

Amon G. Carter Reservoir

2024 Fisheries Management Survey Report

PERFORMANCE REPORT

As Required by

FEDERAL AID IN SPORT FISH RESTORATION ACT

TEXAS

FEDERAL AID PROJECT F-221-M-5

INLAND FISHERIES DIVISION MONITORING AND MANAGEMENT PROGRAM

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Survey and Management Summary

Fish populations in Amon G. Carter Reservoir were surveyed in 2024 using electrofishing and trap netting and in 2025 using gill netting and bass-only electrofishing. Historical data are presented with the 2021-2025 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:** Amon G. Carter Reservoir is a 1,848-acre impoundment on Big Sandy Creek in Montague County. The water level has remained within a few feet of the conservation elevation since 2015 and also experienced high water events in 2024 and 2025. Habitat features consisted of rocky shoreline, standing timber, and native submersed aquatic vegetation.
- **Management History:** Important sport fish include White Bass, Largemouth Bass, White Crappie, and Channel Catfish. The reservoir has always been managed with statewide harvest regulations. Over 700,000 Florida Largemouth Bass have been stocked since 1982 to enhance the trophy potential of the bass population. ShareLunker Bass were stocked in 2013, and Lone Star Bass were stocked in 2022.

Fish Community

- **Prey species:** The electrofishing catch rate of Gizzard Shad was a catch of record, yet the threadfin catch rate declined since the previous survey. Bluegill were abundant along with Longear Sunfish and Redear Sunfish.
- **Channel Catfish:** Channel Catfish remained abundant with many fish over 20 inches.
- **White Bass:** White Bass abundance remained stable, with the gill net catch rate near the long-term average.
- **Largemouth Bass:** Electrofishing catch of Largemouth Bass was a catch of record dominated by sub-stock bass. A high proportion of legal-length bass were also observed with bass up to 23-inches collected during a spring survey.
- **White Crappie:** Trap netting resulted in lower catch rates for White Crappie; however, a third of the crappie collected were of legal length.

Management Strategies: Amon G. Carter Reservoir should continue to be managed with existing harvest regulations. Florida Largemouth Bass stockings should continue to enhance the trophy potential of the Largemouth Bass population. Inform the public about the negative impacts of aquatic invasive species. Conduct general monitoring surveys with trap nets, gill nets, and electrofishing in 2028-2029. Conduct a spring/summer creel survey in 2026. Access and vegetation surveys will be conducted in 2028.

Introduction

This document is a summary of fisheries data collected from Amon G. Carter Reservoir from 2021-2025. 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. Historical data are presented with the 2021-2025 data for comparison.

Reservoir Description

Amon G. Carter Reservoir is a 1,848-acre impoundment on Big Sandy Creek in Montague County. It was constructed in 1956 by the City of Bowie for municipal and industrial use, and the reservoir was expanded by approximately 500 acres in 1985. The reservoir drains approximately 111 square miles and has a shoreline of 22.5 miles. Water level has remained within a few feet of the conservation elevation (920 ft-msl) since 2015; yet spring flood events have occurred in recent years (Figure 1). With a TSI chl-*a* of 56.84, Amon G. Carter Reservoir was eutrophic (Texas Commission on Environmental Quality 2024), signifying the reservoir is relatively rich in nutrients with high biological productivity. The average depth is 13 feet with a maximum depth of 50 feet. Habitat features consisted mainly of riprap, rocky shoreline, boulders, native submersed aquatic vegetation, dead standing timber, and boat docks. Other descriptive characteristics for Amon G. Carter Reservoir are in Table 1.

Angler Access

Boating access consisted of two public boat ramps with adequate parking and boarding piers (Table 2). Selma Park, owned by the City of Bowie, provides angler access to a mile of shoreline, as well as two fishing piers and there is public bank access adjacent to the Big Sandy boat ramp near FM 1125.

Management History

Previous management strategies and actions: Management strategies and actions from the previous survey report (Cummings and Bennett 2021) included:

1. Stock Florida Largemouth Bass fingerlings in 2022. Document catches of larger bass through tournaments and ShareLunker submissions.

Action: Lone Star Bass fingerlings were stocked in 2022. Tournament results and ShareLunker entries indicate multiple catches of bass over ten pounds in 2024.

2. Inform the public about the threats of aquatic invasive species and how to prevent their spread.

Action: Signage has been maintained at boat ramps and invasive species have been discussed on social media and outreach events.

Harvest regulation history: Sport fishes in Amon G. Carter Reservoir have always been managed with statewide regulations (Table 3).

Stocking history: Amon G. Carter Reservoir was stocked with ShareLunker Largemouth Bass in 2013 and Lone Star Bass in 2022. Florida Largemouth Bass fingerlings were stocked occasionally between 1982 and 2019. The complete stocking history is in Table 4.

Vegetation/habitat management history: Hydrilla has been observed in small areas of the reservoir since 1995 but has not been observed in the last two surveys. Vegetation management has never been conducted.

Water transfer: The City of Bowie uses Amon G. Carter Reservoir as a municipal water source. No inter-basin transfers currently exist.

Methods

Surveys were conducted to achieve survey and sampling objectives in accordance with the objective-based sampling (OBS) plan for Amon G. Carter Reservoir (Cummings and Bennett 2021). Primary components of the OBS plan are listed in Table 5. All standard survey sites were randomly selected, and all standard surveys were conducted according to the Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2022). A daytime, bass-only electrofishing survey was conducted at biologist selected stations in spring 2025.

Common names of fishes and their hybrids in this report are used following Page et al. (2023) with an exception for Largemouth Bass. While we recognize recent changes to black bass names, Texas reservoirs contain a mix of Florida Bass, Largemouth Bass, and their intergrade offspring. Therefore, Largemouth Bass is used in this report for simplicity as well as consistency with previous reports.

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

Bass-only electrofishing – Largemouth Bass were collected by electrofishing (1 hour at 12, 5-min stations) during daylight in spring. Sites were biologist-selected to target spring habitats likely to hold Largemouth Bass. Catch per unit effort (CPUE) for electrofishing was recorded as the number of fish caught per hour (fish/h) of actual electrofishing.

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

Gill netting – Channel Catfish and White Bass were collected by gill netting (5 net nights at 5 stations). CPUE 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 Neumann et al. (2012). 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 and creel statistics.

Habitat – A structural habitat survey was conducted in 2012. A vegetation survey was conducted in 2020. Habitat was assessed with the digital shapefile method (TPWD, Inland Fisheries Division, unpublished manual revised 2022).

Water level – Source for water level data was the United States Geological Survey (USGS 2025).

Results and Discussion

Habitat: Littoral zone habitat consisted primarily of rocky shoreline, standing timber, emergent and submersed aquatic vegetation, and boat docks (Table 6). High reservoir levels periodically provide cover in the form of buttonbush, water willow, and other emergent vegetation. Submersed vegetation growth increased slightly in the form of spiny leaf naiad and pondweed (Table 7).

