

(Abbreviated from National Envirothon Glossary <http://www.mnh.si.edu/mna/glossary.cfm>  
& combined with the Florida Envirothon Wildlife Study Packet's Glossary)

**Adaptation.** The process of change by an organism in response to a new condition in the environment; a physical or behavioral change, over generations, that allows a species to exploit a different environment. For example, gliding membranes allow flying squirrels to move from tree to tree much more efficiently than other squirrels.

**Allopatric.** Living in different areas. Species are allopatric when their ranges do not overlap.

**Altricial.** Born in an underdeveloped and therefore dependent state; the opposite of precocial (see precocial).

**Andromous.** Fish species which spend long periods of time in salt water but require freshwater to breed.

**Antlers.** Members of the deer family grow antlers on their heads each year. Antlers are made of bone, are branched, and are shed after the breeding season. In most species, only males bear antlers (see horns).

**Arboreal.** Adapted for living in trees (see terrestrial).

**Artiodactyla.** Order of hoofed mammals with an even number of toes. Native North American artiodactyls include sheep, goats, pronghorns, bison, peccaries, and deer. Artiodactyls carry their weight on two or four specialized, hoofed toes of each foot (see Perissodactyla).

**Arthropod.** An invertebrate of the phylum Arthropoda which includes the crustaceans, insects, centipedes, millipedes, and arachnids; the largest animal phylum; characterized by jointed appendages, segmented body, and an exoskeleton.

**Beak.** The elongated mouth of some dolphins.

**Brown Fat.** An unusual type of fat that is found almost exclusively in animals that hibernate.

**Calcar.** A cartilagenous calcaneum bone of the ankle; a keeled calcar (on a bat) is a ridgelike growth on the calcar that facilitates muscle attachment and helps support the interfemoral membrane.

**Carnivora.** North American mammals in the order Carnivora include members of the dog, cat, bear, weasel, skunk, and raccoon families, as well as seals, sea lions, and walruses. These mammals are adapted for meat-eating, although not all species only eat meat. For example, Polar Bears are entirely carnivorous, eating only meat, whereas Black Bears eat a variety of food items, including insects and fruit.

**Carnivore.** A mammal classified in the order Carnivora, or an individual or group that eats meat. Many organisms that are not in the order Carnivora are carnivores, including some primates, bats, birds, and even plants.

**Carnivorous.** Meat-eating (see carnivore).

**Carnivory.** Meat-eating.

**Carrying capacity.** The total number of any species that a given area of habitat will support at any given time; the number of organisms of a given species and quality that can survive in a given ecosystem without causing deterioration; the largest population the unit can support on a year-round basis, or during the most critical season. Carrying capacity varies throughout the year.

**Carrion.** Dead or decaying flesh.

**Caudal peduncle.** In cetaceans, the "tail stock" of a cetacean or the portion of the animal from the dorsal fin down to the tail.

**Cetacea.** Order of mammals including whales, dolphins, and porpoises, completely aquatic mammals who live their entire lives in water, even giving birth and nursing their young underwater.

**Cetacean.** A member of the order Cetacea.

**Chiroptera.** Order of mammals consisting of Bats, the only mammals who have evolved powered flight.

**Chiropteran.** A member of the order Chiroptera.

**Circadian rhythms.** Activity patterns associated with a 24-hour cycle.

**CITES.** Convention on International Trade in Endangered Species. Appendix I includes species threatened with extinction that are or may be affected by trade; Appendix II includes species that although not necessarily threatened with extinction may become so unless trade in them is strictly controlled, as well as nonthreatened species that must be subject to regulation in order to control threatened species; and Appendix III includes species that any Party identifies as being subject to regulation within its jurisdiction for purposes of preventing or restricting exploitation, and for which it needs the cooperation of other Parties in controlling trade.

**Classification.** Almost 250 years ago, Carolus Linnaeus, a Swedish scientist, devised a system of classifying living things that is still used today. When a new species is scientifically described, it is placed in an order, family, and genus, and given a two-part scientific name. The scientific name includes the genus and a "specific epithet" that names that species. For example, the Gray Wolf is named *Canis lupus* and the Coyote is *Canis latrans*. In Latin, "canis" means dog, "lupus" means wolf and "latrans" means barking or howling.

**Community.** A group of populations of plants and animals that occupy the same habitat or area and interact with each other.

**Congeners.** Species that are members of the same genus.

**Convergent evolution.** The evolution of similar characteristics, as adaptations to similar ways of life, by species of quite different ancestry.

