

wood.

Lake Elsinore Fisheries Management Efforts



Lake Elsinore Fisheries Management Update

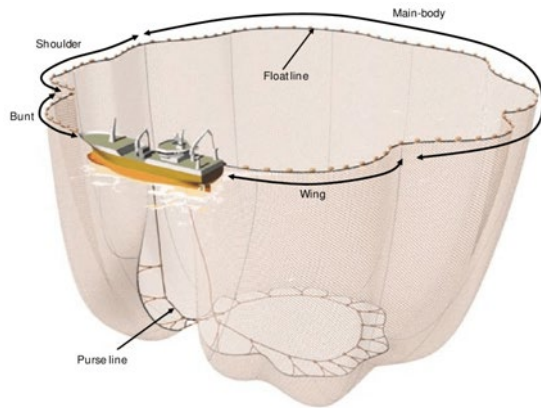
- Tasks Complete to Date
 - Beach seines – 9/4, 9/24, 10/15
 - Purse seines – 10/9
 - Otter trawls – 10/10
 - First two zooplankton / phytoplankton collections – 8/27, 10/17
- Future Tasks
 - Last zooplankton / phytoplankton collection – February/March 2020
 - Supplemental fish tissue collections for Largemouth Bass and Catfish
- Data Analysis – December 2019 through May 2020
- Report Preparation – April through June 2020



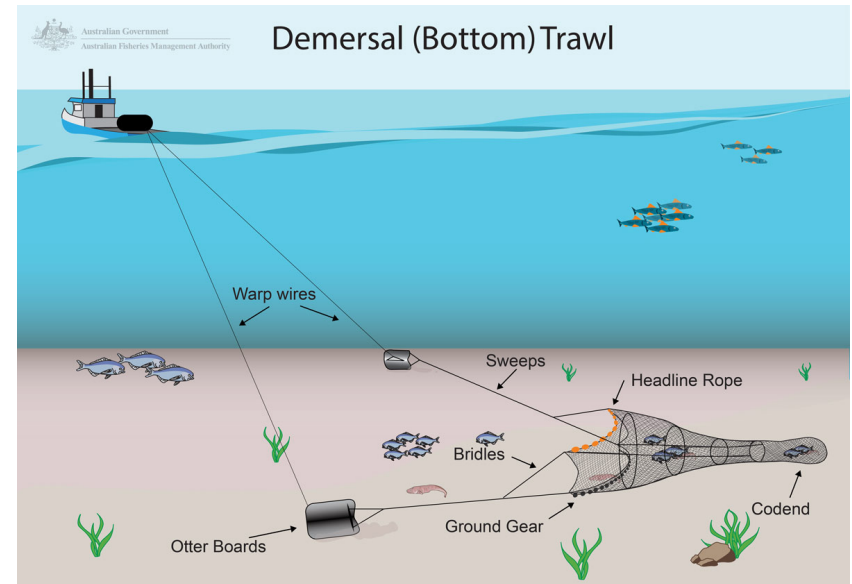
Lake Elsinore Fisheries Management Update



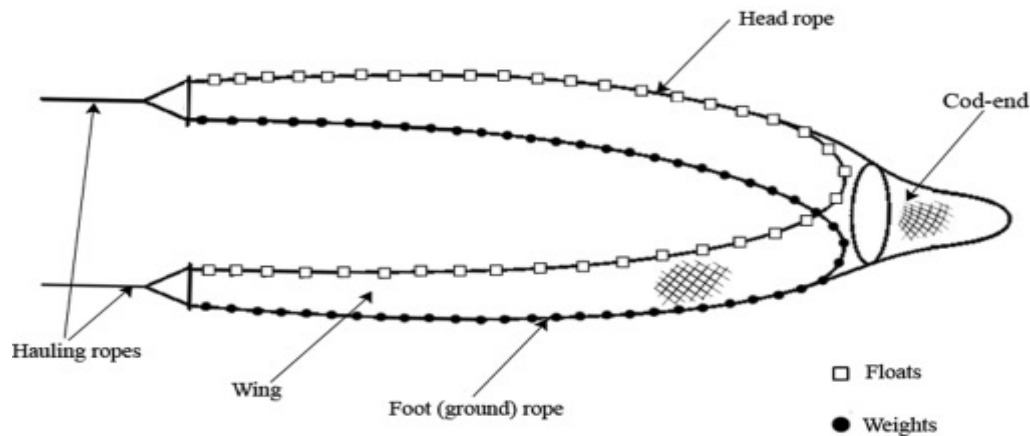
Lake Elsinore Fisheries Management: Gear Types



