



Sea Turtle Master Vocabulary List

A

Adult (aka: Mature)

A fully developed and mature animal, physically capable of breeding, but not necessarily doing so until social and/or ecological conditions allow.

Anthropogenic

Effects or processes that are derived from human activities, as opposed to natural effects or processes that occur in the environment without human influences.

Archelon

A now **extinct** gigantic sea turtle **species** from the late Cretaceous Period (74 million years ago). It was thought to have weighed about 2000 kg when alive and measure more than 4.5m long.

Arribada (aka: Arribazone)

A large aggregation of female sea turtles coming ashore together to **nest** at the same time and the same place.

B

Backstop

An approximately 45 degree incline made in the sand as sand is pushed back with the rear flippers during excavation of the primary body pit.

Basking

A behavior that exposes the body, or a portion of the body, to the warmth of the sun.

Bathymetry (aka: Water depth)

The measurement of depths of water in oceans, seas, and lakes. Also, the information derived from such measurements.

Beach

The shore zone, usually sand, from the low water line up to a permanent line of vegetation or where the physical characteristics of the ground change to rock outcroppings or cliffs.

Beach success (aka: Nesting success)

The proportion of **nests** laid to the total number of crawls on a beach. Mathematically, this is the number of **nests** laid, divided by the sum of **nests** laid plus **false crawls** [**beach** success = **nests** laid / (nests laid + false crawls)].



Beak

The horny covering of the jaws, in turtles consisting of a single plate over each jaw surface. Also known as rhamphotheca or tomium.

Bekko

The scutes of the hawksbill turtle used in the manufacture of various items, particularly in jewelry. See also: tortoise shell.

Benthic

Referring to an animal that lives on or near the bottom of a body of water. Also an aquatic biome consisting of the ocean bottom below the [pelagic](#) and coastal zones. Large [juvenile](#) sea turtles of different [species](#) usually frequent benthic zones.

Biodiversity

In an ecosystem, variability among living organisms from all sources, sometimes measured by the total number of [species](#) or other taxonomic groupings, and their relative abundances.

Black turtle (aka: Tortuga prieta, *Chelonia mydas agassizzii*)

Green turtles that occur in the Eastern Pacific that have morphological differences from other [green](#) turtles (in the Atlantic, Western Pacific, Indian Ocean). Specifically, they tend to have darker [carapaces](#) and smaller body size than other [green](#) turtles. There is some debate as to whether they are a separate [species](#) from [green](#) turtles, although at the current time, data from [DNA](#) and morphological studies show that they are not a separate species.

Brumation

A state similar to hibernation in which a reptile dramatically reduces its food intake although it may still drink. Both hibernation and brumation are a response to cold weather but in brumation the animal's response does not exhibit the extreme [torpor](#) of a hibernation.

Bycatch (aka: By-catch)

Organisms taken in a fishery that are not the [species](#) intended for harvest. Bycatch can be fish with no commercial value, [juveniles](#) of marketable species, sea turtles and birds, marine mammals such as seals, dolphins and whales, and many other forms of ocean life.

C

Convention on International Trade in Endangered Species (aka: CITES)

An international agreement that regulates the trade of [threatened](#) species between countries. All sea turtle [species](#) are listed in Appendix I of CITES, meaning that they (or their parts) cannot be legally traded internationally without a permit.

Calipash

The dorsal layer of gelatinous fat in the body and that of the flippers, generally greenish in color. Used in making soup.



Callipee (aka: Calipee, Fat)

Fatty substance found in [green](#) turtles, traditionally used to make turtle soup.

Carapace (aka: Shell)

The thick shell or shield which covers the back of the tortoise, or turtle, the crab, and other crustaceous animals.

Carnivore

An organism that primarily eats other animals.

Caruncle

A temporary egg tooth. The horny tubercle on the snout of a baby turtle used to cut through the eggshell.

Characteristic

A feature that helps to identify, tell apart or describe a distinguishing mark or trait

Cheloniid

Cheloniids are hard-shelled sea turtle [species](#) (the [green](#) turtle, [loggerhead](#) turtle, [hawksbill](#) turtle, Kemp's Ridley turtle, Olive Ridley turtle, and flatback turtle) that are members of the Cheloniidae Family. The one [species](#) of marine turtle that is not a member of the Cheloniidae is the leatherback: it is the sole living member of the Dermochelyidae Family.

Chemoreception

The detection of chemical stimuli in the environment. Smell and taste are two senses that rely on chemoreception. One hypothesis for [natal homing](#) in sea turtles is that they use chemoreception in [orientation](#) and navigation.

