Making a Difference

An Action Guide to Marine Conservation in Hawai‘i

What to Do and Who to Call Concerning Ocean Issues

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PURPOSE

This action guide has been designed as a community tool to provide key information, guidelines, and contact information for marine resource conservation. The goal is to empower Hawai'i's ocean users to take an active stewardship role in the preservation and protection of the marine environment. This action guide outlines key rules and regulations on a variety of topics and provides general ecological information and guidelines to follow such as actions to take, if any; what information to record; what agency to contact; and where to go for more information and guidance. As a Hawai'i ocean user and stakeholder, you can make a difference and contribute to marine conservation efforts! This action guide is also available to download from www.coral.org/Hawaii_action_guide or http://monitoring.coral.org/resources/download. There you will find the most recent version, in the event that changes have been made between printings. There is also a facebook page for the guide at facebook.com/MakingaDifferenceActionGuide

A NOTE ABOUT RESOURCE STEWARDSHIP

Hawai'i's unique natural and cultural resources are irreplaceable, and should be treated with respect. We all must recognize our important role in caring for our environment, and our responsibility to do so. Take the time to learn about an area before you visit it, and consider such things as land ownership issues, sensitive cultural sites, traditional practices, and proper protocols. You can minimize your impact by educating yourself on the proper ways to interact with the marine environment.

Photo by Liz Foote

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Photo by Carlie Wiener

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ENFORCEMENT (and Resource Management)

The Division of Conservation and Resources Enforcement (DOCARE) is the state agency responsible for enforcement activities of the Hawai'i Department of Land and Natural Resources (DLNR). The division, with full police powers, enforces all state laws and rules involving state lands, state parks, historical sites, forest reserves, aquatic life and wildlife areas, coastal zones, conservation districts, and state shores, as well as county ordinances involving county parks. Their mission is to promote the safe and responsible use of Hawai'i's natural resources. [i]

The Hawai'i Division of Aquatic Resources (DAR) is a separate division of the DLNR, and works closely with DOCARE. DAR's mission is to manage, conserve and restore the state's unique aquatic resources and ecosystems for present and future generations.

Look for the following icons throughout this action guide to indicate whether you should notify DOCARE ☆ and/or DAR ❀, depending on the circumstance.

Island	Division of Conservation & Resources Enforcement (DOCARE) ☆	Division of Aquatic Resources (DAR) ❀
Statewide Hotline	(808) 643-DLNR (3567)	N/A
O'ahu	(808) 587-0077	(808) 587-0100
Maui	(808) 873-3990	(808) 243-5294
Hawai'i Island	Capt Cook: (808) 323-3141 Kona: (808) 327-4961 Hilo: (808) 974-6208	Hilo: (808) 974-6201 Kona: (808) 327-6226
Kaua'i	(808) 274-3521	(808) 645-0532
Lāna'i	(808) 565-7916	see Maui
Moloka'i	(808) 553-5190	see Maui

MAKAI WATCH

Makai Watch is a coastal education, monitoring and resource protection initiative that grew from a collaborative effort of community organizations, volunteers, conservation groups, and state agencies. Now officially sanctioned by the state of Hawai'i, Makai Watch works to restore and sustain Hawai'i's coastal resources through community involvement.

For more information about the program, please refer to the Hawai'i Division of Aquatic Resources' Coral Strategy website at: http://www.hawaiicoralreefstrategy.com >> Makai Watch

To find community groups across the state involved in Makai Watch activities, please visit:

- E Alu Pu Community Network: http://www.hcsnetwork.org/ealupu
- Citizen science & community-based monitoring: http://monitoring.coral.org/resources/contacts

CORAL REEF GUIDELINES FOR SCUBA DIVING AND SNORKELING

Coral reefs in Hawai'i are home to over 5,000 species of marine plants and animals with approximately 25% found nowhere else in the world, so please be respectful of these areas while enjoying them.

BEFORE ENTERING THE WATER

- Ensure that waterproof sunscreen has been applied 30 minutes prior to entering the water, or use a t-shirt or rash guard instead.
- Test out all your equipment and make sure it fits properly before entering the water. Never stand on the reef to adjust gear; seek a sandy area instead.
- Consider bringing a buoyancy vest or other floatation device even if you are an experienced swimmer.

Fit your equipment properly before entering the water.

WHILE IN THE WATER

- Choose a sandy area to enter and exit. Avoid stepping on hard bottom as there may be sharp rocks, corals and sea urchins close to shore; these can harm you, and your contact may also damage corals and reef life.
- It is important to be aware of and control your fins at all times; avoid kicking up the sand or sediment.
- Scuba divers should practice good buoyancy control and keep all gauges, fins and other accessories from dragging on the bottom.
- Observe animals exhibiting their natural behaviors rather than stimulating them to entertain. Never feed or touch marine life, including feeding fish.
- Leave coral, sand, shells and rocks where they lie; they provide valuable resources for marine life.
- Never remove anything except marine debris from the marine environment.
- Respect native Hawaiian cultural sites, practices and sacred places.
- Read and obey all posted signs.
- Use moorings or anchor in the sand.
- Scuba divers should always raise or tow a dive flag and practice good buoyancy control.

Never stand on coral, it's alive.

Photo by Ziggy Livnat

Coral Reef Guidelines for Scuba Diving and Snorkeling continued on page 4

FISH FEEDING

Fish feeding has been shown to alter the natural community structure of the reef, and promote habituated, aggressive fish. Please allow the fish to eat their natural food. Many of them play an important role as grazers, keeping algae populations in check. Fish feeding is actually illegal in some areas (such as Molokini Shoal Marine Life Conservation District, Ahihi Kina'u Natural Area Reserve, Kahekili Herbivore Fisheries Management Area, and West Hawai'i Island Fisheries Replenishment Areas) and can result in large fines. Help the reef and stay safe – please leave the fish food at home.

Photo by Liz Foote

Fish feeding can result in bites.

BEST PRACTICES FOR OCEAN USERS AND MARINE RECREATION PROVIDERS

General guidelines on diving, snorkeling, whale and dolphin watching, turtle watching, and underwater cleanups (in English and other languages) are available online at:www.coral.org/resources

For more formalized guidance on best practices for marine recreation in Hawaii, please visit www.HawaiiMarineTourism.org to access and download a comprehensive set of voluntary standards for marine tourism. The standards, which were developed by the West Hawaii community in a collaborative consensus-based process facilitated by the Coral Reef Alliance (CORAL), include SCUBA Diving, Snorkeling, General Boating (with Kayaking and Surf Schools), Wildlife Interactions, and Shoreline Activities.