Purse Seine: Deep Water Upper Column



Otter Trawl: Deep Water Bottom



Beach Seine: Top to Bottom Shallow Water



Summary of Lake Elsinore Beach Seine Sampling

Seine ID	Carp	Bluegill	Mosquitofish	Silverside	Red Ear Sunfish	Threadfin Shad	Catfish	Largemouth Bass	Green Sunfish
Elm Grove 1	5	1	993	734	0	0	0	0	0
Elm Grove 2	112	10	21	6	1	1	0	0	0
Small Cove 1	11	0	602	2	0	0	0	1	0
Launch Pointe 1	31	0	17	51	0	0	0	0	0
Elm Grove 3	5	1	16	621	0	0	0	0	0
Elm Grove 4	56	1	12	255	0	0	0	1	0
Launch Pointe 2	7	2	0	73	0	0	0	0	0
Small Cove Mouth 1	15	17	79	20	0	0	0	2	0
Small Cove Mouth 2	8	8	35	22	0	0	0	0	0
CL Channel 1	25	0	12	6	0	0	1	0	1
Elm Grove 5	17	2	31	91	0	0	0	0	0
Launch Pointe 3	4	0	1	93	0	0	0	0	0
Launch Pointe 4	2	3	14	38	0	0	0	0	0
Small Cove Mouth 3	20	17	31	488	0	0	1	0	0
TOTALS	318	62	1864	2500	1	1	2	4	1

Summary of Lake Elsinore Purse Seine Sampling

Trawl ID	Carp	Silversides	Mosquitofish	Crappie
PS1_2	1	71	22	1
PS1_3	1	269	14	0
PS2_3	0	14	11	0
PS2_4	2	27	0	1
PS3_1	0	13	2	0
PS3_2	0	20	0	0
TOTALS	4	414	49	2



Summary of Lake Elsinore Otter Trawl Sampling

Trawl ID	Depth Range (ft)	Carp	Bluegill	Catfish	Crappie
LE-T-1_2	13.0-15.5	0	0	0	0
LE-T-1_3	13.2-14.9	0	0	0	0
LE-T-2_1	19.4-21.2	0	0	0	0
LE-T-2_2	16.0-18.6	0	0	0	0
LE-T-3_1	11.0-11.7	2	2	0	0
LE-T-3_2	9.4-12.0	3	0	0	0
LE-T-4_1	6.4-6.6	1	2	1	0
LE-T-5_1	6.6-8.6	1	3	0	0
LE-T-6_1	4.1-9.1	2	0	0	0
LE-T-7_1	8.0-9.6	1	0	0	0
LE-T-8_1	5.3-6.0	4	6	0	1
LE-T-8_2	6.1-10.3	2	13	0	0
LE-T-8_3	18.2-18.3	2	0	0	0
TOTALS	--	18	26	1	1

Summary of Lake Elsinore Otter Trawl Sampling

Trawl ID	Depth Range (ft)	Carp	Bluegill	Catfish	Crappie
LE-T-1_2	13.0-15.5	0	0	0	0
LE-T-1_3	13.2-14.9	0	0	0	0
LE-T-2_1	19.4-21.2	0	0	0	0
LE-T-2_2	16.0-18.6	0	0	0	0
LE-T-3_1	11.0-11.7	2	2	0	0
LE-T-3_2	9.4-12.0	3	0	0	0
LE-T-4_1	6.4-6.6	1	2	1	0
LE-T-5_1	6.6-8.6	1	3	0	0
LE-T-6_1	4.1-9.1	2	0	0	0
LE-T-7_1	8.0-9.6	1	0	0	0
LE-T-8_1	5.3-6.0	4	6	0	1
LE-T-8_2	6.1-10.3	2	13	0	0
LE-T-8_3	18.2-18.3	2	0	0	0
TOTALS	--	18	26	1	1

