Sea Grant
Pennsylvania
www.paseagrant.org

Faucet Snail
Bithynia tentaculata

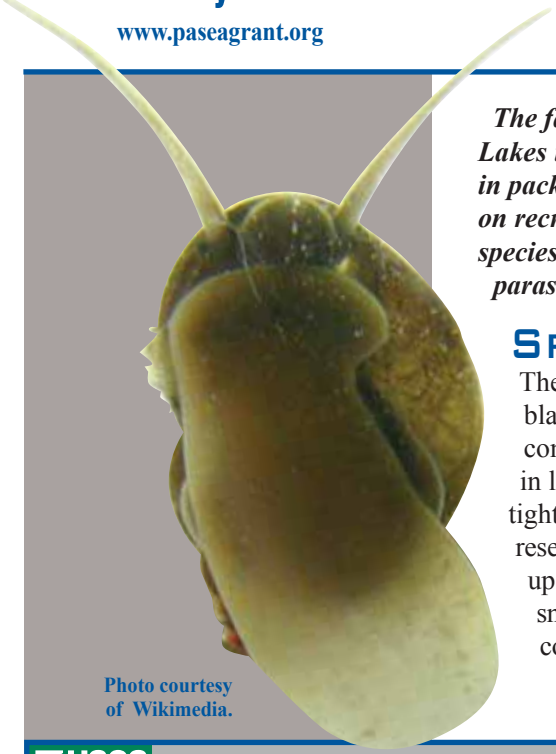
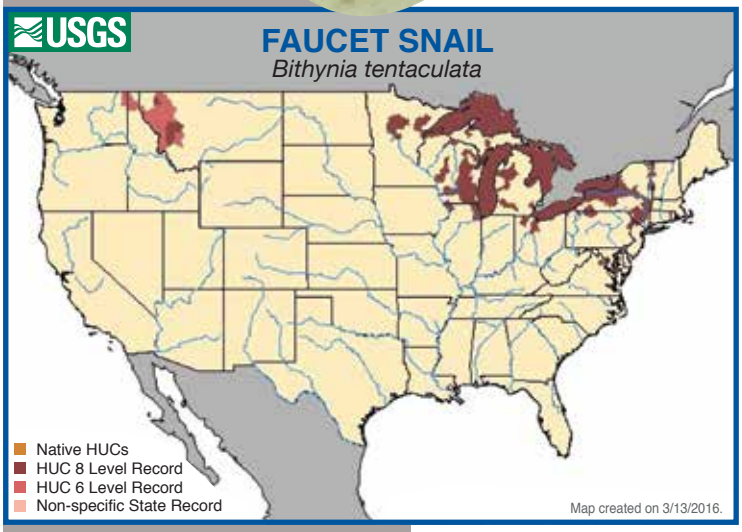


Photo courtesy of Wikimedia.

The faucet snail is a small aquatic snail that was introduced from Europe into the Great Lakes in the 1870s. It was most likely introduced in the solid ballast carried by ships or in packing material for shipping crates. It quickly spread to inland waters by hitchhiking on recreational equipment, aquatic plants, or mud, often reaching high densities. This species can outcompete native snails, threaten food webs, clog water intakes and host parasites that negatively impact waterfowl.

Species Description

The shell of the faucet snail is shiny, oval in shape, and ranges from light brown to black in color. The top of the shell, called the spire, is relatively large and rounded consisting of 5-6 somewhat flattened whorls. Adults can grow up to 12-15 mm (0.5 in) in length, but are generally smaller. A tough, teardrop-shaped plate called the operculum tightly covers the shell opening. In adults, the operculum displays concentric rings that resemble tree rings. The opening of the shell is on the right side when the shell is pointed up and is less than half the height of the shell. Native snails and young nonnative mystery snails can look similar to the faucet snail and can be difficult for non-experts to identify conclusively.



Map courtesy of United States Geological Survey.