SEA TURTLES

There are five species of sea turtles found in the Hawaiian Islands, including the most commonly seen green turtle (*honu*), and the critically-endangered hawksbill turtle (*honu'ea*). Leatherback, loggerhead and olive ridley turtles are species rarely seen in the main Hawaiian Islands, but are found more commonly in deep, offshore waters.

THREATS TO SEA TURTLES

- Entanglement in marine debris
- Poaching or harassment
- Fishing gear interactions
- Disease (fibrous tumors on eyes, neck, flippers, mouth and internally)
- Boat strikes
- Habitat loss [ii]

Sea turtles are listed and protected under the U.S. Endangered Species Act and wildlife laws of the State of Hawai'i; all sea turtles living and dead are legally protected. It is illegal to harass, harm, or kill a turtle, sell any turtle parts or products, or keep sea turtles in captivity without a permit.

A *stranded* sea turtle is defined as any turtle found onshore that appears dead, injured, sick, tumored, or otherwise abnormal. There is no harm whatsoever for a sea turtle to be out of the water for many hours. Please note – sea turtles will sometimes come onshore to rest, so observe carefully.

GUIDELINES FOR RESPONDING TO A SEA TURTLE STRANDING

Please record the following information prior to reporting an incident:

- Date, time and exact location
- Is the turtle dead or alive? Are there any visible signs of danger around the turtle, e.g., fish hook, a net?
- Estimated size of the animal (could one person lift it?)
- Photographs (if possible)
- Your contact information

When observing sea turtles in the wild please give them plenty of room. Feeding, touching or attempting to ride them is inappropriate and shows a lack of respect and aloha. Illegal actions can result in citations and fines.

To report suspected law enforcement violations toward sea turtles such as harassment, poaching or a turtle caught in a net, please call NOAA Enforcement at 1-800-853-1964 or the DOCARE office at (808) 643-DLNR. For stranding response please see contact numbers by island on p. 23.

Feeding, touching or attempting to ride sea turtles is illegal, inappropriate and shows a lack of aloha.
Photo by Ziggy Livnat

HAWAIIAN MONK SEALS

Hawaiian monk seals (*'Ilio-holo-i-ka-uaua*) are the most endangered seal species in the U.S., with its population estimated at about 1,100 seals. They spend two-thirds of their time swimming and need to rest while on shore. Hawaiian monk seals are found from Nihoa Island to Kure Atoll in the Northwestern Hawaiian Islands, and in the Main Hawaiian Islands as well. Sandy beaches and lava benches are preferred "haul out" sites for monk seals. Hawaiian monk seals are believed to live about 25-30 years.

THREATS TO MONK SEALS

NORTHWEST HAWAIIAN ISLANDS
- Lack of food
- Entanglement in marine debris
- Shark attacks

MAIN HAWAIIAN ISLANDS
- Human disturbance
- Infectious disease
- Fishery interactions
- Habitat Loss

Approaching Monk Seals this close is NOT appropriate.

Photo by Liz Foote

The Hawaiian monk seal is protected under the Endangered Species Act and the Marine Mammal Protection Act. State and federal laws prohibit harassing, harming or killing a monk seal. **Any of these actions** can result in fines exceeding $25,000 or five years of imprisonment.

GUIDELINES ON HOW TO RESPOND TO A MONK SEAL ON LAND

Monk seals come ashore ("haul-out") to rest. This is normal and they should not be disturbed. Please report monk seal sightings to NOAA Fisheries and to the appropriate contact person on your island. Encourage others to keep their distance (50 yards/150 feet), stay quiet, and keep their dogs leashed and away from the seal (to avoid disease transmission and injury). Make sure to always pass outside barricades, not between the seal and shoreline, and stay low to the ground avoiding the head.

Please record the following information prior to reporting an incident:
- Date, time and exact location
- Duration of observation
- Estimated size of the animal (length)
- Any visible tags on hind flippers (notice tag color), distinct scars or bleach marks
- If there is a barrier, people, dogs
- The seal's behavior (resting, swimming, diving, interacting with others, etc.). Note signs of disturbance (seal looking at people, vocalizing, or moving back into the water).
- Be sure not to cross barriers when taking photos. Photos can be emailed to PIFSC.monksealsighting@noaa.gov.

It is recommended to observe monk seals from at least 150 feet away, and even further when a pup is present. Feeding, touching or approaching them is illegal and can cause distress.

WHO TO CALL

Seal sightings/ injuries/ entanglements: call the NOAA hotline: **1-888-256-9840 (Toll Free/24 hr)**
Seal violations: NOAA Fisheries Enforcement: **1-800-853-1964** or DOCARE: **(808) 643-DLNR**
On O'ahu: **(808) 220-7802** (NOAA Fisheries Main Hawaiian Islands Seal Sightings Line)
On Maui: **(808) 292-2372** (NOAA Fisheries Maui Monk Seal Response)
On Kaua'i: **(808) 651-7668** (NOAA Fisheries Kaua'i Monk Seal Response)
On Hawai'i Island: **(808) 987-0765** (NOAA Fisheries Hawai'i Monk Seal Response)

CETACEANS (WHALES & DOLPHINS)

The most commonly encountered cetaceans in Hawaiian waters are the North Pacific humpback whale (*Kohola*) and the Hawaiian spinner dolphin (*Nai'a*). Hawai'i is the only state in the U.S. where humpback whales mate, calve and nurse their young. Many humpbacks travel through Hawaiian waters every year from November through May and remain here for an extended period. The waters of Hawai'i are the principal nursery grounds to the North Pacific humpback whales and mothers and can be found anywhere in this area during whale season. Hawaiian spinner dolphins live in Hawai'i year-round and are found close to shore in shallow coves and bays, where they rest, care for their young, avoid predators and reproduce. [iv]

THREATS TO WHALES AND DOLPHINS

- Vessel collisions
- Entanglement in marine debris
- Habitat degradation including pollution
- Acoustic and human disturbance
- Illegal whaling [v]

All whales, dolphins and seals are protected by federal or state laws. Interacting with wild marine mammals should not be attempted through close approach, swimming with, petting, touching or eliciting a reaction from the animals.

