

9. Glossary

Biotoxin- A poisonous substance produced by a living organism (*e.g.* brevetoxin, saxitoxin).

Brucellosis- An infectious disease caused by the bacteria of the genus *Brucella* and may be passed to humans by contact with infected animals or animal products. Human symptoms include fever, sweats, headaches, back pain, and physical weakness.

Caliciviruses- Marine mammals may have the calicivirus San Miguel Sea Lion Virus, which causes skin lesions (skin vesicles) in marine mammals and potential premature births. In humans, caliciviruses cause hepatitis, diarrhea, and hemorrhaging.

Cetacean- A marine mammal of the order Cetacea, including whales, dolphins, and porpoises.

***Clostridium* spp.-** Large genus of Gram-positive bacteria with four main species that can cause diseases in humans. Food poisoning, gangrene, colitis, and death may result from infections.

Conspecifics- Members of the same species.

Critical habitat- Specific areas within the geographical area occupied by the species at the time of listing (under the ESA), if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and specific areas outside the geographical area occupied by the species if the agency (USFWS or NMFS) determines that the area itself is essential for conservation.

Delphinid- Marine mammals of the family Delphinidae, including the killer whale (*Orcinus orca*), bottlenose dolphin (*Tursiops truncatus*), and the long-finned pilot whale (*Globicephala melas*).

Depleted species- Defined by the MMPA as any case in which: (a) the Secretary of Commerce, after consultation with the Marine Mammal Commission and the Committee of Scientific Advisors on Marine Mammals, determines that a species or population stock is below its optimum sustainable population; (b) a State determines that such species or stock is below its optimum sustainable population; or (c) a species or population stock is listed as a threatened species or endangered species under the ESA.

Distinct Population Segment (DPS)- A vertebrate population or group of populations that is discrete from other populations of the species and significant in relation to the entire species. Distinct population segments may be listed as threatened or endangered under the ESA.

Endangered species- Defined under the ESA as “any species which is in danger of extinction throughout all or a significant portion of its range.”

Endocarditis- Inflammation of the inner lining of the heart due to an infection.

Epizootic- An outbreak of disease in an animal population.

Erysipelothrix rhusiopathiae- A pathogenic bacteria that causes systemic disease which typically causes red, hard patches on the skin, with swelling and pain. More severe cases can result in acute septicemia and death.

Essential Fish Habitat (EFH)- Defined under the Magnuson-Stevens Fishery Conservation and Management Act as waters and substrate that are necessary to the fish species for spawning, breeding, feeding, or growth to maturity.

Etorphine (Immobilon®)- A powerful synthetic narcotic analgesic related to morphine used in veterinary medicine for tranquilizing large animals (e.g. elephants). It is a controlled class II drug under the Drug Enforcement Administration.

Evolutionary Significant Unit (ESU)- A Pacific salmon population or group of populations that is substantially reproductively isolated from other conspecific populations and that represents an important component of the evolutionary legacy of the species.

Exsanguination- The fatal process of total blood loss which may be used as a mode of euthanasia in marine mammals.

Fomites- Substances that absorb, hold, and transport infectious disease agents

Gastroenteritis- Inflammation of the stomach and large and small intestines caused by a virus, resulting in vomiting or diarrhea.

Giardiasis- A diarrheal illness caused by a one-celled, microscopic parasite, which lives in the intestines and is passed in the stool. It is found in drinking and recreational waters.

Harassment- Under the 1994 amendments to the MMPA, harassment is statutorily defined as any act of pursuit, torment, or annoyance which: has the potential to injure a marine mammal or marine mammal stock in the wild (Level A Harassment); or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild (Level B Harassment).

Harmful algal bloom (HAB)- A diverse array of blooms of both microscopic and macroscopic marine algae which produce: toxic effects on humans and other organisms; physical impairment of fish and shellfish; nuisance conditions from odors and discoloration of waters or habitats.

Humane- In the context of euthanasia is defined by the MMPA means “that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved.”

Hyperthermia- An acute condition which occurs when the body produces or absorbs more heat than it can dissipate; also referred to as heat stroke or sunstroke.

