

Messer Pond - New London
TRAP NET SURVEY
22-24 May 2007
Summary Report

Editor's Note: This NH Fish & Game Dept. Fish Survey was requested by Jackie Parcells, Director of Fish/Wildlife & Water Safety, since the last fish survey was done in the 1960's.

Background

Messer Pond located in New London, New Hampshire, is a mesotrophic (moderate productivity), 27 ha (67 acre) natural (no dam) water body with maximum and mean depths of 7.6 m (25 ft) and 2.6 m (8.5 ft), respectively. Muck/detritus is the predominant substrate, along with scattered rock; emergent and submerged vegetation are common.

Fisheries and Stocking History

In 1943 and 1945, mixed sizes of adult brown bullhead (*Ameiurus nebulosus*), and in 1966, mixed sizes of adult largemouth bass (*Micropterus salmoides*), were stocked directly into Messer Pond by Fish and Game in order to enhance sport fish angling opportunities. Fish and Game historical files from the 1960's indicated chain pickerel (*Esox niger*), yellow perch (*Perca flavescens*), American eel (*Anguilla rostrata*), common white sucker (*Catostomus commersoni*), common sunfish/pumpkinseed (*Lepomis gibbosus*), and golden shiner (*Notemigonus crysoleucas*) as present. With the exception of American eel, a catadromous species (only females enter freshwater to mature), the aforementioned species are currently managed as self-sustaining (no stocking) in Messer Pond and all similar New Hampshire water bodies.

Sampling Methods

Fish were captured with New Hampshire-design fyke trap nets [1.1 x 1.3-m frames with two throats within the hoops, 1.3-cm mesh (bar measure)] with 30.5-m (100-ft) leaders attached to the shoreline. Three nets were set in separate locations (NE shore, N cove, W shore) on 22-May-2007, and tended on 24-May-2007. Surface water temperature was recorded on each date. All fish captured were identified, enumerated, and length and weight data recorded for selected species. All fish were released alive after processing.

Results and Discussion

Surface water temperature was 15C (59F) as nets were set on 22-May-2007; 17C (63F) was observed as nets were tended on 24-May-2007. Temperatures were conducive to shoreline movement of all warmwater species present. A total of seven different species were captured (Table 1, Figure 1); other than the absence of American eel, species composition was identical to historical accounts. Total length and weight ranges and indices of fish body condition/robustness (relative weight, Wr) were comparable to those observed in similar New Hampshire water bodies (Table 1). Since brown bullhead were in pre-spawn condition, relative weight was likely skewed upward for this species. Conversely, chain pickerel and yellow perch, species in post-spawn condition, were likely skewed downward.

Although only one largemouth bass was captured, this was not unexpected, since largemouth bass are not particularly susceptible to trap netting. It was known prior to the survey this species was well established; anglers report an excellent largemouth bass fishery in this water body. Thus, sampling efforts were directed at capturing other species, some of which are not often targeted by anglers. It should be noted numerous largemouth bass in approximately the 200-400 mm (8-16 in) range were observed near the shoreline and net areas; given the suitable forage available, in particular golden shiner, it is probable much larger bass are also present.

Summary Report Prepared by:

John A. Viar - Fisheries Biologist I
New Hampshire Fish and Game Department
Region 2 Office - PO Box 417
New Hampton NH 03256
(603) 744-5470
Jviar@nhfgd.org

Table 1. Descriptive statistics (English units) of fish species captured during the 22-24 May 2007 trap netting survey of Messer Pond, New London.

Species (Latin)	Total Number Captured	Number Processed	Mean Length (in)	Length Range (in)	Mean Weight (lb)	Weight Range (lb)	Mean Relative Weight (Wr)	Comments
common white sucker (<i>Catostomus commersoni</i>)	23	-	-	-	~1.5-4	-	-	no data taken –common species
brown bullhead (<i>Ameiurus nebulosus</i>)	6	6	13.5	11.5-14.6	1.3	0.7-1.6	92	above average size
pumpkinseed (<i>Lepomis gibbosus</i>)	1	1	6.3	-	0.2	-	82	-
chain pickerel (<i>Esox niger</i>)	4	3	15.9	14.1-18.6	0.8	0.5-1.2	77	typical size
yellow perch (<i>Perca flavescens</i>)	23	23	8.5	4.8-11.9	0.2	0.1-0.5	69	typical size
golden shiner (<i>Notemigonus crysoleucas</i>)	91	23	8.5	7.0-9.8	0.2	0.1-0.4	78	above average size
largemouth bass (<i>Micropterus salmoides</i>)	1	1	8.8	-	0.3	-	89	-



Figure 1. Examples of select species captured during the 22-24 May 2007 trap netting survey of Messer Pond, New London; a) brown bullhead; b) chain pickerel; c) golden shiner; d) common white sucker.