Lake Elsinore Fisheries Management Update



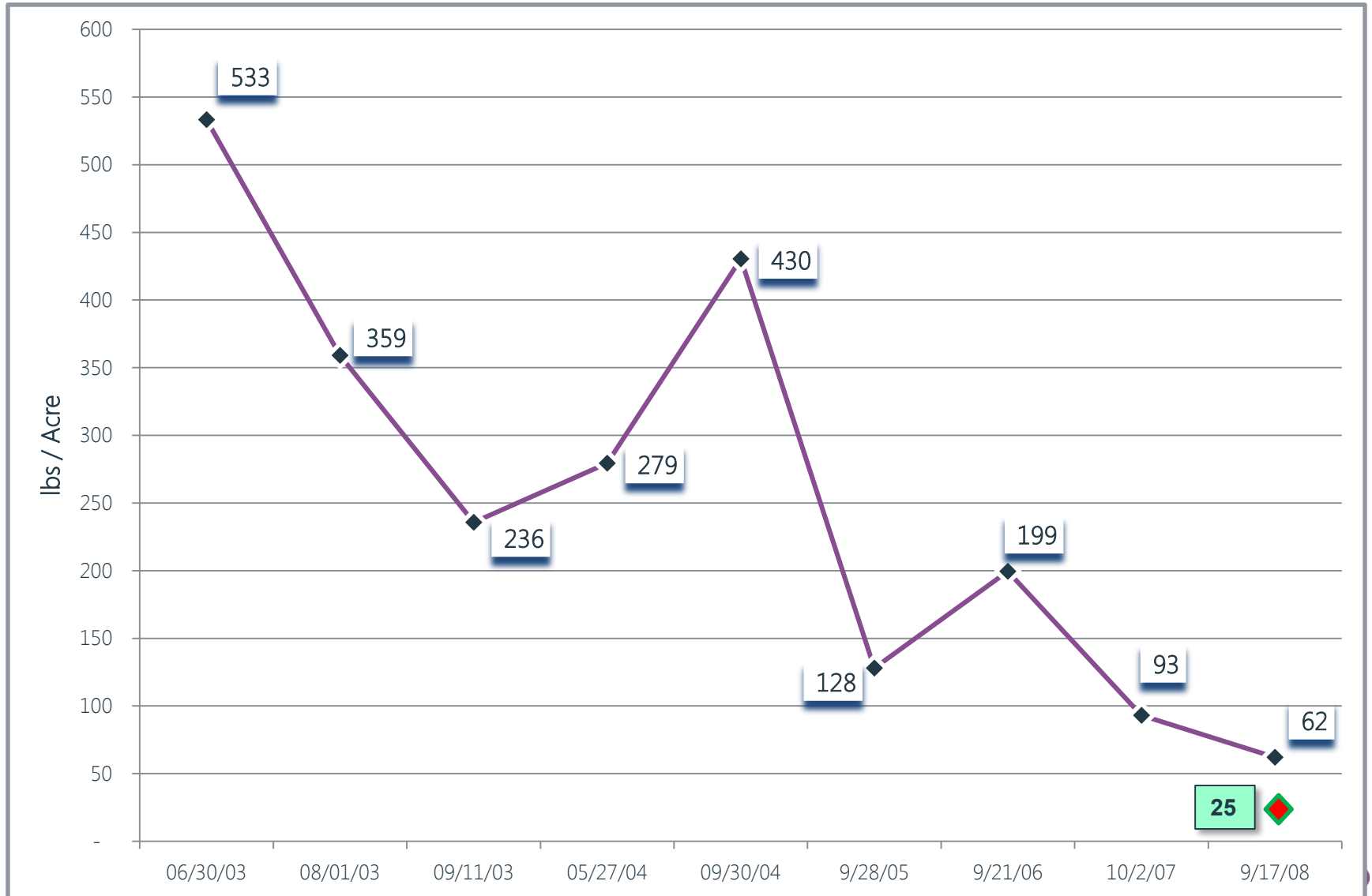
Estimate of Lake-wide Fish Populations

Lake Depth Strata (ft)	Carp	Bluegill	Mosquitofish	Silverside	Red Ear Sunfish	Threadfin Shad	Catfish	Largemouth Bass	Green Sunfish	Black Crappie
0 - 8	20,087	4,498	114,851	154,038	62	62	185	246	62	62
8 - 16	18,815	2,721	312,554	2,951,896	0	0	0	0	0	8,682
16+	5,015	0	30,390	172,990	0	0	0	0	0	2,338
