Vocabulary List

Alien species: Species introduced into ecosystems that are outside normal distribution areas.

Annual plant: A plant which completes its life cycle from seed germination, through reproduction, to death within one year.

Archaeologist: A person who studies past human history by digging up artifacts and remains, such as pottery, tools, and homes.

Arthropod: An invertebrate animal that has an exoskeleton, jointed legs and many body sections. A beetle is an arthropod.

Bioblitz: An effort that enlists the help of both scientists and non-scientists in documenting as many species as possible in a defined area over a short period of time (‘bio’ = life; ‘blitz’ = fast).

Biodiversity: The diversity, or variety, of plants and animals and other organisms in a particular area or region; this includes diversity within species, between species, and of ecosystems.

Biotic community: The plants and animals living and interacting with each other and with their physical environment in a given locality, such as in a salt marsh or in a bursage-creosote community.

Camouflage: An animal’s color patterns that help it blend in with the plants or rocks around it.

Carnivore: An animal or plant (particularly insect- and invertebrate-eating plants) that requires a staple diet consisting mainly or exclusively of animal tissue through predation or scavenging.

Climax community: Fairly stable, self-sustaining community in an advanced stage of ecological succession; usually has a diverse array of species and ecological niches; captures and uses energy and cycles critical chemicals more efficiently than simpler, immature communities.

Commensalism: An interaction between organisms of different species in which one type of organism benefits from the other without affecting it.

Competition: An interaction between individual organisms (intraspecific competition) or species (interspecific competition) in which both the species are harmed. Limited supply of at least one resource (such as food, water, and territory) that is used by both organisms can be a factor in competition.

Deciduous plant: A plant that drops its leaves seasonally in response to a dry or cold period.

Decomposer: Organisms that break down dead or decaying plants or animals and return nutrients to the soil. Examples: termites, bacteria, millipedes, and fungus.

Disturbance: A discrete event that disrupts an ecosystem or community. Examples of natural disturbances include fires, hurricanes, tornadoes, droughts, and floods. Examples of human-caused disturbances include deforestation, overgrazing, and plowing.

Diurnal: Active during the day.

Dormancy: The temporary suspension of biological activity, such as growth or movement.

Drought: Prolonged and widespread deficit in naturally available water supplies, such as rain or snow.

Ecological succession: Process in which communities of plant and animal species in a particular area are replaced over time by a series of different and often more complex communities.

Ecology: The study of interrelationships among plants, animals and their physical environments.

Ecosystem: A community of interacting living organisms and non-living physical components of an environment, through which energy moves and minerals are recycled; e.g., a small mud flat or the biosphere.

Ecosystem services: The benefits that people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth.

Ectothermic: An animal that regulates its body temperature largely by exchanging heat with its surrounding environment; a cold-blooded animal.

Endangered: A plant or animal species that exists in such small numbers that it is in danger of becoming extinct.

Endemic: Growing or living exclusively within a particular region or locality, such as an island, nation, country or other defined zone, or habitat type

Evaporation: The sum of water lost from a given land area during any specific period of time by evaporation from water surfaces, moist soil, and snow, and by transpiration from vegetation and the building of plant tissue.

Exoskeleton: A hard outer structure, such as the shell of beetles and other arthropods, that provides protection or support for an organism.

Exotic species: Species that migrate into an ecosystem or are deliberately or accidentally introduced into an ecosystem by humans.

Extinct: When the individual of a species dies; or when a species is reduced to such low abundance that, although it is still present in the community, it no longer interacts significantly with other species.

Food Chain: A group of animals and plants in a community through which energy flows in the form of food.

Fossil: The remains or impression of a prehistoric organism preserved in petrified form or as a mold or cast in rock.

Foundation species: Species that plays a major role in shaping communities by creating and enhancing a habitat that benefits other species.

Geography: The study of the physical features of the earth and its atmosphere, and of human activity as it affects and is affected by these, including the distribution of populations and resources, land use, and industries.

Habitat: The place in which a plant or animal naturally lives that provides food, water, shelter and space.

Habitat fragmentation: Process by which habitat loss results in the division of large, continuous habitats into smaller, more isolated remnants.

Herbivore: An animal that eats only plants.

Hibernate: To be in a dormant or torpid state during a cold period, especially during the winter.

Host: Plant or animal on which a parasite feeds.

Hybrid: Offspring which is the product of cross-fertilization between two different species, subspecies or varieties.

Immature community: Community at an early stage of ecological succession. It usually has a low number of species and ecological niches and cannot capture and use energy and cycle critical nutrients as efficiently as more complex, mature communities.

Indicator species: Species that serve as early warnings that the health of a community or ecosystem is being degraded.

Inertia: Ability of a living system to resist being disturbed or altered.

Interspecific competition: Individuals of different species compete for the same resource in an ecosystem.

Intraspecific competition: Individuals of the same species compete for the same resource in an ecosystem.

Invasive species: A non-native (or alien) species whose introduction causes or is likely to cause economic harm, environmental harm, or harm to human health.

Keystone species: Species, often dominant predators, that play a role in an ecosystem that affects many other organisms; removal of keystone species often allows a prey population to explode and decreases overall diversity.

Mammal: A warm-blooded, vertebrate animal of a class that is distinguished by the possession of hair or fur, the secretion of milk by females for the nourishment of the young, and (typically) the birth of live young.

Mano: A hand-held grinding stone.

