

# ECOSYSTEM MATTERS GLOSSARY

**abiotic**- a non-living factor in an ecosystem (e.g., air, sunlight, water).

**acorn**- the nut (fruit) of an oak tree; typically set in a caplike base.

**adaptation**- the process by which animals or plants can change to live in a particular ecosystem; or, the trait in an animal or plant that makes it especially well-suited to live a particular ecosystem.

**aesthetics**- refers to the value placed on beauty.

**alpine**- refers to the high mountain area above timberline.

**amphibian**- an animal that lives in moist, wet areas. In its larval stage it lives underwater and breathes using gills. Through metamorphosis, it becomes an adult and breathes through lungs and moist skin (e.g., salamander, frog).

**anadromous**- usually refers to fish that spend most of their adult lives in oceans but migrate up fresh water streams to spawn (e.g., salmon).

**archaeologist**- a scientist who studies the life and culture of past peoples through the excavation and examination of their material remains.

**archaeology**- the study of past human lives and cultures through the examination of their material remains.

**artifact**- typically a simple tool or ornament produced by past human workmanship.

**aquatic**- refers to plants and animals that live, grow, or are regularly found in water.

**aquatic insects**- insects that spend part of their lifecycles in fresh water (e.g., mosquitos, mayflies).

**bat grate**- typically a framework of parallel or latticed metal bars that allow bats access to a mine or cave, while excluding humans and many other animals.

**bedding grounds**- a particular area where animals (typically herding animals) rest or sleep.

**bedrock**- the solid rock that underlies the earth's surface.

**behavior**- the actions of an animal to certain circumstances.

**biodiversity (biological diversity)**- the variety, distribution and abundance of life forms and ecological processes in an ecosystem.

**biome**- an ecological formation with distinctive plant and animal communities that are produced and maintained by certain climatic conditions.

**biosphere**- the life-supporting land, water and atmosphere of the earth's surface; the entire earth's ecosystem.

**biotic**- a living factor in an ecosystem.



**biotic community**- living things in a community (as compared to the non-living things).

**bobcat**- a wild cat of North American named because of its short tail; also characterized by its tufted ears and freckled fur.

**body mass**- usually refers to the size and weight of an animal's body.

**bottlenecks**- a hindrance to production or progress.

**browse**- shrubs eaten by deer, elk, sheep or cattle; to eat the twigs of leaves of shrubs.

**carnivores**- animals that kill and eat other animals.

**carrying capacity**- the maximum number of individuals in a species that a particular ecosystem can support at an given time.

**cave**- a natural opening into the earth, often on a cliff or hill.

**cavity nester**- a wildlife species (typically birds) that requires holes in trees for nesting and reproduction.

**clay**- fine particles of earth with high water holding capacity; hard when dry, plastic or sticky when wet.

**clutch**- the number of eggs produced and incubated at one time.

**colony**- a group of animals or plants of the same species, living or growing together.

**competition**- when two or more organisms vie for the same resource. Competition can occur between two different species (interspecific) or between two individuals of the same species (intraspecific).

**consensus**- a general agreement or collective opinion.

**consumer**- an organism that eats other organisms or their remains; or, a person or other entity that uses items or services.

**controlled burn**- see prescribed fire.

**corridor**- a linear tract of land that a species must travel or migrate through in order to reach habitat suitable for a particular life-sustaining need.

**crystals**- are solids with faces that come together in many ways and have regular shapes that identify the crystal. For example, salt crystals are always shaped like cubes. Crystals that are forming are said to be "growing" and their shapes and sizes will be different.

**decay**- to rot or decompose

**decomposer**- organisms that which decay dead plants and animals.

**deforestation**- the permanent replacement of forests by other land types or uses.

**dense, density**- the number of individuals in a specified unit of space; usually expressed as the density of a population.



