

SURVEY REPORT

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION



FISH MANAGEMENT SURVEY AND RECOMMENDATIONS FOR GRAND LAKE 2025

SURVEY REPORT

State: Oklahoma

Project Title: Grand Lake Fish Management Survey Report

Period Covered: 2025

Prepared by: Nate Hull, Kendall Robbins, and Brad Johnston

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Grand Lake

ABSTRACT

Grand Lake sportfish populations are currently being monitored annually by spring electrofishing, fall trap netting, and winter gill netting. These approaches are primarily being used to monitor Black Bass, Crappie, and Temperate Bass (White Bass and Hybrid Striped Bass) populations but other species are incidentally caught and reported on. In 2025 all these gears were used, and age and growth samples were taken from species of interest in each.

Largemouth bass were sampled by spring electrofishing in accordance with SSP procedures. Our evidence from 2025 data suggests that the population is doing exceptionally well in all metrics. CPUE, W_r (relative weight, relationship between length and weight), and Age and Growth are all well above average which is rare for any bass population, especially one that sees the amount of angling pressure Grand Lake does. In addition, success of the F1 bass stockings looks promising as they are surviving to older ages and growing well, growth trajectory shows they should outgrow our native fish, but as of now they are growing slower. More genetics and age/growth samples over the next 8 years are necessary to know for sure how well the “species” will perform. It is recommended that fin clips start being taken from large individuals (≥ 6 lbs) at tournaments to start examining how long the F1 bass continue to grow late in life, as it seems that it is the mechanism in which they will outperform the Northern Bass. To monitor such an important fishery and continue to determine stocking success, black bass will continue to be sampled annually until F1 stockings end in 2033. The future is bright for Black Bass fishing on Grand Lake!

Crappie were sampled by fall trap netting in accordance with SSP procedures for an Age and Growth sample. Our evidence from the 2025 data suggests the population is doing well but primarily consists of Age 1 fish under ~9”. This is likely due to a combination of harvest pressure and repeated poor spawning contributions. This is common in crappie populations as they boom and bust. Growth rates are still high despite this high number of fish in one age class indicating that instead of the population declining age and size structure simply shifted. This is good news because it set the population up for a successful rebuild. As these fish continue to age and spawn size/age distribution should improve. Because of the nature of this data and the boom and bust of such an important fishery, Crappie will continue to be monitored annually. Once the population begins to have multiple age classes and a more even size distribution it can revert to being sampled twice in a 5-year period.

Catfish were sampled as incidental catches in winter gill net sampling being conducted on temperate basses. Data was collected on both Blue and Channel Catfish to monitor their populations. The blue catfish population in Grand Lake was identified as above average in both overall catch rate and that of trophy individuals (≥ 30 "). Additionally, W_r values for the species were moderate, which is of little concern as W_r values for catfish vary greatly throughout the year. The channel catfish population in Grand Lake was identified as average in terms of overall CPUE and above average for that of quality individuals (≥ 14 "). No age and growth data was collected for either species. Variance of our CPUE data did not meet quality standards for either species however, this species is generally regarded as incidentally caught so this metric is often not met. No management actions are recommended.

Hybrid Striped Bass were sampled by winter gill netting in accordance with SSP procedures. This species of temperate bass exists in Grand Lake as a put-grow-take fishery. Stockings generally occur every other year as fish are available, however these were temporarily halted in 2023 while we examine the decline in White Bass CPUE. The decline of White Bass CPUE is not confirmed to be linked to the stockings of HSTB, but it can't be ruled out. The state of the population is unknown as catch rates of the species were so low in 2025. This does not mean they are disappearing from the system though, as we expect the last generation of fish stocked (2023) to remain in the system ~ 7 years. Once a decision is made about the decline of the white bass fishery stocking can resume, we would then expect the population to increase in numbers and size accordingly. Angler use is a big component of the decision to stock fisheries of this type so anglers should continue to enjoy these fish while available with hopes that stockings can resume in the future.

White Bass were sampled by winter gill netting in accordance with SSP procedures. Over the last several years an apparent decline in CPUE of White Bass has been observed, which is of concern. In response to this our staff are making efforts to learn why this is occurring so a management action can be recommended. To do this gill netting has been increased to 30 net nights, with 15 of those sites being selected by a stratified random design. This is in effort to increase data quality and collect more individuals for age and growth. In addition to this an angler survey is being conducted to inform about harvest/angling pressure, and genetics samples will be taken to track introgression and spread of genetic variation. Our evidence from the 2025 sample CPUE did not diverge from this declining trend and is below average, however CPUE of quality sized individuals is high and growth rates are great. Fish seem to be growing fast and dying young as we should be seeing older age classes. Additionally, fish seem to be slowing earlier in life as mean length at age is very compressed into multiple age classes. This does not mean White Bass are in trouble or that angling is not good, this is still a quality fishery that we are closely monitoring. More information over the next 2 years is necessary before we arrive at a conclusion and recommend management action.

Shad were not sampled in 2025 as they were very abundant in spring electrofishing samples. When abundance is high in the spring it usually continues to be high as spring electrofishing occurs just after the shad spawn. Barring a harsh winter threadfin shad should be plentiful for the upcoming year.

INTRODUCTION

Grand Lake O' the Cherokees (Grand Lake) is located in Delaware, Ottawa, Mayes, and Craig counties. The surface area of the lake is 45,056 acres with 1,300 miles of shoreline and a shoreline development index of 1.74. The watershed includes 10,000 square miles of runoff which flows across Arkansas, Kansas, Missouri, and Oklahoma. Grand Lake was created in 1940 when the Pensacola Dam was finished, located between Disney and Langley in Mayes County, OK. Grand Lake impounds the Neosho and Spring Rivers, as well as the Elk River. Some other notable tributaries include Honey, Horse, Duck, and Drowning Creeks. It is currently administered by the Grand River Dam Authority (GRDA) and is responsible for producing hydroelectric power, providing water supply, and flood control. Grand Lake has a mean depth of 36 ft. and a maximum depth of 133 ft and is categorized as a high flow through reservoir. A lack of natural fish habitat exists; to combat this PVC structures (Georgia cubes and Shelbyville cubes) and Mossback habitat were placed in Grand Lake in 2023-2025 to make up for this deficit.

Regional Staff have identified 7 sportfish and 2 forage species of interest in the lake, there are more present, but these are the species we focus on in monitoring efforts. Those are Largemouth Bass, Spotted Bass, Crappie, Blue Catfish, Channel Catfish, Hybrid Striped Bass, White Bass, Shad, and Sunfish. Currently the forage species are sampled infrequently as they are relatively stable and clues as to their status are gathered from sampling of their predators. Status of Threadfin Shad is closely monitored by presence/absence in spring electrofishing and winter gillnetting samples. If threadfin shad are not encountered during these electro fishing samples, threadfin shad would be obtained from Tenkiller or Eucha Lakes for supplemental stockings. The lake is also home to a sport fishery of paddlefish which is monitored by a separate team, so updates of their status are not found here. A complete list stocking records are in appendix (A.1).

