

- Staff Report
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State DEC Bureau of Fisheries employees and partners from SUNY Cobleskill and SUNY Oneonta throw cobble-sized rocks at predetermined locations in Otsego Lake to construct artificial reefs in this undated photo.

Contributed

The state Department of Environmental Conservation Region 4 this week announced the completion of three new artificial spawning reefs in Otsego Lake.

DEC, in partnership with SUNY Cobleskill and the SUNY Oneonta Biological Field Station, constructed the artificial reefs to create new, clean spawning habitat for lake whitefish, a native cold water species once abundant in Otsego Lake, according to a DEC news release.

“Lake whitefish thrived in Otsego Lake well into the 1980s, sustaining lake trout and other native fish species before a series of biological and environmental factors severely decreased populations,” DEC Region 4 Acting Director John Weidman said. “I applaud the work done by DEC Region 4 Fisheries and Operations employees and our partners at SUNY Cobleskill and SUNY Oneonta to help bring the lake whitefish population back once again.”

The presence of the invasive alewife, illegally introduced to the lake in 1986, likely contributed to decreased larval lake whitefish populations, the release stated. Alewives are efficient planktivores that feed on a variety of microcrustaceans, insects, zooplankton and fish larvae in the upper layers of the water. Alewife and dreissenid mussels, another opportunistic species, disrupted Otsego Lake’s ecological balance, likely leading to the collapse of lake whitefish populations. “Fortunately, the alewife population crashed in 2010, and is now believed to be extirpated, making restoration of the cold water ecology possible,” the release stated.

DEC employees and SUNY partners built three new artificial reefs by hand. Crews placed cobble-sized rocks at three predetermined locations at Clarke Point on Otsego Lake. The three reef piles, each about 27 feet long by 23 feet wide and three feet tall, contain monitoring wells placed in the middle of the piles and are equipped with temperature and oxygen data loggers, along with sedimentation monitoring tubes.

DEC will monitor the reefs in hopes they are used by spawning adult lake whitefish over the winter months. The reefs may also attract spawning lake trout and cisco, which require similar spawning habitats. With assistance from the U.S. Geological Survey, DEC also placed egg collection mats atop the reefs to determine which species of fish are spawning and utilizing the reefs.

The ongoing project is expected to run for the next five to 10 years, according to the release. Additional reefs will be built around Otsego Lake in historic and current lake whitefish spawning areas. DEC and SUNY are also exploring future studies examining larval lake whitefish survival rates, available larval forage, and dreissenid mussel colonization. “These efforts will help fisheries biologists better understand and work to restore whitefish populations,” the release stated.