TOTALS	43,917	7,219	457,795	3,278,924	62	62	185	246	62	11,081
Total Carp Biomass (lbs)	72,808									
Carp lbs/acre	24.6									

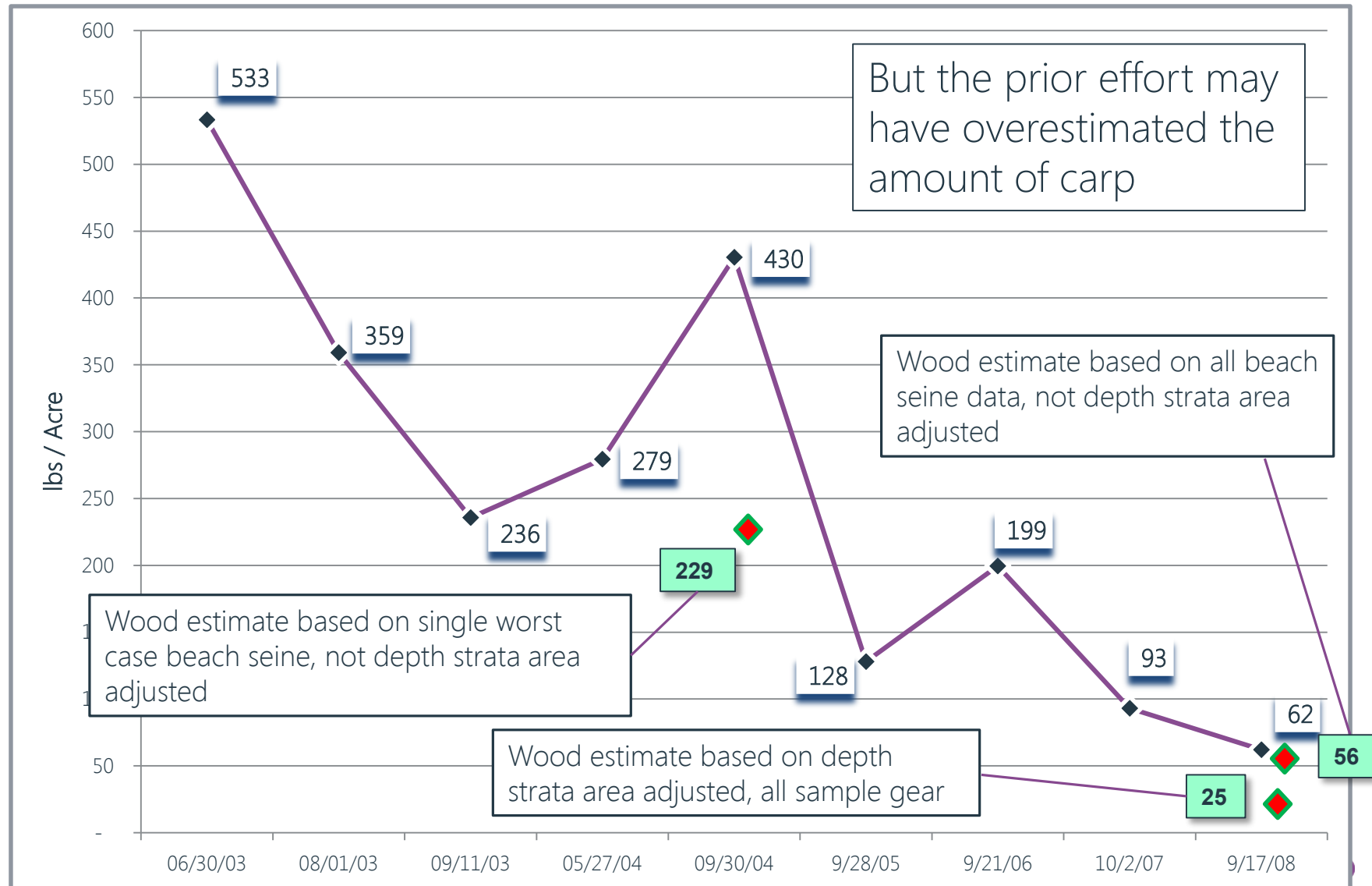
* The portions of the lake with aquatic vegetation that some species prefer (i.e. Centrarchids: Largemouth Bass, Sunfish, Crappie, and Bluegill) were inaccessible with sampling gear. Therefore, the table above may underestimate their true population.