The lake supports a renowned black bass fishery which accounts for a large portion of the area's economic productivity. Efforts to maintain this Black Bass fishery have evolved over the years from monitoring to stockings of other species such as Florida Largemouth Bass (FLMB) and F1 Hybrid Bass (Florida x Northern cross). These introductions have largely been unsuccessful in improving the trophy fishery but efforts with F1 stockings are ongoing through ~2032. To assess the effectiveness of these stockings genetic testing is done annually to track the introgression of Florida alleles into the population. This is then paired with age and growth information to assess if the Florida alleles are leading to better growth rates.

Grand Lake has a few special regulations that includes a 15 combined per day and 10-inch minimum for all Crappie. Bowfishing is prohibited below the turbine outlets downstream to State Park and below spillway outlet downstream to the highline crossing. Gigs, spears, and spearguns are prohibited below turbine outlets downstream to State Park bridge and below spillway outlets downstream for one mile. Additionally, noodling is prohibited below the turbine outlets downstream to State Park bridge and below the spillway outlets downstream to highline crossing. However, noodling is legal the day of and two days following the closure of the spillway.

RESULTS

Largemouth Bass

Spring electrofishing targeting Black Bass (*Micropterus spp.*) was conducted in 2025 at Grand Lake. Fixed stations were used to examine catch rate, age, growth, and overall population structure by standardized protocols. A total of 499 largemouth bass were sampled and the mean CPUE was not different than previous samples, mean Wr was exceptionally high, and variance exceeded data quality standards (Table 1). When compared statewide overall CPUE was above the 75th percentile and mean CPUE ≥ 16 " was above the 75th percentile (Table 2). Length frequency shows a distinct shift in frequency to large fish, however 2024 was a biased sample looking for genetics fish only (Figure 1). 509 largemouth bass collected between 2024 and 2025 had a fin clip taken for genetic analysis, of those taken nearly 20% were identified as F1 bass proving our stockings are resulting in fish living and growing in the system (Figure 2). Analysis of growth between the three species is not conclusive but growth projection of F1 bass is to have an overall higher maximum growth potential than the other species; however, they are growing slower at younger ages and sample size is very limited (Figure 4). The Von Bert growth curves from standard samples shows fast growth, reaching 16" by age 4 with numerous consecutive age classes present (Figure 3, Table 4). Our evidence suggests that Grand Lakes bass population is far above average and healthy. There are no management actions necessary, however we will continue to monitor annually to track the success of the F1 stockings and overall health of such a popular fishery.

Year	N	Mean	Mean ≥ 16 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2021	474	118.5	30.8	100.7	24	9.0	97.7	139.3	5
2024	320	129.0	26.4	102.7	10	23.6	69.2	188.8	14
2025	499	124.8	33.8	101.8	24	8.7	103.5	146.0	5

Table 1. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 16 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for largemouth bass sampled by electrofishing at Grand Lake in 2021-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	13.8	35.7	62.5	102	238.6	249
CPUE < Stock	0	3	8	17.3	52.7	249
CPUE S-Q	1	6	13	27	72.4	249
CPUE Q-P	2.9	8.1	15.3	26.7	67.1	249
CPUE P-M	1.3	6.4	13.3	25	51	249
CPUE M-T	0	0	1	2	6.9	249
CPUE Trophy+	0	0	0	0	0	249

Table 2. Statewide percentiles for catch per net night (CPUE) for all largemouth bass, and by PSD Size class in Oklahoma 2025 (S ≤ 7.9 ", Q ≤ 11.8 ", P ≤ 15.0 ", M ≤ 20.1 ", T ≤ 24.8 ").

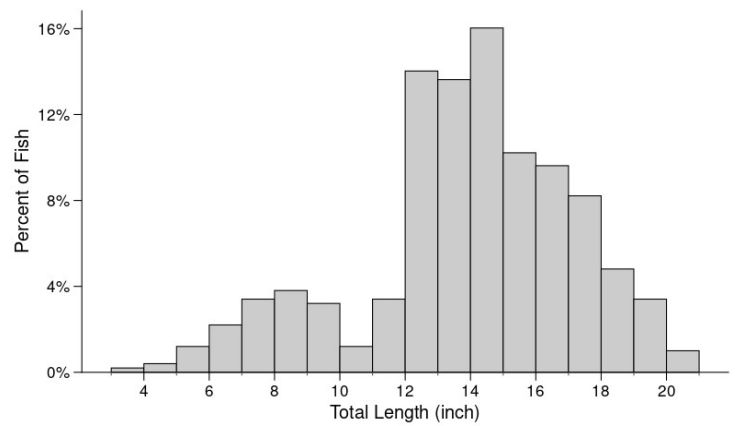
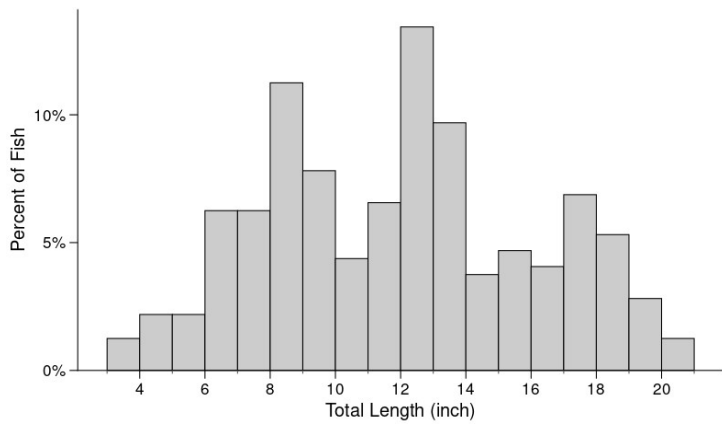


Figure 1. Length-frequency graph for largemouth bass at Grand Lake in and 2024 (left N=320) 2025 (right N=499).

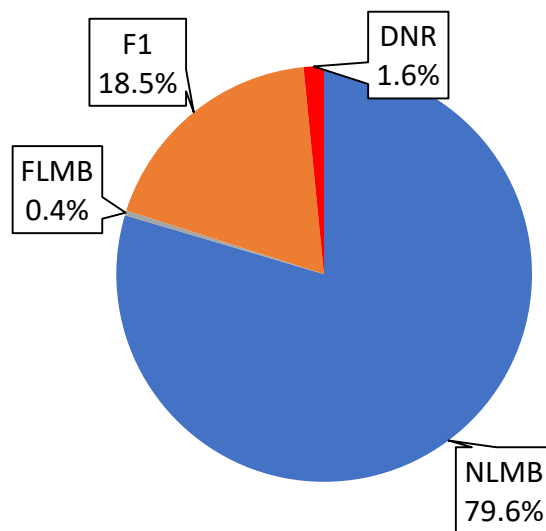


Figure 2. Pie chart showing percent contribution genetic samples by species of Black Bass sampled by spring electrofishing at Grand Lake in 2024-2025.

