

Invasive Plants in Pennsylvania

Didymo

Didymosphenia geminata



Photo: Tim Daley, PA DEP

Background:

Nicknamed rock snot, didymo showed up in Canada in the 1800s but didn't present a problem until the early 1990s.

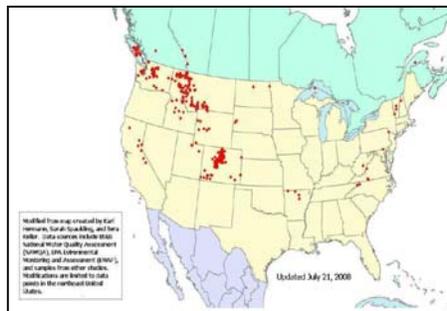
Description:

Didymo is a microscopic algae known as a diatom. In flowing water didymo can look like fiberglass or toilet tissue. Unlike most other algae, didymo feels like wet cotton and isn't slimy. Its coloration varies from brown to tan to yellow.

Current Range:

Didymo's native range is northern Europe but it was found in the western U.S. in 2004 and east of the Mississippi River in 2005 (see map below).

Since 2007 it has been confirmed in the east and west branches of the Delaware River in New York and Pennsylvania, as well as the mainstem of the Delaware River as far south as Callicoon, New York.



Map courtesy of USDA National Invasive Species Information Center

Habitat:

Until recently, this species preferred cold water streams but now it is showing up in nutrient-rich streams and rivers too. Theoretically it could easily be spread to any stream or river in the state. Nuisance blooms tend to appear in flowing, rather than stagnant, water.

Biology and Spread:

Anything that comes in contact with didymo can spread it. This includes fishing tackle, waders and boats. Individual diatoms are too small to see, so all equipment should be thoroughly disinfected before moving to a new body of water.

Ecological Threat:

Didymo can cover entire stream beds with mats as thick as eight inches deep, harming aquatic habitat for a variety of native species. It can block sunlight from reaching other aquatic plants. It has no adverse health impacts to people.



Photo: Tim Daley, PA DEP

How to Prevent the Spread of this Species:

CHECK

Before you leave a river, stream or lake, check all items and leave debris at the site. Bag and trash it; do not wash down drains.

CLEAN

For non-absorbant items like fishing tackle, either clean with a five percent solution of dishwashing detergent, a two percent bleach and water solution, or soak for at least twenty minutes in very hot water.

For absorbant items like clothing and felt-soled waders, the soak time is longer to allow for thorough saturation. Either soak in very hot water (113 degrees F) for 40 minutes, soak for 30 minutes in hot water with dishwashing detergent, or freeze the item solid.

When you are finished with the cleaning solution and water, dispose of well away from any waterways.

For boats, drain all water before leaving. When you are away from the water body, disinfect live wells, bilges, cooling systems, hulls and decks with a solution of bleach and water, (1/2 gallon of bleach in a 5-gallon bucket, then fill with water) and allow at least 10 minutes of contact time. Then rinse well, preferably with hot water. If hot water is not available, allow the boat to dry for at least five days before entering a new water body.

A NOTE OF CAUTION

Drying an item out will kill didymo but even slightly moist didymo can survive for months. To ensure that all cells of the invasive are dead, items must be completely dry to the touch, inside and out, then left to dry for another 48 hours before use.

References:

Pennsylvania Fish and Boat Commission: http://www.fish.state.pa.us/water/habitat/ans/didymo/faq_didymo.htm

Pennsylvania SeaGrant Didymo factsheet: <http://seagrant.psu.edu/publications/fs/didymo.pdf>

USDA National Invasive Species Information Center Didymo: <http://www.invasivespeciesinfo.gov/aquatics/didymo.shtml>



Photo: Wikimedia Commons

For More Information:

To learn more about invasive species in Pennsylvania, check out the following site:

DCNR Invasive Species Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>

