

Why Is Didymo Appearing Now All Over The World?

In the 1980's a mysterious freshwater algae began to spread. I'm studying *Didymosphenia geminata*, also known as "rock snot". This algae may look slimy (like a sewage spill) but don't be fooled, it is really a wooly textured plant. Didymo has spread to both hemispheres and if we don't do something about it, it may spread more. First, we need to know why it is happening now in order to stop it and change what we are doing. I'm wondering, why didymo is appearing now.

Why is didymo appearing now and what is it? Didymo is the biggest diatom, a family of single-celled algae. This fresh water alga likes cold, clean, shallow, nutrient-poor, firm bottomed water with high UV levels. Didymo creates gigantic blooms that are made of heavy mats and are hard to pull apart. Small pieces break off and make more didymo. While the didymo is growing, it creates new didymo and then these stalks grow together causing big mats that can be twelve to thirteen inches in length. Didymo came from Europe and Asia and was carried by humans to the U.S.A.; didymo is native to North America. Didymo is not good for the streams because it is made out of carbon. Since there is so much didymo, there is now a large amount carbon in the rivers and that is not good for the fish, the carbon from the didymo uses up oxygen when it rots if there is not as much oxygen then the fish have to either move up stream or die. Didymo only needs one cell to spread which is why didymo is in so many places. The alga lives at the end of the stalk and attaches to both plants and stones. The diatoms are actually part of the food chain. Didymo in fact photosynthesizes (gets energy from the sun and makes sugars out of it) and other organisms, like insects and other small bugs, actually eat the cells of the Didymo. Why is didymo appearing now when it has been around for more than one hundred years?

Why might didymo be spreading more rapidly now than any time else? One reason that didymo is increasing is that people all around the world are messing up the rivers. People have been building dams which slows the water, not so that there isn't any water and the didymo can't be there, but not too much so the current is too strong as it used to be. When there is a flood the river scours the didymo off the rocks, this can't happen if the dam is there. People are finding that fast, healthy rivers are changing to slow, didymo filled streams when dams are placed in. Secondly, is that humans are traveling more. People didn't use to be able to be on one continent one day and be in another the next day. The didymo gets stuck onto people's boots and if the people don't clean it off the didymo just stays on there boots and clothes and when the people get off and go to the streams, it spreads. Thirdly is that there is more global warming. Since people are polluting more the protective blanket around the earth (the ozone layer) is getting smaller and letting UV rays in. Didymo likes UV rays which is why this is a reason that didymo might be appearing rapidly.

As you can see didymo is appearing rapidly. Check your pants and boots after you go fishing. If you see didymo in streams or see any on you get rid of it by putting bleach and soap on it then put the object that had didymo on it in warm soapy water for thirty minutes. I would like to see didymo for myself and see if it is as repulsive as it sounds.

Bibliography

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