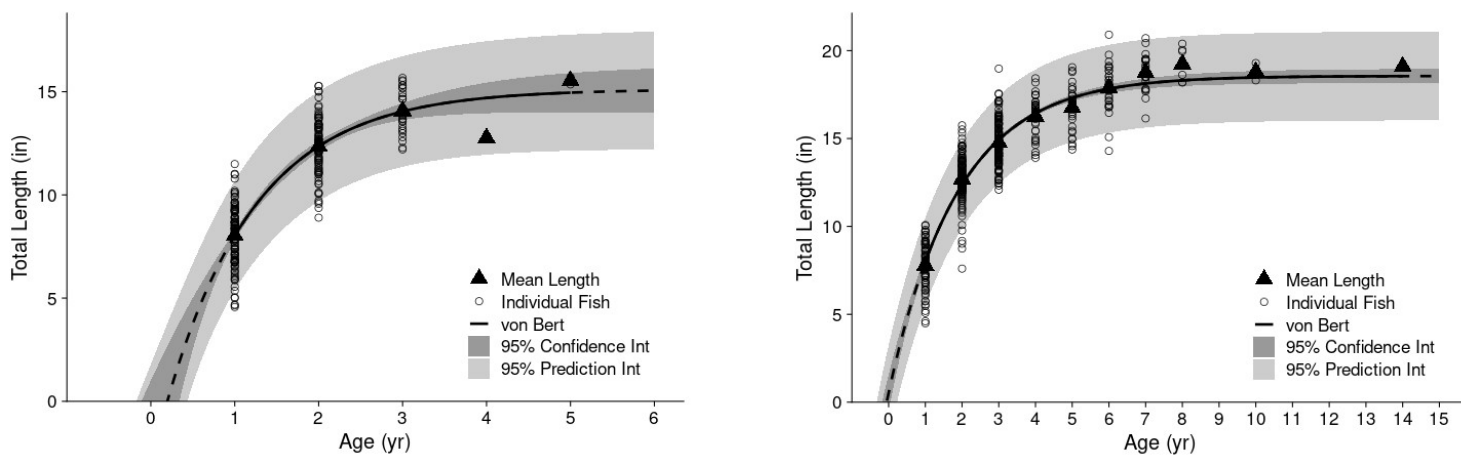


Figure 3. von Bertalanffy growth plot for largemouth bass caught with electrofishing at Grand Lake in 2024 (left N=245) and 2025 (right N= 498).

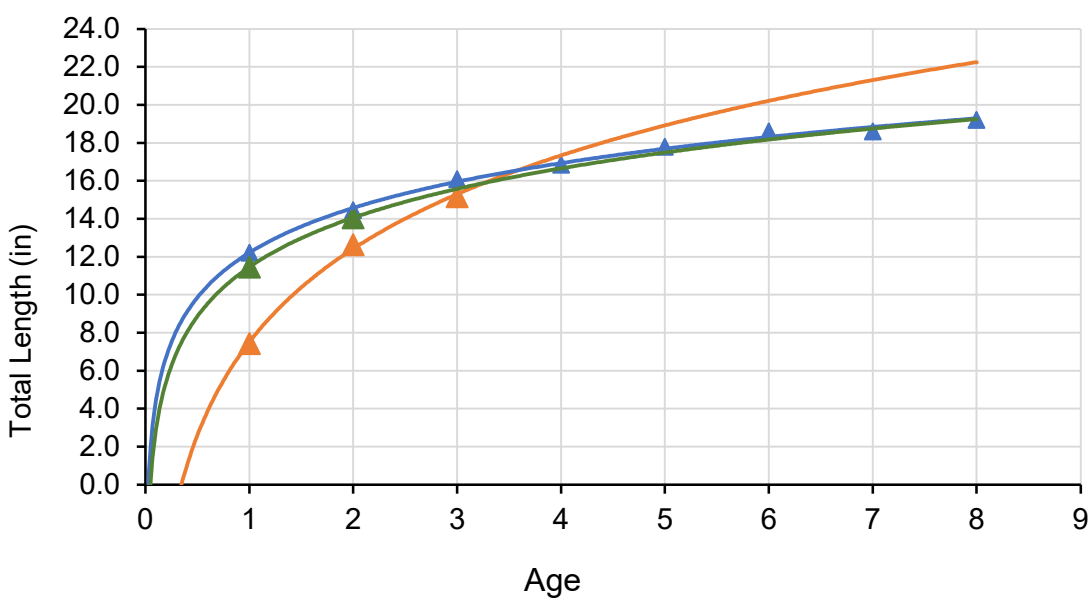


Figure 4. von Bertalanffy growth plot for different "strains" of largemouth bass (F1 in orange, NLMB in blue, FLMB in green) caught with electrofishing at Grand Lake in 2024-2025.

Age	MLA	N	LCI	UCI
1	8.0	110	7.7	8.2
2	12.3	106	12.0	12.5
3	14.0	26	13.6	14.5
4	15.7	1	.	.
5	15.6	2	15.5	15.7
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.
14	.	.	.	.

Age	MLA	N	LCI	UCI
1	7.8	68	7.4	8.1
2	12.7	140	12.5	12.9
3	14.8	158	14.6	14.9
4	16.3	36	15.9	16.6
5	16.8	35	16.4	17.2
6	17.9	30	17.4	18.3
7	18.7	22	18.3	19.2
8	19.2	6	18.4	20.0
9	.	.	.	.
10	18.8	2	17.8	19.8
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.
14	19.1	1	.	.

Table 4. Mean total length at age (MLA), Total number in age class (N), and lower and upper 95% confidence intervals (LCI and UCI) for largemouth bass caught in 2024 (left) and 2025 (right) spring electrofishing at Grand Lake.

Year	Total Mort. (A)	LCI	UCI	O. Max	T. Max
2025	36.8	25.6	46.3	14	13.1

Table 5. Annualized mortality (Total Mort. A), lower 95% confidence interval (LCI), upper 95% confidence interval, observed maximum age (O. Max), theoretical maximum age (T. Max) for largemouth bass sampled with electrofishing at Grand Lake in 2025.