It is illegal to approach a humpback whale closer than 100 yards (90 m) when operating a watercraft and 1,000 ft (300 m) when operating an aircraft. If your vessel is within 100 yards of a humpback whale, you must stop immediately until the whale moves away. For other species of whales, dolphins and monk seals it is recommended that a distance of 150 feet (45m) is observed when on land or in the water, and 1,000 ft (300 m) when operating an aircraft.

Cetaceans Guide continued on page 8

RESPONSIBLE MARINE MAMMAL VIEWING GUIDELINES

- Never encircle, entrap, herd or separate whales or dolphins, never "leapfrog" or cut in front of animals, and limit observation time to 30 minutes or less.
- Never entice marine wildlife to approach you. Take extra caution not to surprise marine mammals; loud noises or abrupt movements can startle or stress wildlife.
- Use binoculars or telephoto lenses to minimize intrusive viewing.
- Dispose of trash properly; animals can mistake debris for food, which can be fatal.
- Avoid animals showing signs of disturbance: rapid or erratic changes in swimming direction or speed, escape tactics such as prolonged diving or exhalation underwater, female attempting to shield her calf with her body, sudden stop in important breeding, nursing, feeding or resting activities after your arrival, abandonment of previously frequented areas.

Photo by Flip Nicklin; Photo Courtesy of Hawaiian Islands Humpback Whale National Marine Sanctuary

Take extra caution not to surprise marine mammals.

VESSEL-WHALE COLLISION AVOIDANCE GUIDELINES

- Post at least one dedicated whale lookout, in addition to the operator, from November to May.
- Slow down when whales are present. Research indicates that collision injuries are less frequent and less severe when vessels travel at 10 knots or less. Keep your hands on the wheel and throttle at all times and be ready to take immediate action to avoid an animal in your path.
- Warn other vessels when whales are close, and avoid nighttime operation if possible.
- Use extra caution in the vicinity of mothers and young or in sensitive habitat such as nursing or resting areas. Keep a sharp lookout, staying vigilant for "blows", dorsal fins, or tails.

SPINNER DOLPHIN INTERACTION GUIDELINES FROM RESEARCH

NOAA Fisheries has determined that spinner dolphins are in a state of rest during the day. Activities that alter behavior may include swimming or kayaking interactions initiated by humans or the dolphins themselves. Under the Marine Mammal Protection Act, these activities are considered Level B Harassment. NOAA's guidelines state that "if you are approached by a pod of dolphins you must stop, and remove yourself from the situation so as not to alter their behavior in any way."

Photo by James Kashner

Spinner Dolphins rest during the day. Interacting with them during this time will alter their behaviors negatively.

GUIDELINES ON HOW TO RESPOND TO MARINE MAMMAL STRANDINGS, ENTANGLEMENTS OR VIOLATIONS

Marine mammals may occasionally become stranded in shallow water or on the shores; NOAA Fisheries has management authority. The NOAA Fisheries Pacific Islands Regional Office responds to stranded marine mammals under the authorization of the Marine Mammal Health and Stranding Response Program (Permit # 932-1489-08) issued by NOAA.

If a marine mammal violation, stranding or entanglement is witnessed please report the information to the appropriate person as soon as possible, and record the corresponding information.

Please record the following information prior to reporting an incident:

- Date, time and exact location
- Species (if known) or description of animal, i.e., humpback whale, pilot whale, bottlenose dolphin, etc.
- Estimated size of the animal
- Animal condition, i.e., wounded, entangled, bleeding, dead or alive; any notable behavior observations
- Weather/sea conditions
- Violation type, vessel used in violation, i.e., boat color, speed, direction and description (if applicable)
- Description of debris/entanglement (if applicable)
- Photograph/video (if possible)
- Your contact information

NEVER APPROACH OR DISENTANGLE A DISTRESSED ANIMAL OR ALLOW PETS TO APPROACH

WHO TO CALL ☎

To report marine mammal emergencies/strandings (injuries/entanglements) or if you are involved in a vessel/whale collision please contact: **1-888-256-9840** NOAA Hotline.
To report marine mammal violations: **(808) 541-2727** or **1-800-853-1964** NOAA Fisheries Enforcement Hotline.
U.S. Coast Guard: **(808) 842-2600** or **VHF channel 16**.

AQUATIC INVASIVE SPECIES

Alien marine algae pose a threat by overgrowing living corals and replacing native marine algae, costing Hawai'i millions of dollars each year in lost revenue. They can cause irreversible damage to fragile marine ecosystems and need to be closely monitored. Collaborative pilot projects are underway to determine if mass removal of algae can return the reef to its natural state[vi], and if the enhancement of herbivore populations will reduce invasive algae through increased grazing.

HOW TO PREVENT THE SPREAD OF AQUATIC INVASIVE SPECIES

- When snorkeling, diving or fishing, inspect all gear for seaweed fragments before leaving the area; make sure to properly dispose of seaweed fragments at that location.
- Dry off gear before next use.
- When boating, inspect the anchor, mooring lines, propellers and bilge for seaweed fragments; discard any fragments that you find at the same site or in the trash before next use.
- Keep your hull clean.
- Take steps to reduce overfishing and fish feeding; grazing by reef fishes helps keep algae populations in check.
- Never dump aquarium animals or plants into streams or coastal waters. Instead, contact a retailer/ aquarist for proper handling, donate to a school/aquarium, or dispose in the trash.
- To report unusual seaweed blooms, call the DAR office on your island (see pages 2 & 23).

To learn more about invasive algae in Hawai'i, please visit: www.botany.hawaii.edu/Invasive

Photo by Hawaii Division of Aquatic Resources

Marine algae like this overgrows living corals causing irreversible damage.

