

This is the Title of My Bewildering Report about Didymo

What dies back in the winter and returns in the spring, spreads rapidly but silently, and smothers aquatic life such as Macro invertebrates? *Didymosphenia geminata*! Yeah, I don't blame you if you're still confused. We are studying this in our class and we found out that lately, this algae has been spreading to streams and rivers in many places, and it is becoming a threat. In some countries, there are laws on it, and we're getting to the point where we may need laws on it in the U.S.

So, more on what *Didymosphenia geminata* (or Didymo for short) is. It's an invasive algae that has previously lived in cold, low nutrient streams. But, for some reason it has started to spread like wild fire. It can travel from river to river by a single cell, which will hitch a ride in felt-sole waders or on the hull of a boat. Because it is single-celled, people don't know that they're spreading it. It is brown/beige/white, and can look like a sewage spill. Didymo attaches itself to rocks with a glutinous gel, (A mucus like substance) then weaves mats that can coat a river bottom with three to five inch thick blooms of algae. I wouldn't want to swim in a stream with that in it! Once it's in a stream/river/lake, there are no known methods of eradicating (getting rid of) it. Didymo has spread to the following countries: New Zealand, U.S., Canada, Denmark, Norway, UK, Ireland, Sweden, Finland, France, Spain, Switzerland, Turkey, Ukraine, Poland, Romania, Hungary, Iceland, Russian Federation, Kyrgyzstan, Kazakhstan, China, Mongolia and Pakistan. It is clearly a global problem!

In certain places, there are laws on Didymo. So far, there aren't any in Vermont. However, New Zealand passed a law saying that anyone caught intentionally spreading Didymo faces five years in prison and/or a fine of 100,000.00 New Zealand dollars, about 60,000.00 dollars in U.S. funds. They also banned felt-soled waders, because those are thought to be one of the main causes in the spread of Didymo. And, as of 2011, felt-soled waders will be banned in Alaska. Even though no legal action is being taken in the rest of the states, people are working very hard to stop Didymo. Biologists from Vermont and New Hampshire are brainstorming strategies that will help track Didymo, and people are taking care to clean fishing gear, boats, four-wheeler tires, snowmobile skis, basically everything that goes in or through streams. These need to be cleaned in hot, soapy water or they should be dried for forty eight hours before taken to another water way. I know that that might be a nuisance, but if everyone cleans their gear, then it could help.

I think that a few laws/bans on Didymo could be established, I also think that there are a few reasons why laws may be needed. I think that if the U.S. bans felt-soled waders, it would be a BIG help. As I said before, those are one of the main causes in the spread of didymo. As a fisherman steps down in his felt-waders, the felt expands and takes in water. If a didymo cell happens to be in that water, it is trapped inside the felt, and can be released in another water way. Also, if things go from bad to worse, then I think we should establish a law saying that you have to clean/dry anything that you have used in a stream. This IS serious; because fish eat the small aquatic life forms that didymo smothers. If all the fish die, then people don't fish and they don't pay for gear or a license, and that would affect the economy. Tourists aren't going to pay to travel and swim in or see streams that are infected by didymo. However, if we pass laws about spreading it, that could help prevent these problems.

In a nutshell, there are laws (and plans for laws) on Didymo. There are also some pretty good reasons why people should make laws. I think many would agree that it is quite an eyesore! Even though that is most likely not the reason some places have laws on it, (and we, in Vermont, are considering establishing laws on it) it adds to the list of characteristics that make it repellent and slightly sickening. Didymo must be quite happy, even though it's a big problem for us. It has the ideal environment, and it gets free rides from stream to stream! What an easy life!

"Didymosphenia Geminata." *Global Invasive Species Database*. Web. 4 Nov. 2009.
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