Coffee Mill Reservoir

2021 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:

Dan Bennett, District Management Supervisor
and
Greg Cummings, Assistant District Management Supervisor

Inland Fisheries Division
Denison District, Pottsboro, Texas

Carter Smith
Executive Director

Craig Bonds
Director, Inland Fisheries

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Survey and Management Summary

Fish populations in Coffee Mill Reservoir were surveyed in 2021 using electrofishing and trap netting and in 2022 using gill netting. Habitat, vegetation, and angler access were surveyed in 2021. This report summarizes the results of the surveys and contains a management plan for the reservoir based on those findings. Historical data are presented with the 2021-2022 data for comparison.

Reservoir Description: Coffee Mill Reservoir is a 650-acre impoundment located on Coffee Mill Creek approximately 10 miles northeast of Bonham in the Caddo National Grasslands. The reservoir is surrounded by predominately natural shoreline with emergent and submerged aquatic vegetation.

Management History: Important sport fish include Channel Catfish, Largemouth Bass, and crappie. All sportfish are managed with statewide regulations.

Fish Community

- **Prey species:** Coffee Mill supports a diverse forage base. Gizzard Shad and Bluegill remain the dominant prey species.

- **Channel Catfish:** The Channel Catfish population rebounded from the low catch rate in 2018 and most fish were of quality size or larger ranging from 15 to 25-inches.

- **Largemouth Bass:** Largemouth Bass were in good condition at Coffee Mill Reservoir. Fish up to 22-inches were collected during our survey.

- **Crappie:** White Crappie were more abundant than Black Crappie at Coffee Mill, and crappie up to 13-inches were sampled.

Management Strategies: Inform the public about the negative impacts of aquatic invasive species. Promote the Channel Catfish fishery. An access survey and vegetation survey will be conducted in 2025. Conduct general monitoring surveys with trap nets, gill nets, and electrofishing in 2025 and 2026.

Introduction

This document is a summary of fisheries data collected from Coffee Mill Reservoir in 2021-2022. Historical data are presented with the 2021-2022 data for comparison. 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 fishes was collected, this report deals primarily with major sport fishes and important prey species.

Reservoir Description

Coffee Mill Reservoir is a 650-acre impoundment constructed in 1939 on Coffee Mill Creek. It is located in Fannin County approximately 10 miles northeast of Bonham and is operated and controlled by the United States Forest Service (USFS). The reservoir was drained and treated with rotenone in 1968 and restocked with appropriate fishes in 1969 (Bonn 1969). Primary water uses included wildlife management and recreation. Habitat at time of sampling consisted of native emergent vegetation along with native floating-leaved vegetation, and submersed vegetation. The reservoir exhibits minimal water level fluctuations. Descriptive characteristics for Coffee Mill Reservoir are in Table 1.

Angler Access

Coffee Mill Reservoir has one public boat ramp. Additional boat ramp characteristics are in Table 2. There was bank fishing access in the campground near the boat ramp. A floating fishing dock was installed in 2019 near the boat ramp. Further information about Coffee Mill Reservoir and its facilities can be obtained by visiting the Texas Parks and Wildlife Department (TPWD) web site at www.tpwd.texas.gov and navigating within the fishing link.

Management History

Previous management strategies and actions: Management strategies and actions from the previous survey report (Bennett and Cummings 2018) included:

1. Work with TPWD's Aquatic Habitat Enhancement Team and the USFS to explore treatment options for excessive American lotus.

    Action: American lotus coverage quickly declined following publication of our previous report, so treatment was not required. Drought conditions in 2014 followed by flooding in 2015 through 2017 may have allowed lotus to expand rapidly. By August 2021, lotus covered just one percent of the reservoir's surface.

2. Educate the public about invasive species.

    Action: Signage was posted at the kiosk at Coffee Mill Reservoir boat ramp to notify users of the potential threats of invasive species.

Harvest regulation history: Sport fishes in Coffee Mill Reservoir are currently managed with statewide regulations (Table 3). The statewide regulation for catfishes was changed in 2021, removing the minimum length limit.

Stocking history: Coffee Mill Reservoir has not been stocked since 1999 (Channel Catfish and Florida Largemouth Bass). Prior to 1999, 7-inch Channel Catfish were stocked occasionally from 1991 through 1999. Florida Largemouth Bass fingerlings were stocked annually from 1994 through 1999. The complete stocking history since 1969 is in Table 4.

Water transfer: Coffee Mill Reservoir is used exclusively for wildlife management and recreation and water is not transferred to or from any other location.

Methods

Surveys were conducted to achieve survey and sampling objectives in accordance with the objective-based sampling (OBS) plan for Coffee Mill Reservoir (Bennett and Cummings 2018). Primary components of the OBS plan are listed in Table 5. All survey sites were randomly selected, and all surveys were conducted according to the Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2017).

Electrofishing – Largemouth Bass, sunfishes, and Gizzard Shad, and Threadfin Shad were collected by electrofishing (1 hour at 12, 5-min randomly-selected 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 4 randomly selected fish (range 13.0 to 14.9 inches).

Trap netting – Crappie were collected using trap nets (5 net nights at 5 stations). Catch per unit of effort for trap netting was recorded as the number of fish caught per net night (fish/nn). Ages for White Crappie were determined using otoliths from 13 randomly selected fish (range 9.0 to 10.9 inches).

Gill netting – Channel Catfish were collected by gill netting (5 net nights at 5 stations). Catch per unit of effort for gill netting was recorded as the number of fish caught per net night (fish/nn).

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 X SE of the estimate/estimate) was calculated for all CPUE.

Habitat – Aquatic vegetation was assessed with the digital shapefile method in August 2021 (TPWD, Inland Fisheries Division, unpublished manual revised 2017).

Water level – No water level gauge exists at Coffee Mill Reservoir; however, water level fluctuation is typically less than two feet annually.

Results and Discussion

Habitat: Aquatic vegetation has generally declined at Coffee Mill since the previous survey (Table 6). American lotus had expanded to invasive levels during the previous survey and impacted electrofishing catch rates in Fall 2017. Treatment of lotus was recommended in 2018; however, coverage had naturally declined by that time. The temporal increase was believed to have been an artifact of water level changes following drought conditions prior to 2015. Small amounts of native submersed vegetation (American pondweed, coontail, and bushy pondweed) were documented in August 2021 in isolated patches. Native emergent vegetation (cattails, water primrose, arrowhead, smartweed, and water willow) remained distributed around the reservoir's perimeter.