LAND-BASED POLLUTION

Land-based pollution, primarily sediments, nutrients and other pollutants, has been identified as one of the top six threats to coral reefs in the U.S., damaging reefs and degrading water quality. Pollutants are carried into coastal waters through surface water runoff and groundwater seepage. Sources of pollution include soil erosion, increased fertilizer use and discharge of sewage and industrial pollutants. Because terrestrial runoff directly affects coral recruitment, runoff-exposed reefs take longer to recover from disturbances by storms, coral bleaching and outbreaks of coral predators than reefs in cleaner water. [vii]

TYPES OF ENVIRONMENTAL VIOLATIONS

- Discharge of pollutants and wastes, e.g., paint, solvents, oil and gas, chemicals, hazardous waste
- Illegally dumped solid waste, e.g., household garbage, construction debris, appliances, batteries
- Muddy runoff from construction sites
- Discharge of untreated or improperly treated sewage
- Construction of seawalls, piers, etc. without proper permits

Photo by Carl Berg

Land-based pollution inevitably ends up in the ocean, and is identified as one of the top six threats to coral reefs.

Please record the following information prior to reporting an incident:

- Your contact information
- Date, time, and location (please provide directions to site)
- Violation type
- Information about violator (if possible)
- Source of pollution/description
- Pictures of area/ labels (if possible)

DO NOT COME INTO CONTACT WITH ANY WASTES !

WHO TO CALL ☎

To report any solid wastes or littering:
Department of Health Solid and Hazardous Waste Branch **(808) 586-4226**
To report water pollution or improper discharges:
Department of Health Clean Water Branch **(808) 586-4309**
To report any oil spills or hazardous materials:
Coast Guard **(808) 842-2600** or **VHF channel 16**.
To report chemical spills:
Department of Health (Hazard Evaluation & Emergency Response) **(808) 586-4249**

Land-based pollution continued on page 12

Land-based Pollution *Continued*

To report a litterbug:
Statewide Litter Hotline managed by Community Work Day: **1-888-592-2522**
Reporting a litterbug in a vehicle:
When a report is made by a caller, a letter will be sent to the registered owner of the vehicle. The letter will serve as a warning to the vehicle's owner that littering is against the law and harmful to our environment. Pursuant to state and county laws, litterbugs may be fined up to $1,000 for throwing an item as small as a cigarette butt out of a car.

Be sure to have all facts:
- Vehicle make, model, color and license plate number
- Date, time, location (highway, street, intersection, city), direction of travel
- Who littered (driver, passenger, unsecured load)
- Type of litter (cigarette butt, beverage container, garbage bag, appliance, etc.)

MARINE DEBRIS

Marine debris is generally any man-made, solid object that may be found in the coastal or marine environment. It may enter the marine environment directly from a vessel or indirectly via rivers, streams and storm drains. Marine debris is dangerous to wildlife (via ingestion and entanglement), is a navigation and safety hazard, degrades the marine environment, and is an eyesore on beaches and shorelines. Many forms of marine debris endure for years and travel in oceanic currents, affecting ecosystems miles away from its origin. Items such as derelict fishing nets (ghost nets) continually trap and kill marine life.

Photo by Mike Roberts

Marine debris like this is a hazard to wildlife.

EXAMPLES OF MARINE DEBRIS

- Plastics (such as bags or bottles or other products)
- Derelict fishing gear and vessels (sunken vessels that may break apart creating debris)
- Styrofoam, glass, rubber and metal
- Cigarette filters

GUIDELINES FOR MARINE DEBRIS CLEANUP AND REMOVAL

Special care should be taken when conducting any type of cleanup, particularly underwater. Organizers of community cleanups should provide you with guidelines for your own safety and for that of the environment.

Here are a few important guidelines:
- Never try to remove anything hazardous, that cannot be easily lifted, or that has already been incorporated into the reef.
- Plan ahead for handling medical waste or other hazardous materials (e.g.) syringes, condoms, etc.
- Properly dispose of all collected debris and recycle as much of it as possible.

To learn more about marine debris visit www.marinedebris.noaa.gov. To participate in community cleanups visit www.cwdhawaii.org.

WHO TO CALL ☎

To report illegal dumping:
Honolulu Environmental Concern Line: **(808) 768-3300**
To report any solid wastes:
Department of Health Solid and Hazardous Waste Branch: **(808) 586-4226**
To report water pollution or improper discharges:
Department of Health Clean Water Branch: **(808) 586-4309**
Statewide Litter Hotline managed by Community Work Day: **1-888-592-2522**
To report suspected storm water violations (such as illegal discharges):
Department of Transportation Storm Water Hotline: **(808) 831-6714**

FISHING & MARINE RESOURCE REGULATIONS & VIOLATIONS

Fishing is a popular activity in Hawai'i and is enjoyed by all ages. To help conserve our resources for future generations, you should be aware of Hawai'i's fishing regulations.

THE ETHICAL FISHERMAN [viii]

- Keeps only the fish he/she needs, limits his/her take; doesn't take the limit.
- Keeps native fish populations healthy by preventing the release of live bait and non-native fish.
- Handles fish gently. Keeps fish in water if possible and doesn't handle by eyes or gills.
- Doesn't pollute – properly disposes of trash.
- Improves fishing and boating skills.
- Observes fishing and boating safety regulations.
- Respects other fishermen's rights.
- Respects property owners' rights.
- Passes on knowledge and fishing skills.
- Supports local conservation efforts.
- Doesn't release live bait into freshwater systems.

Fishing & Marine Resource Regulations & Violations continued on page 14

Refer to the DLNR's publication, "Hawai'i Fishing Regulations" for complete up-to-date rules, regulations and guidelines.

Fishing & Marine Resource Regulations & Violations *Continued*

Highlighted below are some of the critical rules and regulations that govern marine resources in Hawai'i. Refer to the DLNR's publication, "Hawai'i Fishing Regulations" for complete up-to-date rules, regulations and guidelines, which can be found at your local Division of Aquatic Resources office, or online at: http://hawaii.gov/dlnr/dar

It is your responsibility to know the rules and regulations regarding bag limits and size restrictions for individual species, as well as invertebrates such as '*opihi*.

Photo by DLNR

Responsible fishing is a key factor to maintain a healthy marine ecosystem.