Prey species: Although the Threadfin Shad catch rate was lower (146.0/h) in 2024, the Gizzard Shad catch rate was a record (953.0/h) and included 762 three-inch individuals resulting in an IOV of 95 (Figure 2). The electrofishing catch rate of Bluegill remained high in 2024 (660.0/h), similar to the CPUE in 2020 (621.0/h) and 2016 (804.8/h). The Bluegill population size structure (PSD=19) was also similar to prior surveys in 2020 (PSD=21) indicating most were available as forage for sport fish (Figure 3). Longear Sunfish (138.0/h) and Redear Sunfish (80.0/h) were also relatively abundant and added to the prey base (Appendix B).

Channel Catfish: The gill net catch rate of Channel Catfish was 17.2/nn in 2025, down slightly from the record catch in 2021 (26.6/nn). The population was dominated by 12- to 17-inch individuals (PSD=36; Figure 4) with some fish over 20-inches (2.0/nn) available for harvest. The largest individuals exhibited relative weights over 100. The stable lake levels since 2015 have contributed to maintaining high recruitment.

White Bass: The gill net catch rate of White Bass was 6.8/nn in 2025 and remained near the long-term average (8.0/nn; Appendix B) and was stable compared to previous surveys in 2021 (5.6/nn) and 2017 (8.9/nn). Most of the population was comprised of legal-length fish (4.0/nn) up to 15-inches. White Bass were in good condition with relative weights over 90 for all size classes (Figure 5).

Largemouth Bass: The electrofishing catch rate of stock-length Largemouth Bass was a record catch in 2024 (193.0/h) dominated by smaller bass. High recruitment was likely a result of a six-foot rise and flooding in spring 2024. The size structure of the bass population remained low in 2024 (PSD=29; Figure 6) but was similar to previous surveys in 2020 (PSD=34) and 2016 (PSD=31). However, the catch rate of legal-length bass increased during each of the last three survey years from 6.0/h in 2016 to 10.0/h in 2020 to 21.0/h in 2024. Growth of Largemouth Bass in Amon G. Carter Reservoir appeared adequate; average age at 14 inches (13.0 to 14.9 inches) was 2.0 years (N = 5; range = 1 – 3 years); although, we did not collect enough bass in the desired length range to reach our target sample size of 13. Relative weight of bass was above 90 for most inch classes of fish in 2024 (Figure 6).

A bass-only electrofishing survey was conducted for Largemouth Bass in spring 2025 to monitor catch rate of larger bass and compare with a spring survey in 2021. The electrofishing catch rate for stock-length Largemouth Bass was similar in 2025 (68.0/h) and 2021 (58.0/h). The catch rate of legal length fish was approximately the same in 2021 (39.0/h) and 2025 (41.0/h). The proportion of preferred-size bass in 2025 (57) was similar to 2021 (55), as was the proportion of memorable size bass between years 2025 (6) and 2021 (9; Figure 7). Results suggest the population is stable with bass up to seven pounds relatively abundant. Five ShareLunker entries have been submitted since 2023 including three elite class (≥ 10 lbs.) bass, and two ten-pound bass were weighed during a tournament in June 2024 but not submitted to the ShareLunker program.

White Crappie: The trap net catch rate of White Crappie was much lower in 2024 (9.4/nn) than the record high catch rate of 75.8/nn in 2020; and lower than the long-term average CPUE of 20.3/nn (Appendix B). An additional 5 net nights were conducted to collect our target of at least 50 stock-size White Crappie. The PSD was 50 in 2024, lower than the PSD in 2020 (83) but similar to the PSD in 2016 (44; Figure 8). Growth rate and body condition were excellent. Mean relative weight was over 100 for most size classes in 2024. White Crappie average age at 10 inches (9.0 to 10.9 inches) was 1.0 years (N = 13; range = 1 year).

Fisheries Management Plan for Amon G. Carter Reservoir, Texas

Prepared – July 2025

ISSUE 1: Amon Carter exhibits a robust forage population and trophy potential with multiple reports of bass over ten pounds being caught by anglers. Stocking of Florida Bass appears to positively influence the genetic composition of the bass population with a high proportion of pure Florida Bass present in genetic samples.

1. Conduct a genetic analysis of (N=30) randomly selected bass during the fall 2028 electrofishing survey.
2. Request a stocking of Lone Star Bass fingerlings, which are 2nd generation offspring of pure Florida strain ShareLunker Largemouth Bass that have proven to be able to grow to ≥ 13 pounds, in spring 2028 at 1,000 per shoreline kilometer (36,000).
3. Promote angler-volunteered reporting of bass over 8 pounds through the ShareLunker program through the placement of ShareLunker signage at the Selma Park boat ramp.

ISSUE 2: Data on angler effort, harvest, and tournament activity has not been collected since the last creel survey was completed in August 2011.

MANAGEMENT STRATEGIES

1. Conduct a spring and summer quarter creel survey in 2026 to document the relative angling effort for sport fish species at Amon Carter.
2. Evaluate tournament angler support for a more restrictive regulation (e.g. 16-inch MLL) if it could increase the abundance of preferred-size and larger 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 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 City of Bowie to maintain appropriate signage at access points around the reservoir.
2. Educate the public about invasive species through the use of media and the internet.
3. Make a speaking point about invasive species when presenting to constituent and user groups.
4. Keep track of future inter-basin water transfers to facilitate potential invasive species responses.

Objective-Based Sampling Plan and Schedule (2025–2029)

Sport fish, forage fish, and other important fishes

Important sport fish in Amon G. Carter Reservoir include Channel Catfish, White Bass, Largemouth Bass, and Crappie. Important forage species include Bluegill, Gizzard Shad, and Threadfin Shad. A complete sampling schedule is listed in Table 9.

Survey objectives, fisheries metrics, and sampling objectives

Channel Catfish: Channel Catfish are the third most sought after species in Amon G. Carter Reservoir behind crappie and bass. General monitoring trend data to evaluate abundance, body condition, and size structure is desired to evaluate any large-scale changes in the population that would require further investigation. This data will be collected with gill nets in the spring once every four years. To collect 50 stock-size Channel Catfish with an RSE of CPUE-S ≤ 25 , a minimum of 5 random gill nets will be set in spring 2029. If objectives are not met and can be met with reasonable effort, an additional 5 gill nets may be set. Following the change in the statewide bag limit for catfish in 2021, growth of Channel Catfish will be evaluated collecting otoliths from 5 Channel Catfish per inch group between stock-size and 20-inches and all fish over 20-inches to estimate length at age.

White Bass: White Bass were first collected at Amon G. Carter Reservoir in 1995 and have fluctuated in abundance. General monitoring trend data is desired to estimate White Bass abundance, size structure, and body condition; however, specific targets will be unlikely and will not be set. We estimate that the effort required to meet sampling objectives for Channel Catfish will likely yield a sufficient sample to make general population assessments for White Bass; however, no additional sampling for White Bass beyond that necessary to meet objectives for catfish will be conducted.

