

GLOSSARY

acroporid coral - canopy-forming species of coral belonging to the family Acroporidae. These are the dominant species of corals found worldwide.

Anthozoa - a class of Cnidaria that includes the stony corals, soft corals, sea anemones, zoanthids, gorgonians, and corallimorpharians

Anthropogenic - caused by humans

Apron reef - the initial stages of a fringing reef; it is discontinuous and covers a small area.

Atoll - a horseshoe-shaped or circular array of coral reefs containing a lagoon in the center, and capping the perimeter of a submerged volcanic island.

Back reef - shoreward side of a reef, including the area and sediments between the reef crest and land.

Barrier reef - a reef running roughly parallel to shore and separated from it by a lagoon of considerable depth and width; it may lie a great distance from a continental coast and is often interrupted by passes or channels.

Benthic - bottom-dwelling; living on or under the sediments or other substratum.

Bioenergetic - metabolic processes that are responsible for supplying energy to an organism.

Black band disease (BBD) - coral disease containing a photosynthetic cyanobacterium that kills coral tissue by a lack of oxygen and exposure to hydrogen sulfide produced by the bacterium.

Bleaching - the process during which symbiotic zooxanthellae are expelled from host coral tissues.

Broadcast spawning - method of reproduction utilized by some corals in which gametes are released into the water column.

Brooding - method of reproduction in some corals in which fertilization and larval development occur internally.

Calcareous - made of calcium carbonate

Cnidaria - a phylum of invertebrate coelenterate animals having a simple, two-layered body plan; includes jellyfish, hydroids, soft corals, sea anemones, and corals.

Coral - a general term used to describe a group of benthic cnidarians; usually indicates the presence of a calcium carbonate skeleton secreted by the animal.

Coral reef - a wave-resistant structure resulting from skeletal deposition and cementation of hermatypic corals, calcareous algae, and other calcium carbonate-secreting organisms.

Coralline algae - heavily calcified, encrusting red algae.

Corallite - a skeletal cup secreted by a coral.

Corallivore - an organism that eats coral.

Coriolis Effect – a rotational effect generated by the movement of a fluid over the Earth’s rotating surface.

Cyanobacteria – one to many-celled aquatic organisms, formerly known as blue-green algae, that photosynthesize and produce oxygen.

Extension rate – accretion or lengthening of a branching coral caused by calcification.

Flow-through exposure - a laboratory setup in which organisms are held in continuously flowing water—in contrast to static exposure, in which organisms are held in a given volume of water with no exchange.

Fringing reef - a reef that grows adjacent to the shoreline.

Gametes - the sexual products of an organism such as eggs and sperm.

Gonochoric - each colony is either male or female.

Habitat - place or environment where a particular species lives.

Hermatypic - reef-building coral.

Histological – referring to tissue structure.

Lagoon - a warm, shallow, quiet waterway separated from the open sea by a reef crest.

Leeward - the side of an island or reef that faces away from the prevailing wind.

Massive - when referring to coral types, describes a skeleton formed as a solid block rather than being branched or plate-like. Most massive corals are mound-shaped.

Mass spawning - simultaneous release of gametes by multiple species usually involving a large number of individuals.

Natural recruitment - the way a population reproduces itself.

Nominal exposure - oil exposure concentrations based on the proportions of oil added to water (without actually measuring how much oil was ultimately mixed into the water)

Octocorals - anthozoans of the subclass Octocorallia, commonly called soft corals, sea fans, and whips.

PAH - polynuclear aromatic hydrocarbon

ppm - parts per million

ppt - parts per thousand

Patch reef - clump of coral colonies unattached to a major reef structure that has a defined reef slope, crest, and reef flat.

Photic zone - the vertical zone in the ocean extending from the surface to that depth permitting photosynthetic activity.

Planula - a planktonic larval form produced by some anthozoans.

Polyp - an individual of a solitary cnidarian or one member of a cnidarian colony.

Pulse exposure - to simulate a spill-type release in a flow-through laboratory setting, an initial and relatively high concentration of a contaminant is allowed to dissipate under continuous water flow.

Reef crest – shallowest seaward margin of reef.

Reef slope - reef seaward of reef crest.

Scleractinia - order of the Phylum Cnidaria, usually producing calcareous skeletons with six-part symmetry.

Sessile - immobile because of attachment to a substratum.

SST- sea surface temperatures; considered elevated when they are at least 1°C higher than the summer maximum.

Sublethal - toxic effect that does not cause death, but impairs the organism in various ways (includes in corals reduced ability to retract polyps, impaired feeding ability, impaired ability to clear sediment, impaired settlement of larvae).

Vegetative reproduction – asexual reproduction, such as through budding or fragments

WAF - water-accommodated fraction

WSF - Water-soluble fraction

Weathering - changes in the physical and chemical properties of oil due to natural processes, including evaporation, emulsification, dissolution, photo-oxidation, and biodegradation.

White band disease (WBD) - coral disease affecting only acroporid corals, it appears in a band form, and kills coral tissues as it spreads over the entire coral structure.

Windward - the side of an island or reef that faces the prevailing wind.

Zooxanthellae - a group of dinoflagellates living symbiotically in association with one of a variety of invertebrate groups (e.g., corals).

CORAL WEBSITES

<http://www.coralreef.noaa.gov/index.html>

NOAA's main coral website. Links to bleaching predictions for Florida Keys, coral health and monitoring program, NOAA, Marine Sanctuaries, U.S. Coral Reef Task force.

<http://response.restoration.noaa.gov>

NOAA website that includes response guidance such as dispersant and in-situ burning use, SMART monitoring, spill case histories, and spill response software tools