HABITAT GO/FIND ADVANCED

Working in teams, students search for features in a wooded ecosystem and answer critical questions about what they find.

GRADES
9th - 12th

NEXT GENERATION
LS2.A, LS2.C

TIME
40-50 minutes on site

LEARNING OBJECTIVES

- Examine interdependent relationships at play in an ecosystem.
- Examine ecosystem dynamics, function, and resiliency.
- Apply classroom learnings about ecosystems to real life.
- Cultivate exploration and critical-thinking skills.

PREPARATION

1. Before this field trip, present lessons that introduce students to aspects of ecosystems, including
   - species survivability/sustainability
   - decomposition
   - predation
   - resource production and consumption
   - positive and adverse human impacts
2. Select a nearby wooded ecosystem (natural park, wood lot) that your class can visit within the time available. Having water in some form (creek, pond, seep, puddled stormwater) is a plus. Check that the site will be safe for students and get any necessary permission to be there.
3. Create a rough map of the study area and clearly mark geographic boundaries (stopping points on trails) so teams don't wander off or find themselves on unsafe terrain.
4. Make one two-sided copy of the worksheet for each team, using the map as page 1.
5. Arrange for additional adults to come along, per your school's policy.

WHAT TO DO

1. At the beginning of your lesson(s) on ecosystems, tell students that they will be going on a field trip to apply what they learn.
2. The day before your field trip, divide students into teams as you see fit and give a worksheet to each team. Review and invite questions.
3. Bring a few extra copies of the worksheet, pencils, and a whistle to blow when time is up.
4. When you arrive at the ecosystem, emphasize what the study area will be and the stopping points.
5. Tell students how much time they will have and invite any last questions. Make sure each team has a pencil and knows where to come when time is up.
6. Circulate among the teams as they explore to address concerns.
7. Return to school and remind students that they will be reporting their findings at their next session.
8. Lead teams in reporting and discussing their findings, evaluating the field trip, and suggesting what students would like to learn more about.

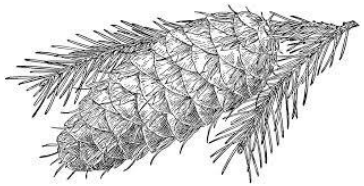
OPTION AND CAUTION

- If you are concerned that teams will run out of time, schedule an additional visit to the ecosystem.
- A strong wind may require postponing your visit to the woods.

SEEDS IN THE HABITAT

Find a plant that is making seeds or find seeds that have fallen to the ground. Here are examples:





What kind of seed did you find?

cone winged pod berry nut other

What type of plant might have made this seed?

bush tree vine groundcover other

What role in the environment does this plant play:

producer predator primary consumer secondary consumer

Name the plant if you can:

Note any connection you see that the parent plant might have to salmon or to the overall health of its ecosystem.

Salmon Connection

PRIMARY CONSUMER

Look around the study area for an organism that fits the definition of a PRIMARY CONSUMER.

What organism did you find?

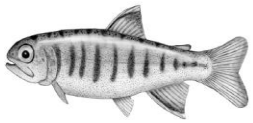
Sketch it:

What might its main food be?

Might it be prey for another organism?

If so, what might eat it?

Note any connection this organism might have to salmon or to the overall health of its ecosystem.



Salmon Connection

PREDATOR

Look around the study area for an organism that fits the definition of a PREDATOR.

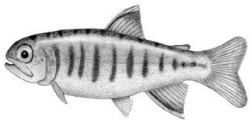
What kind of organism did you find?

Sketch it:

Describe the habitat where you found it (for example: in a tree, in the shade, in grass).

What might its prey be?

Note any connection this organism might have to salmon or to the overall health of its ecosystem.



Salmon Connection

DECOMPOSER

Look around the study area for an organism that fits the definition of a DECOMPOSER.

What kind of organism did you find?

Sketch it:

Describe the habitat where you found it (in a tree, in the shade, in grass, etc.).

What might it decompose?

Note any connection this organism might have to salmon or to the overall health of its ecosystem.

Salmon Connection

NEGATIVE HUMAN IMPACT

Look for something humans are doing or have done that is bad for the ecosystem you are exploring.

What is it?

What is the damage you see now or might expect to happen in the future if the behavior continues?

How might this impact have been prevented or the damage fixed so the ecosystem returns to normal?

Might your proposed "fix" have a downside? If so, what?

Note any direct or indirect impact this human behavior might have on salmon.

Salmon Connection

POSITIVE HUMAN IMPACT

Look for three things humans are doing or have done that is good for the ecosystem you are exploring.

(1)

(2)

(3)

What is positive about each of these things?

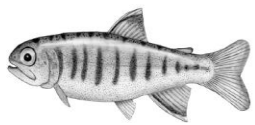
(1)

(2)

(3)

What else might humans do to improve this habitat?

Note any direct or indirect impact that is positive for salmon.



Salmon Connection

SKUNK CABBAGE

Look in damp soil for a bright yellow flower in early spring or very large leaves in late spring/summer.

Where did you find this plant?

by flowing water in/near standing water

in the mud on dry land other

Where does the "skunk" part of this plant's name come from?

Where does the "cabbage" part come from?

How does the flower's stink help this species survive?

keeps people away keeps other plants away other

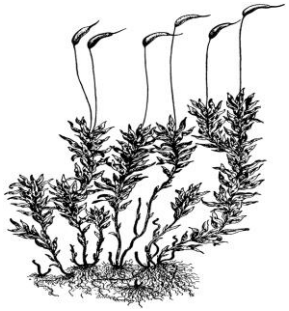
attracts insects to pollinate it keeps animals from eating it

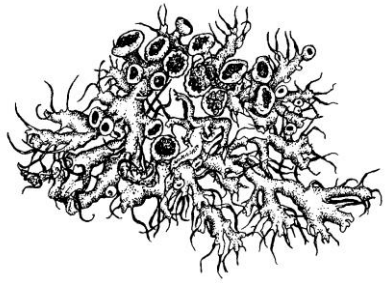
Note any connection this plant might have to salmon or to the overall health of its ecosystem.

Salmon Connection

MOSS AND LICHEN

Look for clumps of moss growing on trees or wood. Look for shaggy pieces of lichen on branches or on the ground.





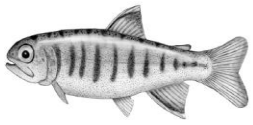
Where did you find moss?

Where did you find lichen?

What might help mosses survive, especially in dry weather?

What might help lichens survive, especially in dry weather?

Note any connection these plants might have to salmon or to the overall health of its ecosystem.



Salmon Connection