

## The Strength of Didymo

What feels like wet wool, is impossible to pronounce and looks like a sewage spillage? Not a drowning sheep, its *Didymosphenia Geminata*. Didy-what?! *Didymosphenia Geminata*, more commonly known as Rock-Snot or Didymo, is an amazingly fast traveling invasive alga. This awing yet repulsive plant is getting everywhere, fast! If we don't do something soon this could get ugly and I mean really ugly. How would you like Rock-Snot clogging up your rivers? In this paper, I am going to point out some of the affects Didymo has on humans.

*Didymosphenia Geminata* is an invasive freshwater alga. This unusual plant is built by a single diatom that is too small for humans to see with the naked eye. This diatom gets on a rock then reproduces and forms more diatoms. These then begin to grow. Soon they have formed large white, tan, and/or brownish yellow stalks. They are described to look like a sewage spillage. EEEEEWWWW! These stalks weave together to form mats, sometimes more than 20 cm. thick, that cover the river bottom. The mats can hang around for two months after the diatom dies. Whenever a human steps in an infected river and back into an uninfected river, rock snot is spread. This is why it is traveling so quickly. Didymo is native to Europe and Asia, but in the last 5 years there appears to be more than usual. There are now major blooms in New Zealand and some of the western states. In the late 1800's and the early 1900's didymo was a rare alga. There is a great deal of ways *Didymosphenia Geminata* affects humans.

Didymo has an affect on ecosystems. When Didymo covers the river bottom it smothers some of the insects that live there, these insects provide food for fish. This is a pretty big affect on the food chain, which we are on the top. Many creatures we eat depend on these fish and bugs to fill parts of their diet. The less fish, the less of these creatures, the less we have to eat. Didymo also takes space from the algae that are eaten by creatures, also affecting the food chain. Amazingly, in New Zealand some fishermen have vowed not to fish in Didymo infested rivers. This proves how large the impacts are in New Zealand. These all seem pretty far away, it'll be awhile before we start noticing changes in our food amounts, but most of the affects are more direct.

Didymo has an affect on the economy. Didymo is not pleasant to see. Some areas rely on tourism to have enough money to help them manage. Tourism is slowing down. Not many people are going to want to come and see Didymo infested rivers. This is a problem for a lot of places that need that money, especially at this point in the economy. According to one article I read, commercial eel fisheries, biodiversity values, water supplies, and tourism will be impacted. In fact, some people estimate that we will lose \$120 million, all because of didymo.

It not only looks bad, but it is now spreading to canals and man made structures. In some of the western states like California, *Didymosphenia geminata* has started latching onto the cement in the canals that people there need for many reasons. "While *D. geminata* is not considered invasive in the United States, the diatom's nuisance blooms have economic impact. The human population of western United States is closely dependent on a system of canals to transport water for hydro-power generation, agriculture, and human consumption." This means that they are having trouble because didymo is blocking the canals. Also, didymo is dreadful if you enjoy boating. Sometimes when boats travel on lakes infested with didymo, often the engine overheats because didymo clogs the cooling system. I do not know much about boating, but this sounds pretty dangerous to me.

To conclude, *Didymosphenia geminata*, not only will have large impacts on rivers and streams but it will and is having a force on the economy. I really hope Didymo does not get into all our rivers and streams! It would be dreadful to have no clean rivers and streams and less animals. Didymo not only has the strength to hold onto rocks, but it has the strength to tear down the economy.

### Bibliography

"Oh No! Not Rock Snot! What do you know about Didymo?" *Invasive Species of concern in Maryland*. N.p., Apr. 2008. Web. 10 Nov. 2009.

"Didymo (a.k.a. rock snot) found in Vermont and New Hampshire." *Exotic Species*. N.p., N.p. Web. 2 Nov. 2009.