Bringing it Back to Ranger Mac





10K Conservation Challenge

Upham's 10K Conservation Challenge aims to put 10,000 hours of conservation projects into the land by the end of 2020. As of March 2020, we are at 2,134 hours. Join us remotely to continue this mission! We want to measure your success!

Report any hours of conservation you do by calling Upham Woods 608-254-6461 or completing this survey:

https://uwmadison.co1.qualtrics.com/jfe/form/S V _cPepiSpnSDzhPSZ

Complete 10 hours or more on any conservation project or combination of projects and get an Upham Woods camp t-shirt!



Wacky Water Critters

When you turn on your faucet, where does your water come from? You will need to know your zip code to plug into this website. https://www.ewg.org/tapwater/ Click on the first water utility company that comes up. List some of the contaminants that may be in your water and brainstorm reasons why they might be there.

water comes from:
What's in it:
Why it might be there:
About 70% of the Earth is covered in water, but only about 3% of that water is fresh water. Why is it important to have clean water? Who is using it besides humans?



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What do you think can make this water harmful to humans, plants, ar	id animals?
Let's do it! - Inquiry Activities	
Part 1	
Do you know the closest body of fresh water from your house? If not, of and type in your address and find the closest color blue. Blue represents we zoom way in, sometimes creeks are small.) What type of body of water is pond, etc.)?	ater! (You may have
Part 2	
At Upham we collect "macroinvertebrates".	
Macro = "large enough to see with the naked eye" Invertebrate = "without	a backbone"
Macro + Invertebrate = Macroinvertebrate	**************************************
These insects are often considered to be towards the bottom of a food web.	Why might the
presence of these critters be important for an aquatic ecosystem?	

Part 3

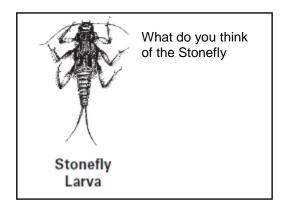
Here are some examples of macroinvertebrates that we find in the Wisconsin River at Upham Woods. Circle any that look familiar to you. Please answer the questions for each one below.

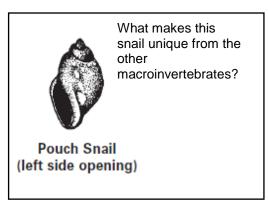


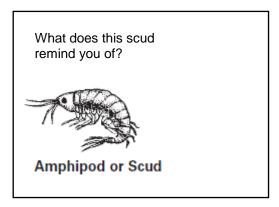
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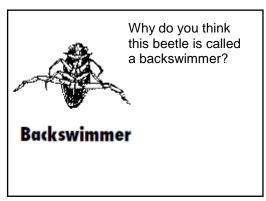
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Scientific Stories

When students come to Upham Woods they participate in several classes. At the end of the class they write scientific stories to creatively share what they learned and did during the class. Here is a scientific story. Please read it and answer the prompts.



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Quantitative data is represented by numbers and measurements. Qualitative data is represented by our 5 senses and observations. What type of data did they collect?

What observations did they make?		

Background information on brook trout

Brook trout stop growing when the temperature reaches 66°F and cannot survive in 75 °F. Brook trout prefer a pH range between 6.5 to 8.0.

Dissolved Oxygen should be greater than 7 mg/l (ppm) at temperatures less than 59°F and greater than 9 mg/l (ppm) at temperatures greater than 59°F.

Concentrations of nitrate over 10 mg/L (ppm) will have an effect on the freshwater fish.

All materials used to create the scientific stories were developed by Upham Woods participants and assembled into a digital format by staff. For questions about scientific stories and the process to create one contact Dr. Justin Hougham at justin.hougham@wisc.edu



greater than 0.1 mg/L (ppm) will certainly have impact.

Upham Woods Outdoor Learning Center

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Phosphate concentrations over 0.05 will likely have an impact on trout while concentrations

Could a brook	trout survive in the water at Upham Woods? Why or why not?
	Threats to River Life
What do you t	nink are the biggest threats to Wisconsin's river habitats?
Brainstorm so	ne ways we can help.

*Bonus Activity

Remember the body of water you identified earlier near your house? Take an adult with you and explore this water! You may have to figure out if access to this water is public. DO NOT go onto private property. What do you notice about the water? Are there plants growing? Are there



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you

This could be part of your career!

There are many different career opportunities in natural resources including conservation warden, land steward, wildlife biologist, and much more.

Next Generation Science Standards



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MS-LS2-5

MS-LS2-4

3-LS4-4

MS-LS2-1

3-LS4-3

3-LS4-4