



Lake Phelps Angler Creel Survey September 2016 - August 2017

March 2020



Photo: Katy Potoka

The N.C. Wildlife Resources Commission (NCWRC) conducted a creel survey at Lake Phelps from September 2016 to August 2017 to better understand angling effort and angler preferences. Lake Phelps is the second largest naturally formed lake (6,480 ha) in North Carolina and is surrounded by Petti-grew State Park, Pocosin Lakes National Wildlife Refuge, and a small portion of privately owned land. Lake Phelps is home to popular sport fish, such as Largemouth Bass *Micropterus salmoides* and Pumpkinseed *Lepomis gibbosus*. Since 2002, Largemouth Bass have been managed with a mini-mum size limit of 14 inches, a protective slot limit from 16 to 20 inches, and a five fish daily creel limit. Sunfish regulations include a 30 fish per day creel limit and no minimum size limit. Since the implementation of the protective slot limit for Largemouth Bass, there have been no formal surveys of fishing effort, harvest trends, or angler opinions regarding fisheries management options. Angler practices and harvest information were needed from Lake Phelps to evaluate management strategies, especially the protective slot limit for Largemouth Bass.

Project Objective:

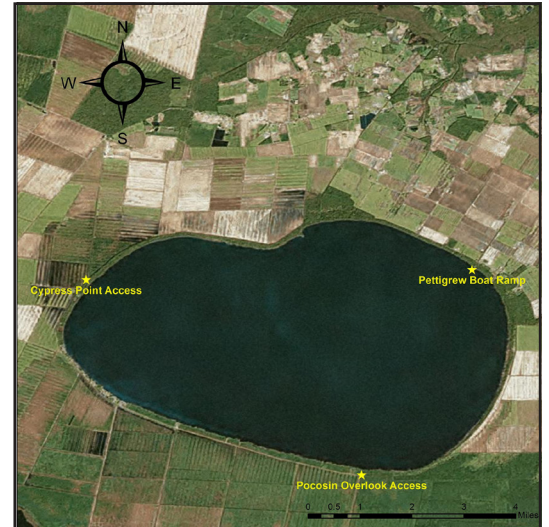
- To quantify recreational angler effort, catch, harvest, and target species at Lake Phelps.
- To determine angler preferences, expenditures and opinions on current management regulations at Lake Phelps.

Methods:

- A creel clerk interviewed anglers following completed angling trips at five access areas around Lake Phelps.
- Each angling party was asked questions regarding time spent fishing, trip information, targeted species, number of fish caught, number of fish harvested, what county the anglers were from, and how fishing at Lake Phelps could be improved.
- The creel clerk identified, counted, measured and weighed all harvested fish.

Results:

- Staff conducted 116 interviews of 253 anglers. Most of these interviews (84%) occurred at the Pettigrew boating access area (54%) and Cypress Point pier (30%).



Location	Latitude	Longitude	Address
Pettigrew Boat Ramp	35.7897	-76.4114	2252 Lake Shore Road
Cypress Point Access	35.78688	-76.5191	2803 Shore Drive
Pocosin Overlook Access	35.73244	-76.4422	9791 Shore Drive

Figure 1: Located in Washington and Tyrrell counties, Lake Phelps has multiple public access locations, all of which are ideal for fishing, boating or kayaking.



NCWRC Creel clerk Todd Oliver interviews a fisherman at the Cypress Point access area after a chilly day on the water. (Photo: Christopher Smith)



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- About 49% of anglers fished from boats, 37% fished from the bank or pier, 8% waded, and 6% fished from a kayak or canoe.
- During the survey period, anglers spent an estimated 10,066 hours fishing on the lake. Anglers at Lake Phelps spent more time fishing during weekdays (5,192 hours) than they did on weekends (4,873 hours).
- Of the 253 anglers, 62% (156) were specifically targeting Largemouth Bass, while 38% (97) targeted Pumpkinseed or “anything”.
- Estimates of Largemouth Bass catch was 3,884 fish, while harvest was only 42 fish. Harvest of sunfish (Bluegill and Pumpkinseed) was estimated to be about 247 fish. Other species harvested include yellow bullhead, yellow perch, and black crappie.
- About 27% (68) of the anglers interviewed were from Washington, Tyrrell or Dare counties, while 62% (152) of anglers were from other North Carolina counties. About 5% (13) of the anglers were from Virginia. The remaining 6% (16) were from other states.
- When asked about improvements to fishing at the lake, 43% of anglers (52) said they wanted increased access to the lake. Forage fish and habitat improvements made up 13% (16 anglers) of the responses. About 6% of the anglers (7) indicated that they wanted regulation changes at Lake Phelps. No improvements needed (46 anglers) and other improvements (1 angler) made up 38% of all responses.