Largemouth Bass: Largemouth Bass are the most sought-after species in Amon G. Carter Reservoir. General monitoring for trend data will be collected with night electrofishing in the fall once every four years. These surveys will allow for determination of 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 in fall 2028 (Table 9), but sampling will continue at random sites until 50 stock-size fish are collected and the RSE of CPUE-S is ≤ 25 . For fall sampling the anticipated effort to meet an RSE of CPUE-S ≤ 25 is between 13 and 18 stations with 80% confidence; although, additional stations may be required to collect at least 50 stock-size fish to evaluate size structure. Exclusive of the original 12 random stations, six additional random stations will be pre-determined in the event some additional sampling is necessary. Thirteen Largemouth Bass between 13.0 and 14.9 inches will be collected to estimate age at the minimum length limit (14 inches). Relative weight of Largemouth Bass ≥ 8 " TL will be determined from their length/weight data (maximum of 10 fish weighed and measured per inch class). Genetic samples will be collected from thirty randomly selected Largemouth Bass during the electrofishing survey. A daytime, spring, bass-only electrofishing survey will be conducted in 2029 at a minimum of 12 biologist-selected stations. Sampling will continue until 50 stock-size fish are collected and the RSE of CPUE-S is ≤ 25 for relative abundance and size structure data.

Crappie: Crappie are the second most sought after sport fish at Amon G. Carter Reservoir. Both White Crappie and Black Crappie are present in Amon G. Carter Reservoir; however, White Crappie are in greater abundance. We will collect trend data to evaluate size structure, age and growth, and body condition of White Crappie with trap nets in fall 2028 (Table 9). Obtaining a high level of precision necessary to estimate relative abundance is unlikely. We estimate that the effort required to meet sampling objectives to collect at least 50 stock-size White Crappie to be between 4 and 8 net nights with 80% confidence. This level of sampling should provide a sufficient number of White Crappie between 9.0 and 10.9 inches to estimate mean age at legal length. 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.

Sunfish and Shad: Bluegill, Gizzard Shad, and Threadfin Shad are the primary forage at Amon G. Carter Reservoir. We intend to collect trend data on abundance and prey availability for forage species with electrofishing once every four years. Effort expended to achieve desired relative abundance estimates for Bluegill should be significantly less than that of Largemouth Bass ($RSE \leq 25$ of CPUE-Total; anticipated effort is 8- stations). For Gizzard Shad, $RSE \leq 25$ of CPUE-T and ≥ 50 fish to evaluate prey availability should be obtained between 10 and 15 stations. No additional effort beyond that necessary to achieve our desired number of Largemouth Bass will be expended to achieve an $RSE \leq 25$ for CPUE of Bluegill and Gizzard Shad. Instead, predator body condition can provide information on forage abundance, vulnerability, or both relative to predator density.

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Tables and Figures

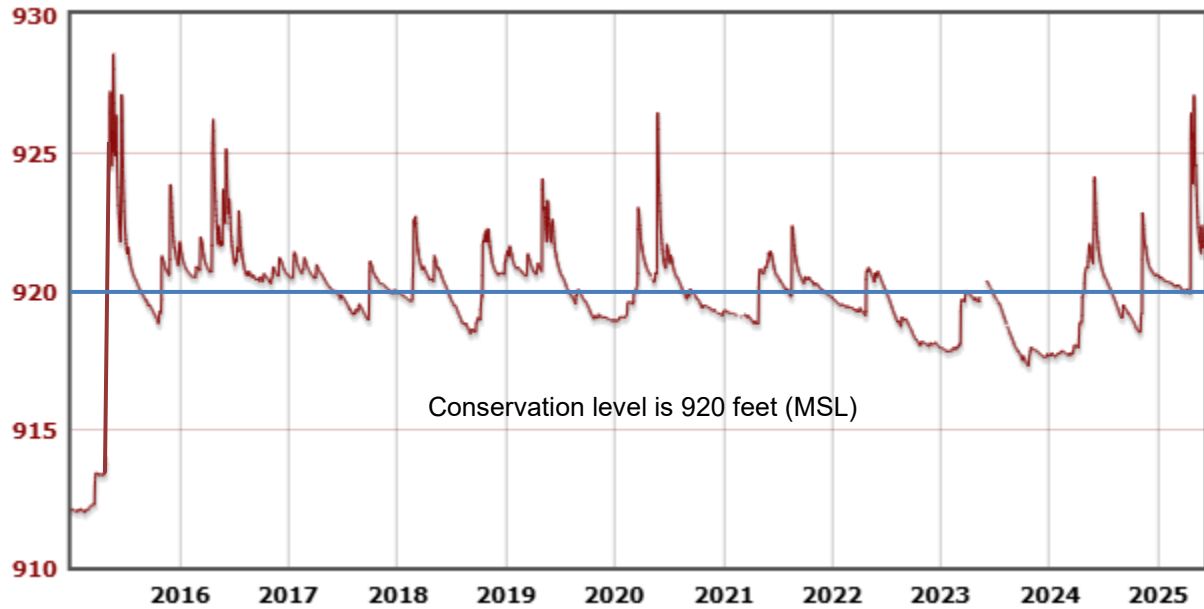


Figure 1. Mean daily water level elevations in feet above mean sea level (MSL) recorded for Amon G. Carter Reservoir, Texas, 2015-2025.

Table 1. Characteristics of Amon G. Carter Reservoir, Texas.

Characteristic	Description
Year constructed	1956
Controlling authority	City of Bowie
County	Montague
Reservoir type	Tributary
Shoreline Development Index (SDI)	4.9
Conductivity	260 $\mu\text{S}/\text{cm}$

Table 2. Boat ramp characteristics for Amon G. Carter Reservoir, Texas, July 2024. Reservoir elevation at time of survey was 919.4 feet above mean sea level.

Boat ramp	Latitude Longitude (dd)	Public	Parking capacity (N)	Elevation at end of boat ramp (ft)	Condition
Selma Park	33.4819 -97.8881	Y	20	910	Excellent. Extension feasible
Big Sandy Creek	33.4670 -97.8756	Y	40	910	Excellent. Extension not feasible

Table 3. Harvest regulations for Amon G. Carter Reservoir, Texas.

Species	Bag limit	Length limit
Catfish: Channel and Blue Catfish, their hybrids and subspecies	25 (only 10 \geq 20 inches)	None
Catfish, Flathead	5	18-inch minimum
Bass, White	25	10-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 Amon G. Carter Reservoir, Texas. FGL = fingerling; AFGL = advanced fingerling; ADL = adults; UNK = unknown.

Species	Year	Number	Size
Channel Catfish	1966	8,000	AFGL
	1969	40,000	AFGL
	1970	25,000	AFGL
	1971	23,000	AFGL
	1972	5,000	AFGL
	Total	101,000	
Florida Largemouth Bass	1982	77,533	FGL
	1983	36,980	FGL
	1984	101,932	FGL
	1985	56,000	FRY
	2000	106,500	FGL
	2001	106,816	FGL
	2018	162,703	FGL
	2019	36,930	FGL
Total	685,394		
Largemouth Bass	1971	75,000	UNK
	1985	60	ADL
	Total	75,060	
ShareLunker Largemouth Bass	2013	6,497	FGL
Lone Star Bass	2022	38,467	FGL
	2025	36,392	FGL
	Total	74,859	
Threadfin Shad	1978	800	AFGL
	1980	1,800	AFGL
	1984	1,500	AFGL
	1985	4,100	AFGL
	2003	925	ADL
	Total	9,125	

Table 5. Objective-based sampling plan components for Amon G. Carter Reservoir, Texas 2024–2025.

