

Northern Snakehead

Channa argus



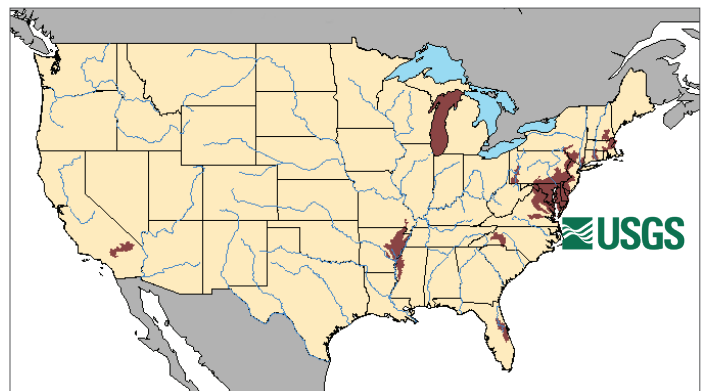
The Northern Snakehead is a large, predatory fish species considered a popular food fish in its native range of China, Russia, and the Korean peninsula. It is a freshwater obligate air breather that possesses an air bladder that works like a primitive lung, allowing it to survive out of water in moist locations for several days. While research is ongoing, it is believed to be a potential threat to native aquatic communities through competition and predation.

Species Description

The Northern Snakehead has a long, torpedo-shaped body that can grow to a maximum size of 85 cm (33 in). The dorsal and anal fins are long and continuous, running along the top and bottom of the body and nearly reaching the caudal fin. As the name implies, the scaled head of the fish looks like a snake. The mouth is large with sharp teeth, and a truncated (not rounded) tail. Coloration is generally tan to black with irregular blotches or spots along the sides. The Northern Snakehead is often mistaken for the native Burbot and native Bowfin. The Burbot can be distinguished by its split dorsal fin, a single barbel on the lower jaw, pelvic fins in front of the pectoral fins, and a long anal fin. The Bowfin is distinguished by a rounded tail, scaleless head, no bony plates between the lower jaw bones, pelvic fins at mid-body, and an eyespot near the tail in males.

Native & Introduced Ranges

Native to China, Russia, and Korea, the first reported breeding population of the Northern Snakehead in U.S. waters was discovered in a Crofton, Maryland pond in May 2002. Since then, the Northern Snakehead has been found in FDR Park in Philadelphia, Pennsylvania, and about a year later, an angler caught a Northern Snakehead in the nearby Delaware River.



Biology & Spread

The sale of live Northern Snakehead in pet shops and live food-fish markets in the United States may have contributed to its introduction. When too large for aquarium tanks, uninformed pet owners may have released it into the wild. It is thought that recent introductions may have been intentional releases by anglers desiring to establish a recreational fishery for Northern Snakehead. In addition, the Northern Snakehead may have also been released as part of religious or cultural practices.

Habitat

While it can be found in streams, rivers, canals, reservoirs, and lakes, the Northern Snakehead prefers stagnant shallow ponds, swamps, and slow streams with mud or vegetated substrate. It can tolerate low oxygen conditions and a range of temperatures, from 32-86°F (0-30°C), and it can also survive in waters that are covered in ice.

Impacts

Threat to biodiversity

While diet studies show that the Northern Snakehead has the potential to compete directly with native species for food and habitat, its impacts remain largely unknown. It is an opportunistic feeder and may prey directly on native fish, crustaceans, frogs, and small reptiles. There is concern that the Northern Snakehead could be a potential vector for transmission of protozoal, monogenean, and trematode parasites, Largemouth Bass virus, and mycobacterial infections.

Prevention & Control

- Know how to identify the Northern Snakehead and distinguish it from native Bowfin and Burbot.
- Harvest of this species is encouraged, but all captures should be reported to the Pennsylvania Fish and Boat Commission.
- Take photographs and make note of capture location, because the information is useful for determining distribution and possible control methods.
- It is unlawful in Pennsylvania to possess, sell, or purchase any Snakehead species. It is also unlawful to introduce, import, or stock any Snakehead species into Pennsylvania waters.
- Never release plants, fish, or animals into a body of water unless they originated from that body of water.
- Always check for and remove any plants, mud, and debris from boats, trailers, clothing, and equipment before leaving a water body.

The Northern Snakehead can be confused with the native North American Bowfin and native Burbot

Northern Snakehead (*Channa argus*)

Enlarge scales on head



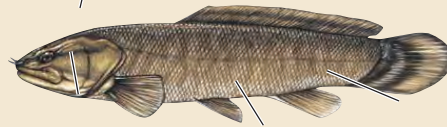
No bony plates between lower jaw bones

Pelvic fins near head

Long anal fin

North American Bowfin (*Amia calva*)

No scales on head



Bony plates between lower jaw bones

Pelvic fins at mid-body

Short anal fin

Burbot (*Lota lota*)

Double dorsal fin



Barbel on chin

Pelvic fins in front of pectoral fins

Long anal fin

Photos courtesy of Pennsylvania Fish and Boat Commission.

Photo courtesy of Wisconsin DNR.

Photo courtesy of U.S. Geological Survey, Bugwood.org.



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References:

Courtenay, W. and Williams, J.D. Snakeheads (Pisces, Channidae) A Biological Synopsis and Risk Assessment. US Geological Survey Circular 1251. <http://fisc.er.usgs.gov/Snakehead_circ_1251/circ_1251_courtenay.pdf>.

Aquatic Invasive Species Control Plan: Northern Snakehead.2023. Pennsylvania Fish and Boat Commission. Website.

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