Lake Elsinore 2003-2008 Estimated Carp Density



Lake Elsinore 2003-2008 Estimated Carp Density



Carp Size Distribution: 2003 vs 2019

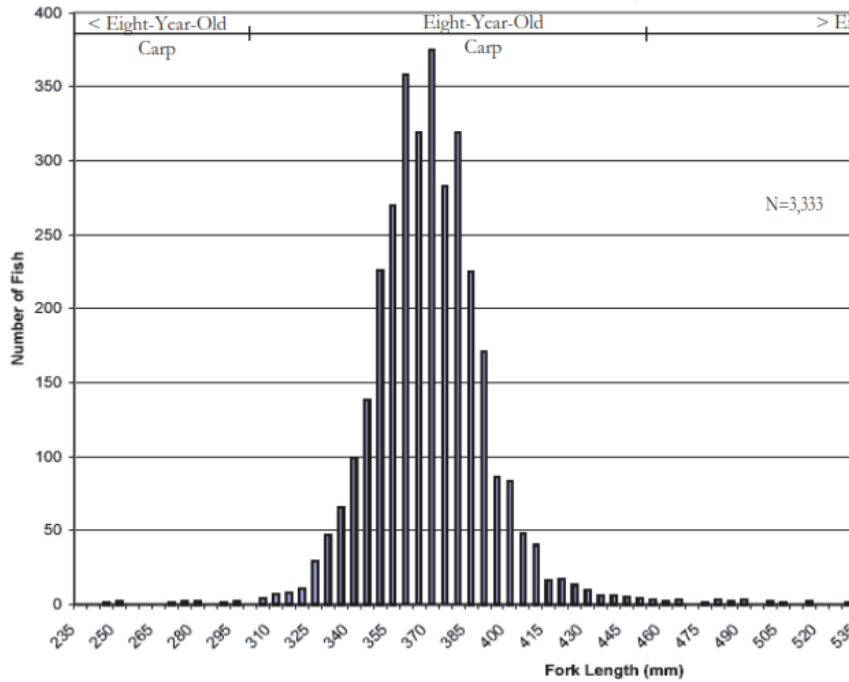
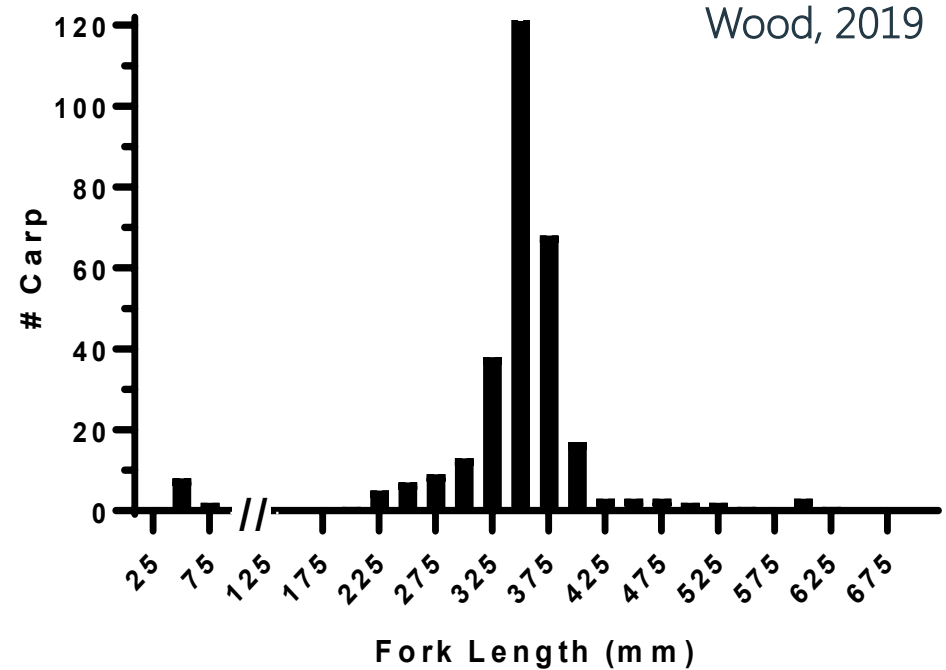


