water use. Lake Fairfield is eutrophic with a mean trophic state index (TSI, chl-*a*) of 68.9 (Texas Commission on Environment Quality 2020). Habitat at time of sampling consisted of natural shoreline and both native and non-native submersed and emergent vegetation. Patches of standing timber provide additional habitat for fish. Other descriptive characteristics for Lake Fairfield are in Table 1.

Late-summer fish kills from 2008-2013 significantly reduced populations of most fish species in the reservoir. Another fish kill was documented in 2017 that primarily affected Threadfin shad. However complete recoveries have been documented for most species in recent years. Details on those fish kills can be found in the previous management report (Norman and Ott 2017).

Angler Access

Lake Fairfield has two public boat ramps and no private boat ramps. Additional boat ramp characteristics are in Table 2. Fairfield Lake State Park occupies the entire South East shoreline of the lake, offering ample bank fishing opportunities. A fishing pier adjacent to the swimming beach, offers additional bank fishing opportunities.

Management History

Previous management strategies and actions: Management strategies and actions from the previous survey report included:

1. Monitor dissolved oxygen in late summer with stationary data sondes and educate park staff to help quickly identify signs of a fish kill.

Action: Data sondes were deployed in September of 2016 and 2017 to monitor late summer dissolved oxygen levels in the reservoir.

Harvest regulation history: Sport fish in Lake Fairfield are managed with statewide regulations with the exception of Largemouth Bass and Red Drum. Largemouth Bass are managed with an 18-inch minimum length limit and Red Drum are managed with a 20-inch minimum length limit. (Table 3).

Stocking history: Prior to the onset of annual fish kills, Red Drum had been stocked during most years since 1984. No Red Drum have been stocked in Lake Fairfield since 2011. Florida Largemouth Bass were stocked from 1975-1979. Multiple attempts to stock White Crappie and hybrid Black Crappie X White Crappie failed to establish a fishery. Palmetto Bass were stocked annually in Lake Fairfield between 1975 and 1999 and established a popular fishery. Due to the inability to maintain constant stocks Palmetto Bass stocking at Lake Fairfield was discontinued after 1999. Six hundred and fifty adult Largemouth Bass were stocked in 2010 along with Florida Largemouth Bass fingerlings, Bluegill fingerlings and Channel Catfish fingerlings were stocked in 2011 to re-establish populations following several fish kills. Juvenile Alligator Gar (averaging 18-30 inches) were stocked in 2015. (WMA). Heavy flooding earlier in 2015 resulted in abundant spawning Alligator Gar within the Richland Creek Wildlife Management Area (WMA). The young gar were collected with trap nets within oxbows of the Trinity River

on the WMA, as flooding ceased and the river returned to within its banks. A complete stocking history is found in Table 4.

Vegetation/habitat management history: American lotus had historically required herbicide treatment in the state park swimming area; treatments have not been necessary since the last survey report.

Water transfer: No interbasin transfers exist.

Methods

Surveys were conducted to achieve survey and sampling objectives in accordance with the objective-based sampling (OBS) plan for Lake Fairfield (Norman and Ott 2017). Primary components of the OBS plan are listed in Table 5. All surveys were conducted according to the Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2017).

Electrofishing – Largemouth Bass, sunfishes, Gizzard Shad, and Threadfin Shad were collected by electrofishing (1.0 hours at 12, 5-min stations). Catch per unit effort (CPUE) for electrofishing was recorded as the number of fish caught per hour (fish/h) of actual electrofishing. Ages for Largemouth Bass were determined using otoliths from 13 randomly selected fish (range: 13.1 to 14.9 inches).

Statistics – Sampling statistics (CPUE for various length categories), structural indices [Proportional Size Distribution (PSD), terminology modified by Guy et al. 2007], 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). Standard error (SE) was calculated for structural indices and IOV. Relative standard error ($RSE = 100 \times SE$ of the estimate/estimate) was calculated for all CPUE.

Habitat – A comprehensive vegetation survey was conducted in 2020. Habitat was assessed with the digital shapefile method (TPWD, Inland Fisheries Division, unpublished manual revised 2017).

