

Didymo alga ... a new intruder?

Situation in Québec

The first *Didymosphenia geminata* (didymo) bloom in Québec occurred in the summer of 2006 in the Matapédia River in the Lower St. Lawrence region. Light Didymo blooms reappeared in this river in 2007 and were observed for the first time in the Patapédia, Humqui, Nouvelle, Cascapédia, and Petite Cascapédia Rivers.



Since the late 1980s, didymo has been reported in a number of countries, including the United States, several European countries and recently New Zealand. In Canada, blooms have also been observed in British Columbia and Alberta.

Rocks covered with didymo along the Matapédia River
(photo: Conseil de bassin versant de la rivière Matapédia)

To date, didymo has been observed in other rivers in the Lower St. Lawrence and Gaspé regions (Grande Rivière, Matane, Sainte-Anne and Bonaventure). However, this does not necessarily mean that a didymo bloom will occur in these rivers in the years to come. They will be the focus of a special attention. In addition, an action plan developed by the ministère du Développement durable, de l'Environnement et des Parcs (MDDEP), le ministère des Ressources naturelles et de la Faune (MRNF) in close cooperation with sector stakeholders, particularly watershed and salmon river management organizations, has been implemented in the spring of 2007. The plan covers the aspects of user/stakeholder awareness, prevention and acquisition of knowledge.

Description



Mats of *Didymosphenia geminata* alga on a rock (photo: Conseil de bassin versant de la rivière Matapédia)

Didymo is a freshwater diatom that produces stalks by which it attaches itself to rocks and vegetation. During blooms, the stalks form mats ranging in colour **from brownish yellow to white**. The mats can cover river beds as well as the edges of lakes subject to wave action.

To the touch, didymo **feels like wet cotton wool**. Dried clumps look like toilet paper or parchment paper.

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Preserve Our Resources**

Québec 

Ministère du Développement durable,
de l'Environnement et des Parcs
Ministère des Ressources naturelles
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Human health effects and potential impacts on habitat and wildlife

Didymo is not harmful to human health. It does not render water unfit for consumption and it is not toxic. Large mats of didymo on a river bed can modify the river's aesthetic quality and streamflow. Studies suggest that excessive growth of didymo has an impact on benthic invertebrate community composition and could potentially affect fish diet. However, to date, the scientific literature contains no reports of adverse effects on Atlantic salmon populations in the Northern Hemisphere.

Measures for limiting the spread of didymo to other Québec rivers

Didymo can be spread from one river to another via the equipment of users of the rivers. To prevent the introduction or spread of didymo or any other aquatic nuisance species, it is recommended that the use of equipment, boats, clothing and any other item that may come into contact with the algae be restricted to a single river. If you must move from one river to another, it is important to clean these items in accordance with the following guidelines.

- **Check:** Before leaving the river, check your boat and equipment carefully and remove all obvious clumps of algae and look for hidden clumps. Leave clumps at the affected site. After leaving the affected area, if you find any clumps, do not wash them down the drain, but rather throw them in a garbage can. Treat your equipment as described below.

- **Clean:** all items that have come into contact with water.

Non-absorbent items

Soak and scrub all items for **at least one minute** in one of the following solutions:

- Hot (60°C) water;
- A 2% solution of bleach (200 ml and water added to make 10 liters);
- A 5% solution of salt (500 ml or 2 cups and water added to make 10 liters);
- A 5% solution of antiseptic hand cleaner (500 ml or 2 cups and water added to make 10 liters);
- A 5% solution of dishwashing liquid (500 ml or 2 cups and water added to make 10 liters).

Absorbent items

Leave your absorbent material to soak **at least 40 minutes** in hot water kept above 45 °C or **at least 30 minutes** if the water contains a 5% dishwashing detergent solution.

- **Dry:** If equipment cannot be cleaned adequately, dry it completely and then allow it to dry for an additional 48 hours before using it in another lake or river.
- **Freezing** any item until solid will also eliminate didymo cells.

For more information, visit the MDDEP web site at:

<http://www.mddep.gouv.qc.ca/biodiversite/eae/didymo-en.htm>

To report a didymo bloom, contact the nearest MDDEP regional office (see list below).

http://www.mddep.gouv.qc.ca/ministere/rejoindr/adr_reg.htm

Source: MDDEP-MRNF Scientific Advisory Committee on *Didymosphenia geminata* (2007). *What Is Didymo and How Can We Prevent It From Spreading In Our Rivers?*