**desalting plant**- a facility that removes salt from salt water to produce fresh water.

**desert**- an ecosystem with little available precipitation and little vegetation.

**diamond**- extremely hard and beautiful crystals often used in jewelry.

**disturbance**- an event such as fire, flood, wind, earthquake, disease that causes profound change to an ecosystem.

**diversity**- (see biodiversity)

**duff**- the layer of partially decomposed, organic matter underneath the litter layer of a forest floor.

**ecologist**- a scientist who studies living things and their relationships with their environment.

**ecoregion**- geographic area in which the combination of climate, topography, and geology, determine what types of plants and animals that live there. All the earth's ecoregions form one large ecosystem. See biome.

**ecosystem**- a system formed by the interaction of groups of organisms with each other and their environment; the physical environment and the ecological processes that connect them. Ecosystems may be large or small.

**ecosystem management**- the strategy of using ecological, economic, social and business principles to manage an ecosystem to produce, restore, or sustain its integrity over the long term (as opposed to the strategy of focusing on only one principle, resource use, or species).

**ecotone**- a mixing zone where two ecosystems and their accompanying plant and animal species overlap.

**edge effect**- the tendency of wildlife to use ecotones; or, in forest management, the altered environmental conditions along the edges of forest plots that are directly adjacent to recently harvested forest lands.

**environment**- the total of all the external conditions and influences that affect the existence of an organism.

**environmental impact**- the effect of an action upon the environment; may be negative or positive.

**environmentalist**- a person who protects the environment from pollution, wasteful uses of natural resources, and undue human intrusion.

**erosion**- a process by which wind and water removes earthy or rock material from the land surface.

**escape terrain**- part of an animal's habitat where it can quickly go to elude predators.

**ethic**- a moral code based on the principle of good conduct.

**ewe**- an adult female sheep.

**factory**- a place where people work to change natural resources, like minerals, into something new.

**fat load**- the increase in calories, stored as fat, to prepare for an extended period of high energy demand, like migration, or an extended period of fasting, like hibernation.



**fault-** a fracture or zone of fractures in layers of rock or the earth; the rock movement that occurs along such cracks.

**fetus-** an unborn mammal in which the development of its major body organs is complete.

**fledging-** the process by which a young bird prepares for flight.

**flyway-** bird migration routes linking breeding habitat in the north to wintering habitat in the south.

**food chain-** the transfer of food energy from plants through a progression of animals. For example, a green plant is eaten by an insect, which is eaten by a frog, which is eaten by a snake.

**food web-** the complex and interlocking series of food chains.

**forage-** the process where herbivorous animals search for and eat vegetation; or, the plant material eaten by herbivorous animals.

**forbs-** low growing herbaceous plants (e.g., weeds, herbs, not grasses).

**forest fragmentation-** the change from vast and continuous forests to a mosaic of forest patches caused by tree harvesting, suburban sprawl, highways, etc.

**forest floor-** the ground of the forest.

**fuel loading-** the accumulation of combustible material like underbrush, grass, sticks, and trees in an area.

**game, game animal-** designated wildlife which may be legally hunted only under regulation.

**global-** refers to the whole earth.

**grass-** an herbaceous plant with long thin slender leaves and very small flowers.

**grassland-** a plant community composed primarily of grasses.

**grazer-** an herbivorous animal that eats grasses.

**guano-** bat droppings, usually refers to buildup of droppings.

**habitat-** an area that has the minimum required arrangement of food, water, shelter and space for a particular species.

**harvest-** the gathering of plants, animals or other renewable natural resource for use.

**hibernation-** a period of extremely low metabolic activity during the winter.

**humus-** decayed organic matter in soil.

**hydrology-** the study of the waters of the earth, their distribution on the surface and underground, and the hydrologic cycle involving evaporation, precipitation, etc.