Results and Discussion

Habitat: A diverse mix of submersed, emergent, and floating vegetation covered approximately 19% (406 acres) of the reservoir's surface during the 2020 survey (Table 6). Submersed vegetation increased from the previous survey and is likely attributed to the cooler summer-time water temperatures following the power plant closing in 2018. Hydrilla alone expanded from 44 acres in 2016 to 199 acres in 2020. Hydrilla is providing quality habitat in the reservoir and is not viewed as problematic in its current density. Spot herbicide treatments were conducted in 2020 for hydrilla around the state park shoreline to allow adequate access for park guests. The last structural habitat survey was conducted in 2000 and has not changed significantly since (Ott and Bister 2001).

Prey species: Tilapia were historically an important prey species, however they have not been observed since the power plant shut down in 2018. The primary prey base continued to be Threadfin Shad and sunfish. The 2020 Gizzard Shad electrofishing catch rate was poor (16.0/h) and comparable to the previous survey (2016; Figure 1). Bluegill remained abundant in 2020 (CPUE = 619.0/h) and were also comparable to the previous survey (2016; Figure 2). The Bluegill size structure (PSD = 27) suggests a balanced population and most were under six inches.

Largemouth Bass: The 2020 Largemouth Bass electrofishing catch rate (220.0/h) indicated a quality population with high recruitment and increase in relative abundance from the previous surveys (2016 and 2018; Figure 3). Size structure (PSD = 37) continued to suggest a balanced population, however very few fish over the 18-inch minimum length limit were collected. Body condition was good ($W_r \geq 90$) for most size classes in 2020 and growth was fast; average age at 14 inches (13.1 to 14.9 inches) was 1.7 years ($N = 13$; range = 1-2 years). While recent surveys indicate a quality population, the possibility for shifts within the population exist as lake characteristics (e.g. vegetation, nutrients, water level) adjust to a system without power plant operations and the fertile water from the Trinity River no longer provides an influx to the reservoir.

Fisheries Management Plan for Lake Fairfield, Texas

Prepared – July 2020

ISSUE 1: Anecdotal information in recent years has highlighted a quality Largemouth Bass fishery on Lake Fairfield. However, the closure of the power plant in 2018 and eminent sale of the property surrounding the reservoir could affect or eliminate public access. While the potential loss of the reservoir is a detractor to future management activities, further documenting the quality fishery present and its value to the public may help future efforts in pursuing options for TPWD to retain access to Lake Fairfield.

MANAGEMENT STRATEGY

1. Conduct a spring-quarter creel survey, when angling effort is at its peak, in 2023.
2. Disseminate creel data to Inland Fisheries administrators to keep them informed on the quality fishing opportunities Lake Fairfield offers our anglers.

ISSUE 2: Many invasive species threaten aquatic habitats and organisms in Texas and can adversely affect the state ecologically, environmentally, and economically. For example, zebra mussels can multiply rapidly and attach themselves to any available hard structure, restricting water flow in pipes, fouling swimming beaches, and plugging engine cooling systems. Giant salvinia and other invasive vegetation species can form dense mats, interfering with recreational activities like fishing, boating, skiing, and swimming. The financial costs of controlling and/or eradicating these types of invasive species are significant. Additionally, the potential for invasive species to spread to other river drainages and reservoirs via watercraft and other means is a serious threat to all public waters of the state.

MANAGEMENT STRATEGIES

1. Cooperate with the controlling authority to post appropriate signage at access points around the reservoir.
2. Educate the public about invasive species through the use of media and the internet, when appropriate.
3. Make a speaking point about invasive species when presenting to constituent and user groups.
4. Keep track of (i.e., map) existing and future inter-basin water transfers to facilitate potential invasive species responses.
5. Work with State Park staff to coordinate spot treatments of hydrilla along critical access (e.g. boat ramps, fishing piers, bank angling) locations on state park property.

Objective-Based Sampling Plan and Schedule (2021–2025)

Sport fish, forage fish and other important fishes

Sport fish in Lake Fairfield include Channel Catfish and Largemouth Bass. Important forage species are Threadfin Shad and sunfish.

Low-density fisheries

Red Drum had historically been a popular fishery on Lake Fairfield. However late-summer fish kills were documented annually from 2008-2013 resulting in a depleted Red Drum population. All stocking was halted on Fairfield following the annual fish kills, resulting in a very low-density population of Red Drum. While sporadic reports of Red Drum catches still occur, the fishery itself is currently poor and not surveyed or reported on.

