

Didymo/rock spot (*Didymospenia geminata*)

High priority AIS not yet present in
Lower Wisconsin River basin as of January, 2012

What is it?

Didymo is a diatom, a type of single-celled algae with a stalk. The stalk may attach to rocks, plants, or any other submerged substrates. When the diatom cell divides, the stalk also divides, eventually forming a dense mass see the picture below.

Where is it?

There has been an expansion in the range and number of nuisance populations of didymo in North America. Near Wisconsin, didymo is well established in Lake Superior, near the mouth of the Knife River north of Duluth, MN, but not yet growing at nuisance levels along Lake Superior's shores. Nuisance blooms annually occur in Rapid Creek, South Dakota are present over a six-mile reach of the stream, at 30 to 100 percent coverage, for over four months of the year.

How does it spread?

Recreational anglers are suspected to be the primary vector for the spread of didymo. Cells can remain viable in cool, damp, dark conditions for at least 40 days. Fishing equipment, boot tops, neoprene waders, and felt-soled wading boots in particular, all provide a site where cells remain viable, at least during short-term studies.

Why do we care?

This alga is capable of producing such stalk densities that the mats covering the streambed change the ecology of the stream, including invertebrate diversity. In addition, high growth rates and extensive mats of Didymo may impact nutrient cycling. Algal, invertebrate, and fish species diversity and population sizes may be altered as a result.

The introduction of didymo in Wisconsin may have a large economic impact. The 600-plus coldwater spring-fed creeks of the Driftless Area (and the world-class trout fishery they support) are a large economic engine for southwestern Wisconsin and are vulnerable to Didymo infestation. Trout angling generates \$1.1 billion each year in the Driftless Area, strongly benefiting the local economy.

What can we do?

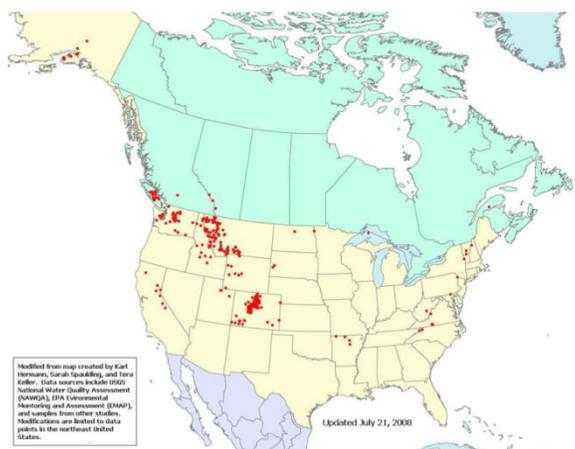
Cleaning gear before traveling between bodies of water, whether between nearby streams or to international destinations, is crucial. Decontamination of gear—via drying completely for several days, or freezing—is the best way to prevent the spread. If these measures aren't possible, gear should be disinfected by washing with a 2% bleach solution (one cup of bleach per three gallons of water) for at least a minute. A public awareness campaign, directed at freshwater anglers, boaters, professional guides, water managers, and fisheries biologists is needed.

STOP AQUATIC HITCHHIKERS!

Wisconsin law requires you to:

- **Inspect** boats, trailers, and equipment.
- **Remove** all attached aquatic plants and animals.
- **Drain** all water from boats, vehicles and equipment.
- **Never move** plants or live fish away from a waterbody.

If you suspect that you have found an invasive species call 1-888-WDNR-INFO (1-888-936-7463) to report it.



Nationwide *didymo* distribution (Hermann, 2008)



Didymo on a streambed (Tim Daley, Pennsylvania DEP)