Gear/target species	Survey objective	Metrics	Sampling objective
<i>Electrofishing</i>			
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	PSD, length frequency	N ≥ 50
	Prey availability	IOV	N ≥ 50
<i>Electrofishing (bass-only)</i>			
Largemouth Bass	Abundance	CPUE – stock	RSE-Stock ≤ 25
	Size structure	PSD, length frequency	N ≥ 50 stock
<i>Trap netting</i>			
White Crappie	Size structure	PSD, length frequency	N = 50
	Age-and-growth	Age at 10 inches	N = 13, 9.0 – 10.9 inches
<i>Gill netting</i>			
White Bass	Abundance	CPUE – Total	No target
	Size structure	PSD, length frequency	No target
Channel Catfish	Abundance	CPUE– stock	RSE-Stock ≤ 25
	Size structure		N ≥ 50 stock

^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 structural habitat types, Amon G. Carter Reservoir, Texas, 2024. Shoreline habitat type units are in miles and standing timber and open water are in acres.

Habitat type	Estimate	% of total
Bulkhead and boat docks	0.6 miles	2.6
Gravel	2.4 miles	10.8
Natural shoreline	12.5 miles	55.5
Rock bluff	0.5 miles	2.2
Rocky shoreline	6.5 miles	28.9
Standing timber	556.8 acres	30.1
Open water	1,291.2 acres	69.9

Table 6. Survey of aquatic vegetation, Amon G. Carter Reservoir, Texas, 2016–2024. Surface area (acres) is listed with percentage of total reservoir surface area in parentheses.

Vegetation	2016	2020	2024
Native submersed ^a	trace	trace	trace
Native floating-leaved ^b	0.1 (<0.1)	none	none
Native emergent ^c	5.0 (<1)	3.0 (<1)	3.2 (<1)
Non-native ^d			
Hydrilla	trace	none	none
Spiny leaf naiad	none	0.25 (<0.1)	56.0 (3)

^a Pondweed, bushy pondweed, and coontail

^b American lotus

^c Water willow and buttonbush

^d Non-native vegetation is a tier III level of concern where surveys are conducted once every four years

Gizzard Shad

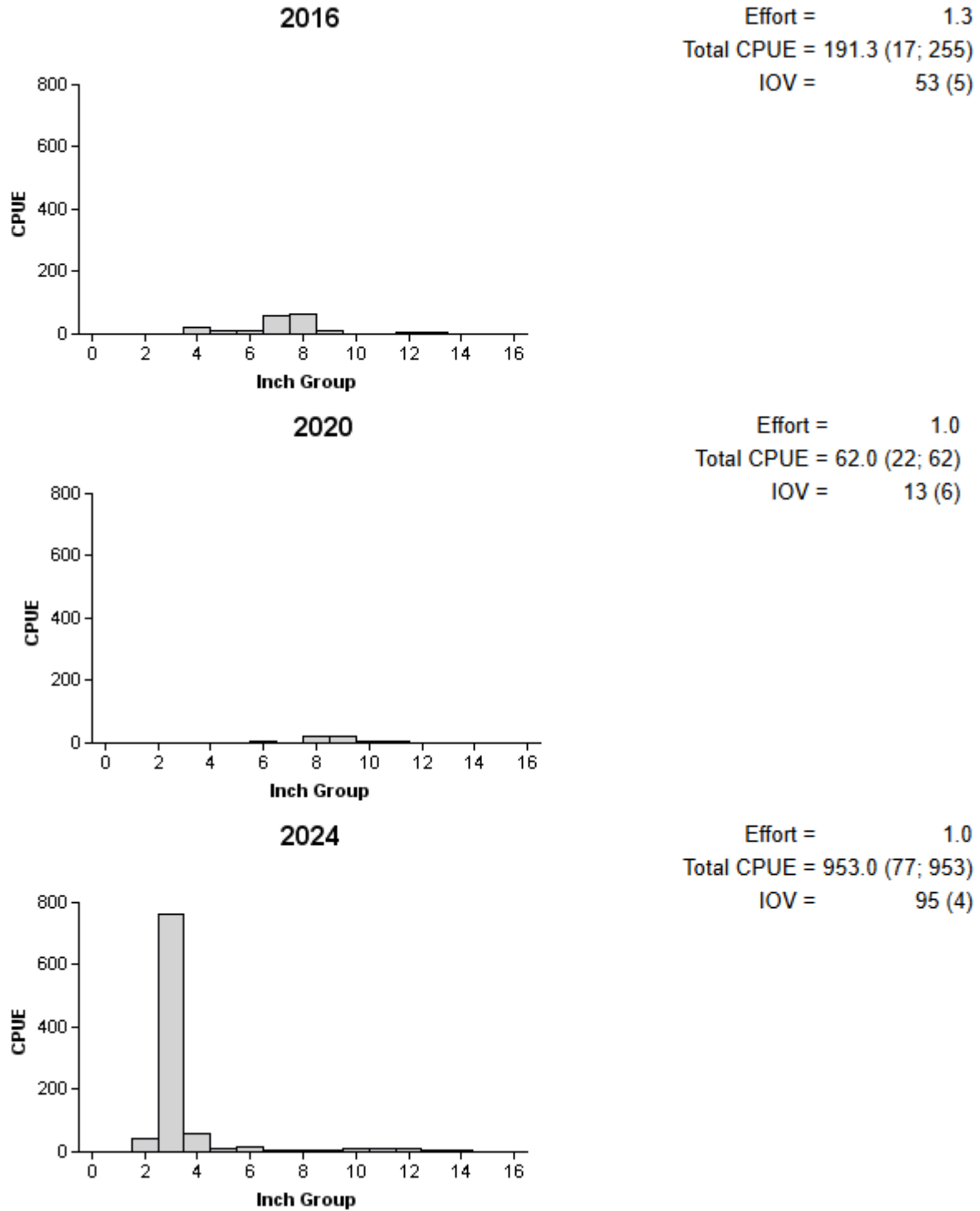
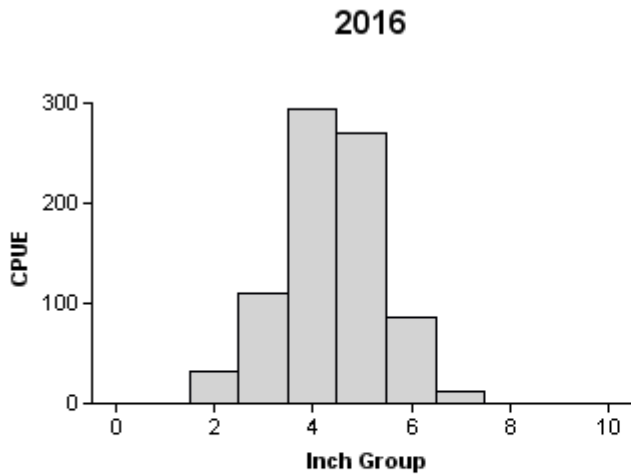
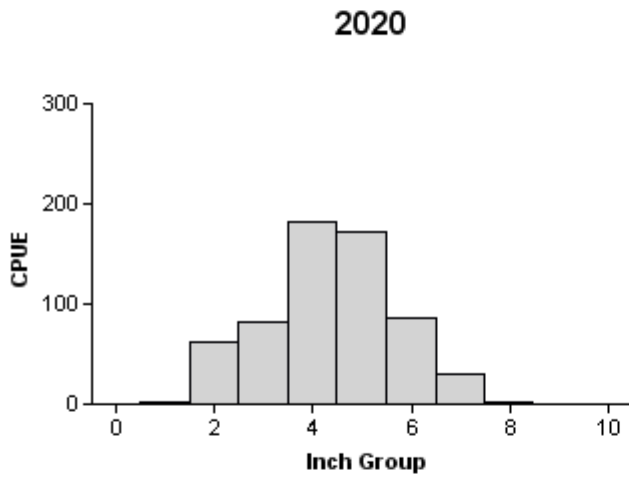


Figure 2. Number of Gizzard Shad caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for IOV are in parentheses) for fall electrofishing surveys, Amon G. Carter Reservoir, Texas, 2016, 2020, and 2024.