Survey objectives, fisheries metrics and sampling objectives

Channel Catfish: Historically Channel Catfish were monitored every four years with spring-time gill nets. While catch rates were adequate most years, high variability in catch rate between gill nets resulted in poor survey precision and unreliable metrics. Furthermore, the introduction of young Alligator Gar into Lake Fairfield justifies considering other sampling techniques to limit by-catch mortality of gar. A baited hoop net survey was conducted in April 2017 to experiment with alternative methods of sampling Channel Catfish, however only two were caught in the 2017 survey. While the results were poor, only five hoop net series were set, and before optimal sampling conditions as described in the TPWD Assessment Procedures. Additional survey efforts will be required to determine the utility of hoop nets to sample Channel Catfish in Lake Fairfield. A survey was scheduled for the summer of 2020 but was canceled due to COVID-19 travel restrictions. Therefore, an exploratory baited tandem hoop survey (nine-net-series) will be conducted in late spring 2022 to determine if Channel Catfish trend data (CPUE, PSD and W_r) can be collected with this gear. If Channel Catfish catch rate is again low ($N < 25$) with hoop net sampling, additional survey efforts with gill netting will be considered for the spring of 2024.

Largemouth Bass: Historical creel data and anecdotal information suggest Largemouth Bass are the most popular sport fish in Lake Fairfield. Due to the importance and popularity of this fishery, Largemouth Bass trend data on relative abundance, size structure, body condition, and growth (CPUE, PSD, W_r , average age at 14 inches) will continue to be monitored with biennial nighttime electrofishing, alternating between spring (2022) and fall (2024) surveys. Historical fall electrofishing data suggests that sampling objectives ($RSE \leq 25$, $N > 50$) can be met with 12-18 randomly selected 5-minute sampling sites. Otoliths will be removed from 13 specimens (13.0- 14.9 inches), if available, during the 2024 survey for age at length analysis and fin clips will be taken from 30 individuals for genetic analysis.

Prey Species: Threadfin Shad and sunfish are important prey species in Lake Fairfield. Long-term trend data is desired for these populations to evaluate their relative abundance (CPUE) and size structure (PSD for sunfishes). Relative weights of the Largemouth Bass population, along with CPUE of shad and sunfish plus the size structure of Bluegill will be used to gauge prey fish availability for sport fishes from electrofishing sampling conducted in fall 2024. No sampling objectives will be set for prey species.

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.
- DiCenzo, V. J., M. J. Maceina, and M. R. Stimpert. 1996. Relations between reservoir trophic state and Gizzard Shad population characteristics in Alabama reservoirs. North American Journal of Fisheries Management 16:888-895.
- Guy, C. S., R. M. Neumann, D. W. Willis, and R. O. Anderson. 2007. Proportional size distribution (PSD): a further refinement of population size structure index terminology. Fisheries 32(7):348.
- Norman, J., and R. Ott. 2017. Statewide freshwater fisheries monitoring and management program survey report for Lake Fairfield, 2016. Texas Parks and Wildlife Department, Federal Aid Report F-221-M-2, Austin. 23 pp.
- Ott, R. A., and T. J. Bister. 2001. Statewide freshwater fisheries monitoring and management program survey report for Lake Fairfield, 2000. Texas Parks and Wildlife Department, Federal Aid Report F30-R-26, Austin. 25 pp.
- Texas Commission on Environmental Quality. 2020. Trophic classification of Texas reservoirs. 2020 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d), Austin. 15 pp.

Tables and Figures

Table 1. Characteristics of Lake Fairfield, Texas.

Characteristic	Description
Year constructed	1969
Controlling authority	Luminant
County	Freestone
Reservoir type	Tributary
Shoreline Development Index	3.7
Conductivity	1,200 $\mu\text{S/cm}$

Table 2. Boat ramp characteristics for Lake Fairfield, Texas July 2020. Elevation at time of survey was 310 feet above mean sea level.

Boat ramp	Latitude Longitude (dd)	Public	Parking capacity (N)	Elevation at end of boat ramp (ft)	Condition
South Park Ramp	31.78141 -96.07068	Y	50	306	Excellent, no access issues
North Park Ramp	31.79417 -96.05902	Y	25	304	Excellent, no access issues

Table 3. Harvest regulations for Lake Fairfield, Texas.

