



Natural Heritage & Endangered Species Program

www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Lake Chub *Couesius plumbeus*

State Status: **Endangered**
Federal Status: **None**

GENERAL DESCRIPTION: The Lake Chub is an elongate, round-bodied minnow with a small but well-developed thread-like barbel at the posterior end of the upper jaw. They are generally 100 mm but can reach up to 150 mm in length. The Lake Chub has a large eye and a bluntly rounded snout which slightly overhangs the mouth and is completely separated from the upper lip by a continuous deep groove. The Lake Chub is colored dark, greenish-gray or dark brown on the back, becoming silvery-gray on the sides and whitish on the belly. A midlateral stripe is most prominent in juveniles. The scales are small and are usually crowded anteriorly. Their dorsal fin has 8 rays and the anal fin has 7 or 8 rays. During breeding season males develop patches of red around the mouth and at the bases of the pectoral and pelvic fins. Both sexes can develop tubercles (small, pimple-like bumps) around head, breast, and pectoral and pelvic fins.

SIMILAR SPECIES: The Blacknose Dace (*Rhinichthys atratulus*) and Creek Chub (*Semotilus atromaculatus*) both have similar body shapes and barbels on the mouth. In the Blacknose Dace the upper

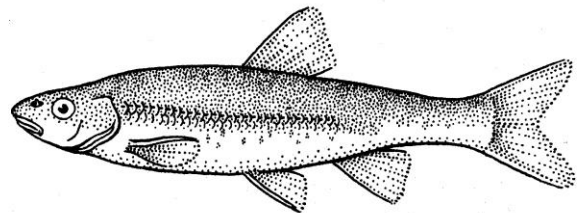
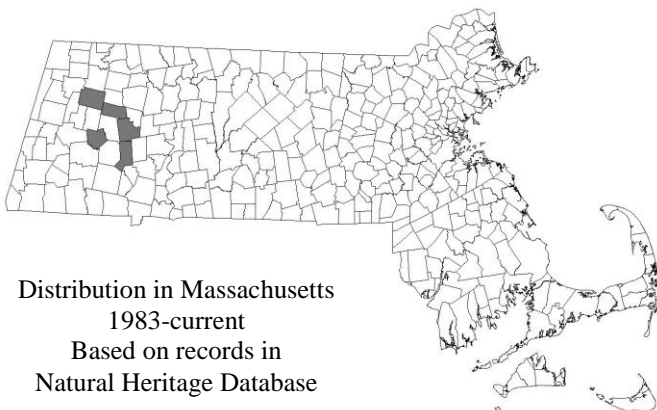


Illustration by Laszlo Meszoly, from Hartel et al. 2002. *Inland Fishes of Massachusetts*.

lip is joined to the tip of the snout by a bridge of tissue, whereas the Lake Chub has a continuous deep groove around the lip. The barbel on the Creek Chub is located in the groove above the lip and is often hard to see. They also have a dark spot at the base of their dorsal fin, which Lake Chubs do not.

HABITAT: The Lake Chub is restricted to clear, cold lakes and clear, cold, fast-flowing rivers. They have only been found in rivers in Massachusetts. They seem to prefer areas with gravel or cobble substrates and little or no vegetation.

LIFE HISTORY: Few studies have investigated the life history of Lake Chubs, and those available generally pertain to lake populations. Lake Chubs spawn in early spring, and lake populations often move into streams and may migrate large distances. River populations may also move large distances during the spawning season, possibly up to 10 km. This species does not build a nest but deposits sinking eggs on gravel or sand substrates. Lake Chubs mature in their third or fourth year and seldom live beyond five years. They feed on zooplankton, aquatic insects, algae, and small fishes.



A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

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Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

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THREATS: Habitat alterations such as increased turbidity, erosion and sedimentation, flow alterations, and pollution are major threats to Lake Chubs. Lake Chubs are visual feeders and increased turbidity can decrease their feeding efficiency. Erosion and sedimentation and flow alterations can degrade clean, gravel spawning substrates that are required for proper egg development. More information is needed on Lake Chubs in Massachusetts' rivers to preserve their populations.

BREEDING SEASON:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated 2015

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