Circle hook

A circle hook is a type of fishing hook that looks more circular than a traditional J-hook. Circle hooks are thought to be less likely to accidentally capture marine turtles, although there is some debate about their efficacy as a universal mitigant to [incidental capture](#) of sea turtles in commercial fisheries.

Circumglobal

Around the entire world

Cloaca (aka: Ovipositor)

The cavity into which both the intestinal and genitourinary tracts empty in reptiles, birds, amphibians and many fishes. In some invertebrates, a similar cavity serves for excretory, respiratory and reproductive ducts. The opening through which sea turtle eggs are laid.

Clutch (aka: Nest)

A complete set of eggs produced or incubated at one time. In sea turtles, a clutch is a complete set of eggs produced by one female and incubated at one time.



Cold Stunning

The state that turtles enter when they are suddenly exposed to very cold water (< 10 °C). They become lethargic and begin to float on the surface of the water. In this state, they are susceptible to predators, accidental boat strikes, and even death if water temperatures continue to drop.

Commensal

An organism in a symbiotic relationship with another organism in which one member of the association (the commensal) derives an advantage and the other derives neither an advantage nor disadvantage. Barnacles are common commensals on sea turtles.

Counter current heat exchange

A [counterflow](#) mechanism that enables fluids at different temperatures flowing in channels in opposite directions to exchange their heat content without mixing.

Crawl (aka: Tracks)

Tracks and other sign left on a beach by a sea turtle. The pattern of the crawl is distinctive for each species of sea turtle.

Curved carapace length (aka: CCL)

Length of the turtles [carapace](#) measured by researchers working on turtle [nesting](#) beaches with a flexible tape measure. Can be measured in one of 2 ways: 1. CCL minimum: from the notch at the anterior of the [carapace](#) to the notch at the posterior end of the [carapace](#) where the last 2 marginal [scutes](#) meet. 2. CCL n-t: from the notch at the anterior of the [carapace](#) to the tip of the last posterior marginal scute. Usually measured to whichever [scute](#) is longer.

Curved carapace width (aka: CCW)

Width of the turtles [carapace](#) measured by sea turtle researchers with a flexible tape measure. A variety of start and stop points are used by different research groups, but the maximum widest measurement is usually taken.

D

Deoxyribonucleic acid (aka: DNA)

Is a nucleic acid that contains the genetic "code" for the development and functioning of living organisms. The DNA "code" can be studied to look for patterns across individuals or populations, that indicate relatedness. In sea turtles, DNA is often studied to assess the relatedness of different [nesting](#) aggregations (rookeries).

Data Deficient

A taxon is considered to be Data Deficient when there is inadequate information to make an assessment of its risk of [extinction](#) based on its distribution and/or [population](#) status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that [threatened](#) classification may be appropriate.



Dehydrate

To lose water or body fluids.

Demersal (aka: Bottom-dwelling, benthic)

Occupying the bottom of the ocean, whether in the [neritic](#) or [oceanic](#) zone.

Density Dependent (aka: Density Dependence)

The phenomenon by which the values of vital rates such as survivorship and [fecundity](#) depend on the density of the population.

Depensation

When the decrease in the breeding [population](#) (mature individuals) leads to reduced survival and production of eggs or offspring. The cause may be either: (1) [predation](#) levels rising per offspring (given the same level of overall [predator](#) pressure), or (2) the allee effect, which is the reduced likelihood of finding a mate.

Dermochelyid

Leathery-shelled sea turtle [species](#) (the [leatherback turtle](#) is the only dermochelyid sea turtle). All other sea turtle [species](#) are cheloniids.

Developmental Habitat

The place(s) where immature turtles feed and grow prior to reaching adult size. The developmental habitat of sea turtles may or may not correspond to the adult habitat and thus may require special conservation and management measures.

Dimorphism

The occurrence of two distinct forms of structure, size, coloring, or other characteristic in a single species. "Sexual dimorphism" occurs where dimorphism exists between the male and female of a species.

Disorientation

The lack of directed movement towards a specific area or goal. The result of using inappropriate cues for moving in a particular direction. For instance, hatchling sea turtles will move inland toward street lights instead of correctly toward the sea, and are thus said to be disoriented.

Diurnal (aka: Diel)

Active during daylight hours. The opposite is [nocturnal](#) (active during night hours). Crepuscular refers to organisms that are active around the time of dawn and dusk.

Diversity

A measure of the variety of living things in a community, based upon one of several mathematical formulae which account for both numbers of [species](#) and numbers of individuals within species. High diversity results from high numbers of [species](#) and an even distribution of numbers within species. Stressed environments generally have low diversity.