Crappie

Fall Trap netting targeting Crappie (*Pomoxis spp.*) was conducted in 2025 at Grand Lake. Fixed stations were used to examine age, growth, and overall population structure. Black Crappie are caught infrequently and normally at such low abundances that analysis is futile. A total of 287 crappies were sampled and the mean CPUE was significantly different than the previous year, mean Wr values were exceptionally high, with variance falling just below data quality standards (RSE a min of 20) (Table 6). When compared statewide, mean CPUE is above the 50th percentile, while mean CPUE ≥ 10 " was above the 75th percentile (Table 7). Length frequency analysis revealed that the population is made up of mostly 8-10" individuals, which are young individuals in a rebuilding population. Von bert. shows fast growth and is not dissimilar to the previous sample, with mean length at age showing the same story (Figure 6, Table 8). Our evidence suggests that while catch rates are high (especially those of large fish), the crappie population in Grand Lake is rebuilding its age structure. Old fish are few and age 0 fish from 2025 spawn either didn't recruit to the gear, or we had a bad spawning year. Anglers will experience high catch rates, but they will be on the small side, as these fish age and grow this relationship should flip. We recommend the population be sampled again in 2 years, but no management actions are necessary.

Year	N	Mean	Mean ≥ 10 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2022	466	38.8	8.4	99.0	6	16.1	26.6	51.1	4
2024	186	12.3	7.8	98.9	12	20.9	7.3	17.3	13
2025	287	24.5	4.4	105.8	12	20.6	14.6	34.4	13

Table 6. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 10 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for white crappie sampled by trap netting at Grand Lake 2022-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	1.3	7.5	21.8	45.8	111.7	140
CPUE < Stock	0	0.4	3.0	12.4	47.3	140
CPUE S-Q	0.1	1.3	7.8	16.5	69.5	140
CPUE Q-P	0.1	1.3	4.0	6.6	19.0	140
CPUE P-M	0.1	0.7	1.6	3.5	13.2	140
CPUE M-T	0	0.2	0.4	0.8	2.1	140
CPUE Trophy+	0	0	0	0	0.1	140

Table 7. Statewide percentiles for catch per net night (CPUE) for all white crappie, and by PSD size class in Oklahoma 2025 (S ≤ 5.1 ", Q ≤ 7.9 ", P ≤ 9.8 ", M ≤ 11.8 ", T ≤ 15.0 ").

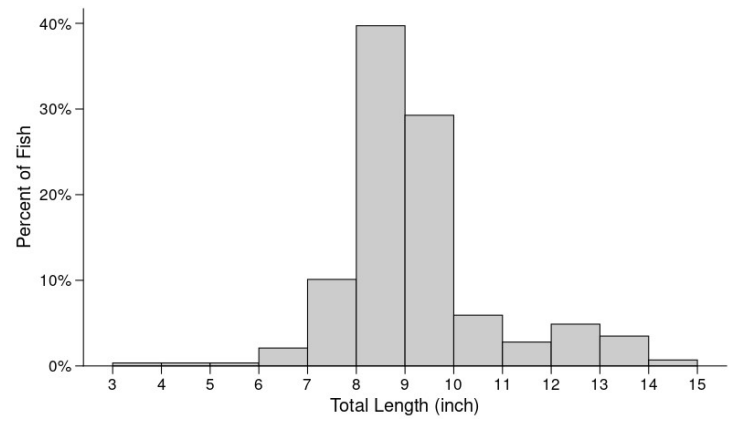
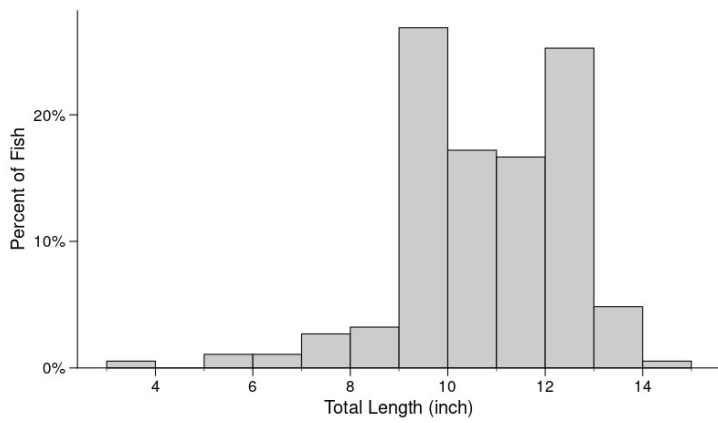


Figure 5. Length-frequency histogram for white crappie caught at Grand Lake by fall trap netting in 2024 (left N=186) and 2025 (right N=287).

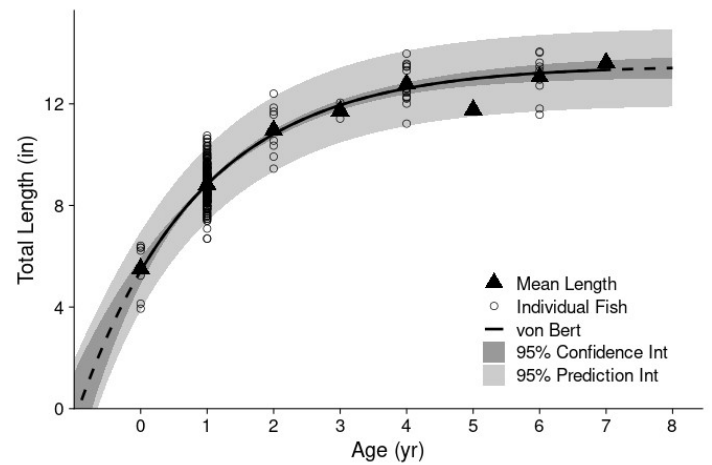
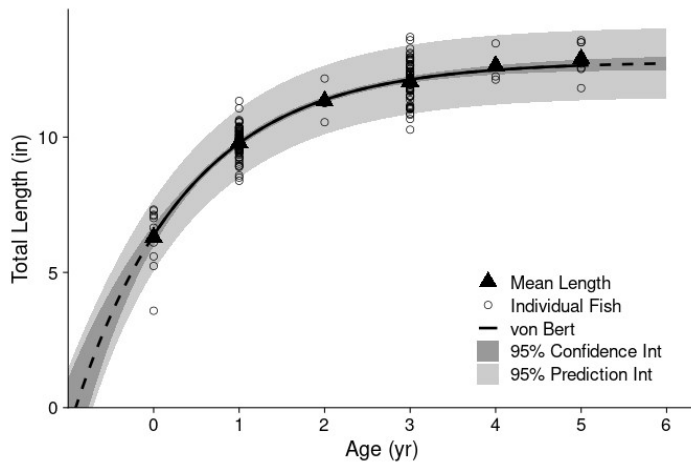


Figure 6. von Bertalanffy growth plot for white crappie caught in trap nets at Grand Lake in 2024 (left, N=185) and 2025 (right, N=287).

Age	MLA	N	LCI	UCI
0	6.3	10	5.6	7.0
1	9.8	87	9.7	9.9
2	11.2	6	10.8	11.7
3	12.1	68	12.0	12.3
4	12.9	5	12.5	13.3
5	12.7	9	12.3	13.1
6	.	.	.	.
7	.	.	.	.