Prey species: The relative abundance of Gizzard Shad has remained consistent over the past three surveys (~300/h; Figure 1); yet the IOV increased from 53 in 2017 to 90 in Fall 2021. Threadfin Shad continue to persist in the reservoir since first observed in 2009 (Appendix C); however, relative abundance has continued to decline over the last two surveys and only four individuals were collected in 2021. The extreme reduction in lotus coverage in 2021 likely contributed to increased electrofishing catch rates of sunfish species. In 2021, total CPUE of Bluegill (1,001/h; Figure 2) was nearly twice the long-term average (528/h; Appendix C) and size structure (PSD=5) continued to be dominated by small individuals (Figure 2). Longear Sunfish (44/h; Figure 3) and Redear Sunfish (67/h; Figure 4) were also moderately abundant and added to the forage base. Redear Sunfish up to 8-inches in length were collected. Golden Shiners, Inland Silversides, and Blacktail Shiners were also observed.

Channel Catfish: The Channel Catfish population appeared to have rebounded since a record low catch rate in 2018, likely due to above average rainfall and high lake levels since 2015. The catch rate (14.4/nn) and population metrics (Figure 5) of Channel Catfish mirrored that of the 2014 sample. Body condition (W_r) was $\geq$90 for larger size classes (Figure 5); however, some density dependent declines in condition of more abundant size classes (17 to 20-inches) was apparent.

Largemouth Bass: The total catch rate of Largemouth Bass (97.0/h; Figure 6) in 2021 has steadily declined since a "new-lake" effect high in 2009 (210.0/h; Hysmith and Moczygemba 2010) following prolonged drought in 2005 and 2006. Size structure (PSD=37) was similar to prior years ranging from 30 to 55 since 2001. Bass up to 22-inches were collected during the fall sample, which was the largest bass ever collected in fall electrofishing. An insufficient sample size of 13- and 14-inch Largemouth Bass was obtained for estimating mean length at age. The four-fish collected between 13.0 and 14.9-inches ranged from age-2 to age-5. Relative weight was excellent (>100) for most sizes of Largemouth Bass (Figure 6).

Crappie: The total CPUE of crappie (46.0/nn; Figure 7) was similar to the historical average of 48.5/nn (Appendix C). White Crappie remain the dominant species. The PSD for White Crappie and Black Crappie declined to 68 along with CPUE-10 in 2021. Catch rate of sub-stock crappie was high, suggesting above average recruitment in 2021. White Crappie (N= 13) reached legal length (10 inches) in 2 years. Body condition values of crappie were lower than previous years (W_r range 82 - 98).

Fisheries Management Plan for Coffee Mill Reservoir

Prepared – July 2022

ISSUE 1:   The Channel Catfish population at Coffee Mill may be underutilized.

MANAGEMENT STRATEGIES

1. Promote Channel Catfish fishing opportunities through social media and through media requests for information about catfish angling opportunities.

ISSUE 2:   Until June 2022, Coffee Mill had not received a Florida Bass stocking since 1999, yet has produced bass over ten pounds and exhibits a robust forage base (e.g. combined sunfish electrofishing CPUE of 1,209/h).

MANAGEMENT STRATEGIES

1. Investigate impacts of the 2022 stocking of adult Florida Bass with a genetic sample in 2026, and seek additional opportunities to request Lone Star Bass.

ISSUE 3:   Many invasive species threaten aquatic habitats and organisms in Texas and can adversely affect the state ecologically, environmentally, and economically. For example, zebra mussels (Dreissena polymorpha) 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 (Salvinia molesta) 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. Contact and educate local tackle shops about invasive species, and provide them with posters, literature, etc… so that they can in turn educate their customers.

3. Educate the public about invasive species through the use of media and the internet.

4. Make a speaking point about invasive species when presenting to constituent and user groups.

Objective-Based Sampling Plan and Schedule (2022-2026)

<u>Sport fish, forage fish and other important fishes</u>

Important sport fish in Coffee Mill Reservoir include Largemouth Bass, crappie, and Channel Catfish. Important forage species include sunfishes, Gizzard Shad, and Threadfin Shad.

<u>Survey objectives, fisheries metrics, and sampling objectives</u>

Largemouth Bass: Coffee Mill Reservoir maintains a good bass fishery, and electrofishing catch rates have remained consistent as has the size structure and condition of the bass population. Sampling in fall 2025, should provide an adequate sample-size to determine any large-scale changes in the Largemouth Bass population that may spur further investigation.

A minimum of 12 randomly selected 5-min electrofishing sites will be sampled to meet our objectives of collecting ≥ 50 stock-size fish with an RSE of CPUE-S $\leq$ 25 to evaluate size structure and CPUE. Based on previous surveys, we should meet these objectives in the original 12 random stations; however, 6 additional random stations will be pre-determined in the event additional sampling is necessary. A genetic sample of 30 random Largemouth Bass will also be collected to evaluate the impact of stocking Florida Largemouth Bass brooders in 2022.

Catfish: Coffee Mill Reservoir has a quality Channel Catfish fishery, and trend data will be collected in 2026 to evaluate recruitment, size structure, and CPUE. In spring of 2026, we will sample Channel Catfish with gill nets to meet our objectives of collecting ≥ 50 stock-size fish with an RSE of CPUE-S ≤ 30. Initially we will set 5 gillnets at random sites and up to 5 additional gill nets may be set if we estimate objectives can be achieved with additional effort.

Crappie: Crappie provide the most popular fishery at Coffee Mill Reservoir. Both White Crappie and Black Crappie are present in Coffee Mill Reservoir; however, White Crappie are in greater abundance. Trend data to evaluate CPUE, size structure, body condition, and growth to the MLL is needed once every 4-years to monitor for any long-term changes in the White Crappie population. We will sample White Crappie using 5 random trap net sampling stations in fall of 2025 to collect ≥ 50 stock-size fish with an RSE of CPUE-S $\leq$ 25. Based on previous surveys, we should meet OBS objectives in the original 5 random stations. If objectives are not met with the initial 5 sampling stations, we will set an additional 5 random trap net stations if it is determined our objectives can be achieved. Data on Black Crappie will be collected along with White Crappie; however, no additional effort will be expended beyond that which is necessary to achieve sampling objectives for White Crappie.

