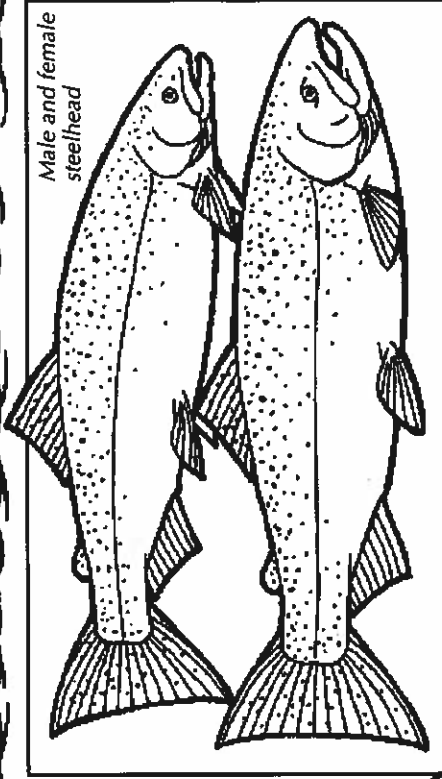


WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

dnr.wa.gov

What Is a Salmon?



Male and female steelhead

Male and female chinook salmon

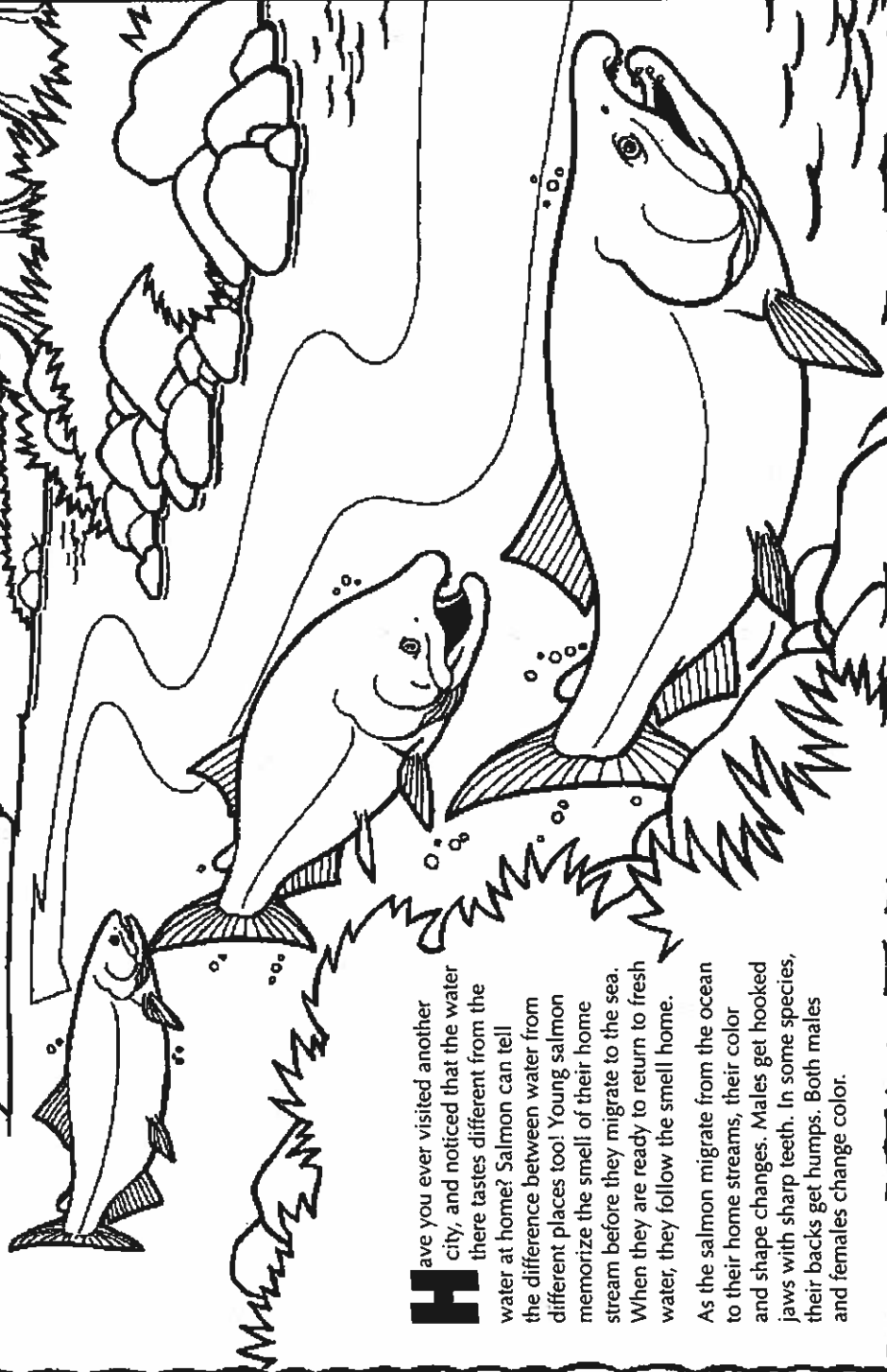
Salmon are fish that live part of their lives in fresh water, and part in the ocean. They hatch in a stream, live there for several months, and then swim to the sea, where they grow up. Then they migrate back to the streams where they were born, to lay their eggs.