**immunity-** a condition of being able or having the capacity to resist a particular disease.

**inbreeding-** the mating of genetically similar individuals in a species.



**indicator species**- a particular plant or animal species used as a general measure of the health of an ecosystem.

**insecticide**- a chemical used to kill insects.

**interface**- a common boundary between abutting areas.

**inventory**- process of identifying and counting plants or animals.

**invertebrate**- an animal without a backbone.

**irrigation ditch**- a canal used to divert water from a stream to an agricultural field.

**lamb**- a young sheep less than one year old.

**landowners**- are people or companies who own land and have responsibility for the land.

**larva, larval stage**- the immature stage of many invertebrates followed by metamorphosis and the adult stage.

**life cycle**- the course of an organism's development through a series of stages or phases.

**limiting factor**- the environmental influences that limit the size of a population (e.g., predation, disease, food, water).

**limnology**- the study of fresh water ecosystems including marshes, ponds, and rivers.

**litter**- the layer of dead but not decomposed, fallen plant material that covers the forest floor; the layer above duff.

**lumber mill**- a factory where raw logs are cut into lumber (e.g., boards and planks).

**mammal**- warm-blooded, vertebrate animals characterized by having fur or hair; females nurse their young (e.g., mouse, bear, cow, human).

**management**- the practice or act of controlling the harvest, protection, or restoration, or other use of resources.

**managers**- people who make decisions about how resources will be used.

**marine**- refers to the sea (salt water).

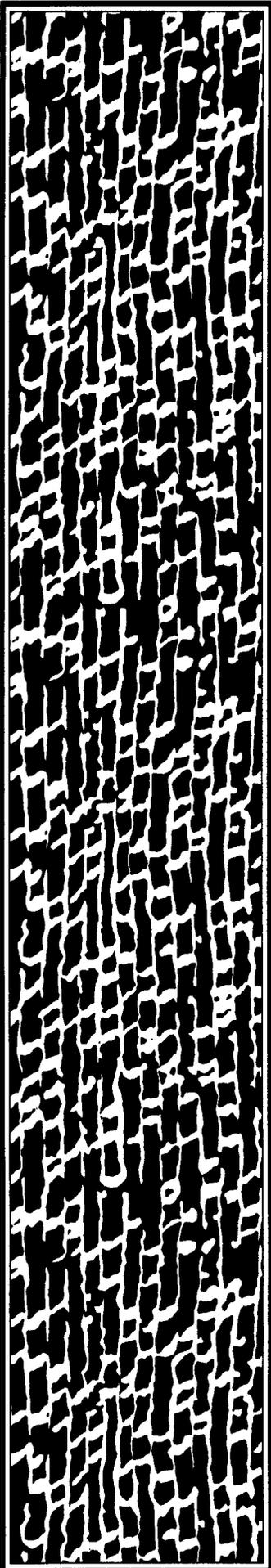
**microscopic**- too small to be seen with the unaided eye; requires a microscope to observe.

**migration**- usually refers to the seasonal movement of animals from one region to another, however, migrations may cover very short distances for some species.

**mineral**- a naturally occurring, non-living object found in the Earth's crust; generally thought to be a metal or rock, but not always.

**mines**- are human-made holes in the earth from which minerals are removed. Some mines go far into the ground while some are on the surface. Mining is the act of removing minerals from the ground.

**mortality**- death; usually refers to death rate.



**natural resources**- raw materials provided by the Earth and usually processed into useful products. Some natural resources are renewable, like trees, crops and wildlife. Other natural resources are nonrenewable, like oil, coal and metals.

**neotropical birds**- are birds that breed in North America during the summer and spend the winter south of the Tropic of Cancer.

**nest parasitism**- when a bird lays an egg in another bird's nest, leaving the host bird to hatch its egg and raise its young. This is a natural way for cowbirds to reproduce.

**niche**- an organism's function or role in an ecosystem.

**nutrients**- in forestry, it refers to minerals in the soil that help provide food for plants to grow. They are taken into the tree through roots.

**nymph**- the immature stage of many insects that undergo incomplete metamorphosis; this immature insect typically looks like a smaller, flightless, adult.