Prey Species: Bluegill, Longear Sunfish, Redear Sunfish, and Gizzard and Threadfin Shad are the primary forage at Coffee Mill Reservoir. We intend to collect trend data to evaluate relative abundance (total CPUE), size structure, and prey availability for forage species by use of electrofishing once every four years. Data collection for prey species will be collected in conjunction with sampling for Largemouth Bass. Effort expended to achieve desired relative abundance estimates for Bluegill and Gizzard Shad should be similar to that required for Largemouth Bass.

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.

Bennett, D.B., and G.W. Cummings, 2018. Statewide freshwater fisheries monitoring and management program survey report for Coffee Mill Reservoir, 2017. Texas Parks and Wildlife Department, Federal Aid Report F-221-M-3, Austin.

Bonn, E.W. 1969. Coffee Mill Lake renovation and restocking. Texas Parks and Wildlife Department, Federal Aid Report F-14-11, Austin.

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.

Hysmith, B.T., and J.H. Moczygemba. 2010. Statewide freshwater fisheries monitoring and management program survey report for Coffee Mill Reservoir, 2009. Texas Parks and Wildlife Department, Federal Aid Report F-30-R, Austin.

Tables and Figures

Table 1. Characteristics of Coffee Mill Reservoir.

Characteristic	Description
Year constructed	1939
Controlling authority	U.S. Forest Service
County	Fannin
Reservoir type	Offstream
Shoreline development index	2.02
Conductivity	175 µmhos/cm

Table 2. Boat ramp characteristics for Coffee Mill Reservoir. Reservoir elevation at time of survey was 494 feet above mean sea level.

Boat ramp	Latitude Longitude (dd)	Public	Parking capacity (N)	Elevation at end of boat ramp (ft)	Condition
Public Access	33.73610 - 95.97236	Y	20	489.3	Adequate

Table 3. Harvest regulations for Coffee Mill Reservoir, Texas.

Species	Bag limit	Length limit
Catfish, Channel	25 (in any combination, only 10 can be $\geq$ 20 inches)	No limit
Catfish, Flathead	5	18-inch minimum
Bass, Largemouth	5	14-inch minimum
Crappie: White and Black crappie, their hybrids, and subspecies	25 (in any combination)	10-inch minimum

Table 4. Stocking history of Coffee Mill Reservoir, Texas. Life stages are fry (FRY), fingerlings (FGL), advanced fingerlings (AFGL), and adult (ADL).

Species	Year	Number	Size
Channel Catfish	1969	19,000	FGL
	1991	2,500	AFGL
	1992	14,191	AFGL
	1995	75	ADL
	1995	12,500	AFGL
	1999	16,255	AFGL
	Total	64,521	
Florida Largemouth Bass	1994	65,000	FGL
	1995	40,000	FGL
	1997	76,500	FGL
	1999	65,033	FGL
	2022	161	ADL
	Total	246,694	
Largemouth Bass	1969	143,000	FRY
	Total	143,000	

Table 5. Objective-based sampling plan components for Coffee Mill Reservoir, Texas 2021 – 2022.

Gear/target species	Survey objective	Metrics	Sampling objective
Electrofishing			
Largemouth Bass	Abundance	CPUE – Stock	RSE-Stock ≤ 25
	Size structure	PSD, length frequency	N ≥ 50 stock
	Age-and-growth	Age at 14 inches	N = 13, 13.0 – 14.9 inches
	Condition	W_r	10 fish/inch group (max)
Bluegill [a]	Abundance	CPUE – Total	RSE ≤ 25
	Size structure	PSD, length frequency	N ≥ 50
Gizzard Shad [a]	Abundance	CPUE – Total	RSE ≤ 25
	Size structure	length frequency	N ≥ 50
	Prey availability	IOV	N ≥ 50
Trap netting			
White Crappie	Abundance	CPUE – Stock	RSE-Stock ≤ 25
	Size structure	PSD, length frequency	N = 50
	Age-and-growth	Age at 10 inches	N = 13, 9.0 – 10.9 inches
Gill netting			
Channel Catfish	Abundance	CPUE– Stock	RSE ≤ 30
	Size structure, Recruitment	Length frequency	Practical effort

[a] No additional effort will be expended to achieve an RSE ≤ 25 for CPUE of Bluegill and Gizzard Shad if not reached from designated Largemouth Bass sampling effort. Instead, Largemouth Bass body condition can provide information on forage abundance, vulnerability, or both relative to predator density.

Table 6. Survey of aquatic vegetation for Coffee Mill Reservoir, Texas, 2013, 2017, and 2021. Surface area (acres) is listed with percent of total reservoir surface area in parentheses.

Vegetation	2013	2017	2021
Native submersed[a]	12.1 (1.8)	1.8 (0.3)	0.1 (trace)
Native floating-leaved[b]	46.5 (7.1)	133.6 (20.6)	6.5 (1)
Native emergent[c]	2.0 (0.3)	14.5 (2.2)	3.9 (0.6)

[a] coontail, American pondweed, and bushy pondweed.

[b] American lotus.

[c] smartweed, cattail, water primrose, arrowhead, and water willow.