Mature community: Fairly stable, self-sustaining community in an advanced stage of ecological succession; usually has a diverse array of species and ecological niches; captures and uses energy and cycles critical chemicals more efficiently than simpler, immature communities.

Mesic: Of or pertaining to a habitat that has a moderate amount of moisture, such as a riparian area or cienega. Compare to xeric.

Metamorphosis: The process of physical transformation (in an insect or amphibian) from an immature form to an adult form in two or more distinct stages.

Metate: A stone base which holds corn and mesquite pods for grinding with a mano.

Microhabitat: A smaller, more specific habitat within the larger habitat in which a species lives, e.g. under a rock, on a certain species of plant.

Mutualism: Type of species interaction where organisms of different species exist in a relationship in which each individual benefits from the activity of the other.

Native species: Species that are indigenous to a given region or ecosystem; their presence in the region is the result of only natural process, with no human intervention.

Niche: The role or function of a particular species in its community or ecosystem.

Nocturnal: Active at night.

Non-native species: A species that is not indigenous to a given region or ecosystem. Compare to Native species.

Omnivore: An animal that eats either other animals or plants.

Orographic: Pertaining to mountain-building or orogeny.

Paleontologist: A scientist who studies past forms of life by examining fossils.

Parasite: Consumer organism that lives on or in and feeds on a living plant or animal, known as the host, over an extended period of time. The parasite draws nourishment from and gradually weakens its host; it may or may not kill the host.

Pathogen: Organism that produces disease.

Perennial: Plants that are present at all seasons of the year and persisting for several years, usually with new herbaceous growth

Petroglyph: A rock carving created by prehistoric peoples; typically a picture of animals, hunters, and scenes of daily life.

Pictograph: An ancient or prehistoric drawing or painting on a rock wall.

Pioneer community: First integrated set of plants, animals, and decomposers found in an area undergoing primary ecological succession.

Pioneer species: First hardy species, often microbes, mosses, and lichens, that begin colonizing a site as the first stage of ecological succession.

Pollination: The process by which pollen is moved from the male parts of one flower to the female parts of another flower of the same species. Pollination is a precondition for seed set and the development of fruit in most plants.

Population: all of the individuals of the same species within an ecological community.

Predation: Situation in which an organism of one species (the predator) captures and feeds on parts or all of an organism of another species (the prey).

Predator: An animal that kills other animals for food. (Try not to think of a predator as the enemy of the prey. A predator is simply getting its food in the way in which it is best adapted.)

Prey: An animal that is hunted for food by a predator. Example: a kangaroo rat may become prey for a coyote.

Primary succession: Ecological succession in a bare area that has never been occupied by a community of organisms.

Reptile: An animal that has dry, scaly skin, lays eggs, and is ectothermic. Snakes, lizards, and tortoises are reptiles.

Resilience: Ability of an ecosystem to respond to a perturbation or disturbance by resisting damage and recovering quickly.

Scavenger: An animal that is either carnivorous or herbivorous and feeds on dead animal and plant material present in its habitat.

Secondary succession: The ecological succession that occurs on a preexisting soil after the primary succession has been disrupted or destroyed due to a disturbance that reduced the population of the initial inhabitants.

Sonoran Desert: A desert biome located in North America that covers approximately 100,000 square miles (260,000 sq. km.) and includes most of the southern half of Arizona, southeastern California, most of the Baja California peninsula, the islands of the Gulf of California, and much of the state of Sonora, Mexico. It is characterized by its high aridity and adapted plant and animal life.

Species: A distinct type of organism capable of reproducing with other individuals of the same type, but not with any other type of organisms. (For example, a fox and a coyote are similar, but they cannot breed with each other. A fox is one species and a coyote is another.)

Species evenness: Abundance of individuals within each of the species contained in a community.

Species inventory: The documentation and identification all biological species living in a defined area. This results in a collection of species names organized by location or some other defining characteristic.

Species richness: The number of species in a given area.

Succession: See ecological succession, primary succession, secondary succession.

Succulent: A plant that has thick or fleshy leaves and stems that retain water in arid climates or soil conditions.

Symbiosis: A close ecological relationship between the individuals of two (or more) different species; the term is often used to describe relationships that are mutually beneficial but it also includes other relationships. See commensalism, mutualism and parasitism.

Taxonomy: The science of finding, describing, classifying, and naming organisms.

Threatened: Plants or animals whose populations are decreasing and may become endangered.

Threshold effect: The harmful or fatal effect of a small change in environmental conditions that exceeds the limit of tolerance of an organism or population of a species.

Tolerance limits: Minimum and maximum limits for physical conditions (such as temperature) and concentrations of chemical substances beyond which no members of a particular species can survive.

Venom: A substance which may contain hemotoxins and/or neurotoxins and causes pain, paralysis, and/or death when injected by mouthparts (including fangs) or stinger.

Venomous: An animal that is capable of injecting venom by means of a bite or sting.

Xeric: Of or pertaining to a dry habitat such as a desert, or adapted to a dry habitat. Compare to mesic.

Descriptive words for plant observations

Spiny, prickly, soft, rough, waxy, aquatic, aromatic, bare, bushy, flowing, blooming, leafy,

lush, healthy, withered, wilting

Descriptive words for animal observations

Scaly, smooth, furry, hairy, fuzzy, feathered, flying, migratory, nocturnal, omnivorous, carnivorous, herbivorous, poisonous, warm-blooded, cold-blooded, aquatic, domestic, wild