

Glossary

(Sources: Pukui and Elbert. 1986. Hawaiian Dictionary;
Webster's Encyclopedic Unabridged Dictionary of the English Language. 1996)

A

acre – a unit of land measure equal to 43,500 square feet or 1/640 of a square mile

ad libitum – at one's leisure

aerate – provide with oxygen

agriculture – raising of plants or animals on land

'aha'aina – feast

āholehole – flagtail fish (*Kuhlia sandvicensis*)

ahupua'a – traditional Hawaiian land unit usually extending from mountain summits to the outer edges of reefs

'āina – land, environment

akule – big-eyed scad fish (*Selar crumenophthalmus*)

algae – aquatic plants and organisms containing chlorophyll

alien – not having originated in or not occurring naturally in a particular region or environment

ali'i – chief, ruler

ali'i 'ai ahupua'a – chief who rules an ahupua'a land division within a moku

ali'i nui – high chief

ali'i moku – chief who rules a moku (land district)

aloha 'āina – love for the land

'ama'ama – striped mullet fish (*Mugil cephalus*)

aquaculture – raising of plants or animals in water

atoll – a roughly circular reef surrounding a broad lagoon

artifact – any object made by humans

assessment – a measurement of a student's ability or skill

'aumakua – family or personal gods or ancestors who may take the form of sharks, birds, octopuses, eels, mice, rats, dogs, rocks, caterpillars, clouds, or plants

'awa – the kava plant, the root being the source of a narcotic drink

awa – milkfish (*Chanos chanos*)

awa 'aua or awa 'awa – ladyfish or tenpounder fish (*Elops hawaiiensis*)

'auwai – ditch or small canal

'auwai kai – ditch or small canal connecting the fishpond to the ocean

axis – a straight line about which a body or a geometric figure rotates or may be supposed to rotate

B

bacteria – various organisms that are involved in fermentation and putrefaction

biodegradable – material that will decompose into the environment; capable of decaying through the action of living organisms

brackish – slightly salty, a mixture of fresh water and sea water

C

caloric energy – energy from food calories

carnivore – animal that eats other animals

catalyst – that which causes activity between two forces without itself being affected

celestial – pertaining to the sky or visible heaven

centimeter – a length measurement of one hundredth of a meter or 0.3937 inches

chlorophyll – the green coloring matter of leaves and plants

circulation – the moving or flowing of something from place to place or in a circle

circumtropical – throughout the tropics

conservation – prevention of injury, decay, waste or loss; wise use, management, and preservation of natural resources

consumer – organism that feeds on other organisms

conversion – a physical transformation from one material or state to another

courier – messenger, someone who carries something from one place to another

cultural anthropologist – someone who studies human social and cultural systems, particularly customs, values and beliefs of a culture

D

decimate – to reduce drastically, especially in number

decomposition – the process of organic and inorganic materials being broken down into smaller fragments or simpler compounds

decomposer – organism that feeds on dead plants and animals and helps break them down into nutrients to be used again

density – the number of individuals per unit area

derived – to get or receive something from a source; received

detritus – material that has decayed or rotted

diatoms – unicellular or colonial phytoplankton whose cell walls contain silica

dissolved oxygen – oxygen dissolved in water

diversity – variety

E

ebb – the flowing back of the tide as water returns to the sea

ecological – living organisms and their relationship to the environment

ecosystem – a system formed by the interaction of a community of organisms with their environment

efficiency – ability to accomplish something with a minimal amount of time and energy

'ele'ele – long, filamentous, green, edible seaweed

endemic – native to an area; occurring naturally nowhere else

engineer – to arrange, manage, or carry through

environment – all the conditions, circumstances, and influences affecting an area

estuary – the lower part of a stream or river where the currents meets the tide of the ocean

ethnocentric – having race as a central interest; assuming one's group to be superior

eutrophication – the decay of abundant plant or animal life resulting in the lack of oxygen in shallow waters

excavate – to dig or scoop out sand or dirt; to form a hole or depression

F

fathom – a unit of length equal to six feet, usually used to measure depth

feet – length measurements of 12 inches or 30.48 centimeters

fish fry – young fishes

fishpond – an enclosure for keeping fish

fishtrap – a structure for trapping fish

fluctuation – continual change from one position to another

flux – change in flow of the of tide
 food chain – a series of organisms interrelated in their feeding habits, the smallest being fed upon by a larger one, which in turn is eaten by an even larger one
 food web – a series of organisms related by predator-prey activities
 fungi – mold, mildew, mushrooms, rusts

