

---

Subject: : Conservation

Topic: : New Info about didymo

Re: New Info about didymo

Author: : nymphingmaniac

Date: : 2013/7/26 8:09:30

URL:

yeah you have to read the part about phosphorous carefully and follow up by reading other sources. low phosphorous produces stalk growth, which is a dormant state of the organism and it no longer divides (making new cells). This is a typical nutrient deprivation response observed in many microorganisms. So low P, actually CAN reduce the number of didymo cells in a waterway.

Low P causes stalk formation. The current hypothesis is that the mat caused by stalk formation is a type of structure like biofilms that are made by bacteria and fungi (part of what makes pathogenic microbes hard to treat)- a phrase used to describe it is microbial communities. Scientists think that the mat formation is important for didymo to survive in low nutrient waters. A clue why was discovered by the analysis of bacteria and other microbes growing in the mat. Scientists found that these bacteria act in a symbiotic manner with didymo, concentrating nutrients (phosphorous is one). The discovery of this symbiosis-like situation helps illuminate why didymo can grow in low nutrient environments.

It's not as easy as adjusting P (or other nutrient levels). Perhaps the next "treatment" will involve competing these symbiotic bacteria with ones that do not 'feed" the didymo. But, this is dangerous too. Who knows what eliminating these microbes might do to the ecosystem