Age	MLA	N	LCI	UCI
0	5.5	7	4.7	6.3
1	8.8	242	8.7	8.9
2	11.0	8	10.2	11.7
3	11.7	2	11.1	12.3
4	12.8	17	12.4	13.1
5	11.8	1	.	.
6	13.1	9	12.5	13.6
7	13.6	1	.	.

Table 8. Mean total length at age (MLA), Total number in age class (N), and lower and upper 95% confidence intervals (LCI and UCI) for white crappie caught in 2024 (left) and 2025 (right) fall trap netting at Grand Lake.

Year	Total Mort. (A)	LCI	UCI	O. Max	T. Max
2025	35.24	-165	84.2	5	9.8

Table 9. Annualized mortality (Total Mort. A), lower 95% confidence interval (LCI), upper 95% confidence interval observed maximum age (O. Max), theoretical maximum age (T. Max) for white crappie sampled with trap nets at Grand Lake in 2025.

Blue Catfish

Winter gill netting targeting the Temperate Basses (*Moronid spp.*) was conducted in 2025 at Grand Lake. Random site selection of 15 net nights was used as per SSP, with an additional 15 selected by a stratified random design. The purpose of this effort is to collect more data on white bass in response to declining CPUE. Blue Catfish are an incidental catch in this gear and fish caught used as a proxy or to supplement data from other gears. A total of 67 Blue Catfish were samples and the mean CPUE did not differ from previous years, mean Wr was moderate, and variance did not meet data quality standards (RSE min of 20) (Table 10). When compared statewide, overall CPUE was above the 50th percentile, while mean CPUE ≥ 30 " was in the 95th percentile (Table 11). Length frequency analysis shows the population with a high abundance of 18-25" fish which are quality harvestable size (Figure 7). No age information was collected for this species. Our evidence suggests that Grand Lake has an above average blue catfish population with an above average catch rate of trophy individuals. No management actions are recommended at this time.

Year	N	Mean	Mean ≥ 30 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2021	68	5.3	0.2	99.0	15	23.6	2.8	7.7	21
2024	54	4.3	0.0	85.8	16	25.5	2.1	6.4	26
2025	67	5.7	0.2	88.3	15	22.7	3.2	8.2	19

Table 10. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 30 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for blue catfish sampled by winter gill netting at Grand Lake in 2021-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	0.1	0.7	3.2	6.8	12.3	124
CPUE < Stock	0	0	0.3	1.8	5.8	124
CPUE S-Q	0	0.18	1.3	2.8	7.2	124
CPUE Q-P	0	0.2	0.6	1.2	3.0	124
CPUE P-M	0	0	0	0.1	0.2	124
CPUE M-T	0	0	0	0	0.1	124
CPUE Trophy+	0	0	0	0	0	124

Table 11. Statewide percentiles for catch per net night (CPUE) for all blue catfish, and by PSD Size class in Oklahoma 2025 (S ≤ 11.8 ", Q ≤ 20.1 ", P ≤ 29.9 ", M ≤ 35 ", T ≤ 44.9 ").

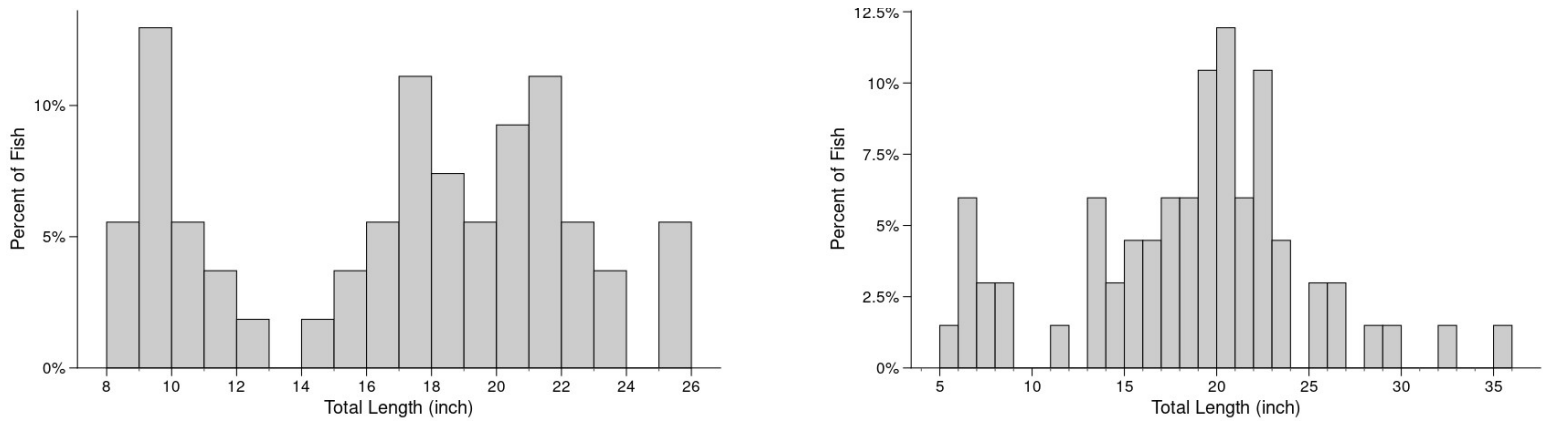


Figure 7. Length-frequency histogram for blue catfish caught at Grand Lake by winter gill netting in 2024 (left N=54) and 2025 (right N=67).

Channel Catfish

Winter gill netting targeting the Temperate Basses (*Moronid spp.*) was conducted in 2025 at Grand Lake. Random site selection of 15 net nights was used as per SSP, with an additional 15 selected by a stratified random design. The purpose of this effort is to collect more data on white bass in response to declining CPUE. Channel Catfish are an incidental catch in this gear and fish caught used as a proxy or to supplement data from other gears. A total of 51 channel catfish were sampled and the mean CPUE was not different from the previous year, mean Wr were moderate, and variance failed data quality standards (RSE min of 20) (Table 12). When compared statewide, overall CPUE was in the 50th percentile and mean CPUE ≥ 14 " was just below the 75th percentile (Table 13). Length frequency analysis showed high abundance of harvestable size fish and is not different from the previous year (Figure 8). No age information was collected for this species. Our evidence suggests the channel catfish population in Grand Lake is average, with a high catch rate of quality fish. There are no management recommendations at this time.

