

TRAILS. ONLINE.

Ecology on the Trail

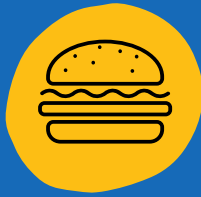
WEEK 2: HABITATS

PRE-ACTIVITY

A habitat is the specific place where a plant or animal lives. A habitat provides four things:



Water



Food



Shelter



Space to Live

What does your habitat look like?

THIS WEEK WE ARE VISITING SILVER LAKE!

Here are some photos to show you the site

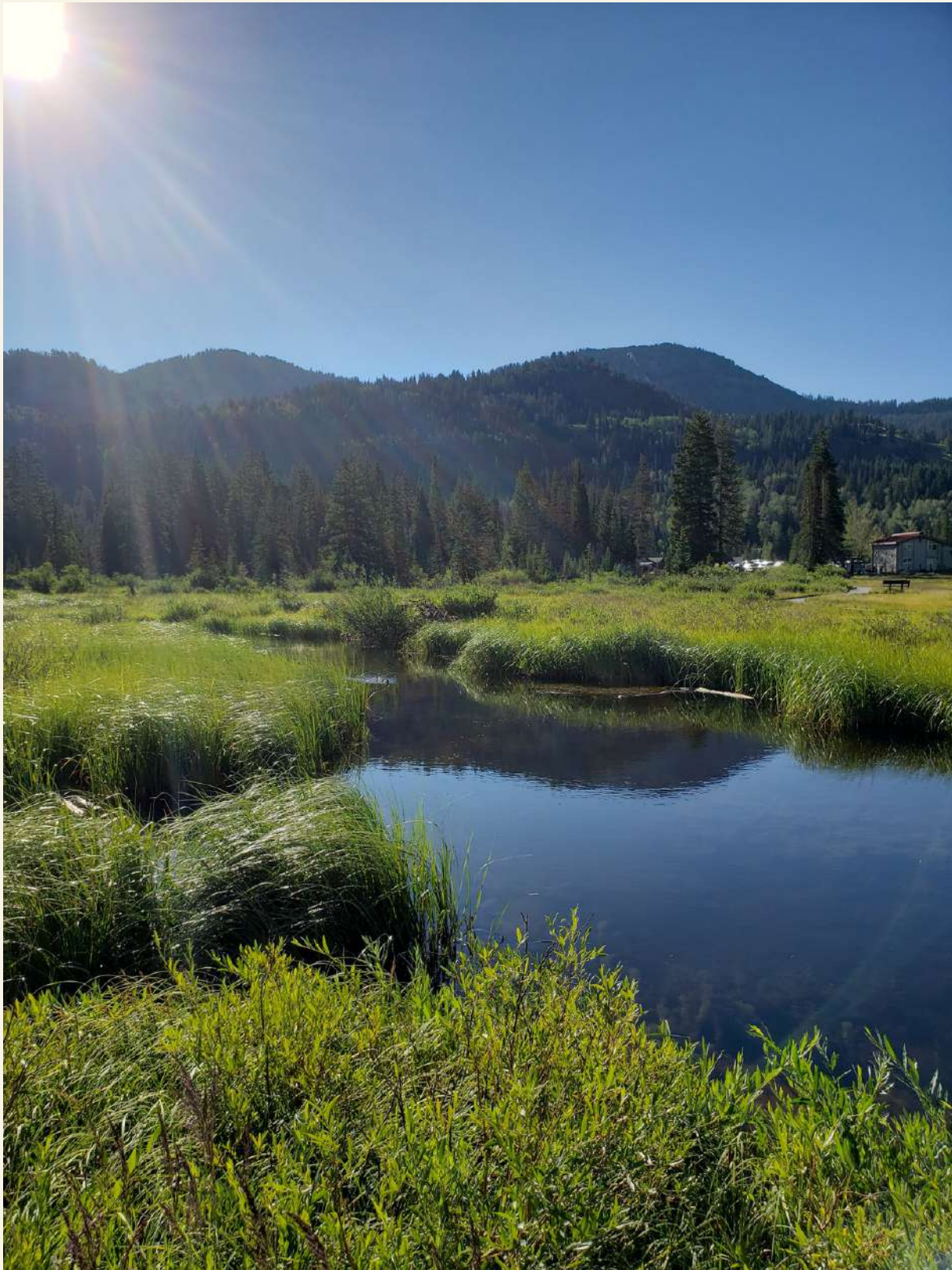


HERE IS A VIEW FROM HIGH ABOVE THE LAKE





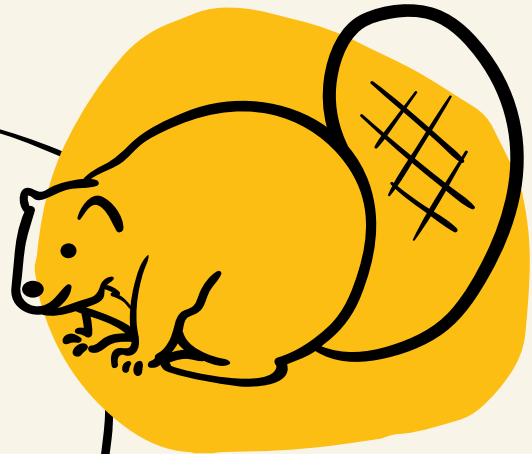
HERE IS A VIEW FROM CLOSER TO THE LAKE



IN THIS VIEW, YOU CAN SEE THE SPECIAL GRASSES THAT GROW ALONG THE WATER'S EDGE

STOP 1 - WILDLIFE

What do you think the Silver Lake area would look like without the beavers? Do you think there would still be a lake here?



