



Cayuga Lake Lake Sturgeon (Survey #:722003, 722004)
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Cayuga Lake extends northward from the city of Ithaca through Tompkins, Cayuga and Seneca counties. At 43,560 acres, Cayuga Lake ranks second in size behind Seneca Lake, among the Finger Lakes. Cayuga Lake offers a diverse fishery for both coldwater and warmwater species. Cayuga Lake has a shallow, weedy area at its north end which extends south for approximately six miles and occupies 5,800 acres. The remainder of the lake is deep and supports a coldwater trout and salmon fishery. Many of Cayuga's tributaries also provide fisheries for rainbow trout in the spring and landlocked salmon and brown trout in the fall. Boat launching is available at four state parks and a DEC launch at Mud Lock, as well as numerous private and municipal marinas around the lake. Management concerns range from nutritional deficiencies leading to spawning failures amongst salmonids, viral hemorrhagic septicemia disease outbreaks, invasive round goby impacts to the food web, the impact of the nuisance species, sea lamprey, on native lake trout, and the subject of this survey, lake sturgeon population recovery.

Large mesh monofilament gill nets are set each spring in May and early June to capture lake sturgeon near suitable spawning habitat in Cayuga Inlet, the mouth of Fall Creek, and the south end of Cayuga Lake. All lake sturgeon caught are measured and tagged with passive integrated transponder tags if not already tagged. When possible, the fish are also weighed. Since 1999, 155 lake sturgeon have been tagged in Cayuga Lake. The objective of these surveys is to obtain mark and recapture events for a population estimate. An estimate of the spawning population of lake sturgeon is a necessary step toward delisting of the species as Threatened in New York state and declaring recovery of the species.

In 2022, thirteen lake sturgeon were caught in 16 short sets from early May to mid-June. Bycatch (released alive) included 7 common carp. Water temperatures ranged from 51F to 71F.

These lake sturgeon collections, combined with collections from previous surveys, result in a Schnable population estimate of approximately 419 fish. This number is well below our target population of 750 spawning lake sturgeon. In addition, it is likely that some of the assumptions of the Schnable population estimation model were violated due to the number of years of tagging, and the likely possibility of mortality and emigration in the population during that time period. However, due to the low number of tagging and recapture events, this model is the best available estimate.