Doomed eggs

Eggs in natural nests which are likely to be destroyed during the course of incubation by natural, predictable causes, particularly beach erosion or extended tidal flooding.

Dorsal

On the upper or topside or surface.

Dredging

The activity of any of various machines equipped with scooping or suction devices and used to deepen harbors and waterways and in underwater mining.

Drift lines

Elongated masses of seaweed, debris and other floating objects that often form where ocean currents converge (meet one another). Hatchling sea turtles take refuge in drift lines.

E

Ecology

A branch of science concerned with the interrelationship of organisms and their environments. The totality or pattern of relations between organisms and their environment.

Ecotourism (aka: Sustainable tourism)

Environmentally responsible, enlightening travel and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature (and any accompanying cultural features both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations.

Ectotherm (aka: Cold-blooded, Poikilotherm)

An animal whose body temperature varies in accordance with the temperature of its surroundings. All sea turtles are ectotherms, although there is evidence that [leatherbacks](#) can have higher internal temperatures than the environment.

Egg chamber

The chamber constructed by a [nesting](#) turtle in the sand and into which the eggs will be deposited for incubation.

Embryo

This stage of development spans the period from the time of first cell division until hatching.

Emergence

(a) female. The action of the female turtle leaving the water and coming onto land to nest. (b) hatchling. The emergence of hatchlings on the beach surface above the nest cavity (emergence occurs a variable number of hours or days after hatching from the egg).



Emergence success

The relative number of eggs in a **clutch** that produce live **hatchlings** that leave the **nest** chamber.

Endangered

An **IUCN** category for listing endangered species. A taxon is Endangered when it is considered to be facing a very high risk of **extinction** in the wild.

Endotherm (aka: warm-blooded, homeotherm)

An animal that can keep its core body temperature at a nearly constant level regardless of the temperature of the surrounding environment.

Environmental sex determination (aka: ESD,) ESD occurs when the sex of the offspring is determined by the environment. **TSD** (temperature-dependent sex determination) is a special case of ESD.

Epibiont

An organism which attaches itself to another organism (host) without either benefit or harm to the host, such as lichens on the bark of trees. Sea turtles often have epibionts on their **shells** and skin.

Epipelagic

Occupying the uppermost 200m of the ocean where light can penetrate and photosynthesis can occur. Smaller **juvenile** turtles are thought to inhabit this area of the ocean.

Epiphytic

Referring to an organism that lives on the surface of another organism and obtains its nutrients from the surrounding environment. Sea turtles can have epiphytes such as remoras.

Estuary

An area where a river flows into the sea.

Excavate (aka: Inventory, Excavation)

A method used to evaluate **nest** success on **beaches** where **nests** are monitored. Several days after a turtle **nest** has hatched, monitors conduct an excavation, or inventory, of the nest. They count the number of empty eggshells as an approximation of the number of turtles that hatched. They will also count any unhatched eggs, and live and dead **hatchlings** that may be present in the nest. The **nest** inventory helps to determine the **hatching success** and **emergence** success of the nest.

Extinct

No longer existing or living.

Extinction

The demise of an entire species.



F

False Crawl Attempt (aka: False Trail, False Nest, FCA)

A female turtle attempts to lay a **clutch** of eggs, digging a nest, or part thereof but not actually depositing her eggs.

False Crawl U-turn (aka: FCU, False Trail, False Crawl)

When a female turtle crawls on the **beach** and makes no digging attempt and then returns to the sea without laying.

Farming

The practice of culturing sea turtles in a closed-cycle system for commercial purposes. Farming does not rely on wild populations except initially, and later occasionally, to maintain genetic diversity and avoid problems with inbreeding. In contrast, see ranching.

Fecundity (aka: Birth Rate, Maternity Rate, Fertility)

The number of offspring produced per unit of time per individual of any given age.

Feeding grounds (aka: foraging area)

An area that animals go to feed or forage.

Feral

A wild animal escaped or descended from captivity or domestication.

Fibropapilloma

A tumor that grows on soft skin and viscera of sea turtles.

Fidelity

Being faithful. Many sea turtles show site fidelity, returning to the same **beach** to lay their eggs **clutch** after clutch, year after year.

Fishery

A place where fish or shellfish are caught for commercial purposes.

Flatback turtle (aka: Australian flatback)

Essentially confined to the waters of Australia, the flatback turtle **nests** mainly on undeveloped and remote **nesting** beaches on the north coast of Australia. The flatback has a rather squat profile, hence its name.

Flipper

The limbs of sea turtles are referred to as flippers, fore and rear flippers.

