

Tim Daly, PA DEP

# ROCK SNOT



Rock snot cells are microscopic and can be spread in a single drop of water carried from one stream to another.

(Enlarged image: actual size is about the width of a human hair)

**Didymo**, also known as "rock snot," is an alga native to northern Europe and northern North America.

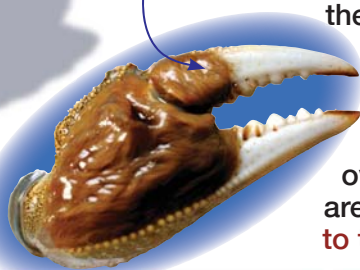
Its range is expanding, and as it expands it is acting as an invasive. Rock snot is becoming plentiful in areas where it was known before only in low amounts, and in new areas too. It forms long stalks attached to rocks on the river bottom. As the stalks grow longer, especially during a growth spurt called a "bloom," they can form into wavy mats that cover the stream bottom. The mats smother the aquatic insects living there. These insects are food for fish, so the effects are felt up the food chain. To limit the spread, people should completely dry and disinfect their boat and all of their gear before moving from one waterbody to another.

A handful of didymo feels like wet wool, not slimy.



# CHINESE MITTEN CRAB

Hairy claws make these crabs look like they're wearing mittens.



Chinese mitten crabs have been found in the Hudson River. They may have arrived here in ballast water of ships, or been released on purpose by people hoping to establish them here as a food source. Chinese mitten crabs burrow into stream banks and cause erosion and habitat loss. They are aggressive and may out-compete our native crabs and crayfish. They can travel over land to go around barriers and reach new areas upstream. If you find one, do not return it to the water. Instead, freeze it and contact DEC immediately to report your finding.



The adult's body is about three inches wide. The eight sharp, pointed walking legs are twice as long as the body is wide!

# NORTHERN SNAKEHEAD

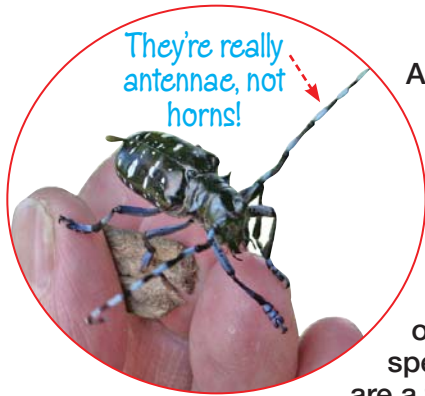
These fish, native to Asia, have been found in two ponds in New York City and in Orange County. If left unchecked, the population in Orange County could spread throughout the Hudson River system. What sets these fish apart is their ability to breathe air. They are primitive lung fish and can survive in waters with very low oxygen levels. Adults can grow to three feet long and females can produce many young by spawning up to five times per year. They are voracious predators that prey upon our native fish as well as compete with them for food.

**EXCELLENT PREDATORS!**

With their sharp teeth, they eat fish, frogs, crayfish and aquatic insects.

If you catch a snakehead fish, do not return it to the water. Freeze it and report your catch to your DEC Regional Fisheries Office.





They're really antennae, not horns!

Asian longhorned beetles have been found in New York City and on Long Island. Adults are up to 1 1/4 inches long. Females lay eggs on a variety of tree species, but maples are a favorite. The

larvae hatch, burrow into the tree, and feed on the inner bark and the sapwood. They can do enough damage that eventually the tree dies.

Adult ALB emerge through holes almost the size of a dime. They make a perfectly round hole by rotating their body as they chew their way out of the tree.

# ASIAN LONGHORNED BEETLE (ALB)



Pennsylvania Dept. of Conservation & Natural Resources- Forestry Archive, Bugwood.org

Their antennae are 1 1/2 to 2 1/2 times longer than their body!



## DON'T MOVE FIREWOOD!

The larvae of EAB and ALB can travel great distances and infest new areas when people move firewood. It's illegal to bring untreated firewood into New York State and to move untreated firewood more than 50 miles from where it was cut. Check out [www.dontmovefirewood.org](http://www.dontmovefirewood.org) to learn more.



## Did you know...

There are more than 900 million ash trees in New York, about seven percent of all the trees in the state.

Many baseball bats are made from New York-grown ash trees.

Foresters set traps to catch and study EAB. If you see a trap, leave it alone!



It's really only this big!



After the larvae pupate, EABs emerge as adults.



# EMERALD ASH BORER (EAB)

Leaf and seeds of an ash tree



The name says it all: it's emerald green and it eats ash trees. Adult emerald ash borers are about 1/2 inch long. Females lay their eggs on ash trees. When the eggs hatch the larvae chew through the bark and live between the bark and the wood, eating the inner bark, disrupting the flow of water and nutrients. Eventually they cause enough damage that the tree dies. In June 2009 EAB were found for the first time in New York State, in Cattaraugus County.