Here are a few species of concern, and other important regulations:

- Closed season for many species is May – August.
- Spiny Lobsters (*Ula*), Kona crab and Samoan crabs: no taking or killing of females. (HAR 13-95)
- Octopus (*he'e, tako*): minimum size 1 pound. (HAR 13-86)
- 'Opihi: minimum size 1-1/4 inches (shell diameter), 1/2 inch (meat diameter, if meat only). (HAR 13-92)
- Limu (*ogo*): bag limit of one pound per day for personal consumption; prohibited to take with the holdfast (the part attaching to a rock or other surface), or to take when covered with reproductive nodes or bumps. (HAR 13-93)

CORAL AND LIVE ROCK LAWS

- It is unlawful to take, break, or damage, with any implement, any stony coral from the waters of the state, including any reef or mushroom coral. It is also unlawful to sell or offer for sale any stony coral. (HAR 13-95)
- It is unlawful to take, break or damage, with any implement, any rock or coral to which marine life is visibly attached or affixed. (HAR 13-95)

SOME IMPORTANT LAY GILLNET RESTRICTIONS

Please note: The following is a partial list of restrictions that apply to the use of lay gillnets. For additional details and further guidance, it is strongly recommended that you call your local DLNR office. ❀ Also, please be advised that special rules apply to Moloka'i and will vary from those presented below.

- It is unlawful to use lay nets within 3 miles of the shoreline around the entire island of Maui, and in the following waters off O'ahu: Kawaihoa Pt. to Keahi Pt.; Mokapu Pt. to Wailea Pt.; Kāne'ohe Bay between the sampan and ship channels.
- Where lay gillnets are legal, they may not be used during the period from 1/2 hour after sunset to 1/2 hour before sunrise.
- Nets must be inspected completely within 2 hours after the beginning of the set. All threatened, endangered, prohibited, or unwanted species must be released.
- All lay nets must be registered with DLNR and any lost net must be reported to DLNR.

SPEARFISHING

Fishing with spears is allowed for all fish, but must follow minimum size for spearing of certain species, closed seasons and other restrictions. It is unlawful to spear any crustacean (except introduced freshwater prawn), turtle or aquatic mammal at any time. (HAR 13-75)

Prohibited fishing methods: explosives, electro-fishing devices, chemicals, poisons and intoxicants. (HAR 13-75 &HRS 188-23) It is illegal to pursue, take or kill any fish, crustacean, mollusk, turtle, or marine mammal with firearms. (HAR 13-75 & HRS 188-23)

It is unlawful to discard or otherwise dispose of any fishing net, trap, or gear, or parts thereof, in the waters of the State. (HAR 13-75)

GUIDELINES ON HOW TO RESPOND TO FISHING VIOLATIONS

- Do not approach the violator.
- Your identity will be kept confidential and will not be released.
- One-half of the fine imposed and collected in cases where the defendant has been convicted for a violation may be paid to the person giving the information leading to the arrest of the person so convicted.

Please record the following information prior to reporting the violation:

- Date and time
- Duration of observation
- Type of violation
- Exact location
- Description of person(s) involved
- Boat or vehicle license number

Photo by Kevin Gorspe

School of Omilu

WHO TO CALL ☎

Report Violations of Marine Laws and Regulations: DLNR **(808) 643-DLNR** (24 hr/toll-free)
NOAA Fisheries Enforcement Hotline: **1-800-853-1964.**

BOATING RESOURCES & SAFE BOATING

IMPORTANT BOATING REGULATIONS

- All boats must be registered annually and bear proper numbering and permit stickers.
- Children 12 and under must wear a USCG approved and properly fitted Personal Floatation Device (PFD) at all times unless in an enclosed cabin or below deck.
- All operators of Personal Watercraft must carry a PFD and must be properly certified to operate the PWC through a State of Hawai'i approved boating safety course.
- Do not use alcohol prior to and while operating a boat. Boating under the influence with a blood alcohol level of .08 is a punishable offense.
- Avoid hull cleaning in ecologically sensitive areas. Cleaning your hull dockside is punishable if paint chips are discarded into the water. Use caution with anti-fouling paints, which contain harmful TBT (tributyltin).
- There are marine areas that have restrictions: see Division of Boating and Ocean Recreation website for details: www.hawaii.gov/dlnr/dbor/borrules.htm.

Boats propelled/controlled by machinery, sails, oars, paddles/poles have carriage requirements. Know what you need to have on board before you launch, including:

- Registration/documentation to match display of name or number on vessel.
- A life jacket for each person and throw-able personal floatation device.
- Lights for nighttime operation or periods of poor visibility operation.
- Sound signaling device and visual distress signals such as flares or flags.
- Enough fire extinguishers for the size of the vessel.
- All vessels venturing beyond one mile from shore must have on board either a VHF radio or Emergency Position Indication Radio Beacon (USCG approved).
- Engine must have ventilation, muffler and a backfire device.

It is highly recommended that your vessel also be equipped with:

- A first aid kit, a bailing device, tools and a floating flashlight.
- A current set of charts whenever setting out on a voyage or cruise.
- Anchor and line with extra rescue and mooring lines.

MOORING PROTOCOL

Anchor damage is one of the top physical threats to corals, due to anchors dropping on corals and chains dragging on the bottom. Day use mooring buoys help to reduce damage to corals by eliminating the need to drop an anchor. A day use mooring buoy provides a convenient place for a boater to secure their boat without having to drop an anchor. They have a time limit of 2.5 hours when another vessel is waiting for that mooring and overnight mooring is not allowed. Any use of a state day use mooring shall be at the sole risk of the owner or operator of the vessel using the mooring.

Permits are required before these moorings can be installed; see Hawai'i Administrative Rules 13-257 Day Use Mooring Rules.

1) Look for a mooring rather than dropping anchor.
2) Use your boat hook/someone in the water, to grab the upline, and use boat line to thread through the thimble and tie off.
3) Do not attach the mooring upline to your cleat. That can cause the mooring to wear out faster, and depending on the size of the boat, could potentially pull up the anchor.
4) Allow the threaded boat line to be loose enough to have some play in the swells.
5) Report faulty or damaged moorings to DLNR, or DAR.
6) If you must anchor, seek a sandy or muddy bottom.

Photo by Jack's Diving Locker

Look for moorings rather than dropping anchor.

