



Maryland Department of Natural Resources Fisheries Service

Northern Snakehead, *Channa argus*, Fact Sheet

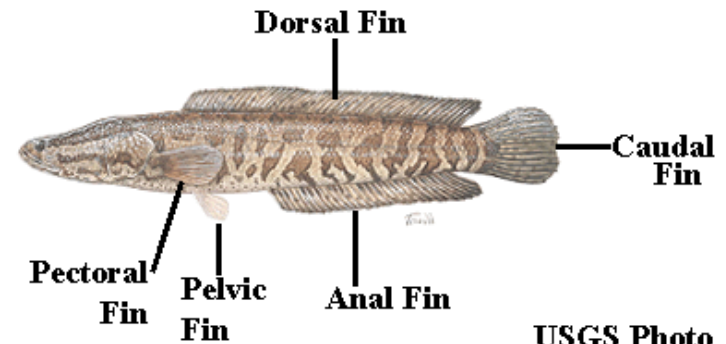
In 2002, the first documented capture of a northern snakehead, *Channa argus*, in Maryland was reported from a pond located in Crofton. This particular species is native to parts of Asia and Russia although it has been widely introduced to rivers, lakes, ponds, and reservoirs outside of those regions (U.S.G.S., 2004). In 2004, northern snakeheads were collected from a Wheaton, MD pond and tidal freshwater tributaries of the Maryland and Virginia sides of the Potomac River. Throughout its native and introduced range, snakeheads inhabit a variety of habitats including swamps, stagnant ponds, slow moving muddy streams, canals, lakes, and rivers (U.S.G.S., 2004).

Northern snakeheads are able to breath air. Breathing air aids its ability to live out of water for prolonged periods of time. The northern snakehead can survive out of water in harsh conditions such as mud or in water with little oxygen as long as it remains moist. The laterally compressed body is not well suited to over land migrations (Federal Register, 2002) and it cannot tolerate saltwater (U.S.G.S., 2004). In most regions, northern snakeheads grow up to 3 feet in total length although some measuring close to 5 feet long were reported in Russia. *C. argus* can survive in water temperatures of 32 °F to 86 °F (U.S.G.S., 2004).

Live northern snakeheads were imported to the U.S. for food. As of October 4, 2002 it became a federal violation of the Lacey Act to import live snakehead fishes or viable eggs without a permit (Federal Register, 2002). *C. argus* is undesirable in the United States for several reasons. One reason is its ability to adapt and potentially out compete native or naturalized species for food and habitat. Secondly, they are potential sources of disease or parasite transmission. Potential negative effects to the economy are the third reason (Virginia Department of Game and Inland Fisheries, 2003). If you capture a snakehead, kill it by cutting or bleeding, freeze it, and contact the Maryland Department of Natural Resources - Fisheries Service.

Toll free instate: 1-877-620-8DNR ext. 8320 * Outside of Maryland: 410-260-8320

TTY: 711 (within Maryland) or * 800-735-2258 (out of state)



USGS Photo



Maryland Department of Natural Resources
Fisheries Service
Northern Snakehead, *Channa argus*,
Identification

In Maryland, several fish species are mistaken as a snakehead. The following characteristics will help you distinguish between a snakehead and commonly mistaken fishes in Maryland. Fish coloration is subject to change depending on habitat.



USGS Photo

Common Name: Northern snakehead

Scientific Name: *Channa argus* (Cantor, 1842)

Aliases: Amur snakehead, eastern snakehead, mudfish

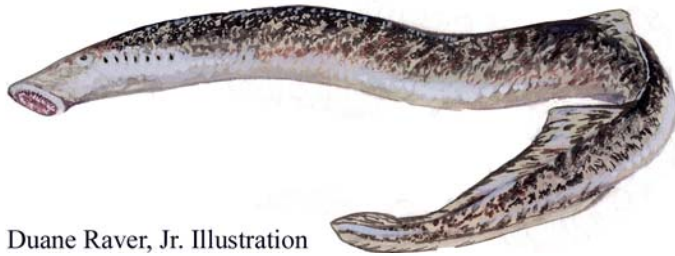
- Protruding lower jaw.
- Long single dorsal fin composed of soft rays.
- Long anal fin composed of soft rays.
- Dark irregular blotches along sides.
- Pelvic fins located beneath the pectoral fins.
- Truncate (not rounded) tail.



Common Name: American eel

Scientific Name: *Anguilla rostrata*

- Continuous dorsal fin, caudal fin, and anal fin.
- No pelvic fins.
- Uniformly greenish brown to yellowish brown dorsally and whitish gray ventrally.
- Mature eels have a gray back with the belly colored white and bronze flanks.



Duane Raver, Jr. Illustration

Common Name: Sea lamprey

Scientific name: *Petromyzon marinus*

- Dorsal fin with notch.
- Dorsal fin, caudal fin, and anal fin continuous.
- No pectoral fins or pelvic fins.
- Seven gill openings (round holes on sides).
- Pointed teeth arranged in concentric circles in suctorial mouth.

