

abundance The number of individuals in a population.

autotroph "self-feeding", from the Greek autos "self" and trophe "nourishing" or "producer". An organism that produces complex organic compounds (such as carbohydrates, fats, and proteins) from simple substances present in its surroundings, generally using energy from light (photosynthesis) or inorganic chemical reactions (chemosynthesis). They are the producers in a food chain and include plants, algae, and bacteria.

Bering Sea Waters off the coast of Alaska north of the Aleutian Islands and south of the Bering Straits

biodiversity the degree of variation of life. It is a measure of the variety of organisms present in different ecosystems. This can refer to genetic variation, ecosystem variation, or species variation (number of species) within an area, biome, or planet.

biosecurity the implementation of actions to reduce the risk of introduction of an invasive species. A biosecurity plan provides guidelines and information to the public and land managers that can be used to help prevent the spread of invasive species, quickly detect a new invading species, and/or rapidly respond to new invasions (ecosystem security). A biosecurity plan attempts to identify pathways of invasion and strategies for preventing or reducing new introductions.

colonial nesting seabirds (seabird colony) A seabird colony is a large congregation of individuals of one or more species of bird that nest or roost in proximity at a particular location (e.g., on an island). Many kinds of birds are known to congregate in groups of varying size; a congregation of nesting birds is called a breeding colony.

competitor (competition): a contest between organisms, animals, individuals, and/or groups, for territory, a niche, resources (food, shelter, etc.), mates, or group or social status.

conservation The act of protecting or preserving natural resources in order to prevent depletion or loss.

detritivore also known as detritophages, detritus feeders, detritus eaters, or saprophages that obtain nutrients by consuming detritus (decomposing plant and animal parts as well as faeces). By doing so detritivores contribute to decomposition and the nutrient cycles and are thus an important aspect of many ecosystems. They can live on any soil with an organic component, including marine ecosystems, where they are termed interchangeably with bottom feeders. Typical detritivorous animals include but are not limited to millipedes, woodlice, dung flies, slugs, many terrestrial worms, sea stars, sea cucumbers, and fiddler crabs.

disease a particular abnormal, pathological condition that affects part or all of an organism.

ecological community an assemblage or associations of populations of two or more different species occupying the same geographical area and in a particular time.

ecosystem A community of living organisms and their environment, and the interactions between the two. Humans are an integral part of an ecosystem.

endemic species (Endemism) the ecological state of a species being unique to a defined geographic location, such as an island, nation, country or other defined zone, or habitat type; organisms that are indigenous to a place are not endemic to it if they are also found elsewhere.

environmental Stewardship protecting the natural environment and using its resources in a sustainable way. It also means practicing conservation: taking actions to ensure that native plant and animal species, and the habitats that they require, continue to survive.

eradication (invasive species) the intentional (purposeful) local extinction, or extirpation of a species; e.g., eradicating rats to protect breeding seabirds on an island.

APPENDIX I

Glossary

evapotranspiration the combination of evaporation and plant transpiration from the Earth's land and ocean surface to the atmosphere.

evolution the change in heritable traits of biological populations over successive generations. Evolutionary processes give rise to diversity at every level of biological organization, including the level of species, individual organisms, and at the level of molecular evolution.

extinct the end of an organism or of a group of organisms (taxon), normally a species. The moment of extinction is generally considered to be the death of the last individual of the species, although the capacity to breed and recover may have been lost before this point.

extirpation the condition of a species (or other taxon) that ceases to exist in the chosen geographic area of study (local extinction) although it still exists elsewhere.

fauna animals of a particular region or habitat. The grouping of animals to a location or time.

feral (animal) one that has itself escaped from a domestic or captive status and is living more or less as a wild animal, or one that is descended from such animals.

food web a graphical representation of feeding relationships within an ecological community implying the transfer of food energy from its source in plants through herbivores to carnivores.

forage fish generally a small schooling fish that feed on plankton and preyed upon by larger fish, marine mammals, and seabirds.

genetic variation the diversity in gene frequencies. Genetic variation can refer to differences between individuals or to differences between populations. Mutation is the ultimate source of genetic variation, but mechanisms such as sexual reproduction and genetic drift contribute to it as well

gizzard an organ found in the digestive tract of many animals, including birds, reptiles, earthworms, and some fish. It's a specialized stomach with thick muscular walls and containing previously eaten stones or grit that are used for grinding up food. The stones act as "teeth" in the gizzard, breaking down hard food like seeds, and making digestion more efficient. The stones are worn down and can be passed or regurgitated when they no longer good for grinding.

guano the excrement of birds, cave-dwelling bats, and pinnipeds. Guano is a highly effective fertilizer due to its exceptionally high content of nitrogen, phosphate, and potassium, three nutrients essential for plant growth.