We used the special term "keystone species" to describe the beavers, but we can also call them ecosystem engineers! There are so many special things about beavers, and we will come back to them in a future week!



Since Silver Lake is home to the boreal toad, what does that tell us about the aquatic habitat here at Silver Lake? Is it clean and healthy or polluted? How can we tell?

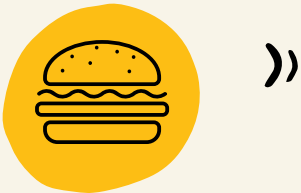
STOP 1 - WILDLIFE

Why is Silver Lake a good habitat for Boreal toads?

Remember that a habitat provides water, food, shelter, and space. Try and fill in the blanks below, and you'll find the answers on the next page!



Water



Food



Shelter



Space to Live



STOP 1 - WILDLIFE

Why is Silver Lake a good habitat for Boreal toads?



Water

The toads get all the fresh water that they need from Silver Lake and the wetlands around the lake. Toads don't drink water like we do, they absorb it through their skin!



Food

Boreal toads definitely would not enjoy a juicy burger pictured on the left. However, they would enjoy a nice bug! They eat a variety of spiders, beetles, worms, ants, and any other bug they might catch with their sticky, extendable tongue!



Shelter

They might use an animal burrow or other hole in the ground for shelter during the summer months to keep cool, or during the winter months to hibernate. They might also use a space under a downed tree, next to a large rock, or under some leaves. Toads would also need shelter to hide from predators. But when you're the size of a toad, the forest provides many places to hide!



Space to Live

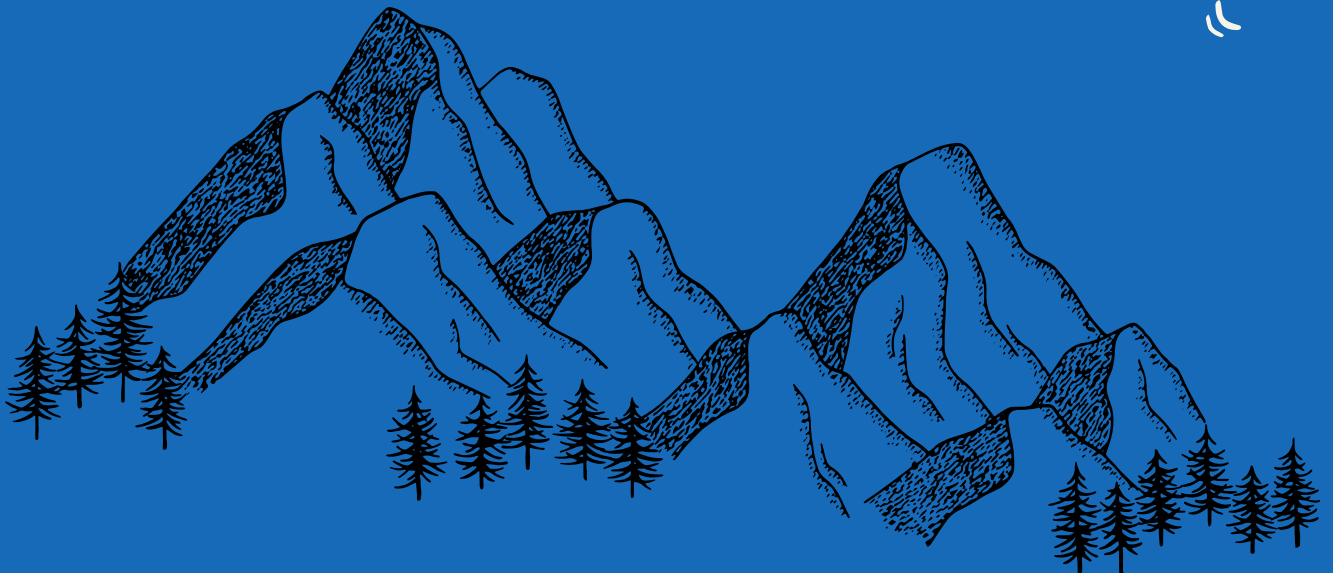
In the Silver Lake area, toads have plenty of space to live! Toads spend most of their time on land, so they might enjoy spending time in the tall wetland grasses or in the shady forest. In the fall, they find a burrow to hibernate in for the winter. In the springtime, female toads will lay their eggs in the lake. Once those eggs hatch, the tadpoles will spend the first part of their lifecycle in the water. As they grow, they'll eventually be able to leave the water to live on land.

