

SECTION 16.0. GLOSSARY OF TERMS

- This section contains terms that are **bolded** throughout the manual as well as other terms associated with streams and stream rehabilitation.

ADULT - Fish that is mature, at an age when they can spawn.

ALEVIN- Stage of development of the salmonid embryo from hatching to absorption of yolk sac. The yolk sac is used as the sole source of food for the newly hatched fish. This stage is also called to "sac-fry".

ALGAE - small microscopic plants that are either free in water or on the bottom of lakes and stream or attached to rocks. Algae form the base for many food chains.

AMPHIBIANS - Most amphibians lay their eggs in water or moist places and have soft skin. Salamanders and frogs are examples of amphibians in Nova Scotia.

ANADROMOUS - Fish which spend a part of their lives in both fresh and salt water. These fish reproduce in freshwater and spend most of their juvenile life there and a portion of their adult life at sea (e.g. sea-run Atlantic salmon, brook, rainbow and brown trout).

AQUATIC - Having to do with water.

AQUATIC INVERTEBRATE - All animal forms which live in a water (aquatic) environment and which do not possess backbones. This term is commonly used as a general term to describe stream dwelling insects.

BOG - They usually develop where water drainage is blocked; they all have cushiony vegetation (mosses) and an accumulation of peat.

BRAIDED CHANNEL - Refers to a stretch of river that is divided into separate channels that successively meet and divide.

BUFFER STRIP - A narrow strip of natural vegetation along waterways used to moderate the effects of surface runoff. Also called the riparian zone or a greenbelt.

CANOPY - The top of a forest formed by the leaves and branches of the trees. The size of the canopy determines how much light reaches the forest floor and the stream if the trees that shade the sun are located in the streamside zone.

CARRYING CAPACITY - The maximum average number of a given organism that any habitat can support at any particular season of the year.

CATADROMOUS - Fish which spend a portion of their lives in both freshwater and salt water. Catadromous fish reproduce in salt water and their young go into freshwater systems and grow to maturity before they return to the seas as adults to reproduce (eg. eels).

CONIFEROUS - A word to describe trees with cones and needles; softwoods.

DECIDUOUS - A word to describe trees with leaves which fall off in the autumn; hardwoods.

DECOMPOSERS - Organisms such as bacteria, fungi, and animals that break down once-living material, producing essential nutrients for new forest.

DEGRADATION - Implies a decline in quality of habitat.

DISCHARGE - The rate of flow or the volume of water flowing in a given unit of time at a location in the stream.

DIVERSITY - An index of the variety of plants and animals in an ecosystem. More variety gives a richer diversity, which makes for a more stable ecosystem.

ECOLOGY - Ecology means the study of living things and their relationship to their environment, home, or community.

ECOSYSTEM - An interrelated and interdependent community of plants and animals and their habitats.

EDGE - Created where two stands, two habitat types, or two successional stages meet (e.g. a swamp on the edge of a forest).

ENERGY FLOW - A term used to describe how energy moves through an ecosystem. In the forest sun is the main energy source. This energy is converted to green plants which in turn are eaten by animals and decompose to be recycled into nutrients and used again.

ENHANCEMENT - To improve the habitat capability of the aquatic environment. The term is commonly used in reference to instream structures such as the improvement of spawning beds or the improvement of instream cover.

EROSION - The weathering of the earth's surface by the action of wind, water, gravity, and ice. This can be increased by human disturbance.

ESTUARY - Where freshwater meets saltwater.

FLATS - Water with slight to moderate current and with an unbroken surface, but with less depth than pools.

FLOOD PLAIN - The flat region or valley bottom bordering a stream that is subject to frequent flooding during periods of high flow. Flood plains are also created at the mouths of rivers, when they empty into the sea, and sediments are deposited.

FRESHET - A rapid rise in river discharge and level caused by heavy rains or melting snow.

FRY - Young fish whose yolk sac has been used up and have begun to actively feed.

GULLY - A large and deep channel formed by the erosion action of run-off water.

GROUNDWATER - Water found underground in porous rock layers and soils.

FOOD CHAIN - A description of "who eats who" in the ecosystem.

FOOD WEB - The groups of food chains that operate in an ecosystem together.

HABITAT - The place where an animal lives.

HABITAT REQUIREMENTS - Food, water, shelter (cover), and space in the right combinations at the proper time of year.

IN-KIND CONTRIBUTION - A financial contribution made to a project in the form of a donation of time, service, or product.

INSTREAM COVER - Refers to cover provided for fish from flows, predators etc. in the wet areas of the stream by debris (logs, tree roots), rocks, and plants.