**Coprophagy.** Ingestion of fecal matter.

**Crepuscular.** Active at dawn and dusk (see **Diurnal**, **Nocturnal**); The activity time of wildlife species with peak activity occurring around dawn and dusk.

**Cusp.** A pointed or rounded projection on the chewing surface of a tooth.

**Data deficient.** A species or other taxonomic group whose risk of extinction in the wild facing cannot be assessed because there is not enough information on its distribution or population status (International Union for the Conservation of Nature and Natural Resources). See **Endangered**, **IUCN**.

**Delayed development.** After fertilization, the blastocyst implants in the uterine wall, but then ceases dividing, or divides only very slowly, for some period of time.

**Delayed implantation.** The fertilized ovum develops only to about an early blastocyst stage, and then is retained in a dormant state in the uterus, without implanting in the uterine wall, for a period of time.

**Didelphimorphia.** Order of marsupial mammals native to the Americas. The Virginia Opossum (*Didelphis virginianus*) is the only marsupial that occurs in North America (see **Marsupials**).

**Dimorphism.** Having two forms; sexual dimorphism may refer to a size or other difference between males and females.

**Disturbance.** An act that causes organisms to alter their position, arrangement, or behavior.

**Distribution.** The area where a species is known to occur, although it may not occur everywhere within the area shown as its distribution.

**Diurnal.** Active during daylight hours (see **Nocturnal** and **Crepuscular**).

**Echolocation.** A system of high-frequency sounds and their echoes used by most bats and some insectivores and cetaceans to navigate and locate their prey.

**Ecological niche.** The part of the environment occupied by a species.

**Ecosystem.** An ecological system; a natural unit that includes the community of organisms and the physical environment in which they exist; a cyclic interchange of materials takes place between the living and nonliving units.

**Ecotone.** Transitional zone between two ecological communities.

**Ectoparasites.** Parasites that live externally on the body of their hosts.

**Endangered.** A species or other taxonomic group facing a very high risk of extinction in the wild in the near future (see **IUCN, Extinct**); An official (legal) designation for a species which is in danger of extinction throughout all or a significant portion of its range.

**Endemic.** Native to, prevalent in, or restricted to a certain geographic area.

**Endoparasites.** Parasites that live inside the body of their hosts.

**Environment.** The total of all the surroundings including physical, biological, and all other factors which comprise the habitat in which an organism exists.

**Estivate.** To spend the summer in a dormant condition (see **Hibernate**).

**Extinct.** A species or other taxonomic group is presumed Extinct when there is no reasonable doubt that the last individual has died. This determination is made by the IUCN only after exhaustive surveys in its known or expected habitat, at different times of the year, throughout its historic range. (see **IUCN**).

**Extinct in the Wild.** A species or other taxonomic group is determined to be Extinct in the Wild (by the IUCN) when there is no evidence that it still exists in its natural habitat, although some individuals survive in captivity, in cultivation, or as a naturalized population (or populations) well outside the past range. (see **IUCN, Extinct**).

**Estuary.** Area where freshwater meets and mixes with salt water.

**Ethogram.** A species-specific outline showing how a species performs basic behaviors.

**Ethology.** The study of animal behavior.

**Exotic.** An organism which is not native to the area where it occurs, that is, introduced.

**Extirpation.** to remove or destroy totally; do away with; exterminate.

**Family.** See **Classification**.

**Feral.** Used in wildlife as referring to domesticated animals gone wild, for example, cats, dogs, hogs. (this is a behavioral adaptation; they cannot "become" a native species)

**Fissipeds.** A general term referring to the terrestrial members of the Carnivora.

**Fluke.** Either of the two horizontally flattened halves of the tail of a whale.

**Folivores.** Animals that feed on leaves.

**Folivory.** Leaf-eating.

**Forage.** Refers to vegetation taken naturally by herbivorous animals (n); the act of eating vegetative materials (v).

**Foramen.** The opening, or hole, in a bone.

**Forbs.** Low-growing, herbaceous plants other than grasses.

**Fossorial.** Dwelling underground, or adapted for burrowing or digging. The large hands, feet, and claws of the Nine-banded Armadillo (*Dasypus novemcinctus*), and bony projections at the elbow and heel, are adaptations that make it a powerful, efficient burrower.

**Frugivore.** Fruit-eating. Many mammals, from black bears to bats, eat fruits as all or part of their diet.

**Frugivory.** Fruit-eating. Fruit-eating bats, such as the Jamaican fruit-eating bat, *Artibeus jamaicensis*, have premolars and molars with relatively large flat surfaces, for crushing and mashing fruits that are soft.