Flotilla

A large number of individuals moving together; commonly used term to describe a group of sea turtles.



Flotsum

Floating wreckage of a ship or its cargo; floating debris

Foraging

Looking for food.

G

Genus or genera (pl)

A taxonomic level that generally refers to a group of animals similar in structure and descent but are not able to breed amongst themselves. For the seven [species](#) of sea turtles, there are 6 different genera: genus *Caretta* = [Loggerhead turtle](#); genus *Chelonia* = [Green turtle](#); genus *Dermochelys* = [Leatherback turtle](#); genus *Eretmochelys* = [Hawksbill turtle](#); genus *Lepidochelys* = [Kemp's ridley turtle](#) and [olive ridley turtle](#); genus *Natator* = [Flatback turtle](#).

Green turtle (aka: *Chelonia mydas*, Green)

One of the seven [species](#) of marine turtle alive today. The latin name for the green turtle is *Chelonia mydas*. It is a [herbivore](#) and feeds on seagrasses and algae. Consequently it is the [species](#) of marine turtle favoured for its meat and is sometimes known as the edible turtle.

H

Habitat

The natural characteristics of the area where an organism lives; the particular location where an organism normally lives.

Hatchery (aka: corral)

A protected area where eggs or [nests](#) are [relocated](#) for incubation. Hatcheries can be either open-air (outside) or covered (inside).

Hatching success

The relative proportion (percentage) of eggs in a [nest](#) that produce live hatchlings.

Hatchling (aka: baby turtle, neonate)

The stage of life that includes the first several weeks after the turtle leaves its egg, makes its way to the surface, emerges from the sand and crawls to the sea, and begins to swim out into the ocean.

Hawksbill turtle (aka: *Eretmochelys imbricata*, Hawksbill)

One of the seven [species](#) of marine turtle alive today. The latin name for the hawksbill turtle is *Eretmochelys imbricata*. It is typically found on and around coral reefs and has a hawk like [beak](#) for feeding on sponges and corals. It is critically endangered.

Head-starting

The experimental practice of raising hatchling turtles in captivity for the first several weeks or months of life.



Herbivore

An animal that eats mainly plants or parts of plants. [Green](#) sea turtles are primarily herbivores.

Heterogeneous

Consisting of dissimilar elements or parts; not homogeneous.

Home Range

The area in which an animal normally lives and habitually patrols.

Hybridization

The interbreeding of two separate species.

Hydrodynamic

The motion of fluids and forces acting on solid bodies moving through fluids.

I

Imbricate

Overlapping, as the shingles of a roof or the scutes of the carapace of a hawksbill sea turtle.

Imprint

Impress on or fix in memory a thing, place, or person. In the case of sea turtles, [hatchling](#) turtles are thought to imprint on the [beach](#) or coastal area from where they hatched, enabling them to return to this site to breed.

Ingest

Take into the body by the mouth for digestion or absorption

International Union for the Conservation of Nature (aka: [IUCN](#), World Conservation Union)

The largest [conservation](#) organization in the world. The IUCN created the [Red List](#) of [threatened](#) species and founded the Marine Turtle Specialist Group.

In situ

Latin term meaning "in place" or "not removed". With sea turtles *in situ* is often used to refer to [nests](#) that are left in place as opposed to [nests](#) that are [relocated](#) or moved to a hatchery.

Incidental capture (aka: Indirect capture, Accidental capture, Incidental take)

The unintended capture of non-target [species](#) during fishing activity. For example, sometimes sea turtles are incidentally captured during fishing activities for shrimp or swordfish.

Inconel Tag

A metal tag that is attached to the trailing edge of a sea turtle's [flipper](#) to provide a means of unique identification. Inconel is a metal alloy that was designed to be



particularly resistant to degradation in extreme environments, such as the ocean. Inconel tags are pierced through the [flipper](#) using a special applicator and generally last a few years. Inconel tags are embossed with a unique identification number that is often 3 letters followed by 3 numbers. Most Inconel tag numbers are registered at a centralized tagging database coordinated by the Archie Carr Center for Sea Turtle Research at the University of Florida, USA.

Incubation

Keeping something in the proper conditions for development.

Interesting (aka: Interesting interval, Interesting period)

The period of time between a successful [nest](#) and the next [nesting](#) attempt (sea turtles of all [species](#) lay several [clutches](#) of eggs during a [nesting](#) season). For most species, the interval is typically 10-18 days.

Invertebrate

An animal lacking a backbone, such as an arthropod, mollusk, annelid, coelenterate, etc. The invertebrates comprise 95 percent of animal species and about 30 different phyla.