Five kinds of salmon live in rivers along the Pacific Coast: the **chinook** (or king) salmon, the **coho** (or silver) salmon, the **sockeye**, **pink** (or humpback), and **chum** (or dog) salmon. Chinook are the biggest. Some can weigh over 100 pounds! Pink salmon are the smallest, at 3 to 5 pounds.

Steelhead are a kind of rainbow trout that migrate to the sea, like salmon. They are slimmer than salmon, and their tail fins have a more square shape.

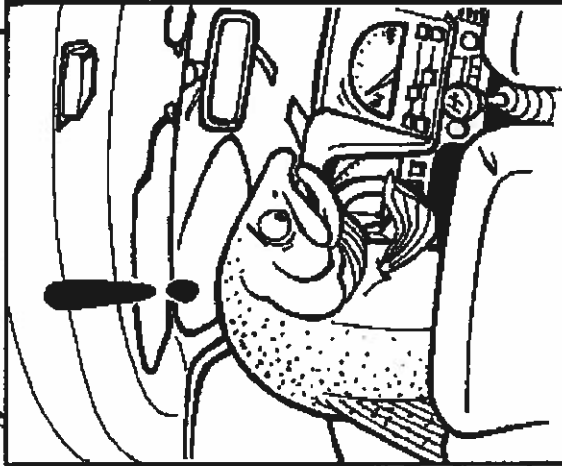
Migration

Salmon Follow Their Senses!



Have you ever visited another city, and noticed that the water there tastes different from the water at home? Salmon can tell the difference between water from different places too! Young salmon memorize the smell of their home stream before they migrate to the sea. When they are ready to return to fresh water, they follow the smell home.