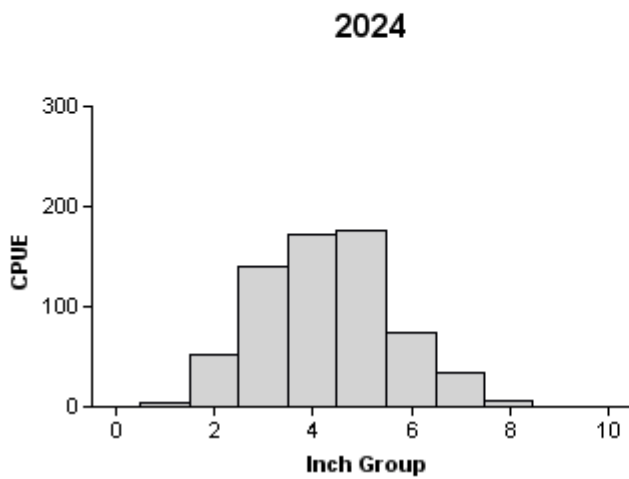
Bluegill



Effort = 1.3
 Total CPUE = 804.8 (18; 1073)
 PSD = 13 (3)



Effort = 1.0
 Total CPUE = 621.0 (15; 621)
 PSD = 21 (6)



Effort = 1.0
 Total CPUE = 660.0 (16; 660)
 PSD = 19 (5)

Figure 3. 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, Amon G. Carter Reservoir, Texas, 2016, 2020, and 2024.

Channel Catfish

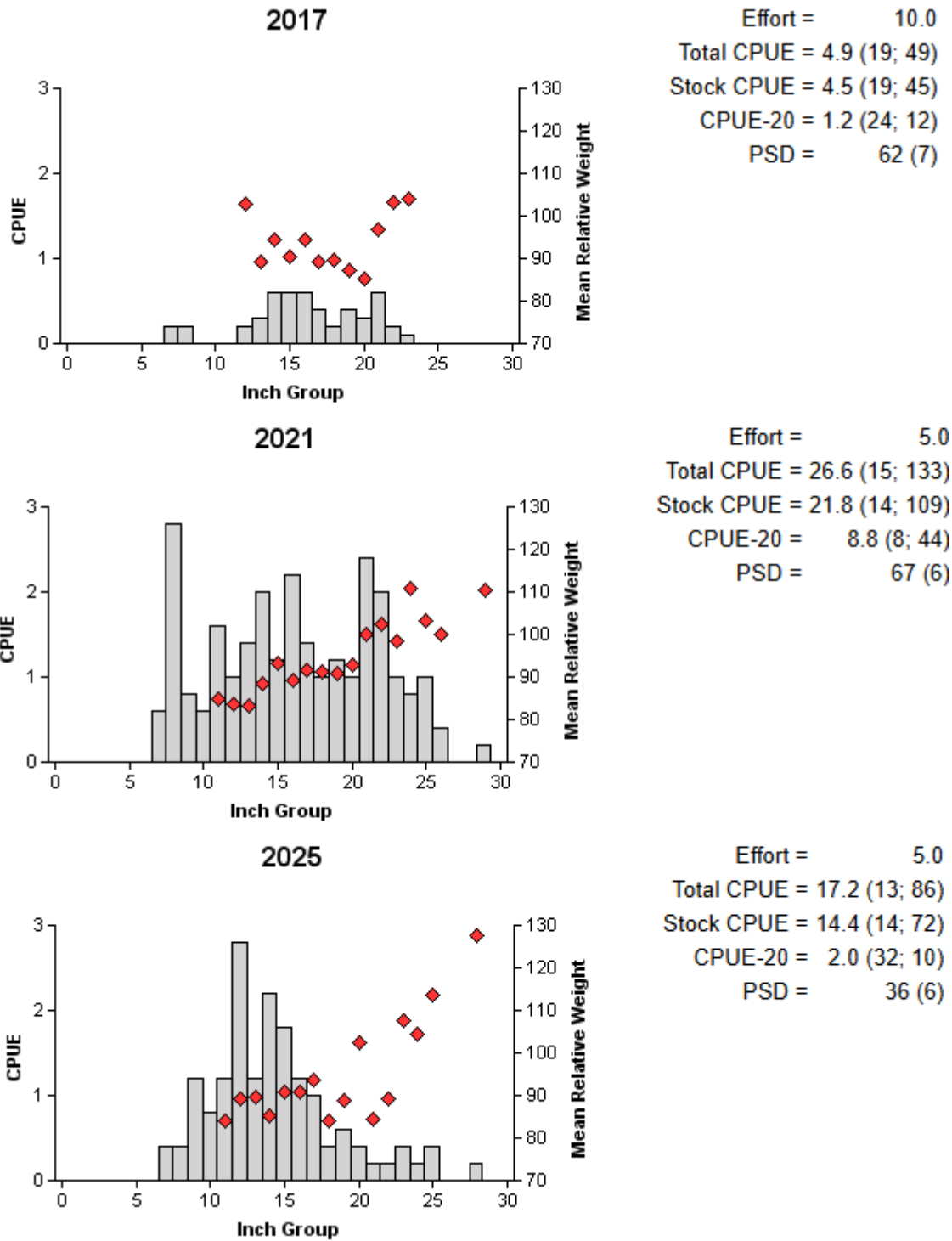


Figure 4. Number of Channel Catfish caught per net night (CPUE) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Amon G. Carter Reservoir, Texas, 2017, 2021, and 2025.