**old growth**- forests of trees hundreds or thousands of years old, characterized by large trees, abundant snags, broken tree tops, and accumulations of decaying wood.

**omnivore**- an animal that eats both plants and animals.

**organic matter**- generally, all matter made by the processes of living things and containing the element carbon.

**organism**- any living thing.

**parasite**- an organism living in or on another organism (the host) from which it obtains its nutrients. Parasites usually harm their hosts to some degree.

**parent material**- is formed by the weathering of rocks and minerals that begins the process of soil formation.

**pesticide**- a chemical used to kill plant or animals considered to be pests.

**pine tree**- (from the genus **pinus**) an evergreen tree that has bundles of needle-like leaves instead of large leaves; seeds are contained in cones.

**placenta**- the uterine tissue of mammals that helps to exchange material between the mother and fetus.

**pneumonia**- a respiratory disease characterized by fluid in the lungs.

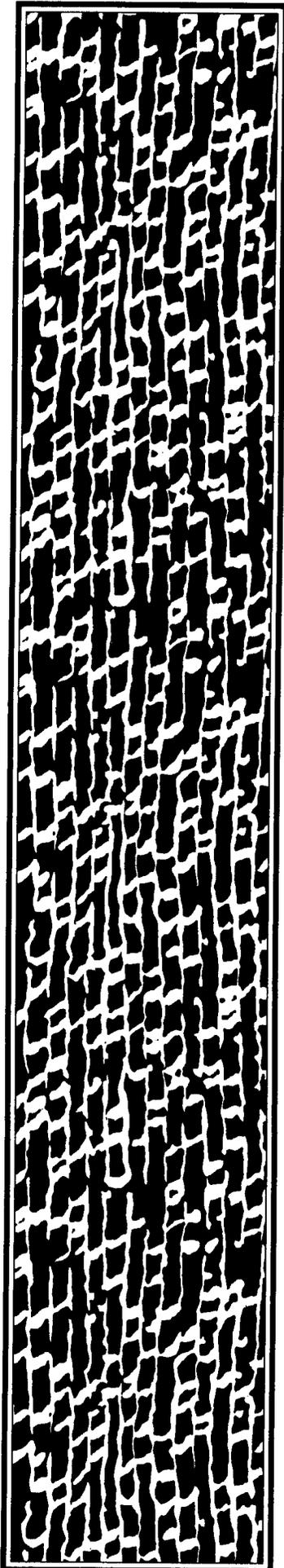
**pollutants**- unhealthy substances released to the air, water or land, that makes a resource less valuable or unfit for a specific purpose.

**population**- the number of a particular species in defined area.

**potholes, prairie potholes**- ponds and wetlands in west-central North America formed by retreating glaciers; important for migrating waterfowl.

**prairie**- a vast land area covered with grass and free of trees.

**precipitation**- any form of water falling from the sky (e.g., rain, snow, hail).



**predation**- the act of capturing another animal to eat.

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

**prescribed burn**- a resource management technique where a fire is deliberately set in, and controlled to a specific area to meet certain management objectives.

**producer**- typically, a green plant that produces organic matter from inorganic matter by the process of photosynthesis.

**public land**- land that is owned by citizens and managed by government natural resource agencies.

**ram**- an adult male sheep.

**reptile**- a vertebrate animal characterized by scaly, waterproof skin and a reproductive strategy that produces a shelled egg (e.g., snake, turtle)

**resources**- are the collective wealth of a region that comes from the land, or from the people of the land. See also, natural resources.

**riparian**- refers to land areas adjacent to aquatic ecosystems.

**rodent**- mammals such as mice, rats, squirrels, or beavers characterized by large teeth used for gnawing.

**roost**- a place where flying animals can rest; the act of resting on a perch.

**salt**- a cube-shaped crystal mineral found where there has been sea water. It is used in food preparation, soap manufacturing, and de-icing airplanes.