Year	N	Mean	Mean ≥ 14 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2021	6	0.5	0.4	97.8	15	40.7	0.1	0.8	62
2024	88	7.0	4.3	78.7	16	13.6	5.1	8.8	7
2025	51	4.2	2.6	85.1	15	33.4	1.4	6.9	42

Table 12. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 14 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for channel catfish sampled by winter gill netting at Grand Lake in 2021-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	0.8	2.2	4.2	7.2	14.6	258
CPUE < Stock	0	0.1	0.6	1.6	4.3	258
CPUE S-Q	0	0.4	1.1	2.8	6.4	258
CPUE Q-P	0.1	0.6	1.5	3.1	7.3	258
CPUE P-M	0	0	0	0.2	0.7	258
CPUE M-T	0	0	0	0	0.2	258
CPUE Trophy+	0	0	0	0	0	258

Table 14. Statewide percentiles for catch per net night (CPUE) for all channel catfish, and by PSD Size class in Oklahoma 2025 (S ≤ 11.0", Q ≤ 16.1", P ≤ 24", M ≤ 28", T ≤ 35.8").

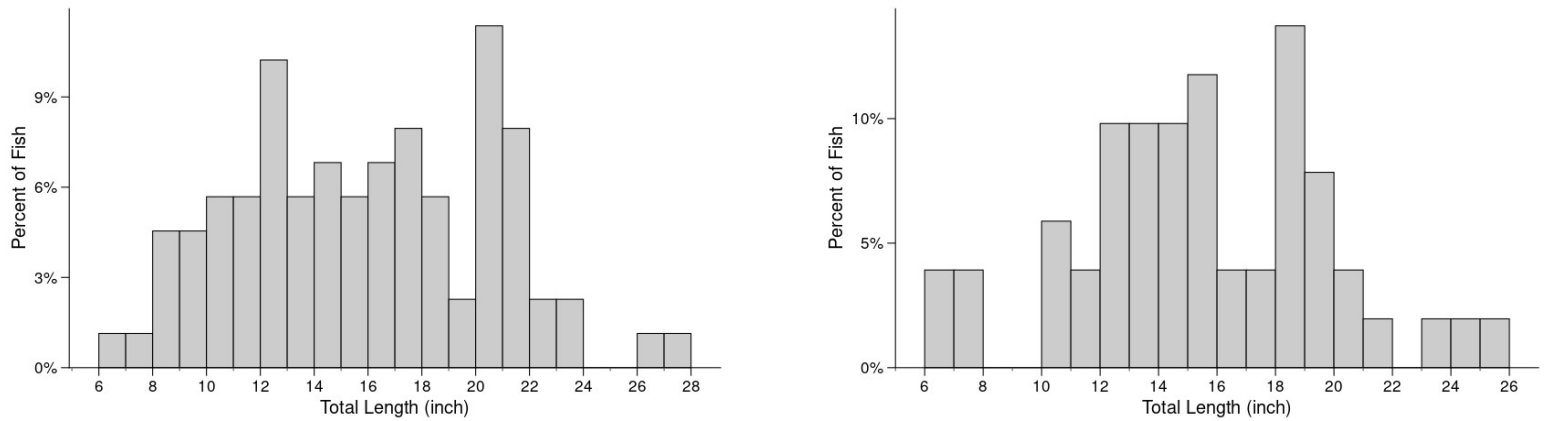


Figure 8. Length-frequency histogram for channel catfish caught at Grand Lake by winter gill netting in 2024 (left N=88) and 2025 (right N=51).

Hybrid Striped Bass

Winter gill netting targeting the Temperate Basses (*Morone spp.*) was conducted in 2025 at Grand Lake. Random site selection of 15 net nights was used as per SSP, with an additional 15 selected by a stratified random design. The purpose of this effort is to collect more data on white bass in response to declining CPUE. A total of 6 hybrid striped bass were sampled and the mean CPUE was different from 2024 but not 2021, mean Wr were good, and variance fell below data quality standards (RSE min of 20) (Table 15). When compared statewide mean CPUE was below the 25th percentile with no fish in the ≥ 20 " group sampled (Table 16). So, few fish were caught that length frequency, and Von Bert growth curves either couldn't be fit or are unreliable (Figure 9, Figure 10). Catch was so low this year that little can be said about the state of the population. Hybrid Striped Bass are stocked as a put-grow-take fishery in Grand Lake; these stockings were temporarily paused in 2023 with concerns that they are contributing to the decline of white bass in the system. This last stocking was evident in age data while old fish are dwindling, but these data are suspect because of the low sample size (Table 17, Table 18). Until stockings it is expected for age classes continue to drop off. Once the evaluation of white bass is complete a decision will be made for the future of the hybrid striped bass fishery. In the meantime, they are still around and can be caught but we will conduct no management actions until the white bass study is complete.

Year	N	Mean	Mean ≥ 20 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2021	12	0.9	0	104	15	44.3	0.1	1.7	74
2024	56	4.4	0.1	93.4	16	24.7	2.3	6.6	24
2025	6	0.5	0	100.1	15	40.3	0.1	0.9	61

Table 15. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 20 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for hybrid striped bass sampled by winter gill netting at Grand Lake 2021-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	0.1	0.9	5.3	9.3	13.6	81
CPUE < Stock	0	0	0.2	0.7	2.4	81
CPUE S-Q	0	0.1	1.3	4.1	7.3	81
CPUE Q-P	0	0.1	0.8	3.3	8.3	81
CPUE P-M	0	0	0.2	0.9	2.4	81
CPUE M-T	0	0	0	0	0.2	81
CPUE Trophy+	0	0	0	0	0	81

Table 16. Statewide percentiles for catch per net night (CPUE) for all hybrid striped bass, and by PSD Size class in Oklahoma 2025 (S ≤ 9.8 ", Q ≤ 16.1 ", P ≤ 20.1 ", M ≤ 24 ", T ≤ 28 ").