G**H**

habitat – environment that is natural for the life and growth of an organism
 heat energy – added or external energy that causes a rise in temperature, expansion, evaporation, or other physical change
 he'e – day octopus (*Octopus cyanea*) or night octopus (*Octopus ornatus*), commonly known as squid
 hemisphere – half of a spherical or roughly spherical body (as a planet); the northern or southern half of the earth divided by the equator or the eastern or western half divided by a meridian
 herbivore – animal that eats plants
 hīhīmanu - stingray
 hīnālea – wrasse fish (*Thalassoma* sp.)
 ho'ā'o – take a chance
 hō'ihi – respect
 ho'oilo – cool, wet season in Hawai'i, from October through April
 huaka'i – field trip; excursion
 hukilau – a seine; to fish with a seine
 huli kanaka – profound studies of any kind, moral philosophy, science; anthropologist
 hypothesis – assumption or guess

I

i'a - fish or other marine animal
 ili – land division, next in importance to an ahupua'a

imu – underground oven
 indigenous – native to an area, but also occurring naturally in other areas
 ingenuity – cleverness or skillfulness of conception or design
 innovation – introduction of new things or methods
 intrinsic – belonging to the real nature of a thing; inherent or natural
 introduce – to bring in or establish, as something foreign or alien

J

juvenile – young, immature

K

ka hana no'eau – wise deeds
 kala – unicorn fish (*Naso unicornis*)
 kahāla – amberjack fish (*Seriola dumerilii*)
 kai – sea water
 kākū – barracuda fish (*Sphyraena barracuda*)
 kalo – taro (*Colocasia esculenta*)
 ka po'e kahiko – the people of old
 kapu – taboo
 kau wela – hot, dry season in Hawai'i from May through October
 kia'i loko – caretaker of a pond
 ko'a – shrine consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies to make fish multiply; or fishing grounds, usually identified by lining up with marks on shore
 konohiki – supervisor of an ahupua'a who controlled the land, water, and fishing rights
 kuapā – seawall
 kula – plains; open country
 kuleana – responsibility
 Kumulipo – Hawaiian creation chant, source of life

Kū'ula or Ku'ulakai – god of the fishers
Kū'ula stone or Kū stone – any stone god
used to attract fish
kuhikuhipu'uone – expert in the building of
fishponds
kūmū – goatfish (*Parupeneus porphyreus*)

L

lā – sun
landform – a natural feature of a land
surface such as a mountain, hill, valley, or
stream
landmark – a distinguishing landscape
feature marking a site or location
landscape – a section of scenery that can be
seen from a single viewpoint
larva – early life form that is fundamentally
unlike the parent and eventually
metamorphoses to become an adult
laulima – cooperation, working together
lawai'a – fisher
limu – seaweed
limu kalawai – freshwater pond algae
lo'i – taro patch
lōkahi – balance; unity
loko i'a – fishpond
loko i'a kalo – combination freshwater
fishpond and taro patch
loko kuapā – seawater fishpond with rock
walls situated on a reef flat
loko wai – freshwater or brackish water
pond adjacent to a stream
loko 'ume iki – shore fishtrap with lanes to
guide fish at both low and high tide
lū'au – Hawaiian feast

M

macroalgae – large multi-celled plants and
organisms containing chlorophyll
occurring in fresh or sea water
mahi'ai – farmer
mahina – moon

maka'āinana – commoners, people that tend
the land
makai – toward the sea
mākāhā – sluice grate or gate, as in a
fishpond
mālama – care for
mālama ola – means of support or livelihood;
to support life
manini – convict tang fish (*Acanthurus
sandvicensis*)
mauka – toward the mountain
melatonin – a hormone secreted by the
pineal gland that is stimulated by
darkness and inhibited by light
mele – song
melomelo – stick or club used as a lure,
rubbed or wiped with roasted coconut or
kukui nut flesh or aromatic leaves
meter – a length measurement equivalent to
39.37 inches
mile – a measure of length equal to 5,280 feet
microalgae – microscopic photosynthetic
(chlorophyll-containing) organisms that
are usually single cells; these aquatic
forms are often referred to as
phytoplankton
mo'ala – long-eyed swimming crab
(*Podophthalmus vigil*)
moi – Pacific threadfin fish (*Polydactylus
sexfilis*)
moku – land district
mo'olelo – story, legend, history, tradition
mo'oka'ao – story, legend, fanciful tale

N

native – being the place or environment in
which a person was born or a thing came
into being
nehu – anchovy (*Stolephorus purpureus*)
niche – the ecological role of an organism
non-biodegradable – material that will not
decompose into the environment

nutrient – any matter that, taken into a living organism, serves to sustain it, promote growth, replace loss, and provide energy

nutrient flushing – the washing away of nutrients

O

ogo – seaweed (*Gracilaria* sp.)

‘ōhi’a ‘ai – mountain apple tree; type of wood used in the building of mākāhā

‘ō‘io – bonefish (*Albula* sp.)