Species	Bag Limit	Length limit
Catfishes: Channel and Blue, their hybrids and subspecies	25 (in any combination)	12-inch minimum
Catfish, Flathead	5	18-inch minimum
Bass, Largemouth	5	18-inch minimum
Crappie: White and Black, their hybrids and subspecies	25 (in any combination)	10-inch minimum

Table 4. Stocking history of Lake Fairfield, Texas. FGL = fingerling; JVL = juvenile; ADL = adult; UNK = unknown.

Species	Year	Number	Size
Channel Catfish	1969	25,000	UNK
	2011	21,156	FGL
	Total	46,156	
Bluegill	2011	107,815	FGL
Palmetto Bass	1975	25,000	UNK
	1977	23,985	UNK
	1979	24,500	UNK
	1982	25,422	FGL
	1986	35,650	FRY
	1987	49,025	FGL
	1988	49,226	FGL
	1991	36,700	FRY
	1992	36,265	FGL
	1993	21,200	FGL
	1994	37,100	FGL
	1995	43,100	FGL
	1996	35,285	FGL
	1997	35,441	FGL
	1998	22,647	FGL
1999	35,625	FGL	
Total	536,171		
Largemouth Bass	1970	250,000	FGL
	2010	650	ADL
	Total	250,650	
Florida Largemouth Bass	1975	123,100	FGL
	1976	122,500	FGL
	1977	130,000	FGL
	1979	129,145	FGL
	2011	109,073	FGL
	Total	613,815	
White Crappie	1985	87,601	FGL
	1986	29,450	FGL
	1987	353,439	FGL
	Total	470,490	
Black x White Crappie	1993	117,650	FGL
	1994	118,177	FGL
	1995	249,208	FGL
	Total	485,035	

Species	Year	Number	Size
Nile Perch	1983	1,310	UNK
Red Drum	1984	235,455	FGL
	1985	283,700	FGL
	1986	217,323	FGL
	1987	473,340	FGL
	1991	515,751	FGL
	1992	245,118	FGL
	1993	217,923	FGL
	1994	253,280	FGL
	1995	231,523	FGL
	1996	266,633	FGL
	1997	158,890	FGL
	1999	222,340	FGL
	2000	276,602	FGL
	2001	287,820	FGL
	2002	21,938	FGL
	2003	385,367	FGL
	2004	7,125	FGL
	2005	208,440	FGL
	2006	2,439	FGL
	2007	423,732	FGL
2008	207,102	FGL	
2009	207,683	FGL	
2010	433,480	FGL	
2011	327,320	FGL	
	Total	6,110,324	
Alligator Gar	2015	146	JVL

Table 5. Objective-based sampling plan components for Lake Fairfield, Texas 2018–2020.

Gear/target species	Survey objective	Metrics	Sampling objective
<i>Electrofishing</i>			
Largemouth Bass	Relative abundance	CPUE–Stock	RSE-Stock ≤ 25
	Size structure	PSD, length frequency	N ≥ 50 stock
	Condition	W_r	10 fish/inch group (max)
Bluegill ^a	Relative abundance	CPUE–Total	
	Size structure	PSD, length frequency	N ≥ 50
Gizzard Shad ^a	Abundance	CPUE-Total	
	Size structure	IOV	N ≥ 50
Threadfin Shad ^a	Abundance	CPUE-Total	
<i>Hoop netting</i>			
Channel catfish ^b	Relative abundance	CPUE-stock	
	Size structure	PSD, length frequency	
	Condition	W_r	

^a No additional effort was expended to achieve an RSE ≤ 25 for CPUE of Bluegill, Gizzard and Threadfin Shad not reached from designated Largemouth Bass sampling effort.

^b Exploratory survey, no sample objectives set.

Table 6. Survey of aquatic vegetation, Lake Fairfield, Texas, 2012, 2016 and 2020. Surface area (acres) is listed with percent of total reservoir surface area in parentheses.

