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Ministry of
Environment and
Climate Change Strategy

UPDATE
on *Didymosphenia geminata*

Didymosphenia geminata or Didymo is a fresh-water stalked diatom that is native to B.C. In the late 1980s, extensive Didymo blooms began to appear on Vancouver Island without an obvious change to environmental conditions to explain them. It was widely believed that a new bloom-forming variant of Didymo was introduced to BC and that the spread of this new variant was facilitated by anglers and their felt-soled waders. This belief was based on the introduction of felt-soled waders and the coincidental timing of increased angler use in Didymo affected rivers. Environment Canada and the New Zealand Institute for Water and Atmospheric Research, collaborated on a series of mesocosm experiments in New Zealand between 2008 – 2010. These experiments found that the proximate cause of bloom formation is low soluble reactive phosphorus (SRP) concentrations which triggers excessive stalk production. Proposed mechanisms for the decline in phosphorus can be found in “The Didymo story: the role of low dissolved phosphorus is the formation of *Didymosphenia geminata* blooms” by Max L. Bothwell, Brad W. Taylor and Cathy Kilroy in *Diatom Research* (2014, Vol. 29, No. 3, 229-236, <http://dx.doi.org/10.1080/0269249X.2014.889041>). Research to determine the lower threshold of SRP for Didymo bloom behaviour in different regions is ongoing.