# WATER CHESTNUT

The roots of this plant anchor it in the mud at the bottom of waterbodies while a long stem stretches to a clump of leaves floating on the surface of the water. Water chestnut can become so plentiful that their leaves limit sunlight from reaching underwater plants that need it for photosynthesis. To help limit water chestnut from spreading, people should completely clean their boats and all of their gear before moving from one waterbody to another.



John M. Randall, The Nature Conservancy, Bugwood.org



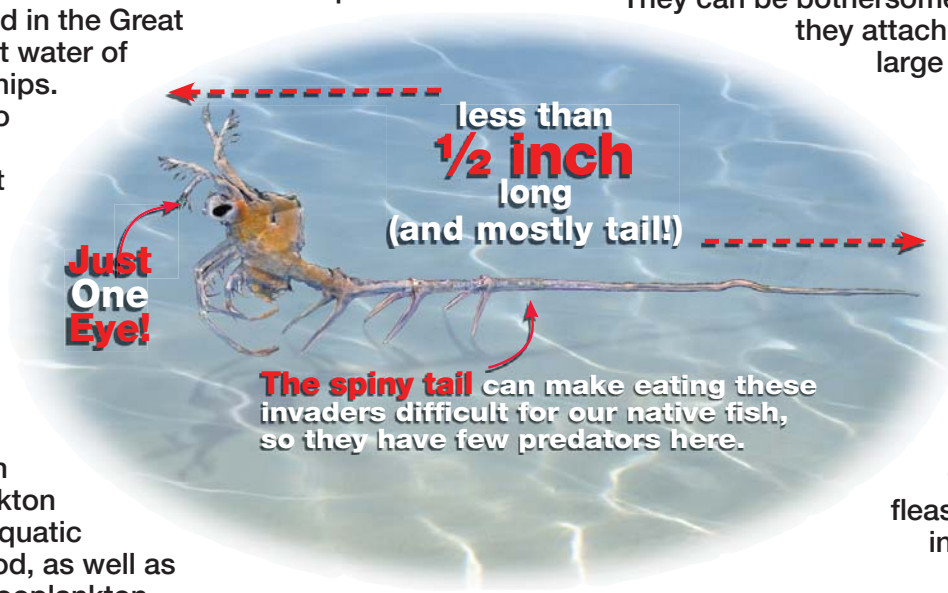
Water chestnut seeds are hard nuts with four 1/2-inch barbed spines.

**Thick floating mats make it difficult for boaters and swimmers to enjoy the water.**

# SPINY WATER FLEA

This tiny crustacean from northern Europe and Asia arrived in the Great Lakes in ballast water of ocean-going ships. It has spread to inland lakes, including Great Sacandaga Lake. Spiny water fleas disrupt the natural food chains in the areas they invade by competing with native zooplankton (microscopic aquatic animals) for food, as well as eating native zooplankton.

They can be bothersome to anglers when they attach to fishing lines in large numbers. To limit the spread, people should completely dry and disinfect their boats and all of their gear before moving from one waterbody to another. Spiny water fleas are similar to fishhook water fleas, another invader in the Great Lakes.



To report an invasive species, contact: NYSDEC, Office of Invasive Species Coordination, 625 Broadway, Albany, NY 12233-4756; Phone 518-402-8924; e-mail [fwhabtat@gw.dec.state.ny.us](mailto:fwhabtat@gw.dec.state.ny.us)





# GIANT HOGWEED

WOW!

This plant can grow up to 14 feet tall and has huge leaves and large showy clusters of white flowers. It spread from the gardens in which it was planted and it now also grows in the wild in Western and Central New York.

**If you see this plant, DON'T TOUCH IT!**

Tell an adult where it is and ask them to call the Giant Hogweed Hotline at 1-845-256-3111. If you get the sap on your skin and your skin is exposed to sunlight

before you wash it off, it causes painful blisters. If it gets in your eyes, it can cause blindness.

## GOT SHEEP?

Scientists looking for natural ways to control invasive species have found that sheep will eat giant hogweed, often with no harm to themselves.



# JAPANESE KNOTWEED

If it would stay in the garden, like those who brought this shrub here in the 1880s intended, we might love Japanese knotweed for its green foliage and August-blooming flowers. Instead, it spreads like crazy, growing quickly along forest edges, stream banks and disturbed areas. Growing to 10 feet tall, it spreads over large areas with dense growth and crowds out native plants. To control its spread, remove Japanese knotweed when you find it in the wild and don't use it in gardens.



To limit its spread,

teams of people cut garlic mustard down or pull it up before the seeds form each year.

# GARLIC MUSTARD

Garlic mustard was brought here from Europe in the 1860s to be used for food and medicine.

It escaped from garden plantings into nearby woods. It comes out early in the spring, getting the jump on native plants, and shades them, growing 2-3 1/2 feet tall.

The native plants have trouble getting enough sunlight to grow.

Garlic mustard produces many seeds, so the plants can spread far in just a few years.

