

## **Bay to Dunes Key Terms**

**Adaptation** the evolutionary process whereby a population becomes more suited for its habitat; features of an organism that makes it more fit for existence

**Bay** a body of water partially enclosed by land but with a wide mouth, affording access to the sea

**Beach wash-ups** items washed ashore from ocean

**Biodiversity** the variation of life forms in a particular area or region

**Brackish water** water containing a mix of fresh and salt water

**Catalyst** an agent that provokes or speeds significant change or action

**Climax species/late-successional species** are plant species that will remain essentially unchanged in terms of species composition for as long as the site remains undisturbed

**Competition** the contest between species in an environment for available resources (food, shelter, etc.)

**Current** running, flowing, and circulating of water

**Creep** the slow movement of sand down a weathered slope

**Decomposition** the breaking down of a substance into its component parts (decay)

**Detritus** disintegrated material and debris, as from organic decomposition

**Dike** a levy to prevent floods

**Dune** a hill or ridge of wind-blown sand

**Ecological Restoration** the process of bringing back to existence, or reestablishing, the original condition of a degraded environment

**Ecological succession** the process by which an ecosystem changes over time and results in the formation of a stable community

**Ecosystem** an ecological community together with its environment, functioning as a unit

**Emergent** rising above a surrounding medium, as in wetland plants protruding above the water level

**Endangered species** life forms that face extinction

**Environment** the combination of external physical, chemical, and biotic factors affecting the growth and development of an organism or an ecologic community

**Estuary** a partly enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea

**Eutrophication** a process affecting waters that are rich in minerals and organic nutrients, whereby plant life (especially algae) proliferates eventually reducing the dissolved oxygen content and often killing off other organisms

**Exotic species** species that are foreign to an environment, having come from another part of the world

**Fauna** animals

**Filter feeders** aquatic animals that trap and removes food particles from a current of water passing through its body

**Filtration** the removal of particulate matter that is too large to pass through a filter (soil, plant fibers, etc.) along with water or air

**Flood water retention** the capacity of wetland sediments and vegetation to hold excess pulses of water for subsequent discharge

**Flora** plants

**Food web** the complex of interrelated food chains in an ecological community whereby food energy passes among organisms as each consumes and in turn is preyed upon by others

**Fresh water** water which does not contain a significant concentration of salt

**Ground water** water beneath the land surface and in the porous spaces in rock and sedimentary material also called percolating water

**Habitat** the environment in which an organism normally lives; a home for all living things

**Herbivore** an organism that feeds chiefly on plants

**High dunes** these tall dunes are formed by geologic features and physical forces including the orientation of the coastline, direction of winds and source of sand help create the changing, dynamic dune system

**Hummock** clumps of vegetation rising up from wetlands such as bogs or marshes

**Indicator species** an organism whose prominent presence in an environment serves as a marker for that particular ecosystem

**Intertidal slope** the region between the extremes of high and low tide

**Invasive plant** a plant that moves in and takes over an ecosystem to the detriment of other species (often the result of environmental manipulation)

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**Lichen** algae and a fungus growing in a symbiotic association on a solid surface

**Longitudinal** a long straight ridge-shaped dune parallel with wind direction

**Longshore current** a current caused by swells or wind waves that are not coming directly onshore

**Marsh** a wetland characterized by soft, wet, low-lying land, marked by herbaceous vegetation

**Mudflat/Tidal Flat** is an un-vegetated and muddy coastal wetland that is alternatively covered and exposed by tidal actions. Usually found in sheltered areas such as a bay or lagoon, and results from the deposition of estuarine silts and clay.

**Native species** plants and animals that occur naturally in a given area or region

**Niche** a habitat supplying the factors necessary for the existence of an organism or species

**Non-native** plants or animals originating in a part of the world other than where they are growing

**Ocean** a major body of salt water, oceans covers more than 70 percent of the earth's surface

**Omnivore** an organism that eats both animal and vegetable foods

**Parabolic dunes** a dune of U-shape with the open end of the U facing upwind

**Peninsula** a piece of land that projects into a body of water and is connected with the mainland by an isthmus; land surrounded by water on three sides

**Photosynthesis** the process by which green plants and some other organisms synthesize carbohydrates from carbon dioxide and water using light as an energy source, usually releasing water as a by product

**Phytoplankton** are tiny, free-floating/driftng aquatic plants

**Plasticity** the capacity of organisms with the same genotype to vary in developmental pattern, in phenotype, or in behavior according to varying environmental conditions

**Pollutant** a substance that contaminates an environment, especially human-made wastes

**Polychaete worms** a class of annelid worms, mostly marine. Each body segment has a pair of protrusions that bear bristles. They are also known as bristle worms.

**Predation** a biological interaction where a predator (hunter) feeds on prey (hunted)

**Predator** an animal that hunts prey as a means of survival

**Prey** an animal hunted by a predator

**Producer** photosynthetic green plant or chemosynthetic bacterium that constitutes the first nutritional level in a food chain

**Productivity** rate of production especially of food by the utilization of solar energy by producer organisms

**Rip current** a large amount of water at the shoreline rushes in a narrow path back to the sea

**Salt water** a solution of water and dissolved salt

**Saltation** when sand grains are physically lifted off the ground surface by high wind velocities (at least 11mph), the bouncing of sand grains

**Saturation** soil that is soaked to capacity with water

**Scat** an animal fecal dropping

**Seasonal wetland** an environment which only periodically exhibits the characteristics of a wetland (e.g. vernal pools)

**Sedge** a variety of grass like plants of the family *Cyperaceae*, having solid stems and leaves in three vertical rows

**Slough** a backwater wetland, usually associated with bays and inlets

**Soil permeability** the rate at which liquid (usually water) can pass through a soil

**Strand** the area just within the reach of the waves

**Submergent** a wetland plant that has adapted to grow underwater

**Surface water** water on or above the surface of the land

Suspension

**Symbiosis** a relationship of mutual benefit between two or more organisms of different species

**Tracks** prints left by animals that are used to identify them

**Transition zones** the intervening area between distinct environments

**Transverse dunes** a dune forming a wavelike ridge perpendicular to wind direction

**Vernal pool** temporary freshwater pond that exists in the spring

**Water table** the “surface” of ground water in any given area (it raises in the rainy season)

**Watershed** the entire land area that contributes surface runoff to a given drainage system

**Wetland** an area of land where the soil is saturated with water

**Wigi** Wiyot name for the Humboldt Bay

**Wiyot** Native people of Humboldt Bay and surrounding areas

**Zooplankton** are free-floating/drifted aquatic animals that cannot swim against a current. Although most zooplankton are microscopic, this group also includes larger animals such as jellies