J

J-hook

A j-hook is the traditional form of fishing hook - it is shaped like the letter "J." This form of fishing hook is thought to be more likely to accidentally hook a sea turtle that tries to [take](#) bait from the hook.

Jetsum

Unwanted material or goods that have been thrown overboard from a ship.

Jurassic

From 135 million to 190 million years ago.

Juvenile (aka: Immature, Subadult)

A turtle which has begun feeding (is no longer dependent on its yolk sac), but has not yet reached maturity.

K

Kemp's Ridley turtle (aka: *Lepidochelys kempii*, Kemp's Ridley)

This is the smallest and most [endangered](#) of the sea turtle species. For years it was known as the bastard turtle because its [nesting](#) grounds were unknown. This led to the belief that it was a hybrid between two other sea turtle species. Finally, its [nesting](#) beaches were discovered at Rancho Nuevo, Mexico, the only known [nesting](#) site for this species. The Kemp's Ridley turtle [nests](#) in arribadas, coming ashore *en masse* to [nest](#) during the day.



L

Latitude

The angular distance north or south from the equator of a point on the earth's surface, measured on the meridian of the point.

Leatherback turtle (aka: *Dermochelys coriacea*, Leatherback)

The largest of the seven [species](#) of marine turtle. The leatherback is so named because it is the only marine turtle that does that has a softer, leathery shell. It feeds on jellyfish and other gelatinous organisms. It is classified by the [IUCN](#) as critically [endangered](#).

Living tag

A small piece of tissue taken from the white underside (plastron) of a [hatchling](#) turtle, and implanted in one of the darker [scutes](#) of the [carapace](#) on top. The distinctive white patch grows with the scute. The scute on which the living tag is placed codes for the year that the turtle was tagged.

Loggerhead turtle (aka: *Caretta caretta*, Loggerhead)

The loggerhead turtle is one of the seven [species](#) of marine turtle. Its latin name is *Caretta caretta*. It has a large head to support its large jaw muscles used for crushing molluscs and crustacea.

Longitude

The distance in degrees east or west of the prime meridian at 0° measured by the angle between the plane of the prime meridian and that of the meridian through the point in question, or by the corresponding time difference.

Longline

A fishing method. Longlines are put down (either at the surface with floats or submerged with weights) with baited hooks at regular intervals along the line. In industrial fisheries, these lines can be tens or hundreds of miles long. [Loggerhead](#) and [leatherback turtles](#) are often caught on these hooks and many die as a result.

Lost year

The period of time (generally several years) between hatching and attainment of a carapace length of 20-30 cm during which sea turtles are epipelagic and rarely encountered. The “lost year” may encompass more than one year.

M

Marine Turtle Specialist Group (aka: MTSG)

An international group of marine turtle experts that was established by the [Species Survival Commission](#) of the [World Conservation Union](#) (IUCN) to provide up-to-date and reliable assessments of the ranking of marine turtle [species](#) according the [IUCN](#) Red List categories.



Marine protected area (Variations: MPA, Marine Park)

Any ocean zone or area that is given special protection status for the management of some or all natural or cultural resources that occur within the zone.

Metabolism

The chemical process occurring within a living cell or organism that are necessary to maintain life.

Migration

The directed movement of animals from one place to another. Sea turtle migrations usually involve feeding and nesting activities and are particularly striking in the green and leatherback sea turtles. The cues of orientation are still largely a mystery.

Misorientation

The directed movement of an organism towards an inappropriate object or goal. When **hatchlings** that emerge from a **nest** are attracted to an artificial light at night on a beach, it is a form of misorientation.

N

Nares (aka: Naris)

The paired openings of the nasal cavity in vertebrates, nostrils.

Natal homing

The behavior by which an animal returns to the place where it was born. For sea turtles, **adult** females return to lay eggs in the general region where they were born.

Navigation

The method by which an animal orientates itself and finds a specific location.

Necropsy (aka: Postmortem)

Dissection of a dead animal to determine the cause of death.

Neophyte

Technically, a neophyte is a sea turtle that is nesting for the first time. However, any female that is found to be **nesting** at a certain site for the first time is defined as a neophyte. It is possible she is nesting for the first time, she has lost her tags, or switched **nesting** beaches. In general, it is difficult to distinguish true neophytes without laparoscopy.

Neritic

Of, relating to, or inhabiting the shallow water, or nearshore marine zone extending from the low-tide level to a depth of 200 meters. The neritic zone is populated by **benthic** organisms because of the penetration of sunlight to these shallow depths.

Nest

A container or shelter in which birds, reptiles, fish, insects, or other animals deposit eggs or keep their young.