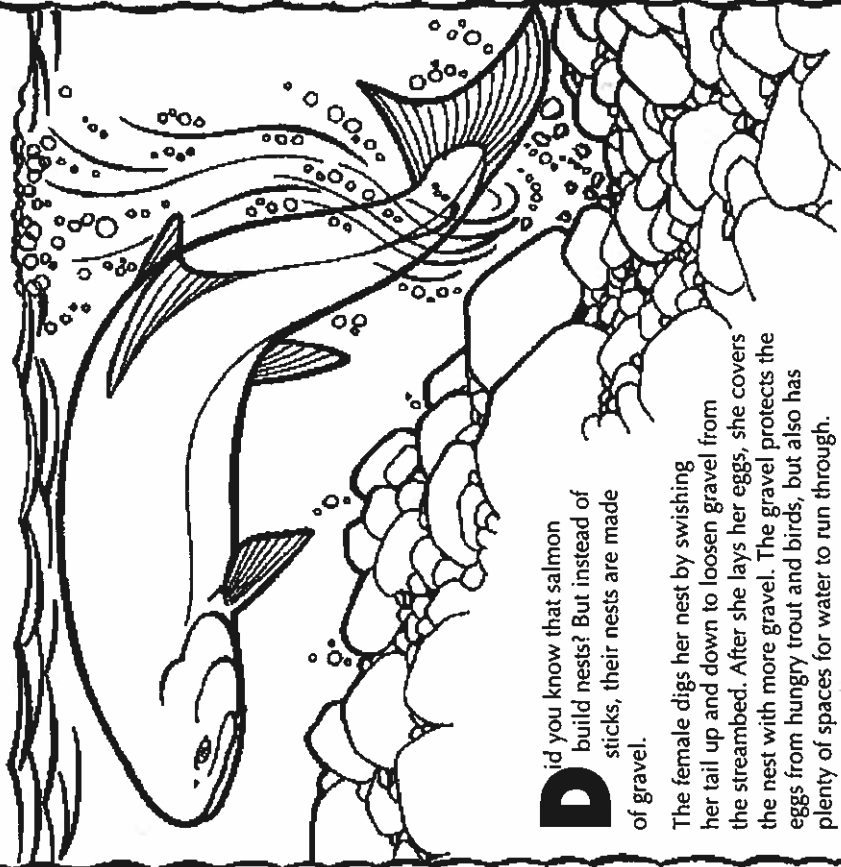
As the salmon migrate from the ocean to their home streams, their color and shape changes. Males get hooked jaws with sharp teeth. In some species, their backs get humps. Both males and females change color.



For Salmon, Fat is Where It's At

When they're living in the ocean, salmon eat a lot to store up plenty of fat. This fat is the "fuel" they need to get to their spawning grounds. Once salmon enter freshwater, they stop eating. So a salmon is a lot like a car that must make a long trip on one tank of gas. If anything delays the salmon, they may use up their fuel too soon — and not have enough to make it home.

Building a Nest

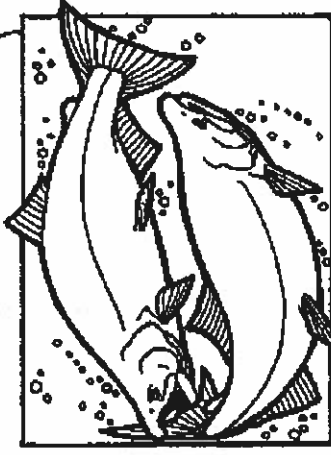


Did you know that salmon build nests? But instead of sticks, their nests are made of gravel.

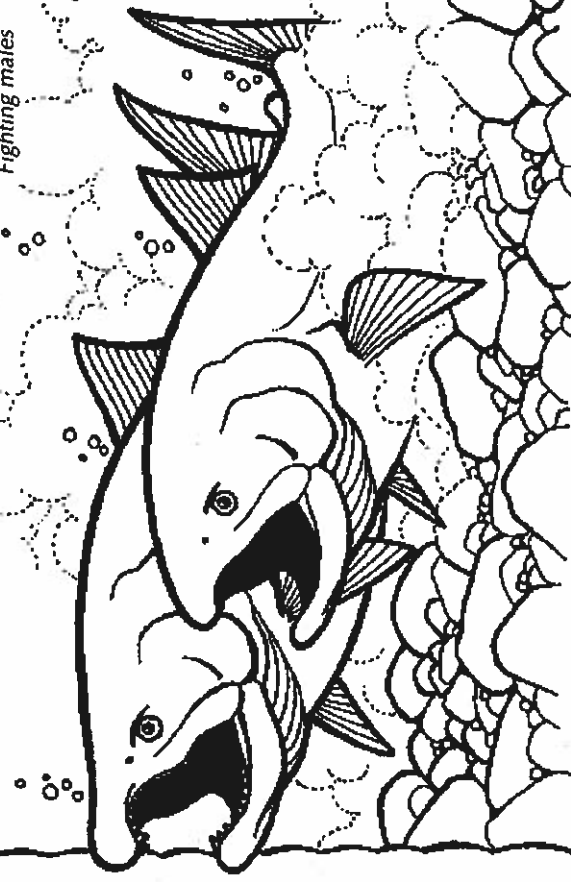
The female digs her nest by swishing her tail up and down to loosen gravel from the streambed. After she lays her eggs, she covers the nest with more gravel. The gravel protects the eggs from hungry trout and birds, but also has plenty of spaces for water to run through.