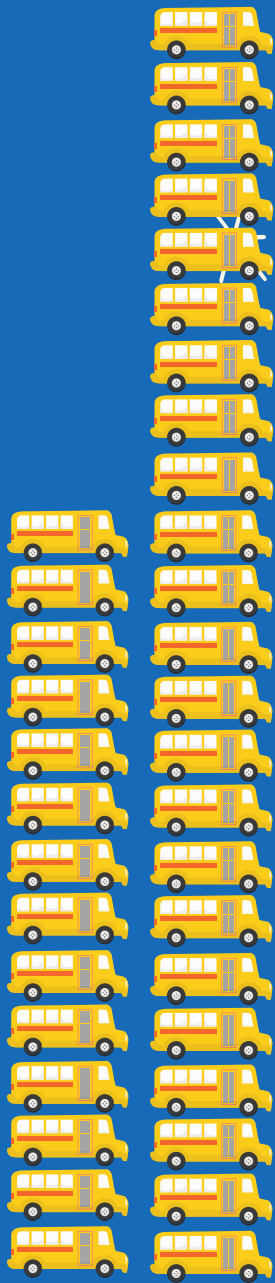


STOP 2 - GEOLOGY

THE CANYONS

Last week we talked about how the mountains formed, but how do you think the canyons formed? What is strong enough to carve through solid rock? When you think about your answer, think about the fact that the canyon has two main shapes: part of it is shaped like a "V" and part is shaped like a "U".





In the canyons, the glacier was estimated to be between 500 and 800 feet tall!

If you can picture the size of a school bus, this glacier would have been the height of between 14 and 23 school buses stacked on top of each other!

The average school bus is 35 feet tall!

How tall are you? Can you calculate how many of you that you would need to stack to be as tall as the glacier?

STOP 3: PLANTS AND TREES



What do you notice about the plants in this area? Look to the left, to the right, and in the middle!

What do you think happened in the middle? Where did the trees go?



Coniferous forest



Deciduous forest

Using the pictures, compare and contrast the two forest habitats:

STOP 4: WATERSHED



We talked about indicator species at Stop 1 and how they can indicate the health of a habitat. Do you think the bugs living in the water are indicator species? Why or why not?

To learn how to identify these bugs and how to use them to determine water quality, ask your teacher or adult about this week's additional activities!



Other than the bugs, what else do you think might live in this lake?


Where do you think is a better spot for boreal toads to lay their eggs - in a swift moving stream or in a part of the lake where there is little to no current?




STOP 5: HISTORY AND HUMAN USE




Do you think that mining could impact an animal's habitat? Do you think that the piles of mine tailings left behind could impact a habitat? Could they create a new habitat? Why?



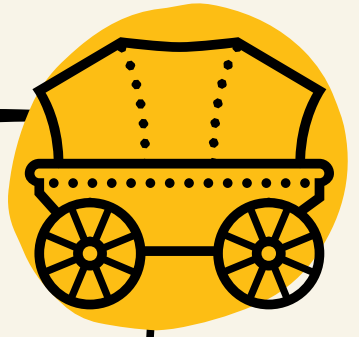
Imagine you are a bat living in a cave. One day, people show up and start working in the cave to mine for silver. Would you still want to live there?



Imagine you are a pika that loves to live on rocky slopes, would a giant pile of rocks left behind from a mine be a good place for you to live?



Pretend you are attending the very first Pioneer Day celebration up at Silver Lake. Describe your weekend. How was your journey up the canyon? What activities are you doing? What treats are you eating? What kind of music do you hear?



BONUS ACTIVITY: MEET A TREE

ACTIVITY ADAPTED FROM *SHARING NATURE WITH CHILDREN*, BY JOSPEH CORNELL



For this activity, you'll need to go outside! Whether you are at home, in a neighborhood park, or at school, go ahead and find a tree in a peaceful spot.

Once you've found your tree, close your eyes and spend some time getting to know your tree.

With your eyes closed - what does the bark feel like? Can you feel the sunshine or the wind? Do you hear any nature sounds? Does the bark have a smell?

Now open your eyes. Can your arms reach all the way around the tree? Do you think it is older or younger than you are? Is there anything growing on the bark? Is there any evidence of animals? How does this tree make you feel? How does this spot in nature make you feel?

You don't need to write down answers to these questions, but think about them and feel free to share them with others. Nature can make us feel happy, peaceful, and refreshed, and it is nice to share your feelings and observations with others!

POST-ACTIVITY

Pick one of the animals we talked about or another animal you might see up in the canyons. What does its habitat look like? Does it have everything it needs (food, water, shelter, space)? How is it different than your habitat? How is it similar?

REFERENCES

CORNELL, J. (1998). *SHARING NATURE WITH CHILDREN*. CRYSTAL CITY PUBLISHERS.