Gizzard Shad

2013

Effort = 1.0
Total CPUE = 301.0 (18; 301)
IOV = 59 (7)

2017

Effort = 1.0
Total CPUE = 321.0 (23; 321)
IOV = 53 (10)

2021

Effort = 1.0
Total CPUE = 325.0 (19; 325)
IOV = 90 (3)
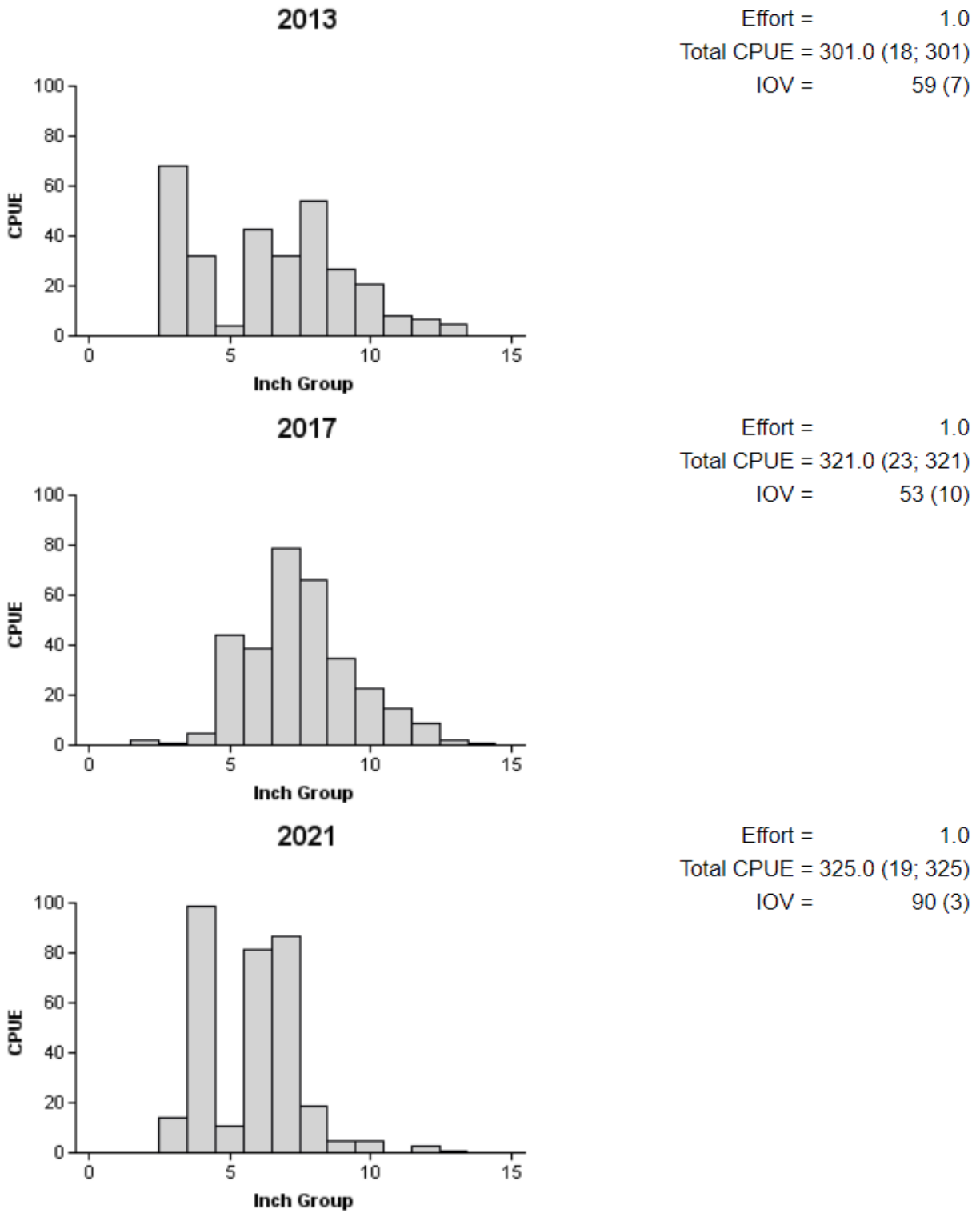
Figure 1. Number of Gizzard Shad caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for IOV are in parentheses) for fall electrofishing surveys, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021.

Bluegill
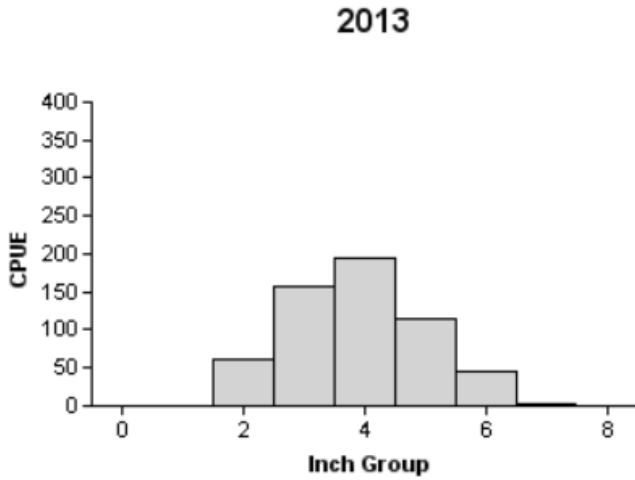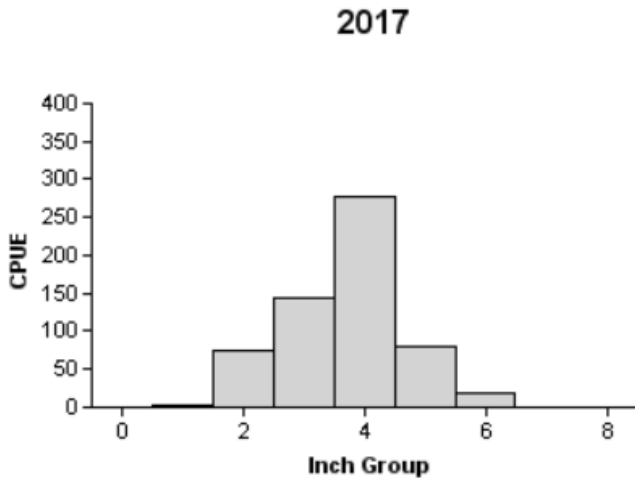
2013