A big female chinook can lay over 7000 bright red, pea-sized eggs!

Spawning



Fighting males



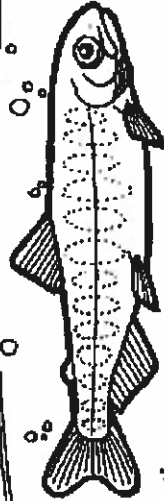
While the female salmon is building her nest, the male is busy chasing off all other males. He also does a courtship "dance." He quivers and swims back and forth over the female's back. When the female is ready to lay her eggs, he moves alongside her and fertilizes them. This is called **spawning**. All salmon, and most steelhead, die after they spawn.

Growing Up

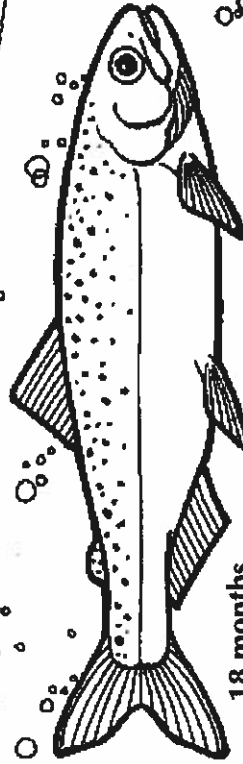
1 day



10 weeks



6 months



18 months

Once the yolk is gone, the baby salmon, called fry, get hungry, and leave their gravel nests. They will eat anything that floats by, but insects are their favorite! Chum, pink, and sockeye fry migrate to the sea soon after leaving the nest, but young chinook salmon, coho salmon, and steelhead spend 4 to 18 months living in streams.

Hatching

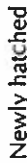


As the fry uses up its yolk, its belly "buttons up."