habitat an ecological or environmental area that is inhabited by a particular species of animal, plant, or other type of organism. It is the natural environment in which an organism lives, or the physical environment that surrounds a species population.

herbivore an animal anatomically and physiologically adapted to eating plant material, for example foliage, for the main component of its diet. As a result of their plant diet, herbivorous animals typically have mouthparts adapted to rasping or grinding.

heterotrophy (heterotrophic) an organism that cannot fix carbon and uses organic carbon for growth. Heterotrophs can be further divided based on how they obtain energy; if the heterotroph uses light for energy, then it is considered a photoheterotroph, while if the heterotroph uses chemical energy, it is considered a chemoheterotroph. Most bacteria and all animal and fungal species are heterotrophic.

homogenization (homogenous) identical in composition or character.

hybrid an offspring of two animals or plants of different breeds, varieties, species, or genera.

hybridize the process of combining different varieties of organisms to create a hybrid.

incursion an invasion or attack, especially a sudden or brief one. In the context of invasive species, the arrival of a single or small number of individuals of an invasive species in an ecosystem to which they are not native.

invasive species (invasive alien species, exotic species) a plant or animal that is not native to a specific location (an introduced species); and has a tendency to spread, which is believed to cause damage to the environment, human economy and/or human health.

mitigative measures In respect of a project, the elimination, reduction, or control of the adverse environmental effects of a project. Mitigation measures prevent or reduce potentially negative effects as, for example, in stockpiling excavated soil well away from streams to prevent or minimize the potential for increased sedimentation and the destruction of fish spawning habitats.

mortality the state of being mortal, or susceptible to death.

native/indigenous species in biogeography, a species is defined as native (or indigenous) to a given region or ecosystem if its presence in that region is the result of only natural processes, with no human intervention. Every natural organism (as opposed to a domesticated organism) has its own natural range of distribution in which it is regarded as native.

natural range the geographical area within which a particular species is commonly found.

NFWFS An abbreviation for the Northwest Fish and Wildlife Service.

overgrazing when plants are exposed to intensive grazing for extended periods of time, or without sufficient recovery periods.

parasite (parasitism) a non-mutual symbiotic relationship between species, where one species (the parasite) benefits at the expense of the other (the host).

pathogen an infectious agent such as a virus, bacterium, fungus, or parasite that causes disease in its host.

pathology a term that may be used broadly to refer to the study of disease in general mostly through the analysis of tissue, cell, and body fluid samples.

pelagic Inhabiting the water column as opposed to being associated with the sea floor; generally occurring anywhere from the surface to 1,000 meters.

predator (predation) an organism that eats another organism.

prey the organism which the predator eats.

primary poisoning (non-target species) Poisoning of a native species that occurs when it directly consumes the rodenticide (poison) baits used to eradicate mice or rats during an eradication operation.

protozoa unicellular (one cell) microorganisms with animal-like behaviour, such as movement.

richness A measure of biodiversity showing how many effective species were in a given haul.

rodenticide a bait containing a poison that is used to eradicate invasive rodents including rats. Currently, rodenticides are the only known technique that maximizes the chances of successfully eradicating invasive rodents (Howald et. al. 2007). Rodenticide baits can be placed in bait stations on the target island, broadcasted by hand, or aurally broadcasted by helicopter.

salt gland a gland in marine birds that concentrates salt from the blood. Salt is collected near the nostrils and "sneezed" out.

secondary poisoning (non-target species) Poisoning of a scavenging species such as a Common Raven or Bald Eagle that occurs when it feeds on an animal such as a rat that has consumed the rodenticide (poison) baits used to eradicate mice or rats during an eradication operation.

soil moisture regime the changing state of soil moisture through the year, which reflects the changing balance of monthly precipitation and potential evapotranspiration above the ground surface.

APPENDIX I

Glossary

species richness the number of different species represented in an ecological community, landscape or region. Species richness is simply a count of species and does not take into account the abundances of the species or their relative abundance distributions.

symbiotic the close and often long-term interaction between two or more different biological species.

tertiary poisoning (non-target species) Poisoning of a scavenging species such as a Common Raven or Bald Eagle that occurs when it feeds on an animal which has eaten another animal that has consumed the rodenticide (poison) baits used to eradicate mice or rats during an eradication operation. For example, a rat eats the rodenticide bait and is then eaten by a sea gull (secondary poisoning), which is then eaten by a Bald Eagle (tertiary poisoning).

tunicate a marine filter feeder with a water-filled, sac-like body structure and two tubular openings, known as siphons, through which they draw in and expel water.

ungulate a diverse group of large mammals that includes horses, cattle, pigs, giraffes, camels, deer, and hippopotamuses. Most terrestrial ungulates use the tips of their toes, usually hooved, to sustain their whole body weight while moving. The term means, roughly, "being hooved" or "hoofed animal".