2017
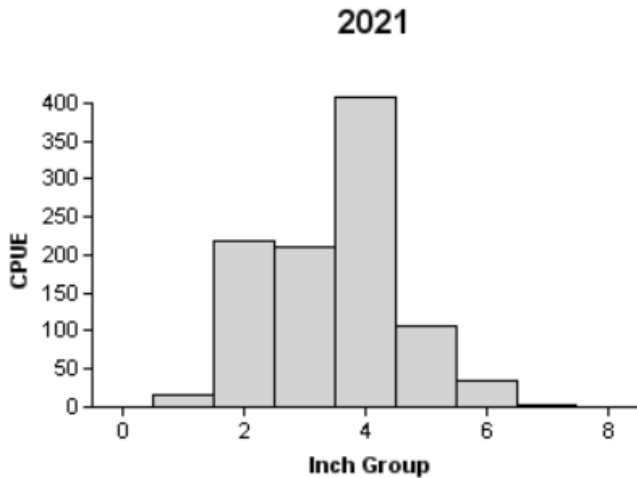
2021

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, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021.
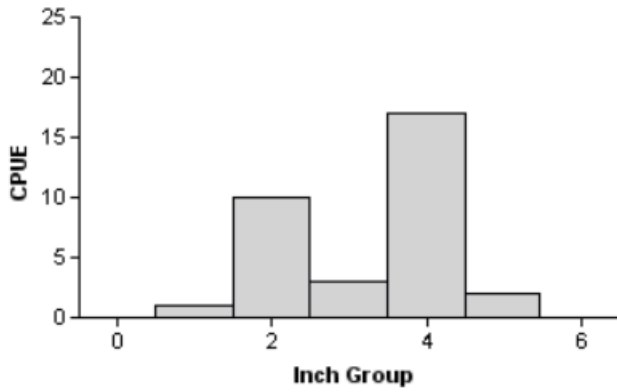
Longear Sunfish

2013

Effort =   1.0
Total CPUE = 3.0 (52; 3)
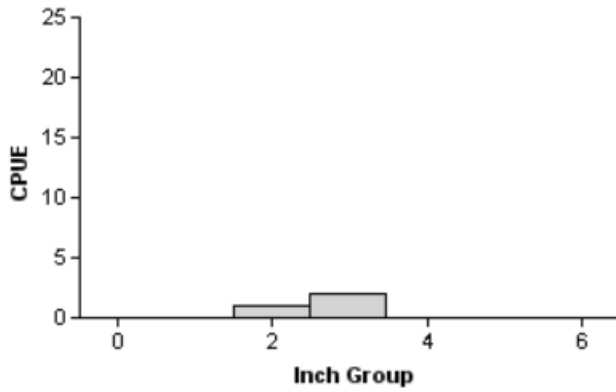
2017

Effort =   1.0
Total CPUE = 33.0 (28; 33)

2021

Effort =   1.0
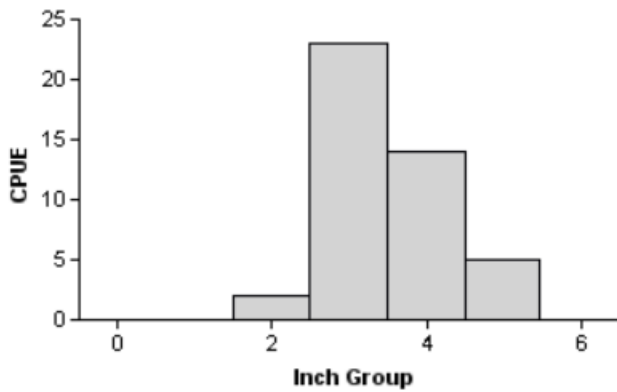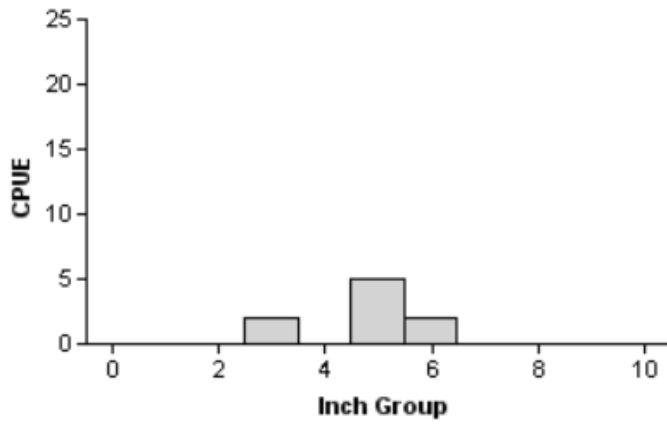Total CPUE = 44.0 (38; 44)

Figure 3. Number of Longear Sunfish caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021.
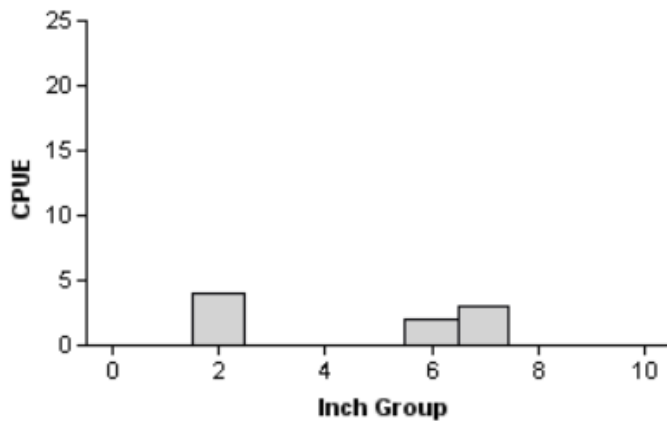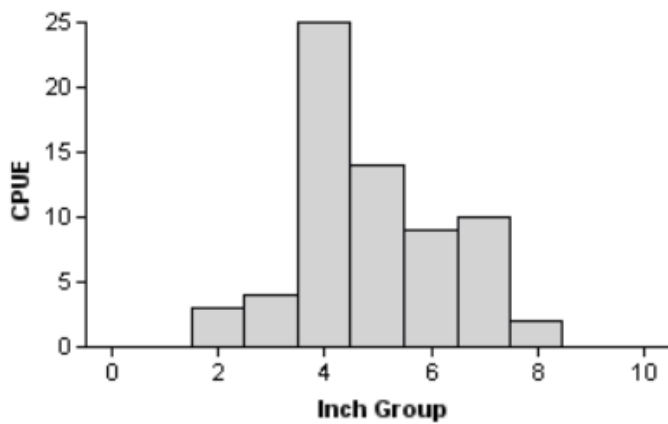
Redear Sunfish

2013

Effort = 1.0
Total CPUE = 9.0 (47; 9)
Stock CPUE = 7.0 (58; 7)
PSD = 0 (0)

2017

Effort = 1.0
Total CPUE = 9.0 (47; 9)
Stock CPUE = 5.0 (81; 5)
PSD = 60 (12)

2021

Effort = 1.0
Total CPUE = 67.0 (24; 67)
Stock CPUE = 60.0 (22; 60)
PSD = 20 (7)

Figure 4. Number of Redear Sunfish caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021.