Native & Introduced Ranges

Native to Europe, from Scandinavia to Greece, the faucet snail was introduced to the Great Lakes in the 1870s. It was most likely brought to North America unintentionally with the solid ballast of larger timber transport ships or in vegetation used in packing crates. In the United States, the faucet snail has spread throughout all of the Great Lakes and their tributaries. Select populations are also established in Montana, Maryland, Virginia, and Vermont. In Pennsylvania, the faucet snail is established in Lake Erie and Presque Isle Bay.

Biology & Spread

Considered both a "scraper" and a filterer, the faucet snail feeds by grazing on algae on the substrate and using its gills to filter suspended algae from the water column. It lays its eggs on rocks, wood, and shells in organized double rows from May to July. This snail can spread by attaching to aquatic plants, waterfowl, boats, anchors, other recreational gear, and equipment placed in the water. It can also live in the water of livewells, bait buckets, and bilges.

Photo courtesy of Jan Delsing, BioLib.cz, EOL.

FAUCET SNAIL

Faucet Snail

Habitat

Commonly found in freshwater ponds, shallow lakes, and canals, the faucet snail attaches to substrate such as gravel, sand, clay, mud, or the undersides of rocks in the winter, switching to aquatic plants in warmer months. It lives mostly in shoals, but can be found in depths of up to 5 m (16 ft). The faucet snail can live for up to one month in dry mud, so proper cleaning of equipment is essential before moving to a new water body.

Photo courtesy of Jan Delsing, BioLib.cz, EOL.

Photo courtesy of Biopix, EOL.

Impacts

Threat to Biodiversity

Because of its ability to filter feed, the faucet snail has a higher growth rate than most other snails in its family, which allows it to outcompete native snails for food and resources. The faucet snail is also known to be an intermediate host for three intestinal trematode parasites (*Sphaeridiotrema globulus*, *Cyathocotyle bushiensis*, and *Leyogonimus polyoon*) that have caused the deaths of thousands of waterfowl in Minnesota and Wisconsin. There is no evidence that any other wildlife species, including fish, are adversely affected by the trematodes present in faucet snails, and the parasites do not pose a risk to humans consuming cooked fish or waterfowl.

Economic Costs

The faucet snail has the potential to be a bio-fouling organism that can clog underwater intake pipes and screens in municipal water systems.

Prevention & Control

Once established, populations of the faucet snail can be difficult or impossible to eradicate. Therefore, preventing the establishment of a new population is the first line of defense. Learn to identify the key features of the faucet snail. Always check for and remove plants, mud, and debris from boats, trailers, clothing, and equipment before leaving a water body. Drain all water from bait buckets, bilges, and live wells before transporting to new areas. Clean all gear and equipment with either hot water (140°F/60°C), or salt water, OR let boats and equipment dry thoroughly for at least five days before entering a new water body.

Photo courtesy of Wikimedia.

References:

Kipp, R.M., A.J. Benson, J. Larson, and A. Fusaro. 2016. *Bithynia tentaculata*. USGS Nonindigenous Aquatic Species Database, Gainesville, FL. <http://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=987> .

Minnesota Department of Natural Resources. 2016. Faucet Snail (*Bithynia tentaculata*) page. <http://www.dnr.state.mn.us/invasives/aquaticanimals/faucet_snail/index.html>.

Minnesota Sea Grant. 2016. Faucet Snails (*Bithynia tentaculata*) species profile. < http://www.seagrant.umn.edu/ais/faucetsnail>.

Sea Grant Pennsylvania
www.paseagrant.org

Extension • Education • Research

Pennsylvania Sea Grant is a partnership of The Pennsylvania State University, The Commonwealth of Pennsylvania, and NOAA.
Penn State is an affirmative action, equal opportunity university.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
COASTAL RESOURCES MANAGEMENT PROGRAM

U.S. Fish & Wildlife Service
Great Lakes Restoration

Funded in part by PA DEP Coastal Resources Management Program, the U.S. Fish and Wildlife Service, and the Great Lakes Restoration Initiative