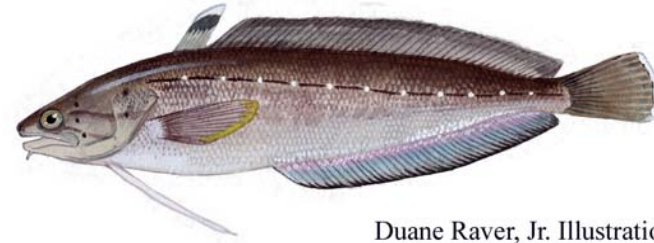


Duane Raver, Jr. Illustration

Common Name: Red hake (Squirrel hake, ling, ling cod)

Scientific Name: *Urophycis chuss*

- Filamentous pelvic fin rays.
- Third ray of dorsal fin filamentous.
- One barbel at tip of lower jaw.
- Two dorsal fins.
- Dusky blotch on opercle.



Duane Raver, Jr. Illustration

Common Name: Spotted hake

Scientific Name: *Urophycis regia*

- Filamentous pelvic fin rays.
- One barbel at tip of lower jaw.
- Two dorsal fins.
- Series of dusky blotches on opercle.
- Dorsal fin with black spots.
- First dorsal fin with black blotch.
- Black lateral line interrupted with white spots.



Duane Raver, Jr. Illustration

Common Name: Inshore lizardfish

Scientific Name: *Synodus foetens*

- Small single dorsal fin consisting of soft rays.
- Small adipose fin.
- Forked caudal fin.
- Body elongate and cylindrical.
- Large mouth with slender sharp teeth on jaws and tongue.



Duane Raver Illustration

Common Name: Oyster toadfish (Oyster cracker)

Scientific Name: *Opsanus tau*

- Fleshy flaps on cheeks and jaws.
- Wide mouth with strong blunt teeth.
- No scales on skin.
- Two separate dorsal fins.
- Pelvic fin located in throat area.

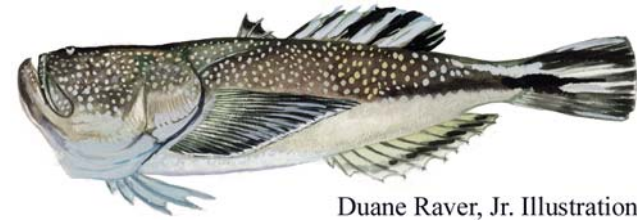


Duane Raver, Jr. Illustration

Common Name: Northern searobin

Scientific Name: *Prionotus carolinus*

- Two dorsal fins; first dorsal fin has dusky spot between the fourth and fifth spines.
- Moderately large head.
- Concave caudal fin.
- Moderately developed spines on head.
- Small mouth with teeth in jaws in broad bands.



Duane Raver, Jr. Illustration

Common Name: Northern stargazer

Scientific Name: *Astroscopus guttatus*

- Two dorsal fins.
- Caudal fin with black and white horizontal stripes.
- Head is approximately as wide as deep.
- Nearly vertical wide mouth.
- Dorsally located small pair of eyes.
- Short skinned covered poisonous spine located just behind pectoral fins.
- Rectus muscles of the eyes form electric organ, which is capable of producing up to 50 volts of electricity.



Duane Raver Illustration

Common Name: Bowfin

Scientific Name: *Amia calva*

- Short anal fin.
- Black spot at base of tail before caudal fin (not present on mature females).



Duane Raver Illustration

Common Name: Walleye

Scientific Name: *Stizostedion vitreum*

- Large opaque (similar to cataracts) eye.
- Two dorsal fins

Literature Cited

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http://www.dgif.state.va.us/fishing/snakehead_comparisons.pdf (1 Jul. 2004).

Illustrations

Duane Raver. Carolina Biological Supply Company. 1982.

Duane Raver, Jr. Wildlife Illustrated. Garner, NC.

U.S. Geological Survey. <http://md.water.usgs.gov>

Additional Sources of Information

Maryland Department of Natural Resources <http://dnr.maryland.gov/>

U.S. Fish and Wildlife Service: <http://www.fws.gov/>

U.S. Geological Survey. <http://md.water.usgs.gov/>

Virginia Department of Game and Inland Fisheries

<http://www.dgif.state.va.us>

Little fishes commonly caught in minnow traps.



Duane Raver, Jr. Illustration

Common Name: Feather blennie

Scientific Name: *Hypsoblennius hentz*

- Long, branched cirri (feather like structures) above eye.
- Dorsal fin extends length of body starting behind head.
- Maximum adult size is 4 inches.



Duane Raver, Jr. Illustration

Common Name: Naked goby

Scientific Name: *Gobiosoma bosc*

- No scales on body.
- Two dorsal fins.
- Depressed head with terminal mouth.
- Pelvic fins combined to form sucking disk.
- Maximum adult size is 2.4 inches.



Duane Raver, Jr. Illustration

Common Name: Green goby

Scientific Name: *Microgobius thalassinus*

- Two dorsal fins.
- Pointed caudal fin.
- Nearly pointed, long pectoral fins.
- Maximum adult size is 1.6 inches