Channel Catfish

2014

Effort = 5.0
Total CPUE = 14.8 (16; 74)
Stock CPUE = 14.8 (16; 74)
CPUE-20 = 4.0 (29; 20)
PSD = 81 (6)

2018

Effort = 10.0
Total CPUE = 3.9 (22; 39)
Stock CPUE = 3.8 (24; 38)
CPUE-20 = 2.6 (22; 26)
PSD = 97 (3)

2022

Effort = 5.0
Total CPUE = 14.4 (29; 72)
Stock CPUE = 14.4 (29; 72)
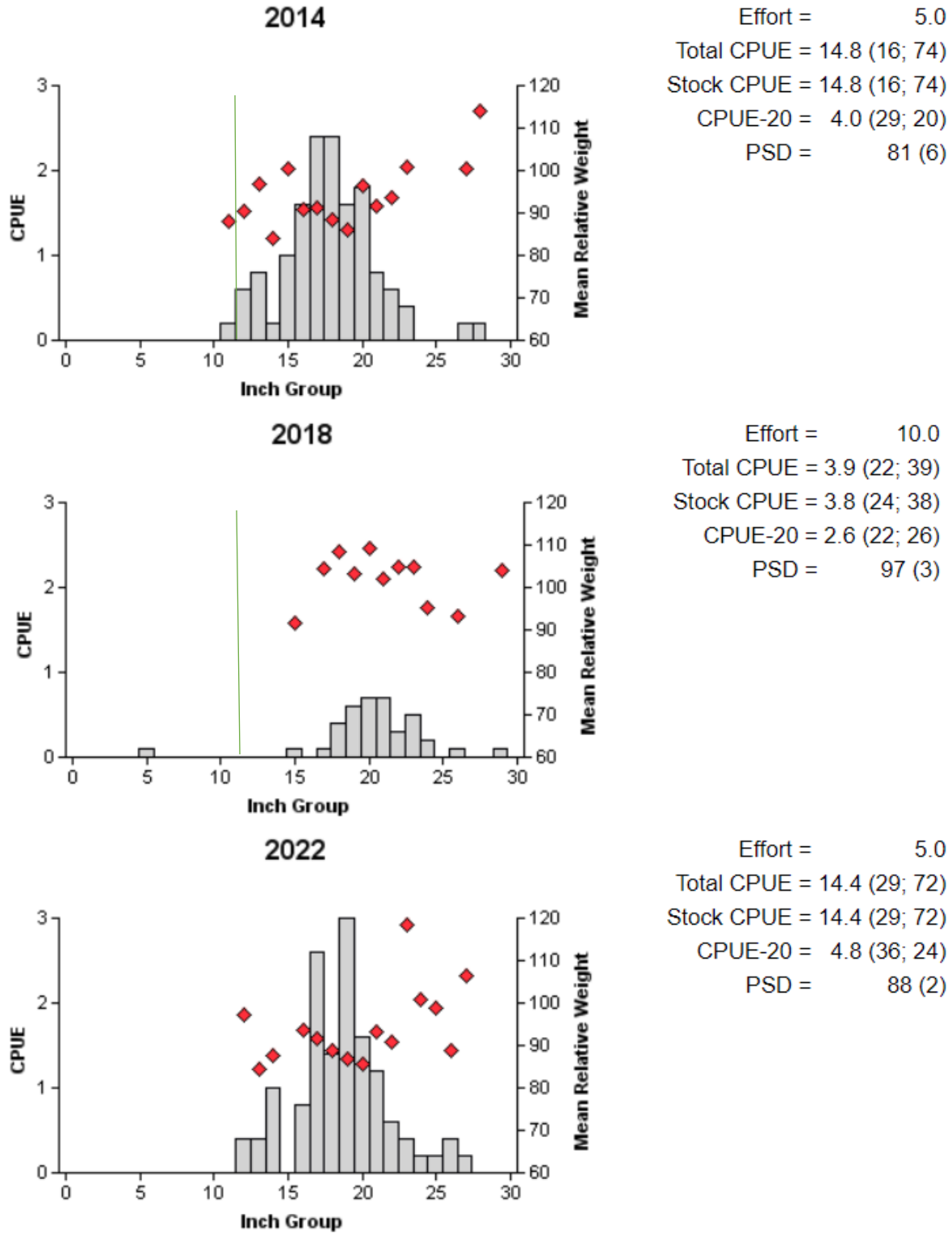CPUE-20 = 4.8 (36; 24)
PSD = 88 (2)