‘ōlelo no‘eau – Hawaiian proverb

oli – chant

olonā – a native plant that Hawaiians used to make very strong fibers for lashing materials together

omnivore – animal that eats both plants and animals

one – sand

‘o‘opu – goby

‘o‘opu hue – puffer fish (*Arothron hispidus*)

‘o‘opu naniha – goby (*Stenogobius hawaiiensis*)

‘ōpae – shrimp or prawns

organism – any form of animal or plant life

P

pā – a primitive type fishtrap that has a single lane to guide fish at low or high tide, but not at both

pā hī aku – hook used to catch aku (bonito fish)

pa‘ipa‘i – to strike, as in striking the water surface to scare fish into a net

palani – eye stripe surgeonfish (*Acanthurus dussumieri*)

pāpa‘i – crabs

pāpio – young ulua or jack fish (*Caranx* sp.) less than 10 pounds

performance assessment – a testing method where students are expected to create an answer or product to demonstrate their knowledge and skills

pH – a measure of acidity and alkalinity of a solution that is a number on a scale on which a value of 7 represents neutrality; lower numbers indicate increasing acidity and higher numbers increasing alkalinity

photosynthesis – the production of carbohydrates using sunlight energy to combine carbon dioxide and water in the presence of chlorophyll

phytoplankton – the tiny plant organisms in plankton

piko – center

pineal gland – the pineal gland is sometimes called a ‘third eye’ because of a role in lower vertebrates (such as fish) in sensing light and dark cycles

plankton – floating or drifting organisms in a body of water

pono – in perfect order (as one with nature)

predator – any organism that exists by seizing other organisms for food

producer – plant that makes its own food using energy from the sun

proverb – a wise saying, usually of unknown and ancient origin, that expresses a useful thought; a saying that is in general use and that expresses widely held ideas and beliefs

pū – whistle

pu‘u – hill, pile, mound

pua awa – juvenile awa (milkfish)

pua i‘a or pua i‘i – young fish or tiny fry of fish

pualu – yellowfin surgeonfish (*Acanthurus xanthopterus*)

pūhi – eel (*Gymnothorax* sp.)

pu‘uone – sand heap or sand dune

Q

quadrat – a sampling plot for use in studying plant or animal life

R

Raiatea – the second largest Island in the French Polynesian Archipelago known as the Society Islands, located directly between Bora Bora and Tahiti

relative abundance – the proportion of objects in a group, expressed as a percentage of a particular type

relief – the difference in elevation between high and low areas in a region

rubric – a working guide for students and teachers, usually handed out or developed with students before the assignment begins in order to get students to think about the criteria on which their work will be evaluated; a guideline for making scoring decisions; a document that clarifies what is expected in a learning experience, and what steps to take to reach higher levels of achievement

S

salinity – the total amount of dissolved salts in water, expressed as grams of salts per kilogram of water (g/kg) or as parts per thousand (ppt)

sandalwood – the fragrant wood of certain trees used for ornamental carving and burned as incense

satellite campus – a facility away from the main campus

scientific method – a process to generate new knowledge that involves asking a question, stating a hypothesis, planning and conducting an investigation to test the hypothesis, gathering data, analyzing data, communicating findings, and defending or revising conclusions based on evidence

sediment – matter that settles to the bottom of a liquid

silt – earthy matter or fine sand carried by moving or running water and deposited as sediment

siltation – to become filled or choked with silt

sluice – an artificial stream or channel for conducting water

spawning – producing or depositing eggs

specimen – a typical animal, plant, mineral or a sample of a substance or material for examination or study

stagnation – to become stale or foul from standing, as a pool of water

subjective – not objective; personal

survey – to look over and examine carefully

sustenance – nourishment, means of sustaining life, means of livelihood

sustainable use – use of a resource in a way that does not compromise the ability of future generations to meet their needs

sustainability – the process of keeping up or keeping going; meeting present needs for resources without compromising the ability of future generations to meet their needs

T

tide – the periodic rise and fall of the waters of the ocean and its inlets

topography – the detailed mapping of the surface features of a place or region

transect – a line across a given area, along which information is collected

trophic – pertaining to nutrition

U

- uhu – parrotfish (*Scarus* sp.)
 uka – upland, towards the mountains
 ulua – jack or trevaly fish (*Caranx* sp.)
 greater than 10 pounds
 'umeke – calabash or gourd
 umu – a heap of rocks used to catch small
 fish
 'upena – fishing net

V

- values – the beliefs or standards of a group
 of people
 variable – something that changes or alters
 in form, appearance, character, or
 substance

W

- wai – fresh water
 wai kai – brackish or salty water, a mixture
 of fresh water and sea water
 water hardness – total amount of dissolved
 minerals in fresh water measured as mg/
 L (milligrams per liter) or ppm (parts per
 million)
 water quality – the characteristics or
 properties of water
 watershed – a region or area drained by a
 river or stream; drainage area
 wato – a land management system used in
 the Marshall Islands of Micronesia
 weke – goatfish (*Mulloides* sp.)

XY**Z**

- zooplankton – the tiny animal organisms in
 plankton