**Genus.** See classification.

**Granivore.** Seed or grain-eating.

**Granivorous.** See granivore.

**Guard hairs.** Longer, stiffer hairs that extend beyond the fur.

**Habitat.** The arrangement of food, water, shelter, and space suitable to an animal's needs. It is the life range which must include food and water as well as escape cover, winter cover, cover to rear young, and even cover in which to play.

**Hammock.** A piece of elevated, rich land with hardwood trees growing on it (also hummock).

**Herbivore.** Plant-eating; An animal that eats mostly plants.

**Herbivorous.** See herbivore.

**Hibernacula.** The shelters of hibernating animals.

**Hibernaculum.** The shelter of a hibernating animal.

**Hibernate.** To spend the winter in a dormant condition (see **Estivate**); The act of passing the winter, or a portion of it, in a torpid or resting state where body functions are greatly slowed.

**Homeotherm.** Organisms able to maintain a nearly constant body temperature; often used to describe mammals and birds.

**Home Range.** The area that an individual animal calls its own. Home ranges can overlap; sometimes the home range of a male will overlap with the home ranges of several females.

**Horn.** Horns are made of the same material as hair, claws, and hooves, and are permanently attached to the head. In many species, both males and females have horns, though in many the males' horns are much larger and heavier (see **Antlers**).

**Indigenous.** Native to, or originating and living in, an area; A naturally occurring species.

**Insectivora.** An order of small, mostly insect-eating mammals that in North America includes moles and shrews.

**Insectivore.** Member of the order Insectivora, or insect-eaters (see *Insectivora*, *insectivorous*).

**Insectivorous.** Insect-eating. Many mammals, from tiny bats to huge black bears, feed on insects. Some eat only insects and some include insects as part of a broader diet.

**Insectivory.** Insect-eating. The tall, pointed teeth of *Artibeus phaeotis*, the Pygmy Fruit-eating bat, suggests that its diet includes a significant amount of insects. In many insects the exoskeletons can be very tough and difficult to reduce into swallow-sized bits without well developed piercing and shearing teeth.

**Interfemoral Membrane.** Membrane that stretches between the hind limbs of bats (also called uropatagium) (see *Uropatagium*).

**Introduced.** Non-native species that have established breeding populations in the wild after being brought in by human actions, either accidentally or on purpose. For example, House Rats (*Rattus rattus*) arrived in North America with the first European colonists, possibly as stowaways on ships, and are now found throughout North America, whereas another rodent, the Nutria (*Myocaster coypus*), was introduced from South America for fur farming. It is now widespread in marshes and lakes in much of the southern and northwestern United States. Non-native species are sometimes known as exotic species or exotics. Other introduced species in North America include:

**Rodents:**

- House Mouse (*Mus musculus*) - the fossil record shows that this mouse originated in the Mediterranean or Near East, spread wherever there were shipping routes, and radiated from harbors. Its distribution is cosmopolitan.
- Brown Rat (*Rattus norvegicus*) - probably originally from Asia; widespread throughout the United States and southern Canada
- Black Rat (*Rattus rattus*)—introduced from Europe and SE Asia; also called Citrus Rat, Roof Rat, Fruit Rat
- Red-bellied Squirrel (*Sciurus aureogaster*) - from Latin America, introduced to the Florida Keys in 1938

**Artiodactyls:**

- Sambar (*Cervus unicolor*) - large brown ungulate from India and Southeast Asia; small numbers now live in Texas, California, and Florida
- Wild Boar (*Sus scrofa*) - a domestic pig gone wild, originally from Eurasia; feral populations are known from at least 18 states, especially in the humid South.

**IUCN.** The World Conservation Union (formerly the International Union for the Conservation of Nature and Natural Resources), an international body with members from about 140 countries, whose mission is "to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable." The IUCN establishes criteria for determining the conservation status of species or other taxonomic groups and maintains the Red List (see <http://www.iucnredlist.org/>).

**Karst.** Refers to areas with limestone caves.

**Keeled Sternum.** A breastbone that has a ridge along the center shaped like the keel of a ship.

**Lacrimal Shelf.** A ridge of bone underneath the eye socket.

**Lagomorph.** Rabbits, hares, and pikas, members of the order Lagomorpha.

**Lagomorpha.** Order of mammals encompassing the lagomorphs, which in North America include rabbits, hares, jackrabbits, and pikas.

**Life cycle.** The complete life history of an organism from any one stage to the recurrence of that stage.

**Limiting factors.** Influences in the life history of an animal, the abundance of which inhibits a population from reaching its biotic potential, for example, food, water, shelter, space, disease, predation, climatic conditions, pollution, accidents, hunting, etc.