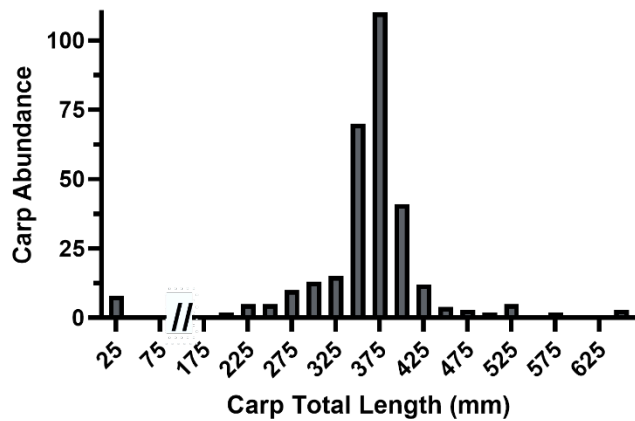
Figure 2-23

Source: EIP Associates (2003)

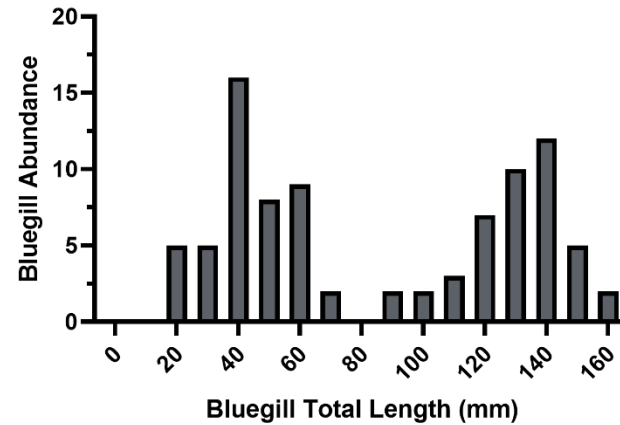


Fish Size Frequency Distribution: Selected Species

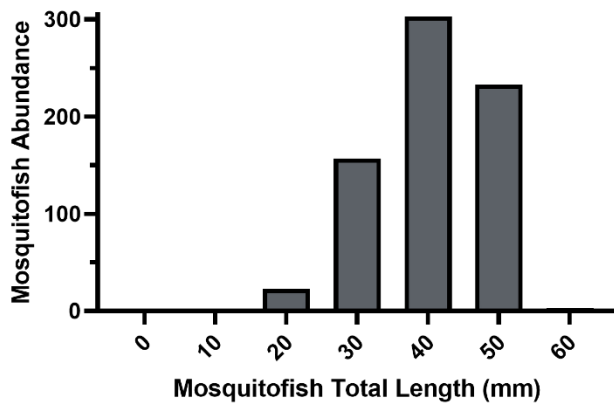
Carp Total Length-Abundance in All Events



Bluegill Total Length-Abundance in All Events



Mosquitofish Total Length-Abundance in All Events



Silverside Total Length-Abundance in All Events