Figure 5. Number of Channel Catfish caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Coffee Mill Reservoir, Texas, 2014, 2018, and 2022. Vertical line represents minimum length limit at time of sampling. Minimum length limit was removed in 09/2021.
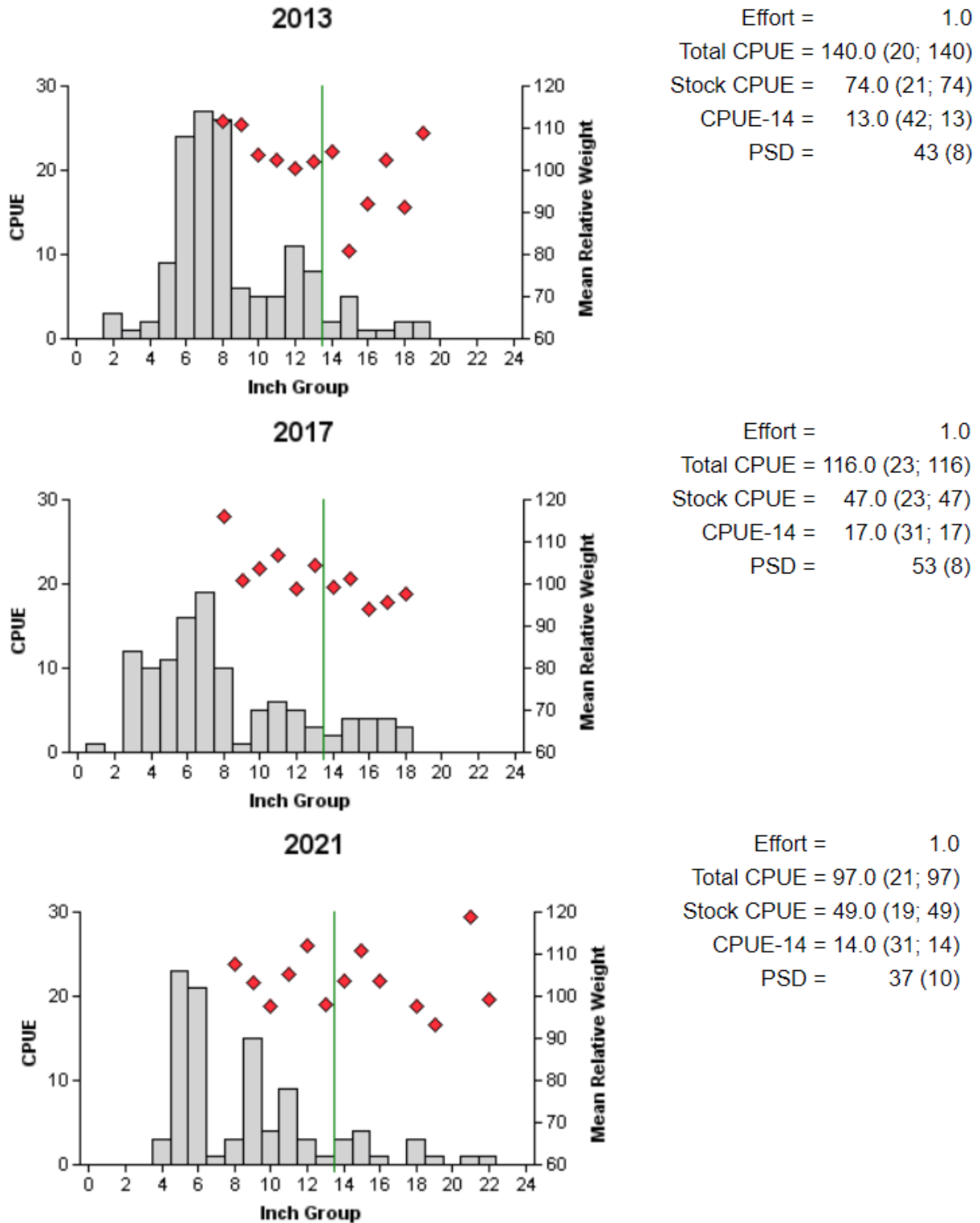
Largemouth Bass

2013

Effort = 1.0
Total CPUE = 140.0 (20; 140)
Stock CPUE = 74.0 (21; 74)
CPUE-14 = 13.0 (42; 13)
PSD = 43 (8)

2017

Effort = 1.0
Total CPUE = 116.0 (23; 116)
Stock CPUE = 47.0 (23; 47)
CPUE-14 = 17.0 (31; 17)
PSD = 53 (8)

2021

Effort = 1.0
Total CPUE = 97.0 (21; 97)
Stock CPUE = 49.0 (19; 49)
CPUE-14 = 14.0 (31; 14)
PSD = 37 (10)

Figure 6. Number of Largemouth Bass caught per hour (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021. Vertical lines represent minimum length limit at time of collection.
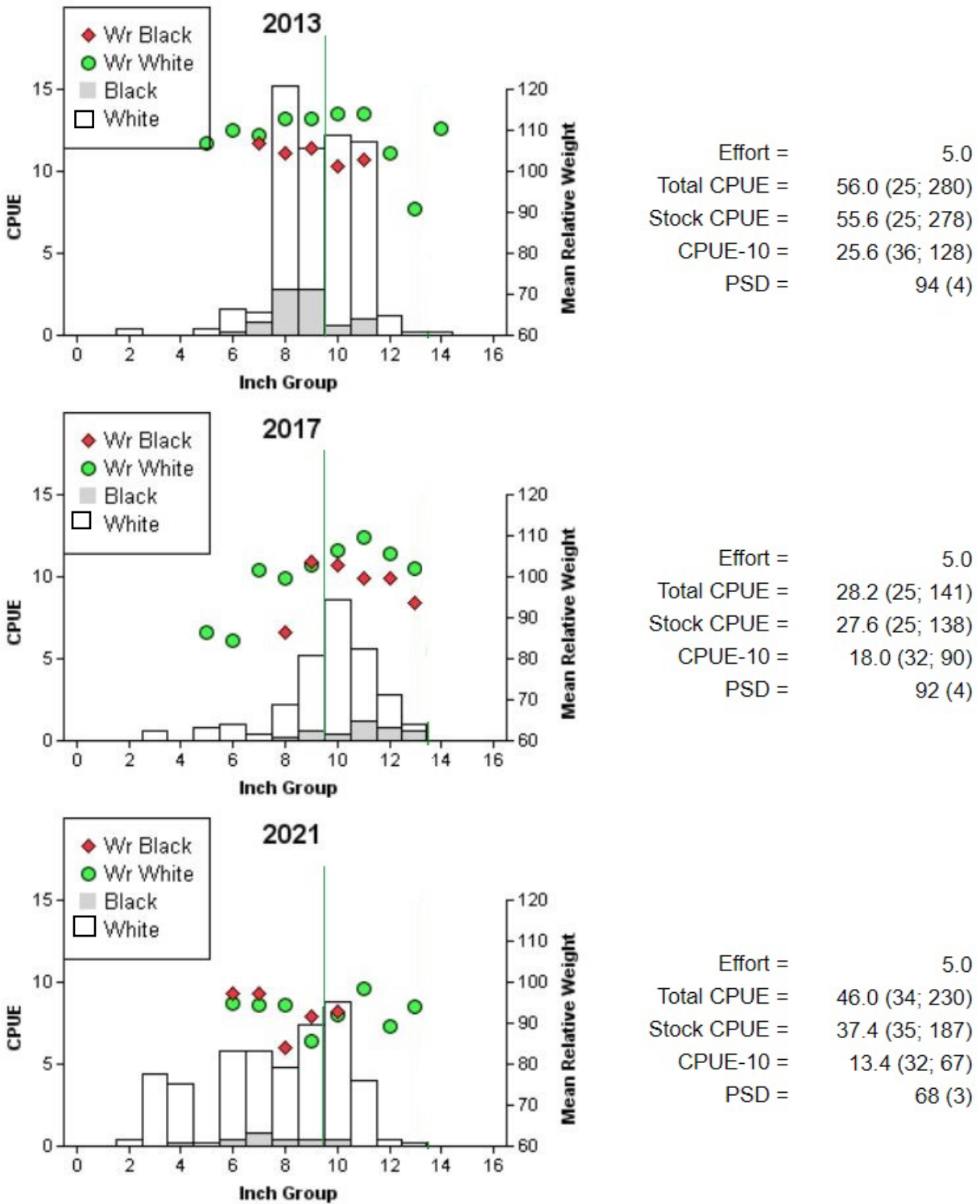
Crappie