Vegetation	2012	2016	2020
Floating-leaved			
American lotus	195 (10)	56 (3)	102 (5)
Emergent			
Cattail	4 (<1)	41 (2)	
Common reed	16 (<1)	65 (3)	87 (4)
Giant cut grass		19 (<1)	
Submersed			
Coontail			18 (<1)
Hydrilla	Trace	44 (2)	199 (9)

Gizzard Shad

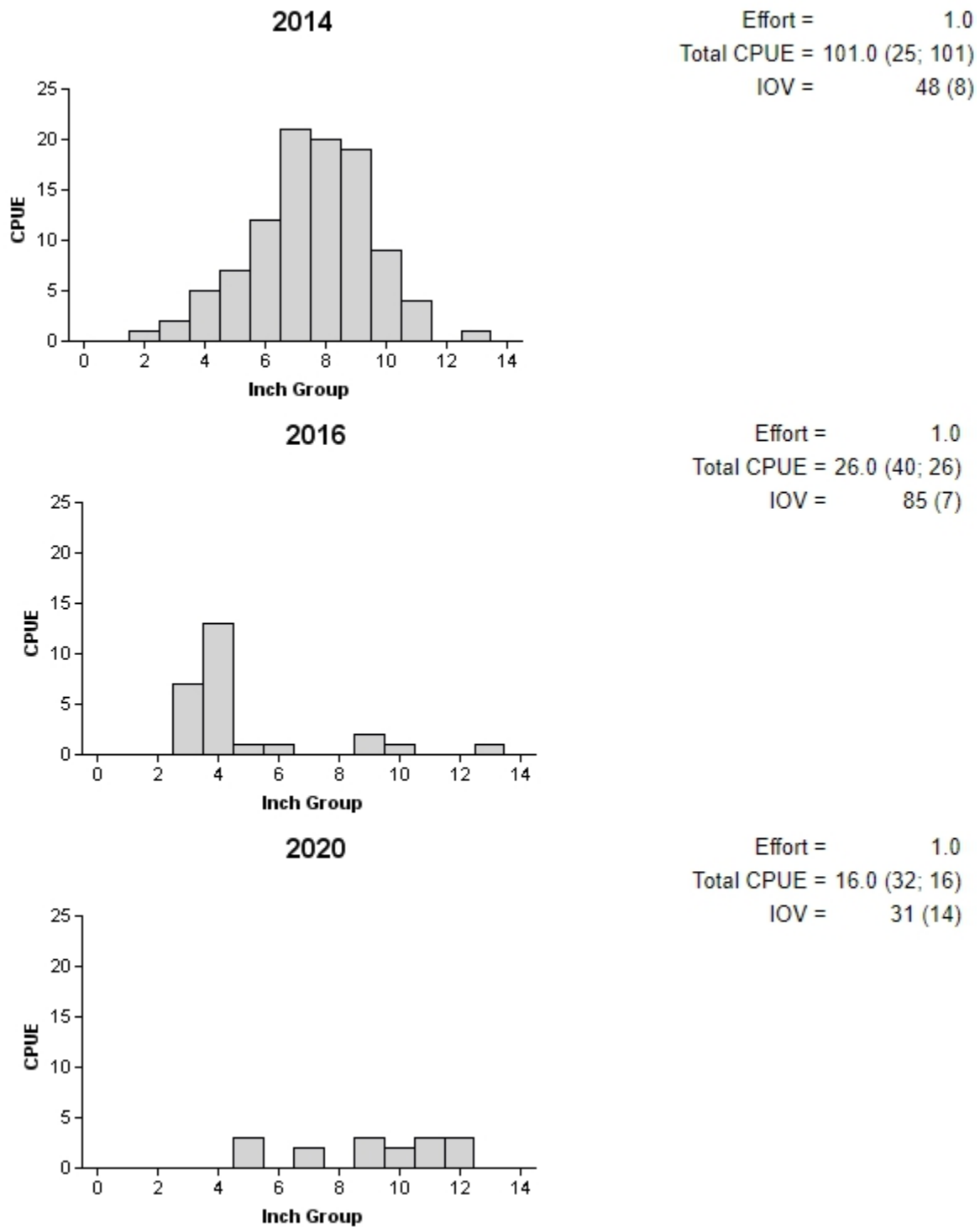
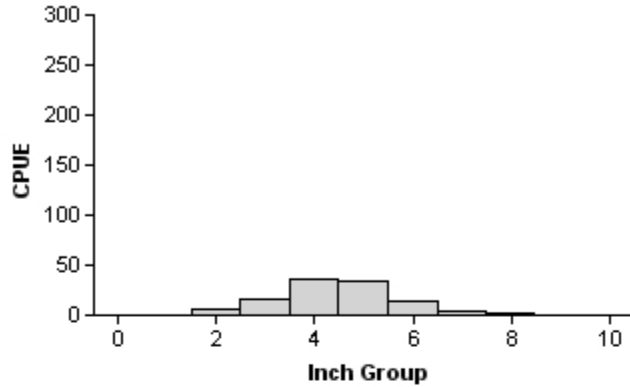