Actual Size



Egg



Newly hatched salmon

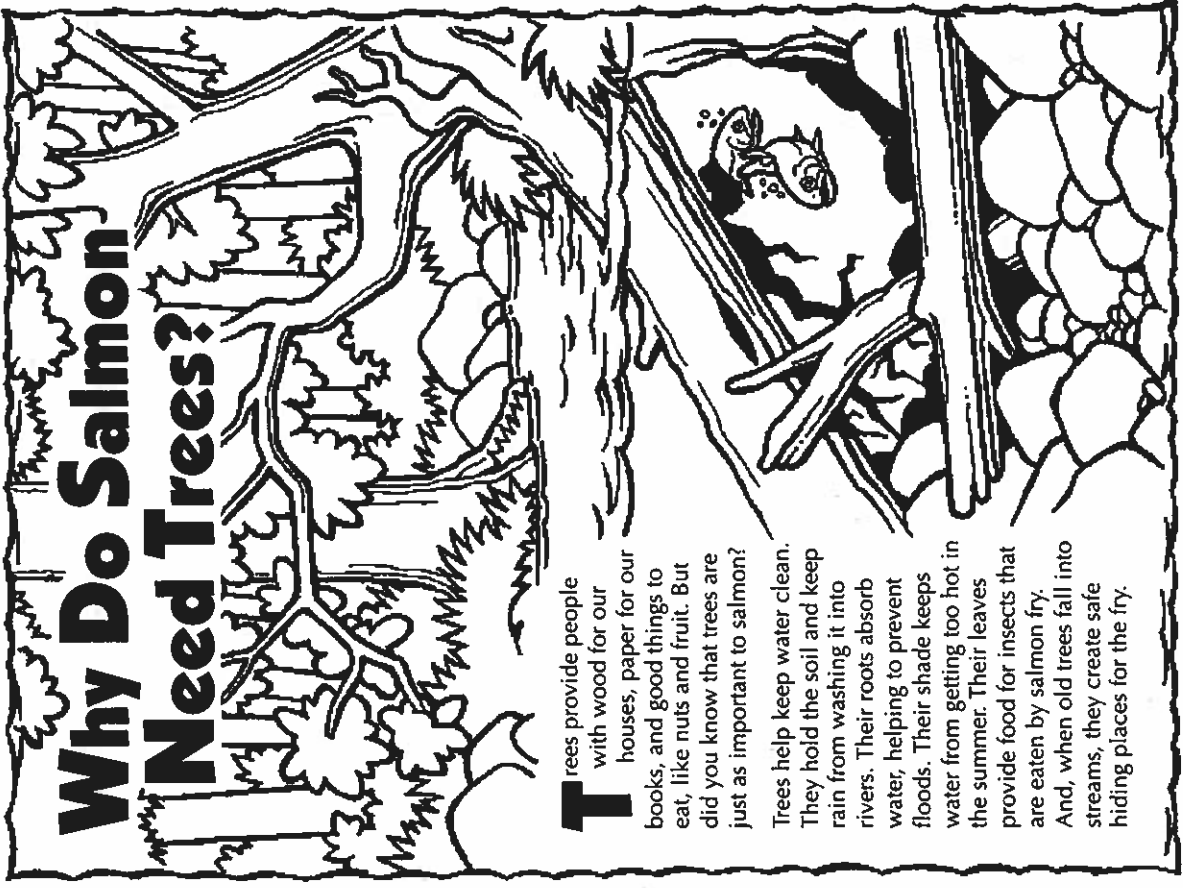
In the winter, the baby salmon hatch. They are weird looking, with huge eyes and a pouch full of egg yolk attached to their bellies. You can see their hearts pumping through their transparent skin! For a few weeks they stay hidden in the gravel, living off their egg yolk. As the yolk gets used up, the pouch shrinks and then disappears. Scientists call this "buttoning up."



Life in the Stream

A stream is a much safer place for a young salmon than the sea, but there are still many challenges. Birds, frogs, mammals, and other fish eat salmon fry. Floods can wash fry out of streams and into the big rivers before they are ready to migrate.

People also can create problems for salmon fry. Our dams change the amount of water that flows in streams and rivers. Sometimes there may be too much water, and sometimes there may not be enough. In summer, streams may even dry up completely. When you conserve water you may be helping a young salmon survive!

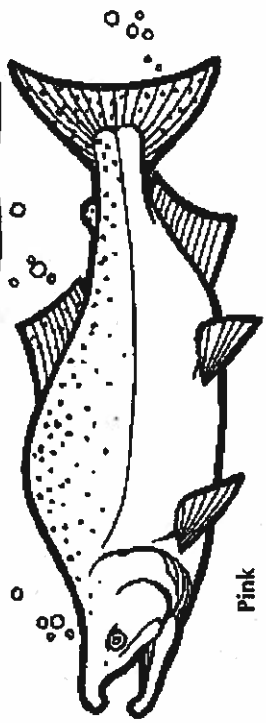


Why Do Salmon Need Trees?