JUVENILE - Young fish, older than a fry, but not mature enough to spawn.

KELP - A large seaweed found in beds or "forests" near an estuary. An important area for food and cover for many estuarine fish.

LARGE ORGANIC DEBRIS - Refers to trees, logs, branches in the stream that provide cover, create pools, but can also cause jams and barriers to migration.

MARSH - Wetlands that are dominated by grasses and reeds.

MEANDER - The bend in a stream channel.

MEANDERING - The process by which a stream winds or snakes its way across a flood plain continually changing its course by erosion, transportation, or deposition of sediment.

MIGRATORY - Refers to fish species that migrate or move from a lake or the sea and into a river or stream to spawn, or from the sea to freshwater.

NURSERY HABITAT - Refers to habitat used by juvenile fish for feeding, cover, growth etc.

NUTRIENTS - The minerals in the soil and gases in the air that make plant growth possible.

NUTRIENT CYCLING - The way nutrients are moved around and used in an ecosystem.

ORAL HISTORY - A tradition of collecting historical information by interviewing older people and having them tell stories and memories of the past.

OZONE LAYER DEPLETION - An environmental problem caused by chemicals (CFC's) released into the atmosphere which in turn cause the ozone layer to be broken down. The ozone layer protects us from ultra-violet rays of the sun. The depletion of the ozone layer means it is necessary to wear sunscreen and hats when working out of doors.

PHOTOSYNTHESIS - The process by which the sun's energy is used to create sugar in plants.

PLANKTON - Microscopic plant life (phytoplankton) or animal life (zooplankton) that inhabits an aquatic environment. Plankton is used as food by fish.

POOL - Water of considerable depth for the size of stream. Pools generally have slowly flowing water and a smooth surface, but they can often have a swift turbulent area where the water enters them.

PRODUCTIVITY - The number of organisms that an aquatic habitat produces in a given area over a given time period.

RAPIDS - Those parts of large streams and rivers which are relatively swift and shallow, with a bed of boulders. Analogous to riffles of a smaller stream.

REHABILITATION - The restoration or rebuilding of degraded or impaired fish habitat and/or water quality.

REDD - The gravel nest of salmonid fishes.

REVTMENT - A facing of stone or broken rock pieces placed on a stream bank to prevent or minimize erosion from high velocity flow. This term is also called rock rip-rap.

RILL - A shallow furrow eroded in soil by runoff water.

RIFFLES - Shallow water with rapid current and with surface flow broken by gravel or rubble.

RIP-RAP - A foundation or wall made of broken rock or logs. The wall created by either an irregular or pre-determined design. Also called a revetment.

RUNS - Moderate to rapid current flow in a deeper narrower channel than a riffle. Flow is less turbulent than in a rapid.

SAC FRY - See alevin.

SALMONID - Refers to a member of the fish family classed as Salmonidae, including salmon, trout, whitefish, and char.

SCOURING - Gradual or rapid erosion of particles on the channel walls or bed by force of the water current.

SEDIMENTATION - Deposition of eroded fine soil material on the stream bed.

SOLAR ENERGY - Energy from the sun.

SPAWNING HABITAT - Refers to habitat used by fish to reproduce (this is also habitat for laying and incubating eggs).

STREAM BED - The portion of the stream that is covered by water including the stream bottom.

STREAM FLOW - The discharge of water at any particular time period.

STREAM VELOCITY - This is simply a speed or velocity measurement recorded as distance traveled over time e.g., feet or metres per second.

SUSPENDED SOLIDS - That part of the sediment load which remains suspended in the water.

SWAMP - Wetlands dominated by wooded areas.

THALWEG - The natural channel or path of maximum depth in a river or stream. This channel normally follows a meandering path, back and forth across the wider, more shallow streambed, or riverbed.

TRIBUTARY - A smaller stream which flows into a bigger stream or river.

TURBULENCE - Irregular motion or swirling of water.

WATERCOURSE means any creek, brook, stream, river, lake, pond, spring, lagoon or any other natural body of water, and includes all the water in it, and also the bed and the shore (whether there is actually any water in it or not). It also includes all ground water.

WATER QUALITY - A general term commonly used in reference to chemical characteristics and temperature of the water.

WATERSHED - All of the land and water components draining into a river.

WEATHERING - The effect of climate on an item. Rocks "weather" or break apart to turn into soil.

WILDLIFE - A term used to describe many wild animals including, insects, fish, amphibians, reptiles, mammals, and birds.