Figure 1. Number of Gizzard Shad caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for IOV are in parentheses) for fall electrofishing surveys, Lake Fairfield, Texas, 2014, 2016, and 2020.

Bluegill

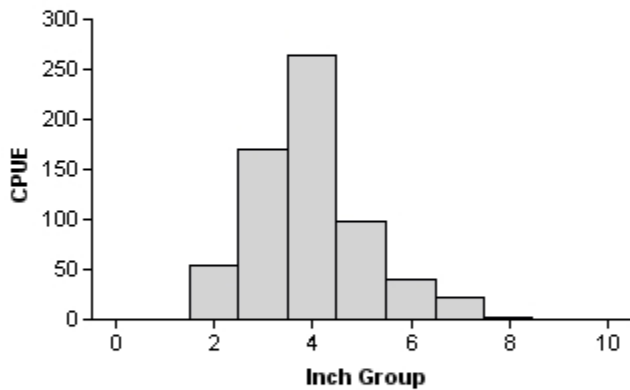
2014

Effort = 1.0
 Total CPUE = 116.0 (30; 116)
 PSD = 18 (4)



2016

Effort = 1.0
 Total CPUE = 653.0 (32; 653)
 PSD = 11 (5)



2020

Effort = 1.0
 Total CPUE = 619.0 (15; 619)
 PSD = 27 (6)

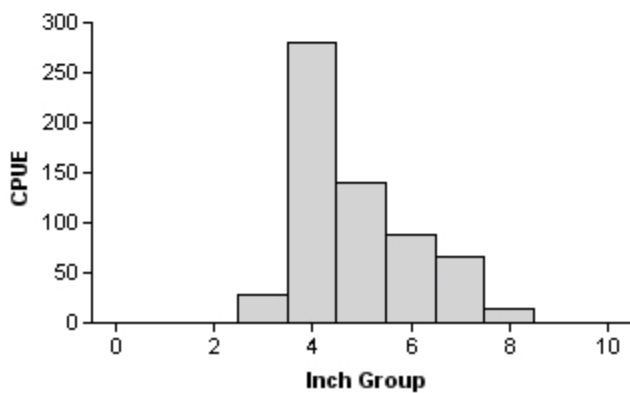


Figure 2. Number of Bluegill caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Lake Fairfield, Texas, 2014, 2016, and 2020.

