

apb advisory practice bulletin #5

Practice Advisory – Didymo

Didymo (*Didymosphenia geminata*) is a very large, easy to identify diatom, colonies of which are commonly referred to as “Rock Snot”. Some historical records have misrepresented its occurrence by other names such as: *Didymosphenia geminate*, *Gomphonema geminatum*, *Didymosphenia geminatum*, *Gomphonema geminata*, and *Echinella geminate*. As noted in the February issue of BioNews (Journal Watch, Liz Osborn, BioNews, Vol. 18, No 1, 2008), this once rare algae is now invading freshwater systems across North America, including BC. Didymo has been reported at nuisance levels in a number of river systems around the province — especially throughout central Vancouver Island, where it was first reported in 1989. It has also been found in significant quantities in the Bulkley, South Thompson, Kettle, Columbia and Kootenay Rivers¹.

Equipment cleaning is crucial

The dense algal mats resulting from Didymo colonization stand to negatively impact fish and fish production in a number of ways, including by reducing habitat and food sources for young salmon and trout by stopping oxygen movement from surface waters to the gravel egg incubation areas².

Because the algae travel easily by attaching to equipment such as hip waders, fishing gear and boats, agencies such as New Brunswick Department of Natural Resources are advising anglers and guides to clean their gear before fishing³. Gear can be disinfected by washing in hot water and detergent (5%v/v) for non-porous gear, or soaking in a 2% bleach solution⁴.

In order to halt the spread of Didymo, the APB recommends that wherever possible, feltless waders be used. Where WCB or other considerations prevent the use of feltless waders, a cleaning regime should be implemented. **For waders with felts, two approaches are most commonly identified: immersion in very hot (45C) water with detergent for 30-40 minutes⁵; or freezing until solid.**

Where possible, use feltless waders

Bleach and detergent penetration into felts is unreliable and so not recommended. Drying felts is also problematic since the interior can remain moist for extended and variable periods of time.

A cleaning regime should also be in place for any and all field equipment such as water craft (boats, motors, trailers, kayaks, dinghies - inside and out), sampling equipment, and fishing gear that could contribute to the spread of this pest. Where Didymo debris is found on equipment after leaving a site, it should be disposed of in the garbage and not washed down a drain.

For more information on Didymo see:

<http://www.apbbc.bc.ca/files/BioNews18-1.pdf>

http://www.env.gov.bc.ca/wat/wq/didy_bcstrms.html

Specific cleaning procedures

For information on specific cleaning procedures for particular materials, see

http://www.mddep.gouv.qc.ca/eau/eco_aqua/didymo/didymo-en.pdf

<http://www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist/didymosphenia-geminata>

¹ http://www.env.gov.bc.ca/wat/wq/didy_bcstrms.html

² Fred Whoriskey, CBC News : Monday, January 8, 2007 | 11:15 AM ET

³ Peter Cronin, Manager Fisheries Program, New Brunswick Department of Natural Resources

⁴ Max Bothwell, Research Scientist, Aquatic Ecosystem Impacts Research Branch, Environment Canada

⁵ Field practice in New Zealand involves putting waders into cooler chests, pouring in hot (>45C) water and closing the lid for 40 minutes or more.