Bureau of Fisheries Technical Brief #tb719032

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

Cayuga Lake lake sturgeon (Survey #:719032)

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6/2/2020

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 were set in early October to capture lake sturgeon near suitable spawning habitat in Cayuga Lake near Salmon Creek, Taughannock Point, and the south end of the lake. All lake sturgeon caught were measured, weighed and tagged with passive integrated transponder tags if not already tagged. Ten fish were also surgically implanted with acoustic tags by USGS. Stationary receivers are placed at suspected spawning locations by USGS and will be retrieved after the spawning season to download the acoustic detection data. The objective of this survey was to implant acoustic tags so that spawning locations can be better identified in the future. In turn, this should allow us to better estimate numbers of spawning lake sturgeon in Cayuga Lake. 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.

SPORT FISH RESTORATION

Five adult lake sturgeon and eleven juvenile sturgeon were caught for the first time, and five adult and one juvenile lake sturgeon were recaptured. All juvenile fish were stocked by DEC as young-of-year. The recaptured juvenile fish was initially tagged in Cayuga Lake in summer 2019 in the same location. The recaptured adult fish were initially tagged in Cayuga Inlet in spring 2018, or Cayuga Lake in fall 2011, 2013, and 2014 (2). Adult total length ranged from 1204 mm (47 inches) to 1620 mm (64 inches), and the largest weighed was 37 kg (82.3 pounds). The recaptured adult fish grew from 2 to 6 inches in total length while the recaptured juvenile fish grew 2.4 inches. However, the juvenile's growth rate is improbable so it is possible that measurement at the initial capture was in error.

Notable in this survey was the bycatch of substantial size brown trout. Sixteen lake trout, fourteen brown trout, two salmon, fourteen common carp and two freshwater drum were also caught on this survey. Ten- and twelve-inch stretch mesh nets were set in 10 to 50 feet of water on the shallow end, which resulted in a much more diverse catch than the lake trout egg-take nets set nearby at the same time, but in deeper water and only 6 inch stretch mesh.