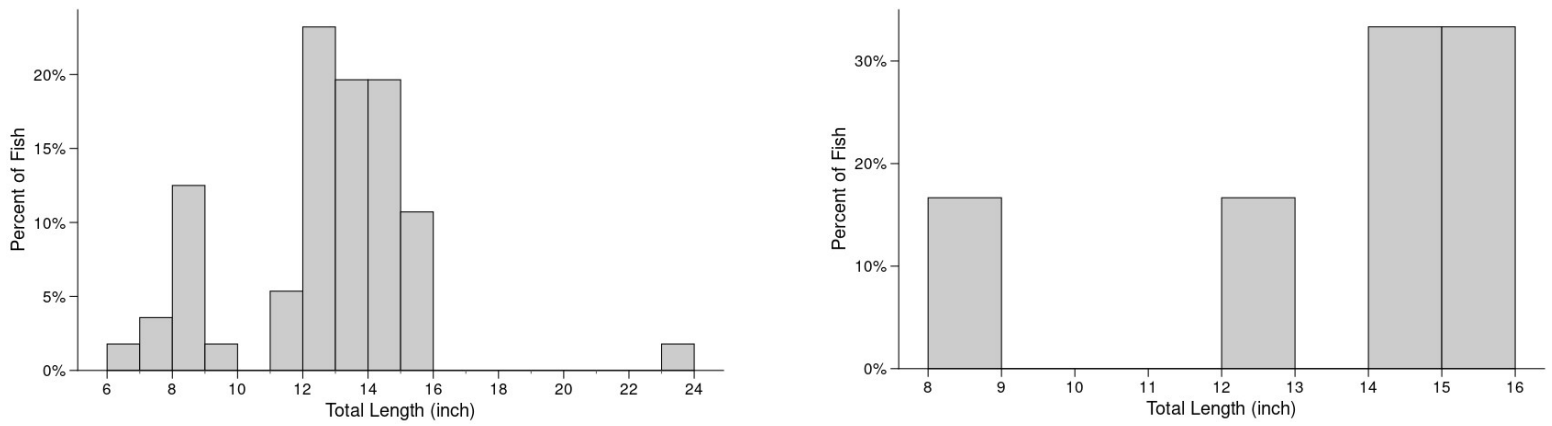


Figure 9. Length-frequency histogram for hybrid striped bass caught at Grand Lake by winter gill netting in 2024 (left N=56) and 2025 (right N=6).

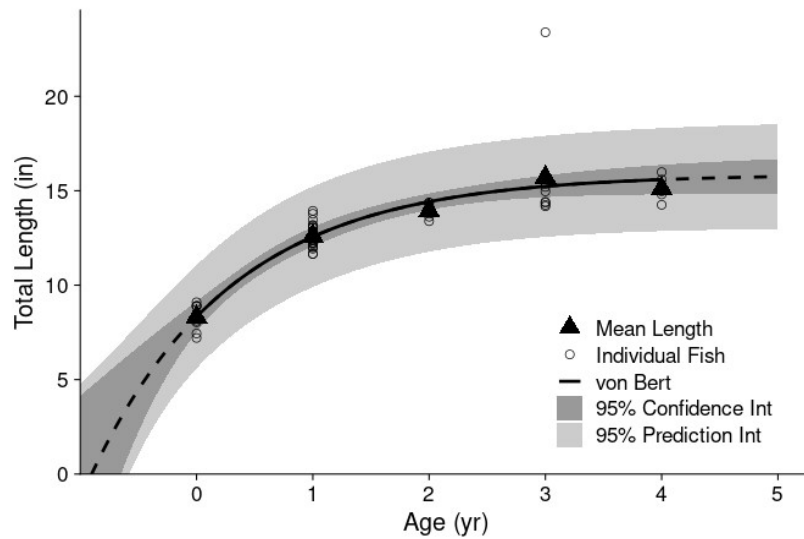


Figure 10. von Bertalanffy growth plot for hybrid striped bass caught in winter gill nets at Grand Lake in 2024 (N=55).

Age	MLA	N	LCI	UCI
0	8.3	10	7.9	8.7
1	12.6	23	12.3	12.9
2	13.9	7	13.7	14.2
3	15.7	10	14.0	17.4
4	15.1	5	14.5	15.7

Age	MLA	N	LCI	UCI
0	.	.	.	.
1	11.4	4	9.2	13.6
2	15.9	3	15	17.3
3	15.0	2	14	16.5
4	.	.	.	.

Table 17. Mean total length at age (MLA), Total number in age class (N), and lower and upper 95% confidence intervals (LCI and UCI) for hybrid striped bass caught in winter gill nets at Grand Lake in 2024 (left, N=55), and 2025 (right, N=10).

Year	Total Mort. (A)	LCI	UCI	O. Max	T. Max
2025	50	.	.	4	.

Table 18. Annualized mortality (Total Mort. A), lower 95% confidence interval (LCI), upper 95% confidence interval, observed maximum age (O. Max), theoretical maximum age (T. Max) for hybrid striped bass sampled with winter gill nets at Grand Lake in 2025.

White Bass

Winter gill netting targeting the Temperate Basses (*Morone spp.*) was conducted in 2025 at Grand Lake. Random site selection of 15 net nights was used as per SSP, with an additional 15 selected by a stratified random design. The purpose of this effort is to collect more data on white bass in response to declining CPUE. A total of 51 white bass were sampled and the mean CPUE was not different than previous samples, mean Wr were excellent and variance fell below data quality standards (RSE min of 20) (Table 20). When compared statewide mean CPUE fell below the 50th percentile, while mean CPUE ≥ 10 " fell above the 75th percentile (Table 21). Length frequency was not that dissimilar from previous years and shows a high abundance of fish >12 " (Figure 11). Von bert growth curve was not different than the previous year and shows fast growth for the first year before slowing, this is indicated by the compressing of mean length after age 2 classes (Figure 12 and Table 22). Our evidence suggests that the white bass population in Grand Lake is slightly below average in catch rate but far above average in size. Fish here seem to grow quickly and die at a relatively young age (Table 23). More information is needed to ascertain why the CPUE decline is occurring. These efforts are ongoing with the use of extra gillnetting, genetics sampling, and an angler survey. Our hope is that collecting these data over the next 2 years will teach us what management strategy to move forward with.

Year	N	Mean	Mean ≥ 10 "	Wr	Count	RSE	LCI	UCI	N RSE = 20
2021	60	4.6	1.1	102.7	15	26.1	2.2	6.9	26
2024	41	3.2	2.5	97.4	16	28.9	1.4	5.1	33
2025	51	4.3	3.2	109.2	15	33.5	1.5	7.1	42

Table 20. Total number caught (N), mean CPUE (Mean), mean CPUE for fish ≥ 20 ", overall catch relative weight (Wr), number of sites samples (Count), relative standard error (RSE), lower and upper 95% confidence intervals (LCI and UCI), and number of samples needed for RSE of 20 (N RSE = 20) for white bass sampled by winter gill netting at Grand Lake 2021-2025.

CPUE Category	5%	25%	50%	75%	95%	# Surveys
Overall CPUE	0.4	2.1	5.0	8.7	19.0	200
CPUE < Stock	0	0	0	0.1	0.7	200
CPUE S-Q	0	0.2	0.6	1.9	6.6	200
CPUE Q-P	0	0.3	0.8	2.1	5.6	200
CPUE P-M	0	0.6	1.7	4.1	8.4	200
CPUE M-T	0	0	0.2	0.7	2.5	200
CPUE Trophy+	0	0	0	0	0.1	200

Table 21. Statewide percentiles for catch per net night (CPUE) for all white bass, and by PSD Size class in Oklahoma 2025 (S ≤ 5.9 ", Q ≤ 9.1 ", P ≤ 11.8 ", M ≤ 15.0 ", T ≤ 18 ").