IMPORTANT SAFE BOATING TIPS

- Use mooring pins whenever possible; anchor in the sand if necessary.
- Secure and dispose of all trash, including recycling at harbors or other facilities.
- Before leaving dockside always do a check to assure all your equipment is in working order.
- If you are unfamiliar with the area get a chart and make a trip plan.
- Know the VHF frequency for the harbor master and report all suspicious activity.
- Properly treat and lawfully dispose of sewage. Use pump-out facilities whenever possible. Purging your marine sanitation device into the waters of any harbor is not allowed.
- Use non-toxic cleaners for cleanup such as Simple Green.
- Know the laws and rules designed to protect the environment and report illegal activity.
- Plan your trip well – check local tide and weather conditions prior to your trip.
- All riders should wear a properly fitted U.S. Coast Guard approved life jacket.
- When changing your oil take extra care and wipe up spills immediately with oil-absorbent pads.
- Be sure to fix small leaks that allow oil to drip into the bilge and do not put off repairs to engine.
- If your vessel becomes grounded on the reef, rocks or sand, call the US Coast Guard.
- Vessels should be insured so they can be removed quickly in case of accidental groundings.

Boating Resources & Safe Boating continued on page 18

RECREATION HARBORS WITH PUMP-OUT FACILITIES [ix]

Harbor	Island	Phone Number	Pump Location & Instructions	Dock Hours
Wai'anae Small Boat Harbor	O'ahu	(808) 697-7095	Loading dock, key at harbor office	Tues-Sat 7:45 am – 4:30 pm
Ke'ehi Boat Harbor	O'ahu	(808) 832-3464	Loading dock, key at harbor office	Tues-Sat 7:45 am – 4:30 pm
He'eia Kea Small Boat Harbor	O'ahu	(808) 223-3603	Call ahead, key from harbor office	Tues-Sat 6:45 am – 3:30 pm
Ala Wai Small Boat Harbor	O'ahu	(808) 973-9727	Key at fuel dock cashier	9 am – 6 pm daily
Nawiliwili Small Boat Harbor	Kaua'i	(808) 245-4586	Call ahead	Mon-Fri 7:45 am – 4:30 pm
Kailua-Kona Pier	Haw. Is.	(808) 329-4215	Call ahead	Mon-Fri 7:45 am – 4:30 pm
Lahaina Small Boat Harbor	Maui	(808) 662-4060	Key at harbor office	Mon-Fri 7:45 am – 4:30 pm

WHO TO CALL ☎

To report boating violations contact U.S. Coast Guard **(808) 842-2600** or DNLR, Division of Conservation and Resource Enforcement (DOCARE) **(808) 643-3567**

For more information on Hawai'i Boating Regulations, contact Division of Boating and Ocean Recreation (808) 587-1966 or visit: www.hawaii.gov/dlnr/dbor/dbor.html

CORAL HEALTH THREATS

CORAL BLEACHING

Reef corals contain single celled algae (zooxanthellae) that provide food for the coral animal (polyp). Coral bleaching is the loss of these zooxanthellae from the coral, which results in an energy drain on the coral that can lead to reductions in coral growth, reproduction, or even death of a coral. Mass bleaching can occur in response to elevated sea surface temperatures and occurred in Hawai'i in 1996 in Kāne'ohe Bay and 2002 in the Northwestern Hawaiian Islands. It is predicted that the impacts of global climate change will result in more frequent and extensive bleaching episodes throughout the world. When corals bleach they appear white instead of the normal brown color and so are easy to recognize.

Photo by Greta Aeby

Coral bleaching

CORAL DISEASES

Corals are the basis of our near shore ecosystems. Many of Hawai'i's marine species depend upon their survival. Unfortunately there has been a worldwide increase in the reports of diseases affecting corals and other marine organisms. Disease can be caused by infectious agents such as bacteria, viruses or parasites or from environmental stresses such as changes in physical conditions or exposure to toxic chemicals. Approximately 15 coral diseases have been identified in Hawai'i. Research groups have initiated studies of coral, fish and coralline algae disease, and are documenting lesions in marine organisms and determining their potential causes.

You can recognize coral disease by changes in the color of the coral, loss of tissue from the coral skeleton or abnormal growths of the coral skeleton (tumors). Some common coral diseases in Hawai'i are shown below.

Photos by Greta Aeby

Shown from left to right: Finger coral with Porites trematodiasis (swollen, pink areas indicate diseased coral polyps), Lobe coral with growth anomaly, and Rice coral with Montipora white syndrome (brown areas are healthy coral with the rest of the colony having been killed by disease).

CROWN OF THORNS SEA STARS (COTS)

Crown of Thorns sea stars feed on corals and in large numbers (outbreaks) can cause extensive damage on coral reefs. Small numbers of these animals live on Hawai'i's coral reefs and are a normal part of the ecosystem. However, in 1969 an outbreak occurred in Hawai'i with approximately 20,000 animals eating their way across the reefs. Since that time, only small, localized outbreaks have been reported but with changing climatic and reef conditions the variables that lead to outbreaks may also change. Hence, it is important to monitor the number of COTS on Hawai'i's reefs. COTS have large venomous spines so please do not touch these animals. [x]

Coral Health Threats continued on page 20

Photo by Mike Roberts

A Crown of Thorns sea star preys on a colony of polyps.

WHO TO CALL

Please call your local Division of Aquatic Resources (DAR) office to report large areas of coral bleaching, unusual increases in disease levels or Crown of Thorns sea star outbreaks greater than 20 sea stars. You should also call the REEF CHECK HOTLINE at **(808) 953-4044** to report these observations.

Reef Check's "Eyes of the Reef" Coral Bleaching and Disease Monitoring Network
Report unusual events of bleaching, disease or Crown of Thorns sea stars to: Hotline: (808) 953-4044
website: www.reefcheckhawaii.org/eyesofthereef

Information to Report

- Event type: bleaching, disease, Crown of Thorns
- Location: island, GPS coordinates
- Event description
- Coral cover, depth
- Environmental changes
- Number of animals, disease type
- Percentage of corals or reef area affected
- Photographs

