

Glossary

Adaptations - the process of making adjustments to the environment.

Adipose fin (mystery fin) - fish biologists don't know what its use is. This fin is located just behind the dorsal fin. It is filled with fatty deposits and has no fin rays. It is like an ear lobe. Hatcheries that raise salmon often have their adipose fin removed as a way of marking a fish.

Adult - the age of an animal or plant when it is able to reproduce. Salmon migrate to the ocean where they reach sexual maturity. In the ocean there are better feeding conditions and more space to grow than in freshwater. Upon entering the ocean, salmon will turn toward feeding grounds. They feed heavily on such prey as anchovies, herrings, smelt, and squid. Time spent at sea ranges from one to five years.

Alevin - in late winter, young fish with protruding eyes, called alevins, hatch from the gravel. Alevins hide in the gravel and live off their orange yolk sac that is attached to their bellies. As the fish grows, it feeds on the nutrients in the sac, and the yolk sac gets smaller until the fish has "buttoned up" or absorbed the entire sac.

Anadromous - fish that migrate from fresh water to salt water.

Anal fin (rudder fin) - to help the fish steer. This fin acts as a keel and has 13 to 19 rays.

Aquatic - living in or on the water for at least part of their lives.

Benthic macroinvertebrate - bottom dwelling, aquatic organisms without a backbone, which can be seen with the naked eye.

Biodiversity - the variety of life forms in a given area.

Bounding - a form of jumping typical of the weasel family.

Carnivores - animals that eat meat.

Caudal fin (power fin) - used to push fish forward through the water.

Columbia Plateau - name of a geographic region in northwest North America. The Wenatchee Valley and all of Eastern Washington are part of the Columbia Plateau. It lies between the Cascade Mountains on the west and the Rocky Mountains in the east. It stretches north to the Fraser and Mackenzie River divide in British Columbia and south to the edge of the Great Basin in Oregon.

Condensation - the process by which a vapor becomes a liquid.

Conservation - the protection of valued resources.

Consumer - animals that eat either the plants or other animals; they can't make their own food.

Dam turbines - rotating blades in which a moving fluid such as steam acts upon the blades of a rotor to produce rotational motion that can be transformed to electrical or mechanical power.

Decomposer - those organisms (bacteria, fungi) which convert dead organic materials into inorganic materials.

Diurnal - active during the day.

Divides - points of higher ground that separate two adjacent streams or watersheds.

Dorsal fin (balance fin) – helps to keep fish from tipping over and used to communicate or signal with.

Ecosystem - all living things and their environment in an area of any size all linked together by energy and nutrient flow.

Eggs - salmon begin life as orange-red eggs in shallow gravel beds in freshwater streams and rivers. The eggs incubate in the gravel while cold, clean water washes the eggs and brings them oxygen. Eggs remain in the gravel through the winter as the embryos develop.

Encampment - a place occupied by a camp.

Erosion - the gradual wearing away of rock or soil by physical breakdown, chemical solution, and transportation of material, as caused by water, wind, or ice.

Evaporation - the conversion of liquid (e.g., water) into a vapor (a gaseous state).

Exhibit - an object displayed in public.

Eye – used to see predators, food and other salmon. Fish eyes are constructed much like ours, but they have no eyelids or tear ducts since the water they live in wets and cleans their eyes. Most fish have 360 degree vision. Their eyes can work independently of one another, allowing them to watch what is happening in front as well as behind them. They can see color.

Fauna - animal life.

Fertilization - the process of mixing eggs and sperm to make a new fish.

Fingerling - a young fish, about the size of a finger; a salmon less than one year old.

Fish culturist - a person that cultures or raises fish.

Fish ladders - a structure like a ladder with fast, flowing water to help fish up and over dams.

Fisheries biologist - a person who works with fish.

Flora - plant life.

Food chain - the transfer of food energy from the source in plants through a series of animals; from one nutritional level to another.

Food pyramid - a structure that forms when a larger number of organisms below supports a smaller number of organisms above.

Food web - an interlocking pattern of food chains.

Fry - in late spring, the small fish, now called fry, emerge from the gravel. Fry begin to forage for food along the edges of pools where the current is slow.

Gill - the organ a fish uses to breathe.

Ground water - water found in spaces between soil particles underground.

Gyotaku - the art of Japanese fish rubbing; gyo=fish; taku=rubbing.

Habitat - the arrangement of food, water, shelter, and space suitable to an animal's needs.

Hatchery - a place where people spawn fish and raise young fish.

Heart - muscular organ that pumps blood around the body.

Herbivores - animals that eat plants.

Hoof - the cloven hoof is typical of an ungulate like the deer, moose, elk or caribou.

Human threats - caused by people.

Indicator species - a species whose presence or absence in an environment indicates particular conditions.

Intestine - the portion of the digestive tract between the stomach and vent.

Irrigation - to bring a supply of water to a dry area, especially in order to help crops grow.

Kidney - filters and removes waste.

Lateral line (sensing strip) - for feeling movement in the water. The lateral line is made up of small holes placed in a line along both sides of the fish. It is the fish's ears, because through the lateral line the fish can sense certain sounds and movements in the water.

Legends - old stories that has been passed down for generations.

Life cycle - stage of development that an organism goes through from egg to adult; the way that plants or animals are born, live, reproduce, and die.

Lift - an upward force of flight caused by air with less pressure above a wing moving faster than slower air below, the air below exerts greater pressure, thus creating the upward force.

Liver - secretes bile, stores and filters blood.

