

Salmon Crossing

Lesson 3: Salmon Relationships



Directions: Read through the description of each type of relationship PNW Salmon have. For this week's activity called, "Scenarios," think specifically about Salmon's relationship with their environment and how it could change due to different scenarios. Natural or otherwise. Directions for Scenarios are down below.

Pacific Northwest Salmon have 3 different types of relationships:

1. with their environment
2. with other animals
3. with humans

These relationships can be either positive or negative.

PNW Salmon and their Environment:

- As we have learned, Salmon live in 3 different environments.
 - River
 - Estuary
 - Ocean
- These environments provide them with:
 - Food- like macroinvertebrates or other smaller fish to give them strength to travel and protect themselves along their lifecycle travels.
 - Shelter- to create safe places to lay their eggs
 - Complex waters- to keep their minds sharp and places for shelter
- But also provide:
 - Predators- that they need to hide from
 - Competitors- they need to win food from
 - Human interaction- they need to avoid



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PNW Salmon and other Animals

- Within the 3 different environments that PNW Salmon live in, they also encounter many kinds of animals.
 - In the **river**, they encounter:
 - birds like Great Blue Herons, Bald Eagles, and seagulls.
 - Mammals like bears and raccoons
 - In the **estuary**, they encounter:
 - birds like Great Blue Herons, Bald Eagles, and seagulls
 - Larger fish
 - In the **ocean**, they encounter:
 - Orcas and Seals.
 - Birds like Bald Eagles and Great Blue Herons.

Did you know they actually have an impact on 137 species of different animals? Check out the list here and see if you can make any connections!

Harlequin Duck, Osprey, Bald Eagle, Caspian Tern, Black Bear, Grizzly Bear, Northern River Otter, Killer Whale, Cope's Giant Salamander, Pasche's Giant Salamander (Chinese), Pacific Coast Aquatic Garter Snake, Red-throated Loon, Pied-billed Grebe, Clark's Grebe, American White Pelican, Brandt's Cormorant, Double-crested Cormorant, Pelagic Cormorant, Great Blue Heron, Black-crowned Night Heron, Turkey Vulture, California Condor, Common Merganser, Red-breasted Merganser, Golden Eagle, Bonaparte's Gull, Heermann's Gull, Ring-billed Gull, California Gull, Herring Gull, Thayer's Gull, Western Gull, Glaucous-winged Gull, Glaucous Gull, Common Tern, Arctic Tern, Forster's Tern, Elegant Tern, Common Murre, Marbled Murrelet, Rhinoceros Auklet, Tufted Puffin, Belted Kingfisher, American Dipper, Stellar's Jay, Black-billed Magpie, American Crow, Northwestern Crow, Common Raven, Virginia Opossum, Water Shrew, Coyote, Gray Wolf, Raccoon, Mink, Bobcat, Northern Fur Seal, Northern (Steller) Sea Lion, California Sea Lion, Harbor Seal, Pacific White-sided Dolphin, Gyrfalcon, Peregrine Falcon, Killdeer, Spotted Sandpiper, Snowy Owl, Willow Flycatcher, Tree Swallow, Violet-green Swallow, Northern Rough-winged Swallow, Bank Swallow, Cliff Swallow, Barn Swallow, Harbor Porpoise, Dall's Porpoise, Snapping Turtle, Western Pond Turtle, Western Terrestrial Garter Snake, Common Garter Snake, Pascher Loon, Common Loon, Yellow-billed Loon, Horned Grebe, Red-necked Grebe, Western Grebe, Sooty Shearwater, Brown Pelican, Great Egret, Snowy Egret, Green Heron, Trumpeter Swan, Mallard, Green-winged Teal, Canvasback, Greater Scaup, Surf Scoter, White-winged Scoter, Common Goldeneye, Barrow's Goldeneye, Hooded Merganser, Red-tailed Hawk, Greater Yellowlegs, Franklin's Gull, Mew Gull, Black-legged Kittiwake, Pigeon Guillemot, Ancient Murrelet, Gray Jay, Winter Wren, American Robin, Varied Thrush, Spotted Towhee, Song Sparrow, Masked Shrew, Vagrant Shrew, Montane Shrew, Fog Shrew, Pacific Shrew, Pacific Water Shrew, Trowbridge's Shrew, Douglas' Squirrel, Northern Flying Squirrel, Deer Mouse, Red Fox, Gray Fox, Ringtail, American Marten, Fisher, Long-tailed Weasel, Wolverine, Striped Skunk, Mountain Lion, White-tailed Deer, Black-tailed Deer, Minke Whale, Sperm Whale, Humpback Whale, Northern Right Whale Dolphin

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PNW Salmon and Humans

- Within the 3 different environments, PNW Salmon also come in contact with humans.
 - In the river, they may come across:
 - Fisherman on shore with fishing rods
 - Fisherman in small motor boats
 - People walking near or in their home streams
 - In the estuary, they may come across:
 - Fisherman in small motor boats
 - People walking along the shore
 - Fisherman with fishing rods
 - In the ocean, they may come across:
 - Fisherman in large commercial motor boats
 - People swimming in the ocean
 - Fishing nets set up by fisherman



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ACTIVITY: SALMON SCENARIOS

Now that we have talked about the multiple types of relationships PNW Salmon have, we're going to put those to the test with some serious and some funny scenarios!

Supplies: 3 blank pieces of paper to draw on, coloring supplies, and your imagination to think of all the possible scenarios.

Directions:

1. Get 1 of the 2 pieces of blank paper ready to color and decide which PNW Salmon habitat you would like to draw the most.
2. Draw the habitat with as little or as much detail as you'd like.
3. Next, use the 2nd blank paper to fold and rip into 6 smaller pieces of paper.
4. Once you have created the small slips, write these scenarios on them. **Or you can even think of your own as well!**
 - a. River: overrun by a bear population and were all eaten, the salmon ate something that made all of its predators hate it's taste and their population skyrocketed, and a huge storm happened and caused the waterway to be blocked and they couldn't migrate.
 - b. Estuary: seagulls learned to swim and ate all the salmon, all of the predators disappeared and the salmon population kept growing, too high of temperatures and the water mostly evaporated

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- c. Ocean: orcas ate every single salmon, the salmon didn't acclimate enough to the saltwater and died, the ocean's temperature warmed up so much that the salmon were fried underwater, they were all overfished by fisherman.
5. Put these slips into a hat or bowl to be able to randomly choose from and then choose a scenario from it.
6. Now that you have picked a scenario, that scenario has happened to the habitat you just drew.
7. Use the 3rd blank paper to draw what your habitat looks like after that scenario occurred.
8. To finish out the activity, write out a summary to describe what is happening in both the before and after photo.
9. Share your stories with us with the hashtag #hcsegonlineeducation or in the comments of the Facebook post shared about this activity on The Salmon Center's page.