White Bass

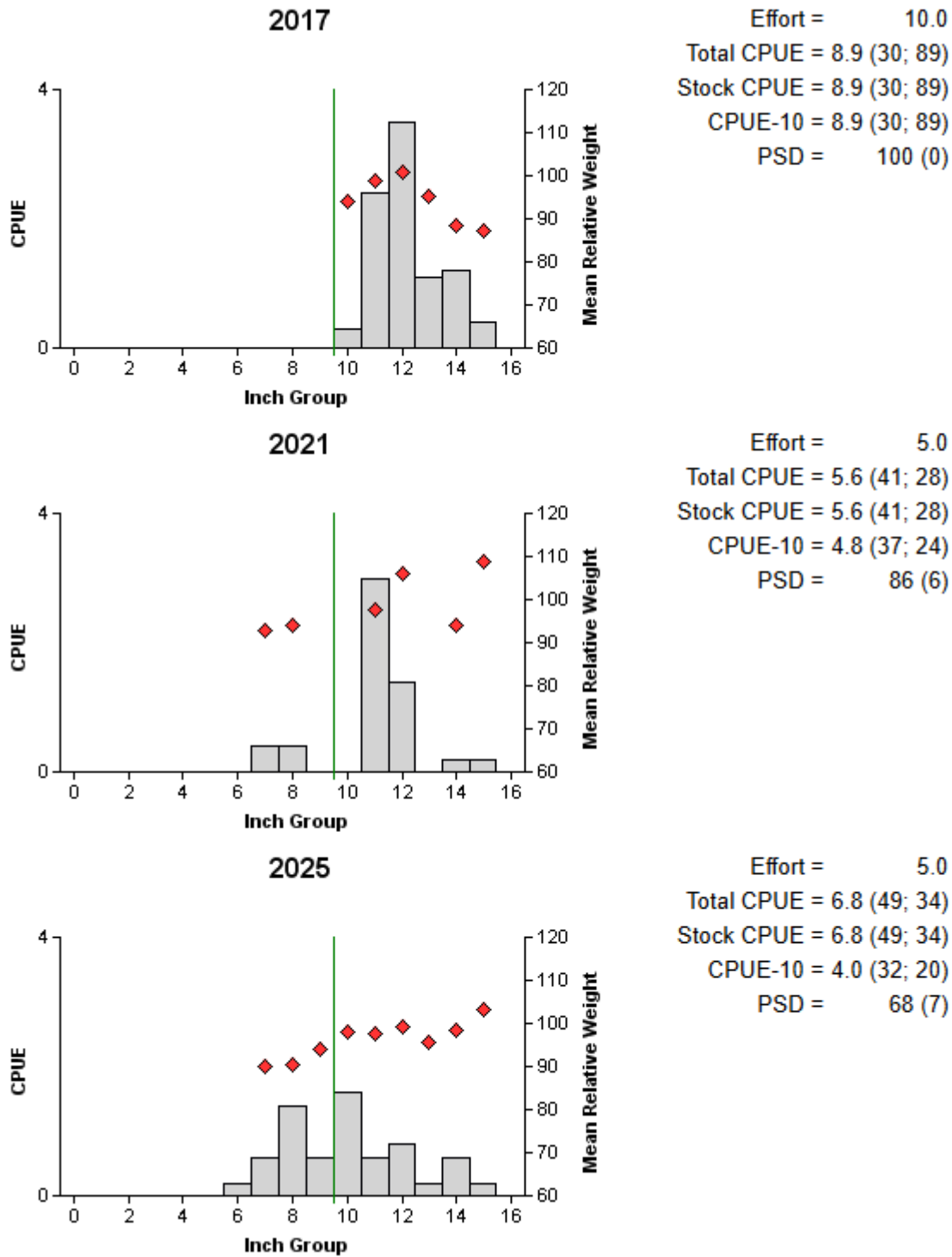


Figure 5. Number of White Bass caught per net night (CPUE) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Amon G. Carter Reservoir, Texas, 2017, 2021, and 2025. Vertical line indicates minimum length limit.

Largemouth Bass

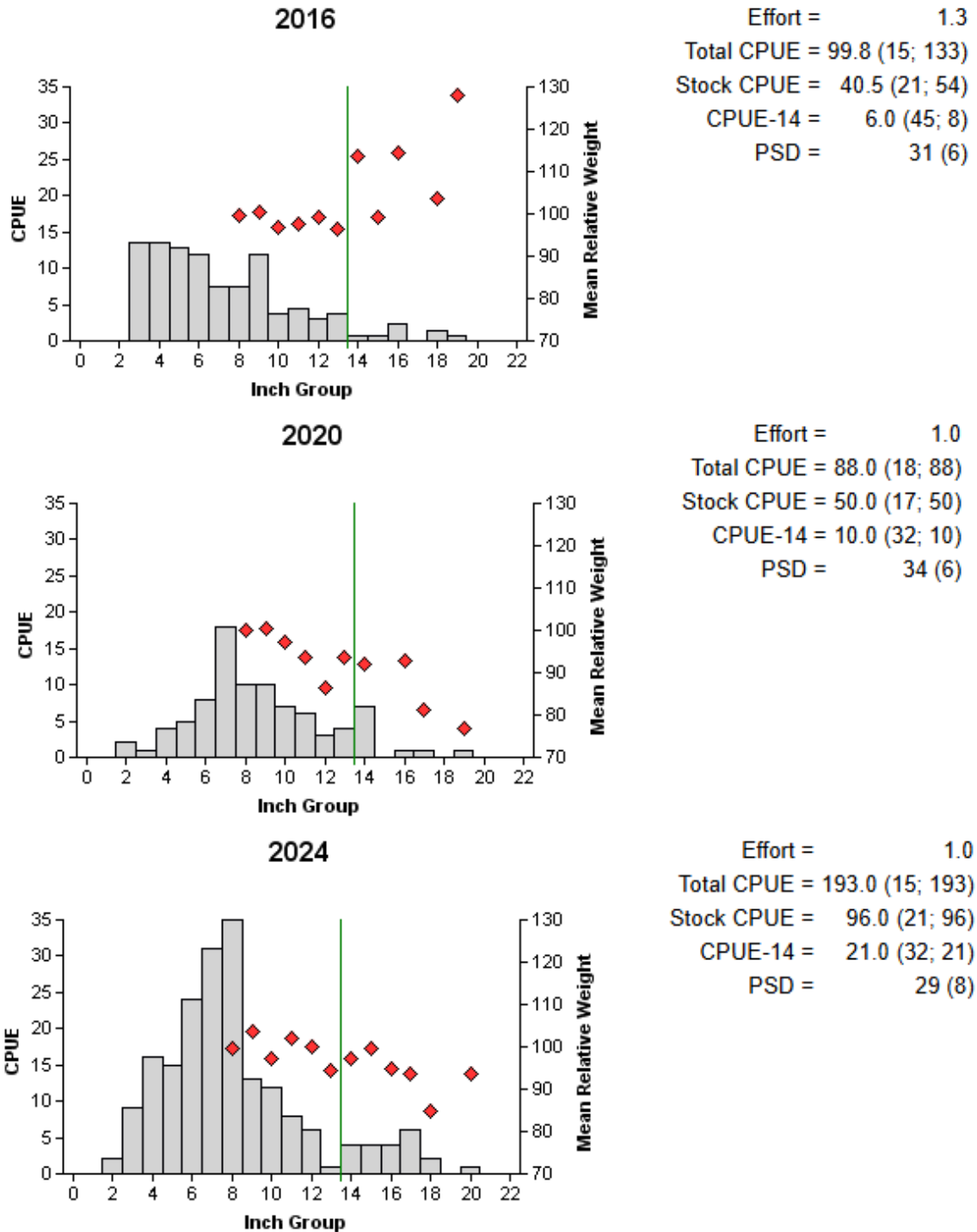


Figure 6. Number of Largemouth Bass caught per hour (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Amon G. Carter Reservoir, Texas, 2016, 2020, and 2024. Vertical line indicates minimum length limit.