Hyponatremia- Low blood sodium. In marine mammals it is manifested by anorexia, followed by uncoordinated or spastic movements progressing to a generalized muscle quivering over the entire body, especially the flippers.

Hypothermia- Condition in which body temperature drops below the level required for normal metabolism and/or bodily function to take place.

Immunosuppression- State in which the ability of the body’s immune system to fight infections or disease is decreased.

Leptospirosis- An infectious disease caused by the bacteria of the genus *Leptospira* that affects humans and animals. Causes tubular necrosis (kidney disorder) in marine mammals. Human symptoms include high fever, severe headache, muscle ache, chills, and vomiting.

Morbillivirus- A highly contagious and lethal genus of virus (Family Paramyxoviridae) that has been responsible for more significant marine mammal die-offs due to infectious disease than any other pathogen to date.

Mycobacterium spp.- A genus of bacteria that includes many pathogens known to cause serious diseases. In marine mammals, may cause dermal abscesses and pulmonary tuberculosis (infection of the lungs). In humans, may cause skin lesions, pulmonary tuberculosis, and skin tuberculosis.

Mycoplasma (Seal Finger)- Bacteria which may cause mycoplasmal pneumonia (infection of the lungs) in marine mammals. In humans, may cause skin lesions and infection may progress to arthritis, cellulitis (inflammation of the connective tissue of the skin), or tenosynovitis (inflammation of the fluid-filled sheath that surrounds the tendon).

Mysticete- A whale that has baleen (plates of keratinized tissue that hang from the upper jaw) instead of teeth (suborder Mysticeti). Examples include the humpback whale (*Megaptera novaeangliae*), gray whale (*Eschrichtius robustus*), and minke whale (*Balaenoptera acutorostrata*).

Odontocete- Toothed whales (suborder Odontoceti). Examples include the sperm whale (*Physeter macrocephalus*), beluga whale (*Delphinapterus leucas*), harbor porpoise (*Phocoena phocoena*), and bottlenose dolphin (*Tursiops truncatus*).

Otariid- Sea lions and fur seals (family Otariidae). Examples include the Steller sea lion (*Eumetopias jubatus*) and the Northern fur seal (*Callorhinus ursinus*).

Pathology- The scientific study of the nature of disease and its causes, processes, development, and consequences.

Persistent Organic Pollutant (POP)- Chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in fatty tissue of living organisms, and are toxic to humans and wildlife.

Phocid- True or earless seals (family Phocidae). Examples include the Hawaiian monk seal (*Monachus schauinslandi*), and the harbor seal (*Phoca vitulina*).

Pinniped- Marine mammals in the suborder Pinnipedia with all four limbs modified into flippers, including seals, sea lions, and walruses.

Polychlorinated Biphenyls (PCBs)- A group of toxic, carcinogenic organic compounds previously used for industrial purposes.

Polycyclic Aromatic Hydrocarbon (PAH)- Chemical compounds that consist of fused aromatic rings; many are known or suspected carcinogens.

Rehabilitation- Treatment of beached and stranded marine mammals taken with the intent of restoring the marine mammal's health and, if necessary, behavioral patterns.

Salmonellosis- Infection caused by the bacteria *Salmonella* with symptoms including fever, abdominal cramps, and diarrhea.

Seal poxvirus- Virus in pinnipeds which causes skin nodules which may ulcerate, spread rapidly, and persist for months. In humans, may cause swollen, red skin nodules.

Septicemia- Disease caused by the spread of bacteria and their toxins in the bloodstream, also known as blood poisoning.

Shigellosis- Disease caused by a group of bacteria (*Shigella*) with symptoms including diarrhea, fever, and stomach cramps

Stranding- Defined under the MMPA as “an event in the wild in which (A) a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and is unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.”

Take- Defined under the MMPA as “to harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect.” Defined under the Endangered Species Act as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.”

Threatened species- Defined under the Endangered Species Act as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

Unusual mortality event (UME)- Defined under the Marine Mammal Protection Act as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.”

West Nile Virus- Virus spread by mosquitoes that causes encephalitis (inflammation/swelling of the brain).

Zoonotic- Any infectious disease that can be transmitted from animals to humans.