Largemouth Bass

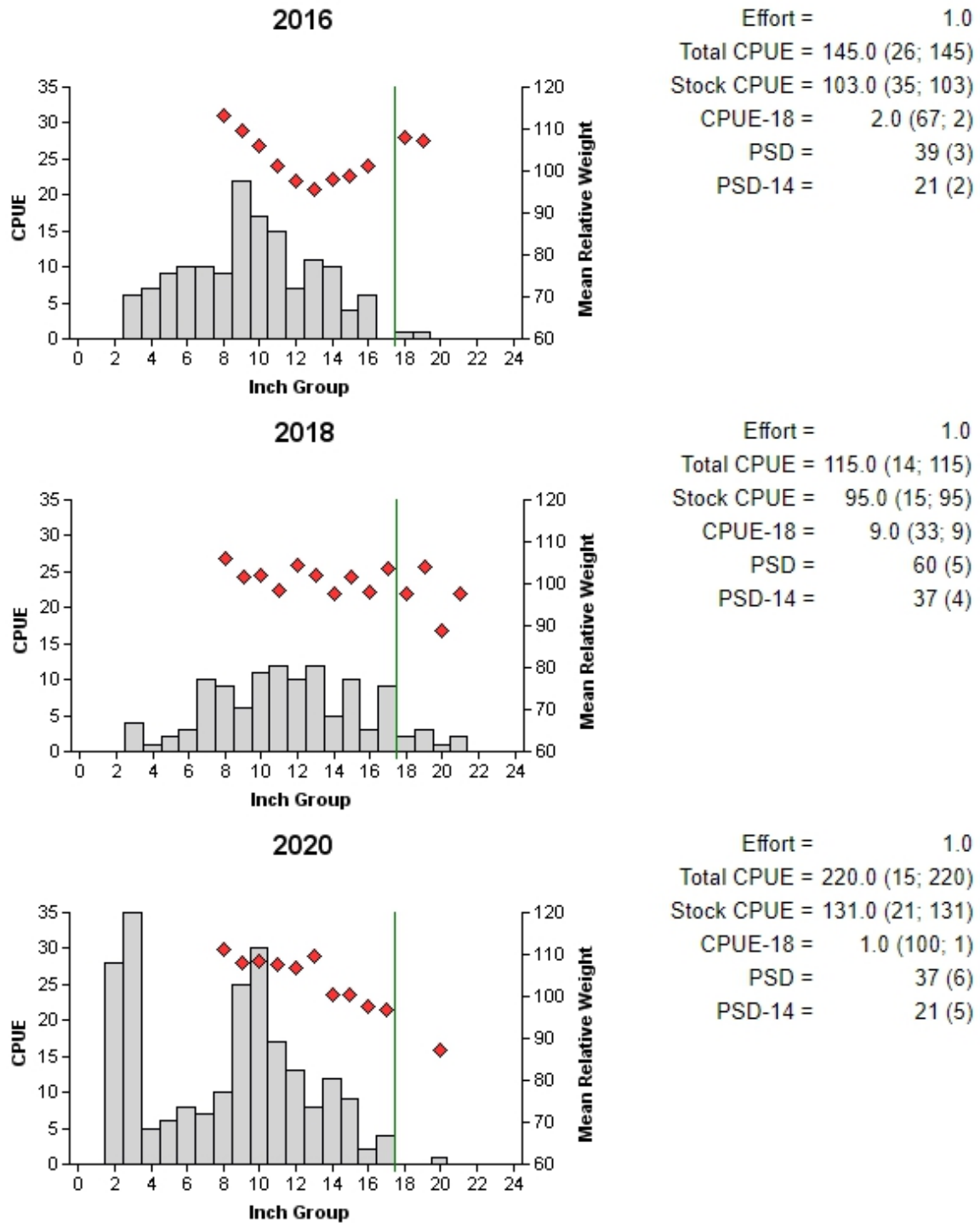


Figure 3. Number of Largemouth Bass caught per hour (CPUE), mean relative weights (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Lake Fairfield, Texas, 2016, 2018 and 2020. Vertical line represents minimum length limit.

Proposed Sampling Schedule

Table 7. Proposed sampling schedule for Lake Fairfield, Texas. Survey period is June through May.