Nesting population (aka: rookery)

A group of **adult** female turtles that tend to **nest** in a specific and defined region or beach.

Niche

The ecological niche involves both the place where an organism lives and the roles that an organism plays in its habitat.

Nocturnal

Nocturnal animals are largely active at night, sleeping during the day. Sea turtles are not normally nocturnal, except during the breeding season, when females tend to lay eggs and **hatchlings** emerge from the nest at night.

O

Oceanic

The open ocean where depths are greater than 200m.

Olive Ridley turtle (aka: *Lepidochelys olivacea*)

Although related to the Kemp's Ridley, the Olive Ridley is the most numerous sea turtle in the world, **nesting** on **beaches** in West Africa, Brazil, Costa Rica, Nicaragua, Mexico, and India. It also **nests en masse** in **arribadas** that can **take** place during the day or night.

Omnivore

An animal that eats both plants and animals. **Hawksbill** turtles are omnivores, eating algae, sponge and corals.

Orientation

A **species** ability to be aware of its environment relative to oneself, time, and place. A **species** cannot navigate unless it is oriented.

Overfishing

The practice of commercial and non-commercial fishing which depletes a fishery by catching so many **adult** fish that not enough remain to breed and replenish the population.

Oviparous (aka: egg-laying)

Any organism that lays eggs during reproduction, and the offspring emerge from the eggs outside the mother. All sea turtles are oviparous.

Oviposition

The process of depositing eggs.



P

Papillae

The esophagus of sea turtles is lined with keratinized projections that point inward towards the stomach. These papillae end where the esophagus joins the stomach and are presumed to trap food while excess water is expelled prior to swallowing.

Parasite

An organism that lives in or on another organism (its host) and benefits by deriving nutrients at the host's expense

Passive integrated transponder (aka: PIT tag)

A small inert microprocessor incased in glass which is injected into the shoulder muscle or flipper of sea turtles as a means of indentifying individuals. The PIT tag transmits a unique number to a hand held scanner when activated by the scanner. Although expensive, they are one of the more permanent and successful methods of tagging sea turtles.

Pelagic

Occupying the water column, but not the sea floor, in either the neritic zone or oceanic zone. Leatherbacks are considered to be the most pelagic species of sea turtle.

Philopatry

The drive or tendency of an individual to return to, or stay in, a particular site or area. Sea turtles display philopatry by migrating from a feeding area to a breeding area and then back again. Derived from the Greek "home-loving".

Pivotal Temperature (aka: threshold temperature)

Pivotal tempeprature is the constant incubation temperature of eggs that will produce equal numbers of males and females. The pivotal temperature is a characteristic of TSD (Temperature-dependent Sex Determination).

Plastron (aka: belly, ventrum)

The ventral shield or shell of tortoises and turtles. The plastron covers the underside of a sea turtle.

Platform terminal transmitter (aka: PTT, Satellite transmitter, Satellite tag)

A Platform Terminal Transmitter (PTT) is a small satellite transmitter attached to a sea turtle in order to monitor its movements and/or behavior.

Poaching

To take fish or game in a protected area.

Pollution

The presence of a substance in the environment that because of its chemical or biological composition or quantity prevents the functioning of natural processes and produces undesirable environmental and health effects.



Polymorphism

The occurrence of different forms, stages, types or behaviors in individual organisms or in organisms of the same species, independent of sexual variations.

Population

A group of animals of the same **species** that occupies a particular area; usually refers to a group that is somewhat separate from other groups of the same species.

Predation

When one **species** feeds on another species. The **predator** species feeds on the prey species.

Predator

Any animal that preys on other organisms, which are usually situated in a lower trophic level, as a source of food. This can include herbivores, **carnivores** and omnivores.

Preservation

The act of reserving, protecting or safeguarding a portion of the natural environment, a **species** or a **population** from unnatural disturbance. It does not imply preserving an area in its present state, for natural events and natural ecological processes are expected to continue.

Primary body pit

The excavation made by the turtle on the beach just before digging the egg chamber.

Q

R

Rafting

Refers to passive drifting, usually on another object. This term is sometimes employed in relation to green turtle hatchlings drifting in floating sargassum seaweed.

Rathke's gland

Paired exocrine organs embedded along the inframarginal **scutes** or in the inguinal region on the **ventral** side of hawksbill, ridley and **green** turtles. The exact role of the Rathke's glands remains unknown, although some researchers have suggested that secretions from these glands in ridley turtles are involved in the **arribada** behavior.

Red List

The Red List is a list of organisms that are classified by the level of threat to ongoing survival. Currently, the majority of listings are done at the global **species** level. It is a product of the **IUCN** (World **Conservation** Union).

