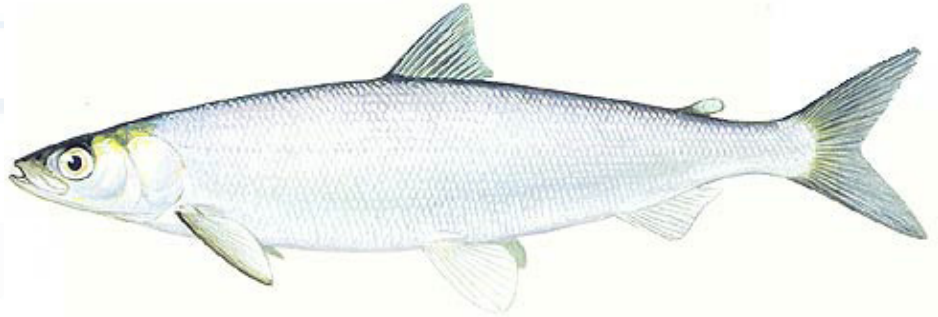


THIS NATIVE SPECIES IS AN IMPORTANT FOOD SOURCE FOR LAKE TROUT AND SALMON

CISCO

Cisco (*Coregonus artedii*), also known as the lake herring, is a native relative of the trout, but has largely been replaced by rainbow smelt within Lake George as the primary food source of the landlocked salmon and the lake trout. It has been suggested that the population within Lake George is actually a subspecies, however stocking and introductions were not of the same stock so this is difficult to evaluate. Cisco do not tolerate warm water or low oxygen levels.

Cisco are silvery white in color, elongate in body and have an adipose fin. Their caudal fin is very forked, and the lower jaw is slightly longer than the upper jaw. They have a very straight lateral line running along the sides of their body. Juvenile fish lack par marks or stripes. Adult males will have pearl organs on their scales above and below their lateral lines during spawning. Cisco can grow to over 16 inches



Cisco are commonly known as lake herring and do not tolerate warm water or low oxygen levels.

in length but average between 8-12 inches long. The New York State record is a 5 pound 7 ounce Cisco caught in 1990 in Lake Lauderdale. Cisco mature between ages 2-4 years old.

Spawning takes place in late fall or early winter when water temperatures fall below 40 degrees F. Cisco move into the shallows of the littoral zone at night and occasionally in larger tributaries to spawn. Two or more males will escort a female along the shore, as she nears the bottom, she will release her eggs. The males fertilize them, then the eggs sink to the bottom and stick to the clean substrate. Females can lay between 3,000 to

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Cisco

LAKE GEORGE FACT SHEET

15,000 eggs. Eggs are 2.1mm in size and take until the next spring to hatch.

Cisco feed heavily under the ice during the winter. Due to their smaller mouths they feed primarily on aquatic insect larvae such as mayflies and stoneflies occasionally they will feed on smaller minnows. Ciscos are most often found schooling below the thermocline, in mid-water.

Cisco is an important forage species for lake trout, rainbow trout, and northern pike, however its numbers have been declining. Environmental degradation will stress the population. Increases in phosphorus and other nutrients can lead to depletion of dissolved oxygen thus further depleting viable habitat. The introduction of non-native species has reduced the population even further due to the eggs and larva of the cisco being eaten.

The switch from feeding largely on cisco to rainbow smelt by lake trout is of great concern due to early mortality syndrome and thiamine deficiencies from consuming the rainbow smelt. Exotics and eutrophication (a



It is a concern that their population is declining, as cisco are an important forage fish for larger fish species, like trout and northern pike.

decline in water quality) are the greatest risks to the cisco.

For additional information on fishing regulations in New York State please visit the website of the NYS Department of Environmental Conservation (www.dec.ny.gov).

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