Lodge - a larger dwelling traditionally used by Native Americans. Lodges were built by digging a shallow pit in the ground and setting a framework of poles around it.

Lyrics - the words of a song.

Macroinvertebrates - aquatic organisms without a backbone which can be seen with the naked eye.

Migration – movement by animals from one area to another to find food, or a new habitat or other animals of their kind.

Nares (nostrils) - for smelling. Nostrils are located on the snout and are comparable to a human's nose. The male adult salmon develop a long and slightly curved snout when they are fully mature during spawning.

Native American - a person whose ancestors have lived in North America for thousands of years.

Natural threats - caused by nature.

Natural resources - a naturally occurring exploitable material, i.e. wood.

Nocturnal - active during the night.

Non-point source pollutants - contaminants whose entry point into a watershed is difficult to locate. Residential areas, agricultural fields, and paved parking lots, school grounds can contribute to non-point source pollutants.

Omnivores - animals that eat both meat and plants.

Operculum (gill cover) - this covering over the gills protect the gills from getting hurt.

Parr - when the young fish reach about two inches in length, they are known as parr, or fingerlings. They become intense feeders on plankton, small insects, and worms. Parr are most easily recognized by the development of dark bars along their sides called "parr marks."

Pectoral fin (turning fin) - used to turn the fish from side to side or keep the fish in one place.

Pectoral muscles - flight muscles or chest muscles where wings of a bird are attached.

Pelvic fin (braking fin) - to help the fish stop in the water.

Point-source pollution - when the source of the pollutant can be traced back to a specific location.

Pollutant - a harmful waste material that alters the environment, making it less suitable for certain uses including survival of some biological organisms.

Pollution - damaging substances such as chemicals or waste products.

Precipitation - water falling, in a liquid or solid state, from the atmosphere to Earth.

Predator - an animal that hunts, kills, and eats other animals.

Prey - an animal that is killed and eaten by other animals for food.

Producer - green plants utilize energy from the sun to make food.

Raptors - birds of prey.

Redd - a nest dug in gravel by a female salmon to put her eggs in.

Regalia - the ceremonial and symbolic objects and clothing used and worn by a particular group of people on formal occasions.

Riparian - transition zones between land and water environments.

Runoff - precipitation that flows overland to surface streams, rivers, and lakes.

Sinew - the tendon in the animal's legs and used as thread for sewing.

Smolt - a stage in the salmon's life when its body changes to prepare it for migration and living in salt water. As the parr marks disappear, most young salmon begin a physiological change that triggers their downstream migration and adaptation to the saltwater environment. This transformation is called smoltification. Juvenile salmon undergoing these changes are referred to as smolts. Smolts let the current carry them downstream, tail first. Much of their traveling is done at night to avoid predators.

Solar heat - using the sun's radiation as a source of energy.

Spawn - laying eggs and fertilizing them (verb).

Spawner (salmon) - a word used to describe salmon that are ready to spawn. Salmon return to their natal streams to spawn and produce offspring. The males and females of some species get humped backs, hooked jaws, and sharp teeth. The female salmon will choose an area with just the right combination of clean gravel and good flow to provide oxygen for the eggs. The female digs her nest, called a redd, and uses her tail to sweep gravel downstream. The male joins the female in the redd as she releases her eggs, and then the male releases his milt to fertilize the eggs. Salmon die after spawning. In the Pacific Northwest, much of the nutrients for riparian plants and animals, as well as juvenile salmon, come from the carcasses of adult salmon.

Stereotypes - are mistaken ideas about how a whole group of people behave, think, or live.

Stomach - organ resembling a sac in which food is mixed and partially digested.

Stories - a factual or fictional account of an event (s).

Storyteller - somebody who tells or writes stories.

Straddle - measures the widest point in a pattern of tracks. For example, the two hind feet might be the widest point and they are measured from outside edge to outside edge. The straddle decreases in width from walk to trot to gallop.

Stride - length from the center of one track to the center of the next track. Helps indicate the animal's body length.

Surface water - water above the surface of the land, including lakes, river, streams, ponds, floodwater, and runoff.

Swim bladder - an air-filled sac that regulates buoyancy.

Tepee - a conical dwelling built around several long wooden poles that meet and cross at the top.

Track angle - animals walk with feet pointed out like ducks, straight or pointed inward, "pigeon toed".

Track pattern - arrangement of tracks.

Tracks - imprints left on the ground by animals or humans.

Traditional - based on or relating to traditions of a group of people.

Transpiration - the process by which water absorbed by plants is evaporated.

Tributary - a stream that contributes its water to another stream or body of water.

Tule - a type of plant found in marshes and flooded areas. Tules are gathered in nearby marshes and ponds and made into mats to cover the framework of lodges and other dwellings.

Vent - opening that excretes waste outside of body.

Water conservation - the use of water-saving methods to reduce the amount of water needed for homes, lawns, farming, and industry, and thus increasing water supplies for optimum long-term economic and social benefits.

Water cycle - the paths water takes through its various states (vapor, liquid, and solid) as it moves throughout Earth's systems (oceans, atmosphere, ground water, streams, etc.)

Watershed - the land area from which surface runoff drains into a stream channel, lake, reservoir, or other body of water.

Weirs - special fences that guide the fish into traps.

Wenatshapum - a name assigned to groups of Native people in the 1855 Yakama Indian Treaty. Modern Wenatshapum people are one of the 11 groups that make up the Colville Confederated Tribes and the Yakama Nation.

Yolk sac - the food supply for newly hatched fry.