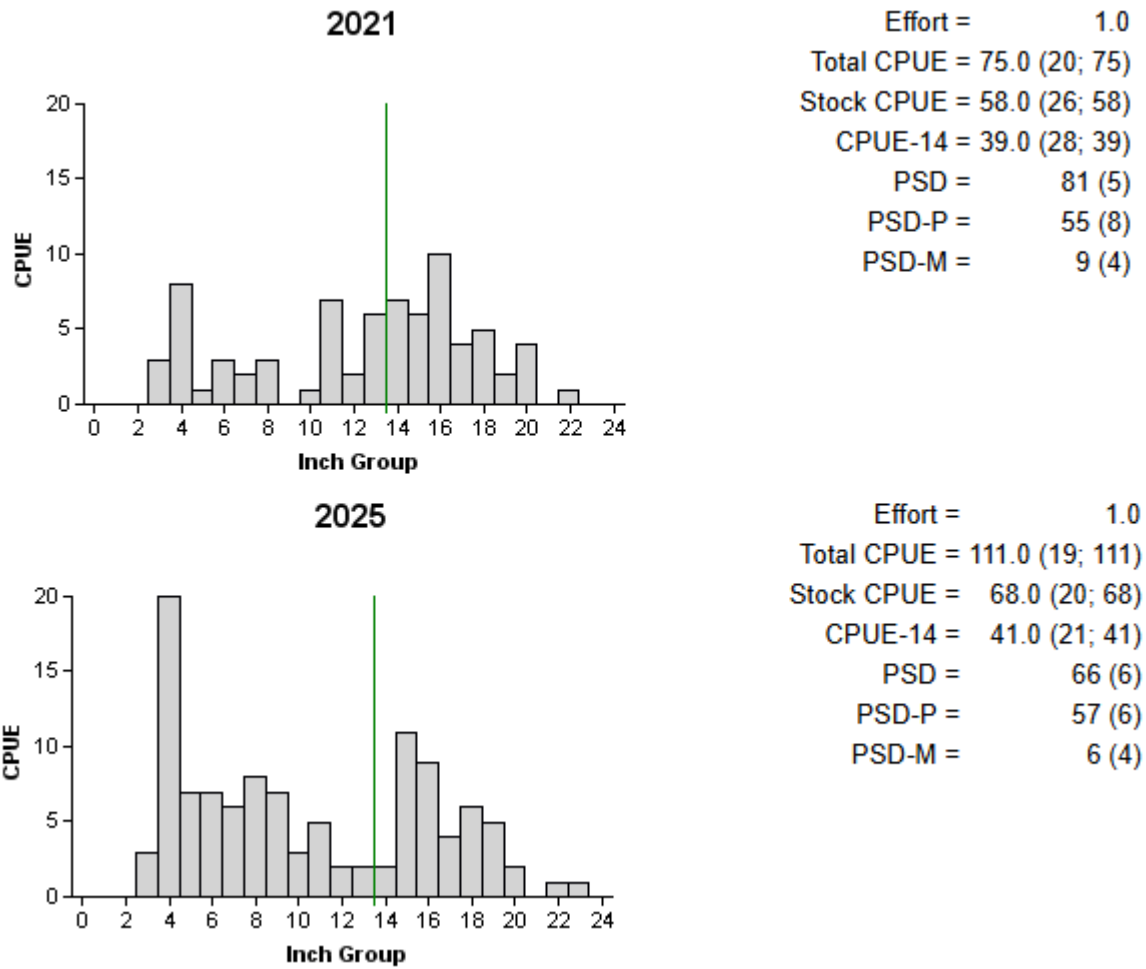


Figure 7. Number of Largemouth Bass caught per hour (CPUE, bars) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring bass-only electrofishing surveys, Amon G. Carter Reservoir, Texas, March 16, 2021, and April 8, 2025. Vertical line indicates minimum length limit.

White Crappie

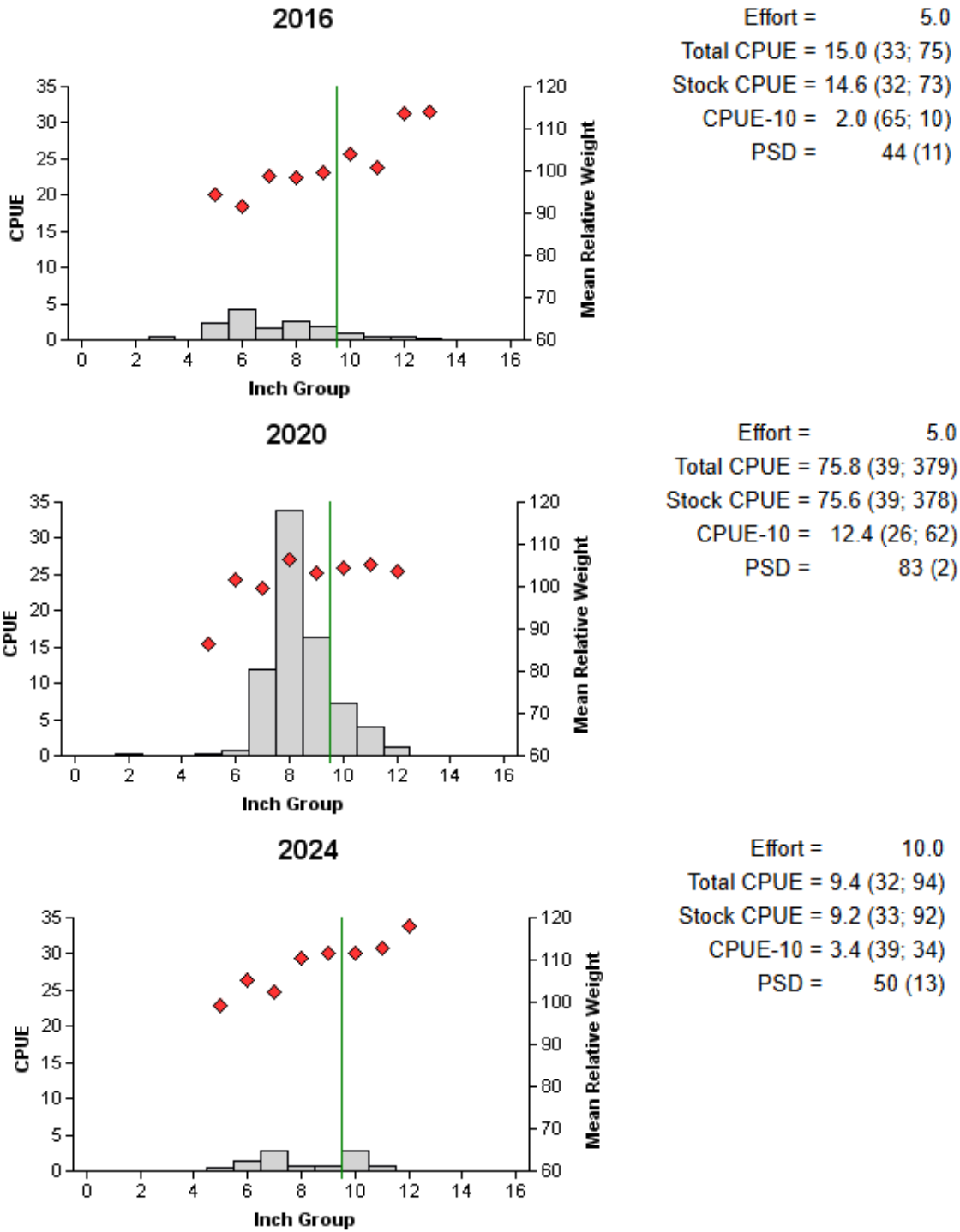


Figure 8. Number of White Crappie caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall trap netting surveys, Amon G. Carter Reservoir, Texas, 2016, 2020, and 2024. Vertical line indicates minimum length limit.

