

Yellow Bullhead

Ameiurus natalis (Lesueur, 1819)
syn. *Ictalurus natalis*, *Pimelodus natalis*



Last Updated: February 2018



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Overview:

The yellow bullhead is a ray-finned fish of the North American freshwater catfish family. It is native to the Atlantic and Gulf slope drainages from New York to Mexico and the Great Lakes and Mississippi river basins from Southern Quebec to North Dakota.² Introductions outside of its native range are thought to be intentional as it is considered a desirable food fish, although one introduction in B.C. (a single fish found) is thought to be as a contaminant of a largemouth bass stocking.¹

The Latin name, *Ameiurus natalis*, is broken up into two parts: the genus, *Ameiurus*, refers to the caudal fin lacking a notch, whereas the species, *natalis* (meaning large buttocks), refers to the swollen area from the anal fin to caudal fin in spawning males.¹

A. natalis are sedentary, bottom-dwelling fish³ that can tolerate a wide temperature range, low oxygen concentrations, and degraded or polluted habitats.¹ Additionally, yellow bullhead have rather voracious and generalist diets as they are omnivores, which includes rare amphibian species and native fish offspring. They are nocturnal feeders, using their barbels to locate food - the barbels have around 20,000 taste buds.¹ Yellow bullhead have few predators and a high reproductive capacity.¹ Yellow bullhead are a host species for creepers (*Strophitus undulatus*), a native clam whose life cycle includes partial development (larval stage) on the skin of the fish.¹

Yellow bullhead are very similar to black bullhead (*A. melas*) and brown bullhead (*A. nebulosus*). The distinguishing characteristic between

the three species is their long chin barbels: yellow bullhead have cream-white chin barbels, whereas black bullhead have black chin barbels, and brown bullheads have cream ends on the chin barbels.¹ Both black and brown bullheads also have fewer anal rays (19-23).¹

As of January 1, 2016, the possession, sale, or transport of this species in Alberta is illegal under the Fisheries Act.

Habitat:

Yellow bullhead prefer shallow, slow-moving pools and backwaters with vegetation, and soft sand or mud bottoms.³ They can be found in swift water. Yellow bullhead can survive extremely low oxygen levels of 0.1-0.3 ppm and acidic waters. It can bury itself in the mud, which allows it to survive winterkill or intolerable



Yellow Bullhead (continued)

conditions in the Northern parts of its range.¹

Identification:

The yellow bullhead body is olive or yellow-brown on the back with a yellow or cream coloured belly; often mottled grey or black and lack scales.³ *A. natalis* is characterized by white or yellow long, whisker-like chin barbels; these protrude around the mouth chin, and the nostrils.¹ The dorsal fin base lacks the dark spot present in other *Ameiurus species*. The anal fin is long, straight in outline and has 24-27 soft rays. The front anal rays are slightly longer than the rear ones.¹ The pectoral spines are serrated with 5-8 barbs on the rear edge. The caudal fin is rounded and unforked.³ All fins are dusky coloured and the anal fin has a dusky stripe in the middle. The first gill arch has 13-15 rakers.¹

Average size is 22.5 cm² but can reach 45.7-48.3 cm and weigh up to 3.2 kg.¹ Maximum reported length is 60 cm, as well as a maximum published weight of 1.9 kg.²

Ecology:

A yellow bullhead reaches sexual maturity at 2-3 years of age. Both males and females dig saucer-shaped nests in the spring and early summer, which are sheltered by vegetation, logs, rocks, or overhanging banks.¹ Females can lay anywhere between 300 to 10,000 eggs each year and likely spawn more than once since one nest supports up to 700 eggs. Females guard the nest the first few days, afterwards the males will join to fan and aerate the eggs.¹ Eggs hatch

in 5-10 days and the fry are guarded by both parents for about two weeks; males will then guard the offspring until they reach about 50 mm in mid to late summer.¹ The young form tight schools for the first summer and disperse the following summer.¹

A. natalis are very generalist feeders and will eat whatever is available in their habitat, both plant and animal material. They feed socially at night and have been observed to eat crayfish, snails, insect larvae, other fish, plant matter, and detritus.¹ Yellow bullhead lie quietly in vegetation or under other cover during the day.¹

Average lifespan is about 4 years, but up to 7 years has been recorded for some individuals.¹

Economic Impacts:

Yellow bullhead compete directly with native fish for food and also prey on other fish.¹ Any declines in native sportfish populations could have impacts on recreation and tourism.

Environmental Impacts:

Yellow bullhead can increase turbidity and muddy the water making it difficult for native predators to survive and feed.¹ Studies have shown yellow bullhead reduce the abundance and diversity of native species, as well as rare amphibian species.¹

Sociological Impacts:

The transformation of native aquatic communities results in the intrinsic loss of natural capital and enjoyment of natural areas. Bullhead species

are well known for their ability to inflict a sting from their pectoral spines to avoid predation; this sting causes swelling and pain to both humans and other predators.³

Prevention:

Learn how to identify yellow bullhead and how to prevent spread. Do not purchase or keep yellow bullhead. Never empty your aquarium into natural water bodies.

Control:

Currently, there are no established control options for the yellow bullhead other than preventing introduction. *A. natalis* is readily caught by line, electrofishing or beach seine; if caught, they should be killed and not released. Report any sightings. Removal of schooling young could reduce impacts.¹



Yellow Bullhead (continued)



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