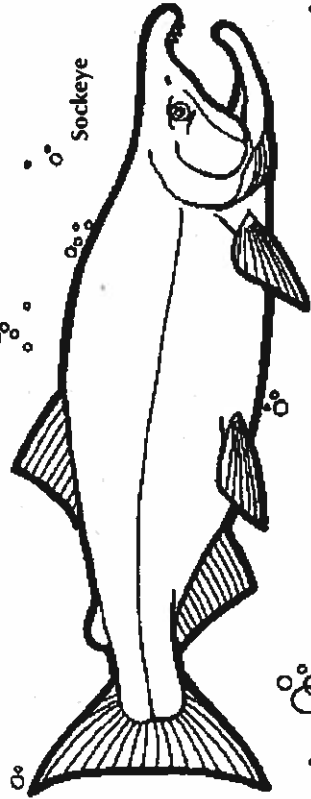
Trees provide people with wood for our houses, paper for our books, and good things to eat, like nuts and fruit. But did you know that trees are just as important to salmon?

Trees help keep water clean. They hold the soil and keep rain from washing it into rivers. Their roots absorb water, helping to prevent floods. Their shade keeps water from getting too hot in the summer. Their leaves provide food for insects that are eaten by salmon fry. And, when old trees fall into streams, they create safe hiding places for the fry.