Reef

A ridge of rocks or sand, often of coral debris, at or near the surface of the water



Relocation (aka: translocation, relocated)

The removal of an organism from one site and placing it in another. Sea turtle [nests](#) that are laid too close to the ocean or in a dangerous section of [beach](#) are often relocated to safer areas (either on the [beach](#) or into a hatchery).

Remigrant

A [nesting](#) female turtle that has been recorded [nesting](#) at a particular [nesting](#) beach before and has returned, or remigrated, to the [nesting](#) beach in a different subsequent year to [nest](#) again.

Rototag

A plastic tag that allows unique identification of individual sea turtles. These are usually brightly coloured and easy to read. The tag is applied by piercing the flipper with a special tool, and snapping the two sides of the plastic tag together. These tags cannot be removed without destroying them, are more prone wear and brittleness than other tags, and become tangled in gill nets. Their use is therefore restricted in some areas. However, they are the only sea turtle tag that can be easily read at distance.

S

Satellite

A satellite is any object that orbits around another object. Polar Orbiting Environmental Satellites (POES) are artificial satellites which orbit the earth and are designed to receive messages from [PTTs](#) and relay them to ground stations. This allows researchers to attach [PTTs](#) to turtles and track their movements and behaviors via satellite.

Scale

Each of the small overlapping plates protecting the skin of fish and reptiles, including turtles. [Cheloniids](#) can be distinguished from one another by the number of prefrontal scales (scales on the top of the snout) - as well as by the number of [scutes](#) on the carapace.

Scientific Name

The "scientific name" of an animal consists of two levels of its taxonomic classification, the "genus" and "species." Scientific names are in Latin. They are usually printed in italics, with the [genus](#) capitalized. The scientific name of the [green](#) sea turtle is "*Chelonia* (genus) *mydas* (species)." Sometimes a [species](#) is further subdivided into subspecies, and the subspecies name is added to the scientific name. Thus, the East Pacific [green](#) turtles scientific name is "*Chelonia mydas agassizii*".

Scute

A horny or keratinized plate that is part of the [shell](#) of a turtle. The number and particular grouping of [carapace](#) scutes can be used to distinguish the different [species](#) of sea turtle.



Sea-finding behavior

The procedure whereby hatchling sea turtles correctly orient towards the sea upon emergence from the nest. The cues involved in this behavior are not well understood, although light is clearly important.

Sex Ratio

This is the ratio of males to females in a population. It can be specified as "Primary sex ratio" that is the sex ratio of the hatchlings, "Secondary sex ratio" that is the sex ratio of adults, or "operational sex ratio" that is the ratio of reproductive males to females.

Secondary body pit

An excavation made by a nesting turtle using the front flippers following the deposition of eggs. The spoil from the secondary body pit covers the primary body pit and the egg chamber with sand.

Shoal

A shallow place in a body of water.

Site Fidelity

Being faithful to a particular location. Many sea turtles show site fidelity, returning to the same [beach](#) to lay their eggs [clutch](#) after clutch, year after year.

Skeletochronology

The study of bone structure in order to estimate the age of an animal.

Sliding baseline syndrome (aka: shifting baseline syndrome, shifting baselines)

A baseline is a reference point from the past - how things used to be. With "sliding/shifting baselines" we allow our reference points to shift and lose track of the original standards. In biology/ecology, this may eventually result in the acceptance of degraded environments, or reduced animal populations, as being "natural."

Species

A taxonomic division that generally refers to a group of animals which are similar in structure and descent and are able to inter-breed.

Spongivore

An animal that eats mainly sponges. [Hawksbill](#) sea turtles are spongivores, although they also sometimes eat algae and coral

Stochastic

Random or unpredictable. In research projects, it is often the case that factors or variables that are beyond the control of the researcher(s) are referred to as "stochastic."



Straight carapace length (aka: SCL)

Length of the turtles **carapace** measured by researchers with large callipers. This can be measured in 3 ways: 1. SCL minimum: from the notch at the anterior of the **carapace** to the notch at the posterior end of the **carapace** where the last 2 marginal **scutes** meet. 2. SCL n-t: from the notch at the anterior of the **carapace** to the tip of the last posterior marginal scute. Usually measured to whichever **scute** is longer. 3. SCL maximum: from the anterior edge of the **carapace** to the tip of the last posterior marginal scute. Usually measured to whichever **scute** is longer.

Straight carapace width (aka: SCW)

Width of the turtles **carapace** measured by researchers with a large callipers. There is no standard point to measure to, but the maximum widest measurement is usually taken.