Proposed Sampling Schedule

Table 9. Proposed sampling schedule for Amon G. Carter Reservoir, Texas. Survey period is June through May. Gill netting surveys are conducted in the spring, while electrofishing and trap netting surveys are conducted in the fall.

	Survey year			
	2025-2026	2026-2027	2027-2028	2028-2029
Angler Access				X
Vegetation				X
Electrofishing - Fall				X
Electrofishing - Spring				X
Trap netting				X
Gill netting				X
Creel survey		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 standard gear types from Amon G. Carter Reservoir, Texas, 2024-2025. Sampling effort was 5 net nights for gill netting, 5 net nights for trap netting, and one hour for electrofishing.

Species	Gill Netting		Trap Netting		Electrofishing		Spring Electrofishing	
	N	CPUE	N	CPUE	N	CPUE	N	CPUE
Gizzard Shad					953	953.0 (77)		
Threadfin Shad					146	146.0 (29)		
Channel Catfish	86	17.2 (13)						
White Bass	34	6.8 (49)						
Green Sunfish					15	15.0 (48)		
Warmouth					2	2.0 (100)		
Bluegill					660	660.0 (16)		
Longear Sunfish					138	138.0 (26)		
Redear Sunfish					80	80.0 (20)		
Largemouth Bass					193	193.0 (15)	111	111 (19)
White Crappie			94	9.4 (32)				
Black Crappie			7	0.7 (43)				

APPENDIX B – Long-term catch rates of targeted species

Catch rates (CPUE) of targeted species by standard gear type and year for Amon G. Carter Reservoir, Texas, 1998-2024.

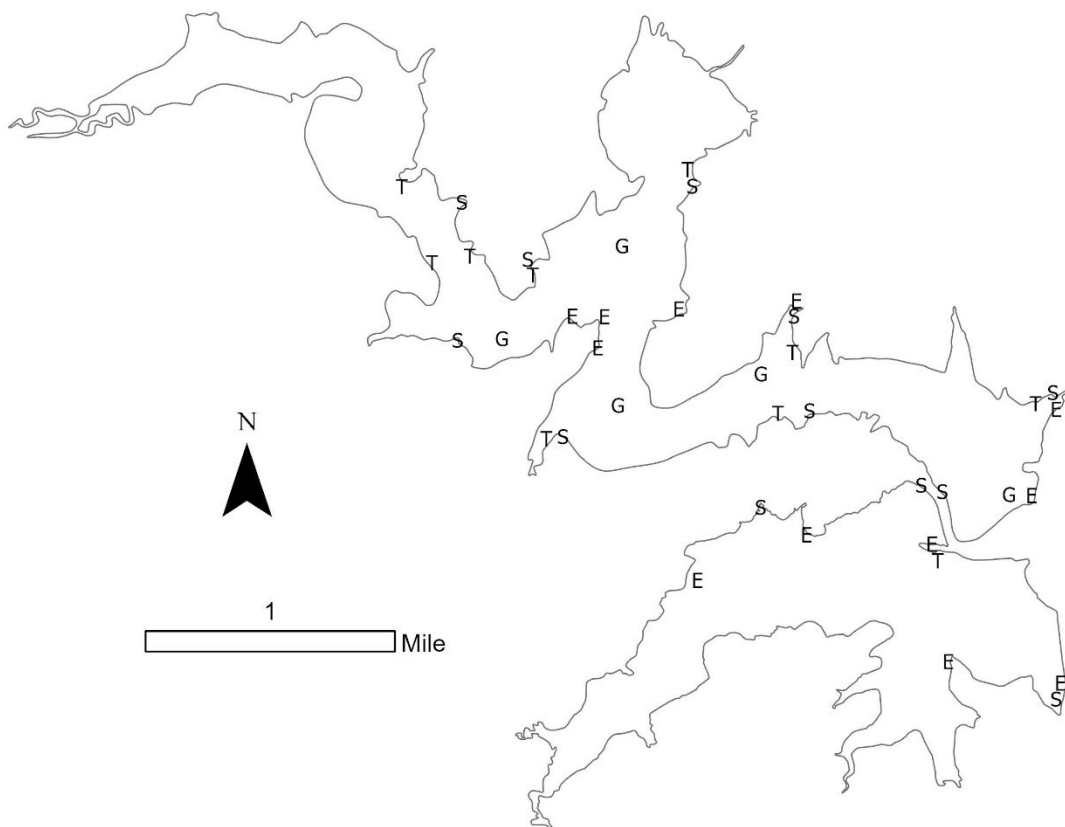
Gear	Species	Year								Avg.
		1998	2000	2004	2008	2012	2016	2020	2024	
Gill Netting (fish/net night)	Channel Catfish	2.4	2.8	6.8	4.6	3.4	4.9	26.6	17.2	8.6
	Flathead Catfish	0.0	0.0	0.4	0.2	0.2	0.3	0.0	0.0	0.1
	White Bass	3.8	0.0	5.6	11.0	22.4	8.9	5.6	6.8	8.0
Electrofishing (fish/hour)	Gizzard Shad	468.7	111.0	709.0	65.0	91.0	191.3	62.0	953.0	331.4
	Threadfin Shad	183.3	125.0	219.0	575.0	2,060.0	876.8	450.0	146.0	579.4
	Green Sunfish	14.0	31.0	102.0	34.0	55.0	42.0	27.0	15.0	40.0
	Warmouth	18.0	2.0	11.0	7.0	14.0	8.3	12.0	2.0	9.3
	Orangespotted Sunfish	0.0	0.0	0.0	1.0	0.0	0.8	1.0	0.0	0.4
	Bluegill	222.7	172.0	537.0	305.0	522.0	804.8	621.0	660.0	480.6
	Longear Sunfish	108.0	44.0	242.0	105.0	155.0	192.8	199.0	138.0	148.0
	Redear Sunfish	2.0	9.0	6.0	8.0	20.0	12.0	18.0	80.0	19.4
Trap Netting (fish/net night)	Largemouth Bass	130.7	36.0	149.0	105.0	113.0	99.8	88.0	193.0	114.3
	White Crappie	5.2	7.0	14.4	10.8	24.6	15.0	75.8	9.4	20.3
	Black Crappie	0.2	2.8	1.2	2.0	3.0	4.0	1.4	0.7	1.9

*Electrofishing surveys prior to 2007 were conducted using a Smith-Root 5.0 GPP (gas powered pulsator). Since 2007, surveys have been conducted using a Smith-Root 7.5 GPP.

*Gill netting surveys were conducted the following spring of the posted year, except in 1998.

*Objective based sampling started in 2016.

APPENDIX C – Map of 2024-2025 sampling locations



Location of sampling sites, Amon G. Carter Reservoir, Texas, 2024-2025. Trap net, gill net, fall electrofishing, and spring electrofishing stations are indicated by T, G, E and S, respectively. Water level was near full pool at time of sampling.



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