Figure 7. Number of White Crappie and Black Crappie caught per net night (CPUE, bars), mean relative weight (circles and diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall trap netting surveys, Coffee Mill Reservoir, Texas, 2013, 2017, and 2021. Vertical lines represent minimum length limit at time of collection.

Proposed Sampling Schedule

Table 7. Proposed sampling schedule for Coffee Mill Reservoir, Texas. Survey period is June through May. Electrofishing and trap netting surveys are conducted in the fall, while gill netting surveys are conducted in the spring.

	Survey year			
	2022-2023	2023-2024	2024-2025	2025-2026
Angler Access				X
Vegetation				X
Electrofishing – Fall				X
Trap netting				X
Gill netting				X
Report				X

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

Number (N), relative standard error (RSE) and catch rate (CPUE) of all target species collected from all gear types from Coffee Mill Reservoir, Texas, 2021-2022. Sampling effort was 5 net nights for gill netting, 5 net nights for trap netting, and 1 hour for electrofishing.

Species	Gill Netting		Electrofishing		Trap Netting	
	N/RSE	CPUE	N/RSE	CPUE	N/RSE	CPUE
Gizzard Shad			325/19	325.0		
Threadfin Shad			4/77	4.0		
Channel Catfish	72/29	14.4				
Warmouth			17/25	17.0		
Bluegill			1001/12	1001.0		
Longear Sunfish			44/38	44.0		
Green Sunfish			1/100	1.0		
Redear Sunfish			67/24	67.0		
Largemouth Bass			97/21	97.0		
White Crappie					217/37	43.4
Black Crappie					13/34	2.6

Appendix B – Map of sampling locations
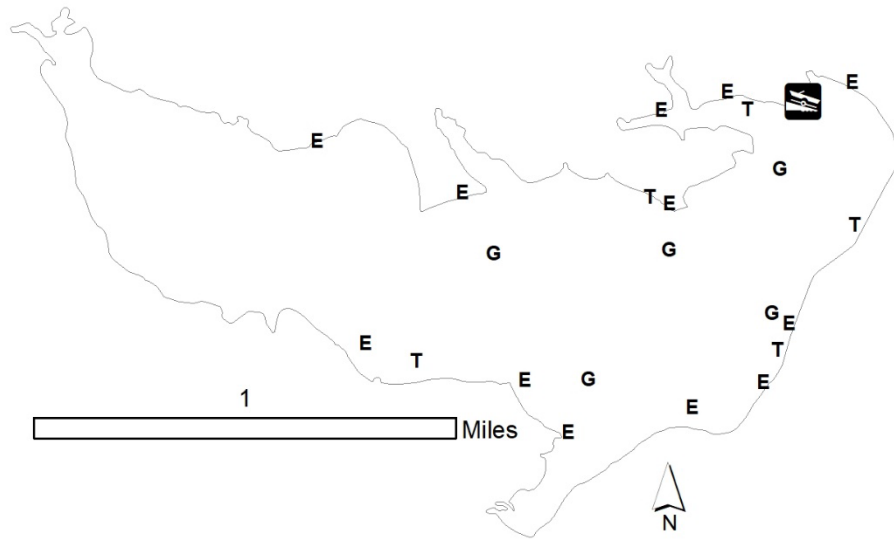
Location of electrofishing (E), trap netting (T), and gill netting (G) sites, Coffee Mill Reservoir, Texas, 2021 and 2022. Water level was at or near full pool at time of sampling.

Appendix C – Historical catch rates of target species by gear type

Historical catch rates of targeted species by gear type for Coffee Mill Reservoir, Texas, 1998-2022.

Gear	Species	Year							
		1998-99	2001-02	2005-06	2009-10	2013-14	2017-18	2021-22	**Avg.**
Gill Netting (fish/net night)	Channel Catfish	11.0	19.2	32.8	7.6	14.8	3.9	14.4	**14.8**
Electrofishing (fish/hour)	Gizzard Shad	1,008.0	984.0	722.0	169.0	301.0	321.0	325	**547.1**
	Threadfin Shad				702.0	988.0	248.0	4	**485.5**
	Green Sunfish	2.0	0.0	4.0	0.0	0.0	0.0	1	**1.0**
	Warmouth	6.0	6.0	14.0	1.0	11.0	4.0	17	**8.4**
	Bluegill	446.0	124.0	672.0	278.0	580.0	598.0	1001	**528.4**
	Longear Sunfish	2.0	3.0	14.0	3.0	3.0	33.0	44	**14.6**
	Redear Sunfish	0.0	0.0	1.0	1.0	0.0	9.0	67	**11.1**
	Largemouth Bass	93.0	90.0	100.0	210.0	140.0	116.0	97	**120.9**
Trap Netting (fish/net night)	White Crappie	47.0	93.4	59.8	24.0	47.8	24.4	43.4	**48.5**
	Black Crappie	1.0	0.0	0.0	0.6	8.2	3.8	2.6	**2.5**

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