**sand**- small, rough particles of quartz with low water-holding capacity.

**scat**- droppings of a wild animal, fecal material.

**scouring**- an action to clean a river or channel of sediment by flushing with water.

**senses**- any of an animal's functions of taste, touch, smell, hearing, and sight that allow it to examine its environment.

**shorebird**- birds characterized by long legs and long bills, that feed along the shores of coastal or inland waters.

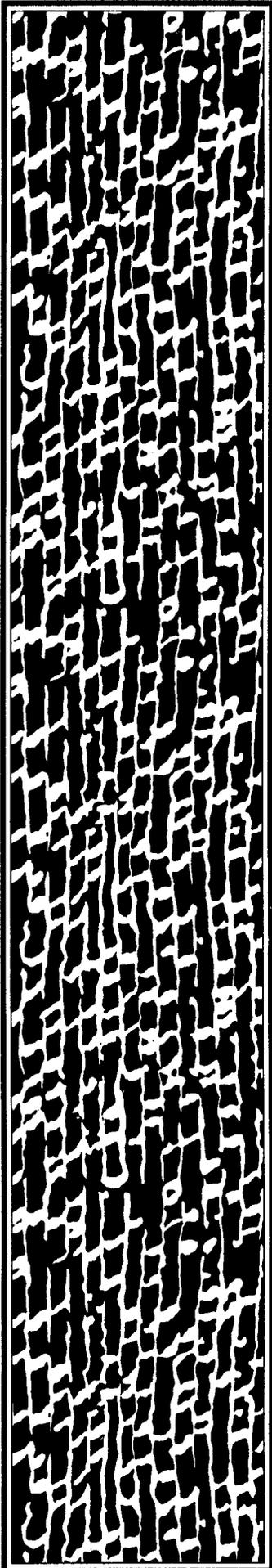
**silt**- small, powdery particles of water-transported earth deposited as sediment.

**snag**- a dead tree that is still standing; characterized by a broken top and/or branches, and a hollow interior; important for some wildlife species.

**soil**- the top covering of the Earth's crust suitable for plant growth. Includes the living things living in it.

**spawning**- the reproductive strategy for fish whereby eggs are produced, deposited and/or fertilized.

**species**- a population whose members resemble each other and are able to breed to produce fertile offspring; the most narrowly defined taxonomic level.



**stand**- a group of trees in a specific area uniform in age and condition so as to be distinguishable from the adjoining forest.

**streambank**- the edge of a stream.

**stump**- the remains of a tree after it's top has been cut off.

**substrate**- an underlying layer; in rivers, it refers to the bottom of the river or stream.

**survivorship**- the number or percentage of newborn individuals in a population that are alive after a given period of time.

**tanks, desert tanks**- eroded depressions in the rock which fill up with water. They are very important to desert wildlife.

**terrestrial**- refers to the ground (as opposed to aquatic).

**territory**- an geographic area used for breeding, feeding, or both, which is defended by and animal against others of the same species.

**thermal**- refers to temperature.

**ton**- 2,000 pounds.

**topography**- the description of a particular place or region; a map. The "lay of the land."

**tropical forest**- the highly biodiverse forest biome of the warm, humid equatorial region of the earth.

**tundra**- a cold, dry biome characterized by barren terrain with low-growing plant life.

**umbrella species**- see indicator species.

**understory**- the smaller trees and shrubs growing underneath the taller forest canopy.

**wasteland**- a discriptor used by people who believe that a particular place has little or no value or use. Some wildlife species may require this habitat.

**weaned**- to be withheld from mother's milk.

**wetlands**- areas that are frequently inundated with water and are characterized by vegetation that requires saturated or seasonally saturated soils.

**wildfire**- any fire occurring on wild land that is not controlled or prescribed.

**wild land/urban interface**- areas where houses and other urban structures are built in close proximity to wildland areas where natural disasters, such as fire, are likely to occur.

**wildlife**- large or small animals that are not domesticated.

**woodland**- a partially wooded area in which the trees are often small and do not form a closed canopy.