

Didymo

Didymosphenia geminata

Description

Freshwater diatom typically found in cool, oligotrophic waters of northern Europe and Northern North America. Historically found in the Great Lakes basin and it was present in Canada in the late 1800s, but did not start to display invasive characteristics until the 1990s. Discovered east of the Mississippi River in 2005 in Tennessee.

Habit

Normally brown, tan or yellow in color. Unlike most algae, it feels like wet cotton and is not slimy. Sometimes mistaken for fiberglass or toilet paper.

Leaves





Stems

Flowers

Fruits and Seeds

Habitat

Freshwater rivers, streams and lakes. It occurs particularly in oligotrophic, clear water. It can thrive in clear, shallow, warm and nutrient-poor water, and is influenced annually by weather and rainfall patterns. Stable flow and substrate are required for initial attachment to the substrate (rocks or plants). Normally found in water with a pH of 7.

Reproduction

Spreads by the transportation of a single cell. Cells are distinguished by their large, triundulate frustule, shaped like a curved bottle, and prominent striae (regular lines of holes starting at the center line of the valve faces) which are radially arranged and variable in length at the center.

Similar

Cymbella spp., Gomphoneis spp., and Gomphonema spp. Can be distinguished from other algae based on its color (Didymo is beige, brown or white but not green); not slimy compared to other algae, it has no odor and does not fall apart when rubbed between your fingers like most algae.

Monitoring and Rapid Response

Before leaving a river, look for clumps of algae and sediment, and remove them. Leave them at the

site. Soak and scrub all gear for at least one minute in a 2% (by volume) solution of household bleach, or a 5% (by volume) solution of salt, or dishwashing detergent. Note that all surfaces must be contacted by the cleaning solution. Water absorbant equipment (lifejackets) should be soaked to insure they do not remain a risk. If cleaning is not practical, after the item is dry to the touch, leave it to dry for at least 48 hrs before using another freshwater source.

Credits

The information provided in this factsheet was gathered from the Pennsylvania Fish and Boat Commission, The Michigan Department of Environmental Quality, The USDA National Invasive Species Information Center and the Global Invasive Species Database. Individual species images that appear with a number in a black box are courtesy of the Bugwood.org network (<http://www.invasive.org>). Individual photo author credits may not be included due to the small display size of the images and subsequent difficulty of reading the provided text. All other images appear courtesy of Google (<http://images.google.com>).