What's Next:

- The data from the creel survey is currently being used to assess the effectiveness of management regulations on Lake Phelps.
- A more detailed report and discussion, including management recommendations, should be available by early 2020.

For more information, contact:

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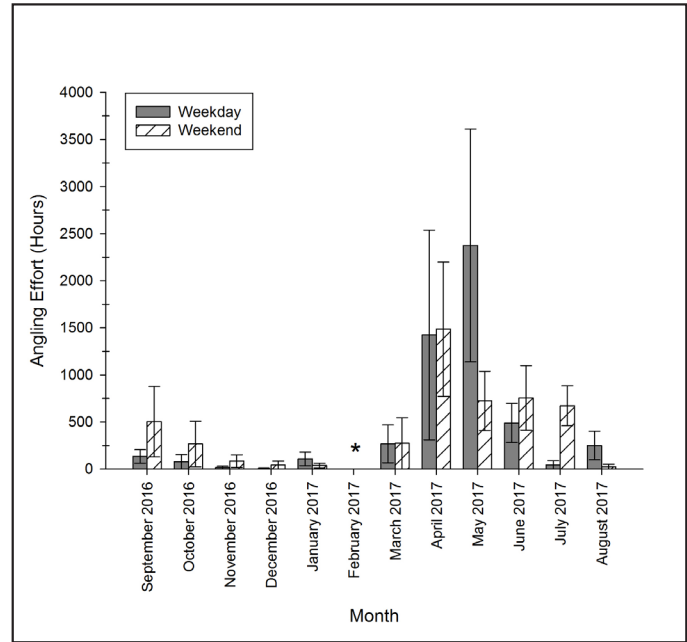


Figure 2: Estimated effort (angling hours) separated by month and day type. Error bars indicate standard error. Asterisk indicates no survey conducted due to staffing limitations.

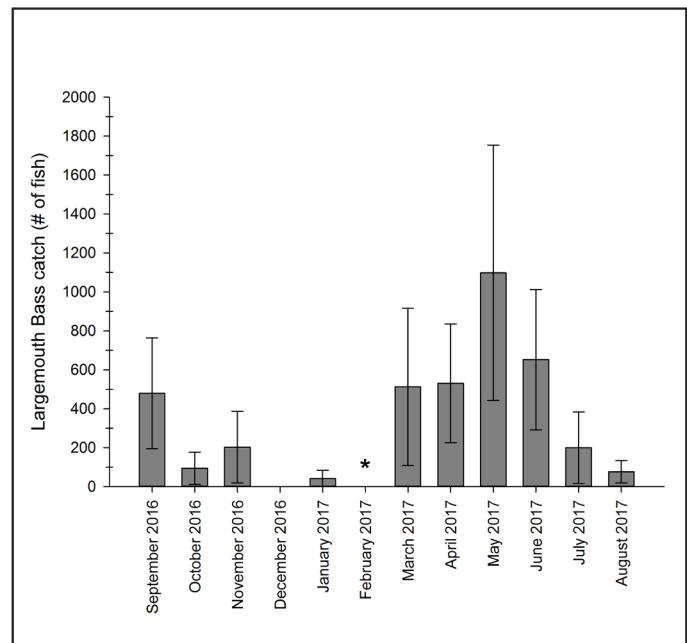


Figure 3: Estimates of monthly Largemouth Bass catch (number of fish). Error bars indicate standard error. Asterisk indicates no survey conducted due to staffing limitations.



Largemouth Bass and Pumpkinseed illustrations by Duane Raver