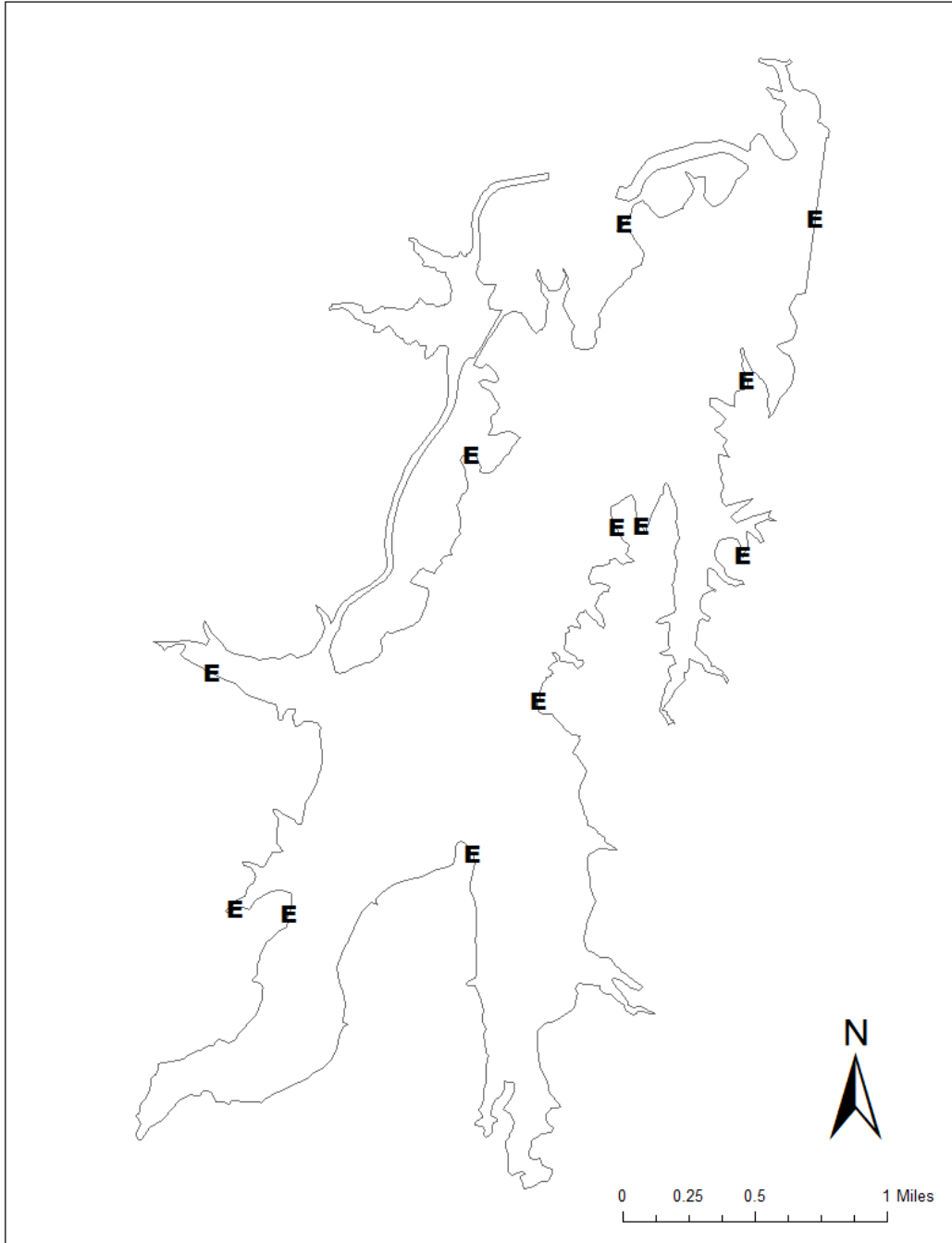
	Survey year			
	2021-2022	2022-2023	2023-2024	2024-2025
Angler Access				x
Vegetation				x
Electrofishing – Fall				x
Electrofishing – Spring (Bass Only)	x			
Creel Survey (Spring Quarter)		x		
Hoop netting	x			
Report				x

APPENDIX A – Catch rates for all species from all gear types

Number (N) and catch rate (CPUE) (RSE in parentheses) of all target species collected from all gear types from Lake Fairfield, Texas, 2020. Sampling effort was 1.0 hour of electrofishing.

Species	N	CPUE
Gizzard Shad	16	16 (32)
Threadfin Shad	3,908	3,908 (24)
Bluegill	619	619 (15)
Longear Sunfish	6	6 (58)
Redear Sunfish	60	60 (44)
Redspotted Sunfish	3	3 (100)
Largemouth Bass	220	220 (15)

APPENDIX B – Map of sampling locations



Location of sampling sites, Lake Fairfield, Texas, 2020. Electrofishing stations are indicated by E. Water level was near full pool at time of sampling.



Life's better outside.®

In accordance with Texas State Depository Law, this publication is available at the Texas State Publications Clearinghouse and/or Texas Depository Libraries.

© Texas Parks and Wildlife, PWD RP T3200-1290 (08/21)

TPWD receives funds from the USFWS. TPWD prohibits discrimination on the basis of race, color, religion, national origin, disability, age, and gender, pursuant to state and federal law. To request an accommodation or obtain information in an alternative format, please contact TPWD on a Text Telephone (TTY) at (512) 389-8915 or by Relay Texas at 7-1-1 or (800) 735-2989 or by email at accessibility@tpwd.texas.gov. If you believe you have been discriminated against by TPWD, please contact TPWD, 4200 Smith School Road, Austin, TX 78744, or the U.S. Fish and Wildlife Service, Office for Diversity and Workforce Management, 5275 Leesburg Pike, Falls Church, VA 22041.