Subsistence capture

Capture of sea turtles by peoples living in close contact with the sea when such capture is customary, traditional, and necessary for the sustenance of such individuals and their families or immediate kin groups. Such taking is not considered a part of external market- oriented commerce.

Sustainable Use (aka: SU)

The use of components of natural resources in a way and at a rate that does not lead to the long-term depletion of those resources, thereby maintaining its potential to meet the needs and aspirations of present and future generations

Swimming frenzy

The period of heightened activity or rapid swimming of hatchlings out to sea following the emergence from the nest. The swimming frenzy lasts up to several days depending on species or population involved and may aid the hatchlings in clearing the surf and reaching developmental habitat.

T

Take

Any activity that might: harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a species.

Taxonomy

The science of hierarchically classifying animals by groups (e.g. **genus** and species) which share common features and are thought to have a common descent.

Telemetry

Transmitting or retrieving data over long distance communication links, such as **satellite** or telephone.

Temperate

Climate characterized by mild temperatures.



Temperature-dependent sex determination (aka: TSD)

This is the condition where the sex of the offspring is influenced by the prevailing temperatures during embryonic development. In sea turtles, warmer temperatures produce more or all females, cool temperatures produce more or all males, and the **pivotal temperature** is the constant **incubation** temperature that produces equal numbers of males and females. TSD also occurs in other reptiles (crocodilians, some freshwater and land turtles, some lizards), some types of fish, some types of invertebrates, etc.

Temperature profile

Refers to the various temperatures encountered on a beach at different times of the day. Temperature profiles of the sand may be considered in both horizontal and vertical dimensions. The temperature profile may influence nest site selection and surely affects sex ratios and duration of incubation of eggs.

Threatened

Any species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Time depth recorder (aka: TDR)

An instrument that is attached to marine **species** (e.g. whales, seals, otters and turtles) to follow the underwater movements and behaviour of animals at study. Sometimes, a TDR can be incorporated into a **satellite tag** (PTT).

Tomium (aka: Beak, Tomia)

This is the cutting edge of the beak or mandible. In some sea turtles, the tomium of the lower jaw has a sharply serrated rim corresponding to strong ridges on the inner surface of the upper tomium. The serrated jaw or tomium allows for efficient grazing of sea grasses.

Torpor

The dormant, inactive state of a hibernating or estivating animal.

Tracking

Following the spatial movements of an animal. Typical tracking methods employ satellite, radio, sonic or passive (i.e., **flipper** or PIT tags) telemetry.

Toxic

Poisonous substances

Transplant (aka: relocate, transfer, rebury)

To relocate something to a new site. In the case of marine turtles, **clutches** of eggs can be **relocated** or transplanted to a new location where they may have a greater chance of success.

Trawl

Towing a large tapered fishing net along the sea bottom to catch **benthic** animals (shrimp, flounder, sole, etc.).



Trophic level

Each of several hierarchical levels in an ecosystem, comprising organisms that share the same function in the food chain and the same nutritional relationship to the primary sources of energy.

Tropical

Characteristic of or occurring in the tropics, hot and humid

Turtle Excluder Device (aka: TED)

A gear modification used in shrimp [trawls](#) for the purpose of excluding sea turtles caught in the [trawl](#) net before they drown.

U

Upwelling

The process of upwelling occurs when water rises up from beneath the surface to replace the water that was pushed away. Upwelling occurs in the open ocean and along coastlines. The reverse process, called “downwelling,” also occurs when wind causes surface water to build up along a coastline and the surface water eventually sinks toward the bottom. Water that rises to the surface as a result of upwelling is typically colder and is rich in nutrients. These nutrients “fertilize” surface waters, meaning that these surface waters often have high biological productivity. Therefore, good fishing grounds typically are found where upwelling is common.

V Ventral

On the lower or bottom side or surface. In several [species](#) of sea turtles, the ventral side (plastron) is lighter in color than that [dorsal](#) side (carapace).

Vertebrate

An animal (including amphibians, birds, fish, mammals and reptiles) with a backbone.

Vulnerable

A [species](#) or [population](#) that is considered to be facing a high risk of [extinction](#) in the wild.

W

X

Y

Year class

All the animals in a population that hatched during a particular nesting season. The sizes of a particular year class can vary substantially after a few years depending on quantity and quality of food sources.



Yearling

A turtle that has survived one year from the time of hatching. Depending on amount and quality of food, and the species involved, yearlings may vary in size.

Yolk sac

The 'yolk sac' is a membranous sac attached to an embryo, providing early nourishment in the form of yolk in bony fishes, sharks, reptiles, birds, and mammals.

Z