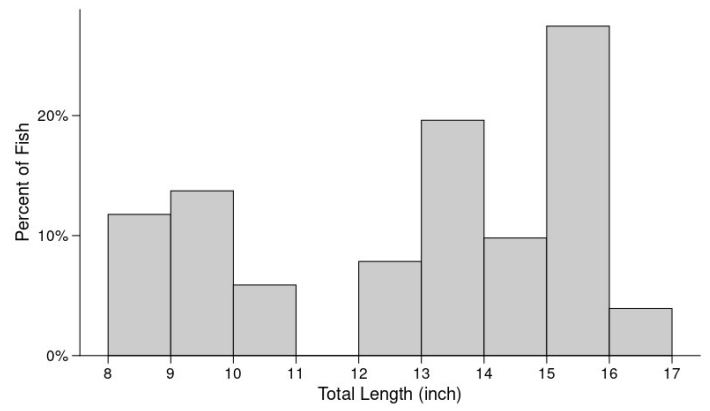
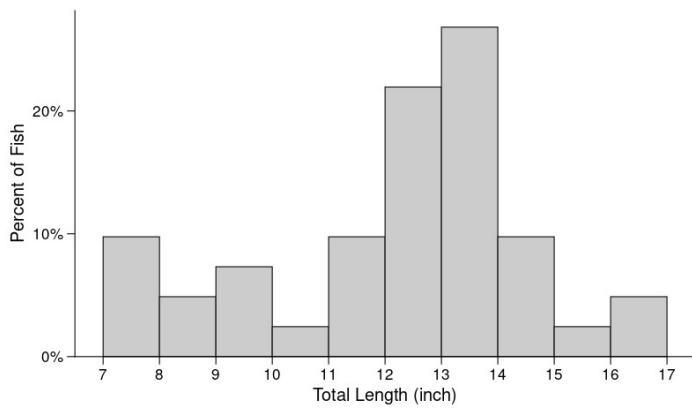


Figure 11. Length-frequency histogram for white bass caught at Grand Lake by winter gill netting in 2024 (left N=41) and 2025 (right N=51).

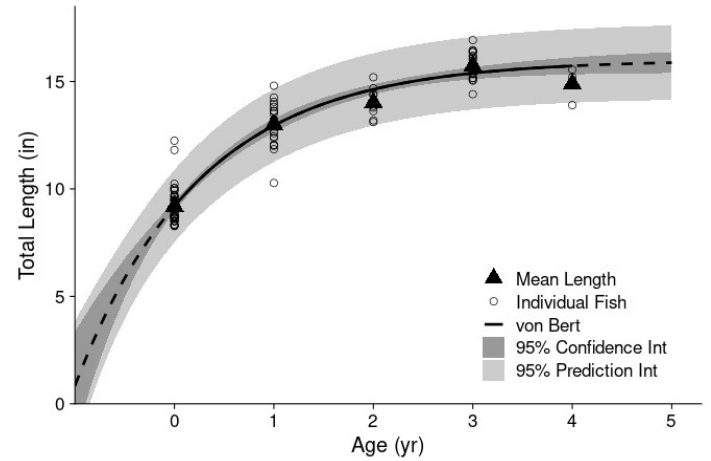
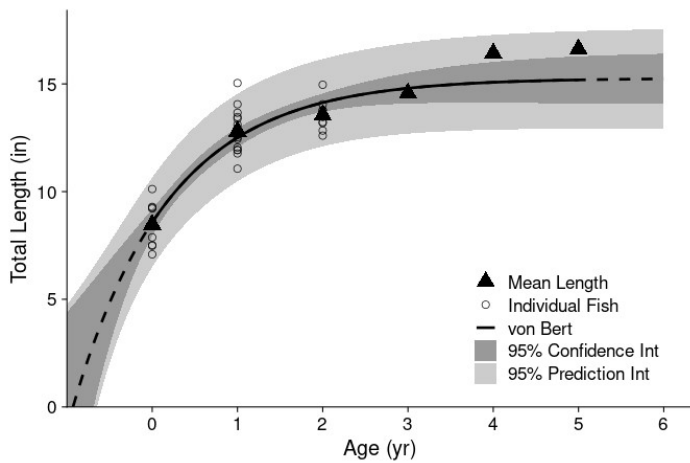


Figure 12. von Bertalanffy growth plot for white bass caught in winter gill nets at Grand Lake in 2024(left, N=41) and 2025 (right, N= 107).

Age	MLA	N	LCI	UCI
0	8.5	10	7.9	9.1
1	12.4	12	12.0	12.8
2	13.6	16	13.2	14.0
3	14.1	1	.	.
4	16.4	1	.	.
5	16.6	1	.	.

Age	MLA	N	LCI	UCI
0	9.4	46	8.9	9.8
1	13.2	23	12.8	13.6
2	14.5	9	14.0	14.9
3	15.6	24	15.4	15.9
4	15.1	5	14.6	15.6
5	.	.	.	.

Table 22. Mean total length at age (MLA), Total number in age class (N), and lower and upper 95% confidence intervals (LCI and UCI) for white bass caught in winter gill nets at Grand Lake in 2024 (left, N=41), and 2025 (right, N=107).

Year	Total Mort. (A)	LCI	UCI	O. Max	T. Max
2025	24.8	-29	56.2	5	10

Table 23. Annualized mortality (Total Mort. A), lower 95% confidence interval (LCI), upper 95% confidence interval, observed maximum age (O. Max), theoretical maximum age (T. Max) for hybrid striped bass sampled with winter gill nets at Grand Lake in 2025.

RECOMMENDATIONS

1. No Shad stocking is needed for the following year.
2. Crappie limit should remain to ensure recruitment remains stable.
3. Finish ongoing angler creel to determine angler usage and opinions.
4. Continue to closely monitor the White Bass/HSTB populations.

Appendix

A.1. Grand Lake Stocking Record

Date	Species	Number	Size
2017	Hybrid Striped Bass	32,786	Fingerling
2018	Hybrid Striped Bass	1,000,000	Fry
2019	Hybrid Striped Bass	100,222	Fingerling
2020	Florida Largemouth Bass	322	Subadult
2020	Florida Largemouth Bass	528	Subadult
2020	Certified Florida Largemouth Bass	100	Adult
2020	Hybrid Striped Bass	38,002	Fingerling
2021	Florida Largemouth Bass	285	Subadult
2021	Certified Florida Largemouth Bass	67	Adult
2021	Florida Largemouth Bass	948	Subadult
2021	Hybrid Striped Bass	1,500,000	Fry
2022	Florida Largemouth Bass	446	Subadult
2022	Florida Largemouth Bass	690	Subadult
2022	Certified Florida Largemouth Bass	100	Adult
2022	Integrated Florida Largemouth Bass (FLMBx)	93,000	Fingerling
2022	Hybrid Striped Bass	125,910	Fingerling
2023	Integrated Florida Largemouth Bass (FLMBx)	93,000	Fingerling
2023	Hybrid Striped Bass	700,000	Fry
2024	Integrated Florida Largemouth Bass (FLMBx)	93,000	Fingerling
2025	Integrated Florida Largemouth Bass (FLMBx)	93,000	Fingerling