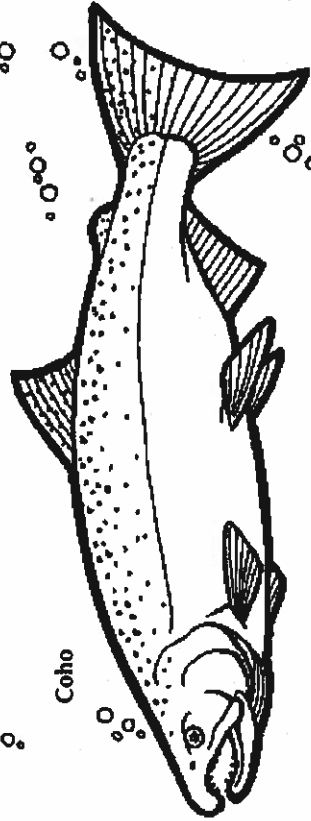
Pacific Salmon



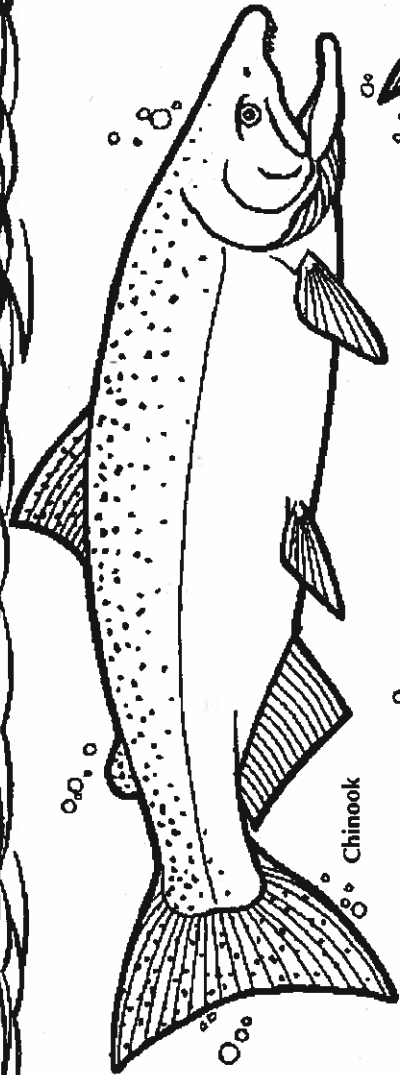
Pink



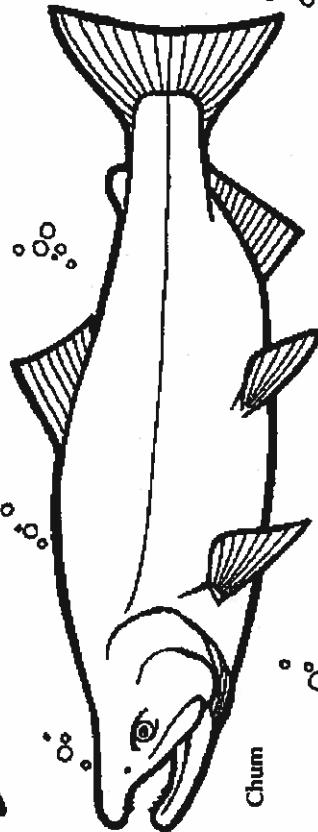
Sockeye



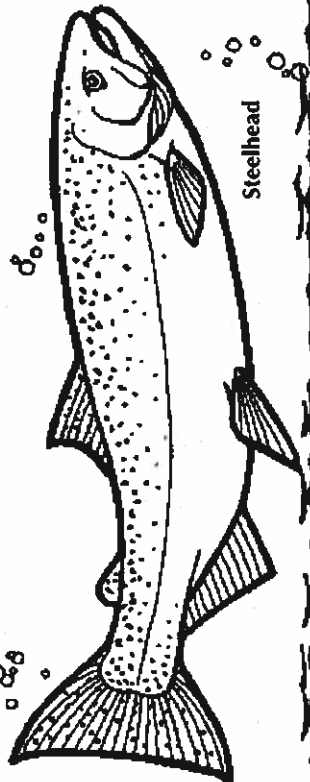
Coho



Chinook



Chum



Steelhead

Salmon Word Search

L F C S O G M J Y V M D B K N
R F I H O A N R E K B G W O J
M Y O S E C A I K L A K I O A
I C U W H U K A N L C T U N L
G Q P L T L X E H W C Y D I E
R T R S R S A O Y U A G C H V
A L E C H U M D D E F P I C I
T O D C E I G O D R R G S L N
I M D Z N G R A Y E Y T J K L
O S W G E P Y M D S R T Y L X
N H O J E A N A D R O M O U S
I R O R Y Y T H A B I T A T Y
P S H J F O D A E H L E E T S
J E G G R N O M L A S N Y J T
N S H S U N X K O Z E P C I M

ALEVIN
CHUM
ESTUARY
GILL
MIGRATION
REPRODUCTION
SOCKEYE

ANADROMOUS
COHO
FISHLADDER
HABITAT
PREDATORS
SALMON
SPAWNING

CHINOOK
CYCLE
FRY
HOMING
REDD
SMOLT
STEELHEAD

Definitions

alevin

Young salmon that have hatched but still have a large yolk that must be absorbed, during which they stay protected in gravel; they may live entirely on yolk or may feed (may also be called "sac-fry").

anadromous

(Greek for "running upward") Fish that are born in fresh water, move to salt water to feed, and return to fresh water to spawn.

cycle

The different stages of a salmon's life.

estuary

A site where fresh water and salt water meet.

fish ladder

Water-filled staircase that allows migrating fish to swim upstream around a dam.

fry

Next life stage of salmon after alevin, and before smolt (upon reaching 1.25 inches in length, they are sometimes called "fingerlings").

gill

Respiratory organ of fish.

habitat

A place where salmon can get the food, clean water, shelter and space it needs to live.

homing

The behavior of returning to the stream where you were hatched.

migration

Salmon move from one place to another, such as from fresh water to the ocean then back to fresh water.

predators

Animals that prey on other animals.

redd

Series of nests dug in gravel by one female salmon.

reproduce

Salmon have babies.

salmon

Fish that live part of their lives in fresh water and part of their lives in the ocean.

smolt

Salmon of a certain size, generally 4-7 inches, that begin seaward migration and smoltification.

spawning

The act of laying eggs.