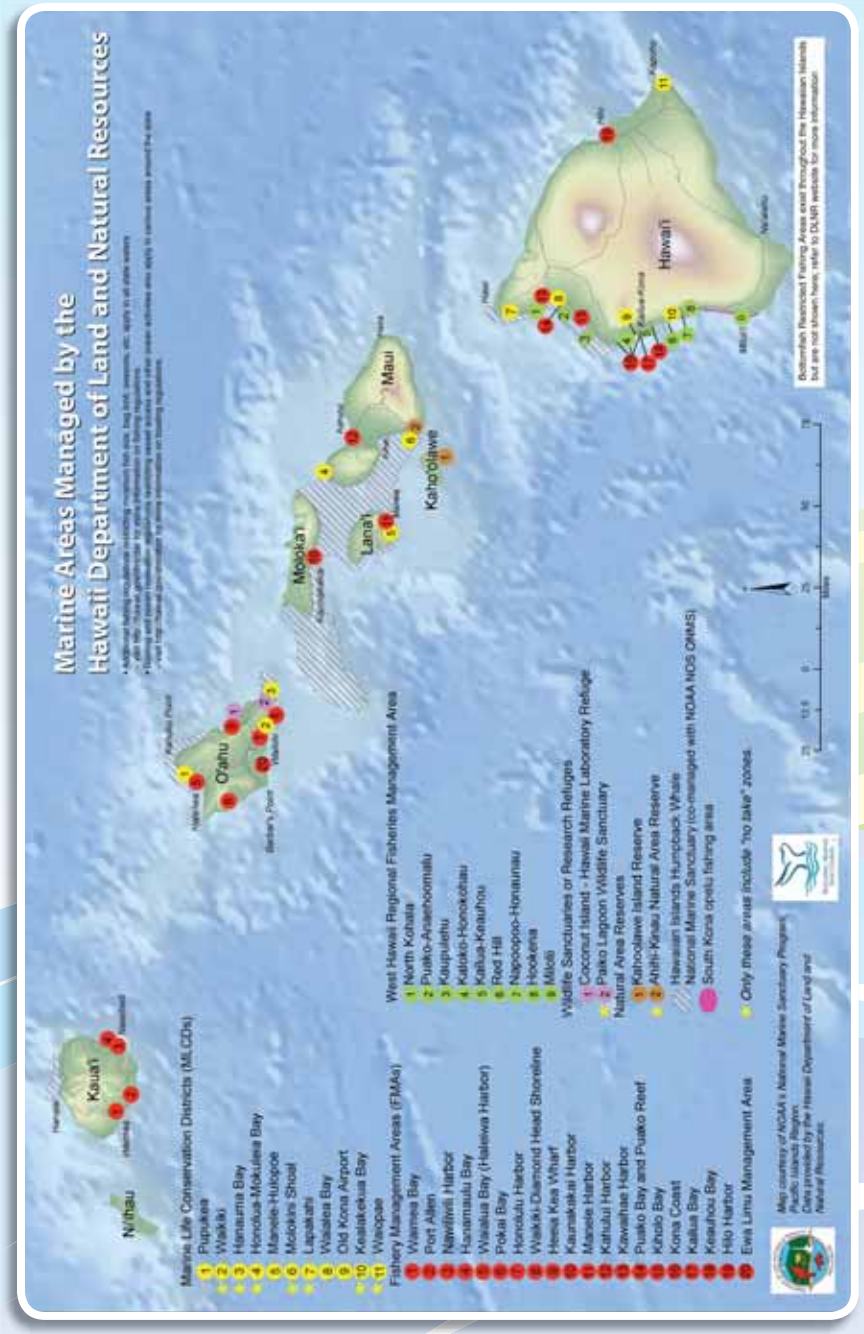
MARINE MANAGED AREAS

There are several different types of Marine Managed Areas (MMAs) in Hawai'i. It is important to know the locations and boundaries of these protected areas in your locality, and know the rules associated with each. Refer to the DLNR's publication, "Hawai'i Fishing Regulations" for up-to-date rules, regulations and guidelines.

MARINE LIFE CONSERVATION DISTRICTS (MLCDs)

Protecting Hawai'i's reef resources for the enjoyment of future generations is essential, and ideal management of the resources should balance the needs of different user groups while protecting the marine environment. Marine Life Conservation Districts (MLCDs) are designed to conserve and replenish marine resources. MLCDs (such as Honolua Bay on Maui, Hanauma Bay on O'ahu, and Kealakekua Bay on Hawai'i Island) usually allow only limited fishing and other consumptive uses. They provide fish and other aquatic life with a protected area in which to grow and reproduce. Since the purpose of MLCDs is to protect marine life to the greatest extent, the taking of any type of living material and non-living habitat material is generally restricted, if it is permitted at all; this fosters non-consumptive uses of the area such as marine recreation. [xi]

Note: The Kaho'olawe Island Reserve consists of 2 nautical miles surrounding the island, and unauthorized entry is prohibited due to unexploded ordnance and other dangers.



Marine managed areas in Hawai'i are designed to conserve and replenish marine resources.

OTHER WAYS TO HELP: ADDITIONAL RESOURCES

There are many ways to get involved in your community and make a difference for Hawai'i's reefs! Please visit http://monitoring.coral.org/resources/download to access and download "Getting Involved in Caring for Hawai'i's Coastal Resources: A Community Guidebook." The Guidebook offers ways to get involved, what you need to get started and what activities you can do to make a difference.

Visit www.hawaiicoralreefstrategy.com >> Lack of Awareness to find a listing of many local organizations that are part of the statewide Coral Reef Outreach Network… you will find many opportunities to get involved in the programs and projects coordinated by these local groups.

BLUE PAGES: MARINE ENFORCEMENT PHONE BOOK

SITUATION	CALL
Swimmer in distress at unattended beaches Scuba diving accidents	Fire Department 911 Fire Department 911/ U.S. Coast Guard (808) 842-2600
Boating mishap involving injury	Fire Department 911/DLNR (DOCARE) (808) 643-DLNR
Missing beachgoer at unattended beaches	Fire Department 911
Infectious waste (syringes/needles) or chemical spills	Department of Health- Hazardous Evaluation & Emergency: Response Office (808) 586-4249 After hours call (808) 247-2191
Stranded/injured marine mammals, turtles, birds	1-888-256-9840 NOAA toll free 24hr Hotline
Fuel and oil spills	U.S. Coast Guard (808) 842-2600
Fishing, sea turtle, marine mammal and sea bird conservation resource violations	1-800-853-1964 National Marine Fisheries Service or DLNR (DOCARE) (808) 643-3567
Thrillcraft or boating violations of ocean recreation management area	DLNR (DOCARE) (808) 643-3567
Dumping of plastics/garbage in the ocean	U.S. Coast Guard (808) 842-2600 or DLNR (DOCARE) (808) 643-3567
Alien aquatic species	Pest Hotline (808) 643-PEST
Weather report (National Weather Service)	NOAA Weather Radio Recording: (808) 973-6109, Buoy Reports: (808) 973-6114, Marine Forecast: (808) 973-4382, Surf Forecast: (808) 973- 4383
To report unusual events of bleaching, disease or Crown of Thorns sea stars	Reef Check Eyes of the Reef hotline number: (808) 953-4044
To report suspected storm water violations	Storm Water Hotline at 808-831-6714