**Lower Risk.** A species or other taxonomic group that has been evaluated but does not face a risk of extinction in the wild (International Union for the Conservation of Nature and Natural Resources; see **IUCN**).

**Management.** The manipulation of habitat and/or the organisms within the habitat to achieve some predetermined goal.

**Marsupials.** Pouched mammals, including the kangaroos and koalas of Australia, a number of species native to South America, and North America's opossum, (*Didelphis virginiana*). The pouch, or marsupium, is a fold of skin outside the female's body cavity, on the abdomen or lower stomach, where the female's nipples are located. After a very short gestation period, at birth, the offspring crawl into the pouch, where they remain, attached to a nipple, until they grow and develop enough to be independent.

**Mast.** Crops including beechnuts, acorns, chestnuts, etc.

**Maxillary Bridge.** The bony area underneath the nose, joining the upper jaws.

**Melanistic.** Darker coloration of the skin, hair, or fur.

**Mesic.** Wetter.

**Midden.** A dunghill or refuse heap.

**Mitigate.** To make up for; to substitute some benefit for losses incurred.

**Morphology.** The study of the form and structure of animals (or plants).

**Near Threatened.** A species or other taxonomic group is determined to be Near Threatened when it is likely to become Critically Endangered, Endangered or Vulnerable in the near future. (see **IUCN**, **Extinct**)

**Nectarivorous.** Nectar-eating. Some bats, such as *Choeronycteris mexicana*, the Mexican Long-tongued Bat, specialize in eating nectar.

**Nectarivory.** Nectar-eating. Resembling the long, thin beaks of nectar-feeding birds, a nectar-feeding bat, *Choeronycteris mexicana*, has a very long snout that can be inserted into a blossom.

**Neonate.** Newborn.

**New World.** The Western Hemisphere, the continents of North and South America (see **Old World**).

**Niche.** A position or activity occupied by a species in reference to other species.

**Nictitating Membrane.** A transparent third eyelid.

**Nocturnal.** Active at night (see *Diurnal*, *Crepuscular*); Active by night; the opposite of diurnal.

**Not Evaluated.** A species or other taxonomic group whose conservation status in the wild has not been evaluated (International Union for the Conservation of Nature and Natural Resources; see **IUCN**).

**Occipitals.** Large, strong bones at the base of the skull.

**Old World.** Europe, Asia, and Africa, so called after Columbus's voyages opened up a vast new region to European exploration (see **New World**).

**Omnivore.** An animal which eats a broad range of plant and animal materials. See *Omnivorous*.

**Omnivorous.** Eating a variety of foods.

**Omnivory.** Eating a variety of things from across the range of food sources, such as insects, vertebrates, invertebrates and plant material.

**Orbit.** The bony cavity in which the eye sits.

**Order.** The Order is one of the higher divisions of the Linnaean organizational scheme. There is no clear cut definition of what an order actually is, but scientists use it as a way of identifying what is usually a large collection of organisms that form a unique adaptive radiation relative to all other types. Bats, for example, are an order of flying mammals, Chiroptera; whales, dolphins and porpoises are an order of swimming mammals, Cetacea.

**Otolith.** A tiny bone-like particle or plate-like structure found in the inner ear of fish (and other lower invertebrates). They can be beneficial to research studies since they grow with the fish and deposit annual growth rings.

**Parasite.** An organism that lives by deriving benefit from another organism, usually doing harm to the organism from which it derives benefit.

**Parietals.** Bones that form part of the top and sides of the skull.

**Pathogen.** A disease-causing organism.

**Pectoral.** Located on or near the chest.

**Pelage.** The coat of a mammal, consisting of hair, fur, or wool.

**Pelagic.** Referring to the ocean surface or the open sea, as opposed to coastal waters.

**Perissodactyla.** Order of hoofed mammals (including horses, tapirs, and rhinos, none of which is native to North America) with an odd number of toes. Perissodactyls carry their weight on a long, hoofed third toe of each foot (see **Artiodactyla**).

**Pheromones.** Odiferous chemical compounds that may be used to attract mates.

**Plantigrade.** Walking on the whole sole of the foot.

**Polyandrous.** A mating system in which females mate with more than one male.

**Polygamous.** A mating system in which both sexes mate with more than one mate.

**Polygynous.** A mating system in which males mate with more than one female.

**Precocial.** Born in a fully developed state; the opposite of altricial.

**Predator.** An animal that kills and eats other animals.

**Prehensile.** Capable of grasping.

**Premolars.** The teeth between the canines and molars.

**Polygamous.** Having more than one mate at a time.

**Population.** A group of interacting individuals of the same species or smaller *taxa* in a common spatial arrangement.

**Population dynamics.** The totality of changes that take place during the life of a population.

**Prey.** Animals that are killed and eaten by other animals.

**Recent Synonyms.** Other scientific names by which an organism has been known.

**Riparian.** On, relating to, or near the banks of a river, stream, or other natural watercourse.

**Rodentia.** Rodents; a large mammalian order including mice, rats, squirrels, porcupines, and many others.

**Rostrum.** A snout, beak, or beaklike projection; the front, or facial, part of the skull.

**Rugose.** Having many wrinkles or creases; ridged or wrinkled.

**Ruminant.** An animal that swallows large quantities of food, and then regurgitates it and rechews it. White-tailed deer and cattle are ruminants.

**Rut.** Periodic sexual excitement of the males of some species.

**Rutting Season.** See **Rut**.

**Sagittal Crest.** A bony structure running along the top of the braincase, which facilitates muscle attachment.

**Saltatorial.** Moving by hopping or leaping. Kangaroo rats are saltatorial.

**Scansorial.** Climbing or able to climb.

**Scat.** Excrement; feces; dung.

**Scientific Name.** See **Classification**.

**Scrub.** A type of habitat dominated by woody vegetation composed principally of shrubs or shrub-like trees.

**Seral.** Refers to a particular stage along the successional continuum from the initial stage, through transitional stages to the climax community.

**Sexual Dimorphism.** A condition in which males and females of a species differ from each other. In some species, such as California Sea Lions (*Zalophus californicus*) and Bighorn Sheep (*Ovis canadensis*), males are much larger and heavier than females. Male Moose (*Alces alces*) have huge antlers that the females lack.

**Sirenia.** Order including Dugongs and Manatees, fully aquatic, herbivorous mammals also known as sea cows.

**Site fidelity.** The instinctual tendency of an animal to remain at or near a particular location.

**Slough.** An inlet from a river; backwater; tideflat; a creek in a marsh.

**Species.** A group of organisms that together form a unique breeding population. Usually, none of the individuals of that population are able to breed with members of another species (see **Genus, Family**); A group of related individuals with a shared evolutionary history and able to interbreed and produce fertile offspring under natural conditions; a category of biological classification immediately below the genus or subgenus.

**Spyhopping.** The behavior in which a whale deliberately raises its head out of the water, supposedly for a look around.

**Succession.** The orderly, gradual, and continuous replacement of one population or community by another.

**Sympatric.** Living in the same area.

**Synchronous Breeding.** A breeding system in which all the members of a population tend to breed at the same time.

**Taxonomy.** The classification of mammals or other organisms into an orderly system that shows their relationship to each other (see also **Classification**).

**Terrestrial.** Adapted for living on the ground (see **Arboreal**); Ground-dwelling.

**Territory.** The concept of dominance over a unit of habitat; an area defended by an animal against others of the same species; used for breeding, feeding, or both. Many species of wildlife are territorial.

**Threatened.** An official (legal) designation for a species present in its range but in danger of extinction in the future if current trends (declines in numbers) continue. Additional population declines could lead the species to be listed as endangered.

**Torpor.** A state of inactivity. Some mammals that do not actually hibernate enter torpor in very cold weather as a way of conserving energy.

**Tragus.** A flap, sometimes movable, in the opening of the

**Tubercle.** A hard bump or nodule on the skin or on a bone.

**Ungulate.** Having hooves.

**Uropatagium.** Membrane that stretches between the hind limbs of bats (also called the interfemoral membrane).

**Vector.** An organism that carries disease; An organism, usually an arthropod, which transports a pathogen.

**Vestigial.** A rudimentary organ that was more functional at some time in the organism's evolutionary history.

**Vulnerable.** A species or other taxonomic group considered to be facing a high risk of extinction in the wild. (See **IUCN** and **Extinct**)

**Wetland.** Land permanently or periodically flooded by water or where water is the dominant factor affecting the characteristics of soil, and supporting distinct plant and animal communities.

**Wildlife.** Animals that are not tamed or domesticated; may be small organisms only visible to humans if seen through a microscope, or as large as a whale. Wildlife includes, but is not limited to, insects, spiders, birds, reptiles, fish, and mammals, if non-domesticated.

**Xeric.** Dryer.

**Zygomatic Arch.** Cheekbone.