GENERAL PHONE NUMBERS

U.S. Coast Guard Search and Rescue Emergency: **(808) 842-2600 (Oahu direct), 1-800-552-6488 (outer islands)** or **VHF channel 16**

Statewide Litter Hotline: **1-888-592-2522**

Honolulu Environmental Concern Hotline: (808) 768-3300

CONTACT NUMBERS BY ISLAND

Island	Report dead, sick,injured or stranded sea turtles	Division of Conservation & Resources Enforcement (DOCARE)	Division of Aquatic Resources (DAR)	Division of Boating & Ocean Recreation (DOBOR)	Police Non-Emergency Number	District Commerial Harbors
O'ahu	(808) 983-5730 (808) 288-5685 (after hours)	(808) 587-0077	(808) 587-0100	(808) 587-1967	(808) 529-3111	(808) 587-2100
Maui	(808) 893-3172 (808) 893-3050 (pager) Kihei: (808) 872-5190	(808) 873-3990	(808) 243-5294	(808) 243-5824	(808) 244-6400	(808) 873-3350
Hawai'i Island	Honokohau –Hawi: (808) 881-4200 Waimea: (808) 887-6196 Kona: (808) 327-4961 Hilo: (808) 327-7780	Capt Cook: (808) 323-3141 Waimea: (808) 887-6196 Kona: (808) 327-4961 Hilo: (808) 974-6208	Hilo: (808) 974-6201 Kona: (808) 327-6226	(808) 327-3690	(808) 935-3311	(808) 933-8850
Kaua'i	(808) 274-3521	(808) 274-3521	(808) 645-0532	(808) 245-8028	(808) 241-1711	(808) 241-3750
Lāna'i	(808) 565-7916	(808) 565-7916	see Maui	(808) 559-0723	see Maui	see Maui
Moloka'i	(808) 553-5190	(808) 553-5190	see Maui	(808) 553-1742	see Maui	see Maui

Blue Pages continued on page 24

Key Agencies and Institutions Responsible for Marine Resource Management, Conservation and Research in Hawai'i

FEDERAL

Environmental Protection Agency (EPA)
www.epa.gov
Protects human health and the environment.

National Oceanic and Atmospheric Administration (NOAA)
www.noaa.gov
Seeks to understand and predict changes in Earth's environment, and conserve and manage coastal and marine resources to meet our nation's economic, social, and environmental needs.

Hawaiian Islands Humpback Whale National Marine Sanctuary
www.hawaiihumpbackwhale.noaa.gov
Promotes management, research, education and long-term monitoring for the endangered humpback whale and its habitat in Hawai'i.

National Marine Fisheries Service (NMFS)
www.nmfs.noaa.gov
Dedicated to the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems.

NOAA Marine Debris program
www.marinedebris.noaa.gov
Serves to coordinate, strengthen, and increase the visibility of marine debris issues and efforts within the agency, its partners, and the public both nationally and internationally.

Pacific Islands Regional Office (PIRO)
www.fpir.noaa.gov
Manages programs that support both domestic and international conservation and management of living marine resources within the Pacific.

U.S. Coast Guard
www.uscg.mil
A military branch involved in maritime law, mariner assistance, search and rescue, among other duties.

STATE

Department of Land and Natural Resources (DLNR)
www.hawaii.gov/dlnr
Manages Hawai'i's natural and cultural resources, and is equipped with several divisions with various jurisdictions.

Division of Aquatic Resources (DAR)
www.hawaii.gov/dlnr/dar/
Manages the state's marine and freshwater resources through programs in commercial fisheries and aquaculture; aquatic resources protection, enhancement and education; and recreational fisheries.

Division of Boating and Ocean Recreation (DOBOR)
www.hawaii.gov/dlnr/dbor/
Responsible for the management and administration of state ocean recreation and coastal areas programs pertaining to the ocean waters and navigable streams.

Division of Conservation and Resources Enforcement (DOCARE)
www.hawaii.gov/dlnr/docare/index.html
With full police powers, enforces all state laws and rules involving lands, parks, historic sites, forest reserves, aquatic life and wildlife areas, coastal zones, conservation districts, shores, as well as county ordinances involving county parks.

Hawai'i Coastal Zone Management Program (CZM)
www.hawaii.gov/dbedt/czm/
Works on state resource management problems of high-stress coastal areas through stewardship, planning, permitting, education, policy development, and more.

Division of Forestry and Wildlife (DOFAW)
www.dofaw.net/
Management of state-owned natural areas, public hunting areas, and plant and wildlife sanctuaries; focuses on watershed protection; native resources protection, including unique ecosystems and endangered species of plants and wildlife; outdoor recreation; and commercial forestry.

Hawai'i Department of Health (DOH)
www.hawaii.gov/health
Protects and improves the health and environment for all people in Hawai'i.

(DOH) Clean Water Branch
http://hawaii.gov/health/environmental/water/cleanwater/
Protects the public health of residents and tourists who enjoy playing in and around Hawai'i's coastal and inland water resources.

Hawai'i Tourism Authority (HTA)
www.hawaiitourismauthority.org
Advocates for Hawaii's tourism industry, and is responsible for overseeing tourism from a statewide perspective.

Kaho'olawe Island Reserve Commission (KIRC)
www.kahoolawe.hawaii.gov
Provides safe use and management of Kaho'olawe for the purposes of cultural practices of the native Hawaiian people, and to undertake the restoration of the island and its waters.

NON-PROFIT

Hawai'i Coral Reef Outreach Network (CRON)
www.hawaiireef.org
Raises public awareness about the importance of Hawai'i's coral reefs. A directory of non-profit organizations throughout the state is listed online.

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Making a Difference

An Action Guide to Marine Conservation in Hawai'i

What to Do and Who to Call Concerning Ocean Issues

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