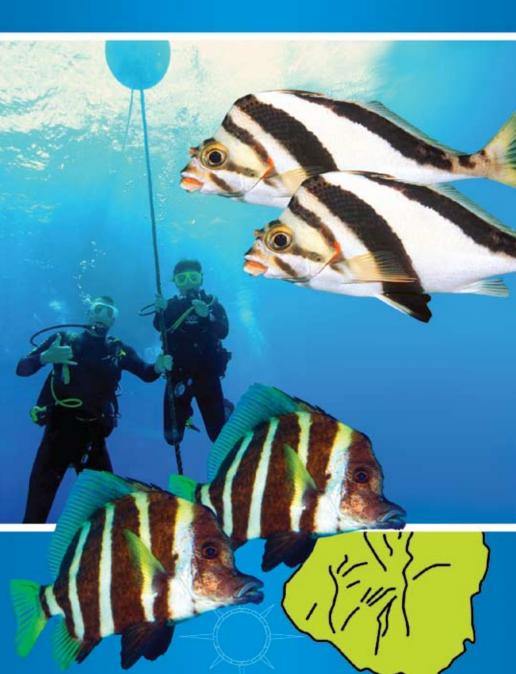
# KAUA'I DAY-USE MOORINGS



#### **Table of Contents**

#### **About Day-Use Moorings**

About Day-Use Moorings	<u> </u>	1
Mooring Diagrams		
Mooring Practices for Proper Use & Care		3
Safety and Etiquette Guidelines		4
Safety and Etiquette Guidelines		

#### Kaua'i Day-Use Moorings

#### SOUTH KAUA'I - I

Hale o Honu	6
Amber's Arches	7

#### SOUTH KAUA'I - II

Turtle Bluffs	g
Fish Bowl	10

#### SOUTH KAUA'I - III

Fast Lanes	12
Stone House	13
Koloa Landing	14
Sheraton Caverns 1-5	15
Plate Lunch	16
First Break	17
Ice Box	18
Zac's Pocket	19

#### To Report Day-Use Mooring Buoy Problems:

#### Contact DLNR's Division of Boating & Ocean Recreation (DOBOR) call (808) 243-5824

Fire Department	911
Police Department	
US Coast Guard Kaua'i	
NOAA Fisheries Monk Seal Sightings Hotline	808-220-7802
Hyperbaric Treatment Center	808-587-3425
Department of Land and Natural Resources (DLNR)	808-643-3567
DLNR, Kaua'i Division of Aquatic Resources (DAR)	808-274-3344
DLNR, Kaua'i Division of Boating & Ocean Recreation (DOBOR)	808-241-3111
Division of Conservation and Resource Enforcement (DOCARE)	808-643-3567
National Oceanic & Atmospheric Administration (NOAA) Fisheries	1-888-256-9840

© Copyright 2012 Malama Kai Foundation www.malama-kai.org

All Rights Reserved

This book or parts thereof, may not be reproduced in any form without permission of the publishers.

Printed in Honolulu, Hawaii, U.S.A.

Cover Photo Compilation: Divers with Mooring: Steve Juarez • Hawaiian Morwongs & Whiskered Boarfish: Keoki Stender

#### **Day-Use Moorings Rules:**

Day-use moorings are for public use and available on a first-come, first-served basis and vessels are restricted to a 2.5 hour use per day, if another vessel is waiting (Chapter 13-257, Hawaii Administrative Rules). Overnight mooring is prohibited, except in case of emergency or by enforcement or rescue craft.

Anchoring by other vessels is not allowed within a hundred yards of an established mooring (Chapter 13-257, Hawaii Administrative Rules). Anchoring elsewhere in a day-use mooring zone is permitted in areas of sand, rock, or rubble bottom types where no live corals exist.

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 (Chapter 13-257, Hawaii Administrative Rules).

If mooring is missing, faulty, or damaged please report to DLNR /DOBOR (808) 587-1966.

#### Why Use a Day-Use Mooring?

The coral polyps that make up a coral reef are very delicate animals. Anchors and chains can have a devastating effect on corals, breaking apart in seconds what took decades to build.

Mooring buoys have proven to be an effective system around the world in reducing the damage to coral reefs caused by anchors. They eliminate the need to drop anchor on coral reefs by providing boaters with a convenient and safe means of securing their boats.

#### Threats to the Coral Reef

Anchoring can:

**Destroy corals:** Anchors and chain damage coral reefs by crushing and killing the corals they fall on.



**Prevent new corals from growing:** Repeated anchor drops and chain drags will break up the underlying reef (coral substrate) and prevent new corals from developing.

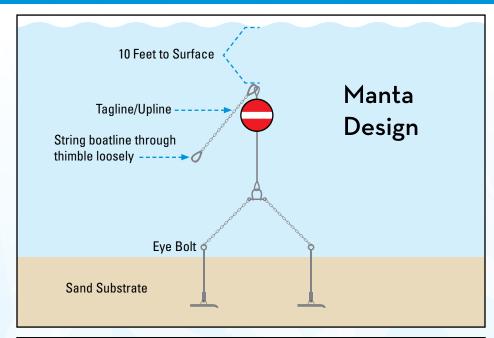
**Scar and make corals vulnerable to disease:** Anchor chains can strip the live tissue off corals, causing widespread scarring, and leaving the injured corals open to infection.

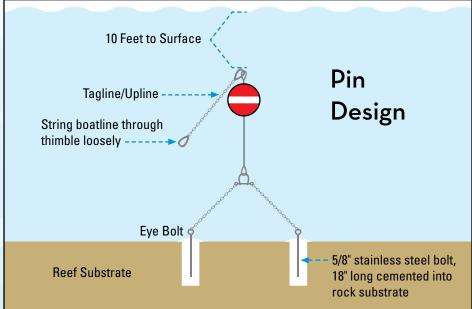
**Create clouding in the water column:** Anchoring can cloud the water with disturbed sediment that can choke corals and limit the amount of sunlight that corals' symbiotic algae require to make food.

**Tear up seaweed beds**: Anchors and long chains destroy seaweed beds by tearing them up from sandy or soft bottom environments.

Mahalo for doing your part to help our coral reefs!

#### Mooring Practices for Proper Use & Care





In both designs above, a mooring buoy and the associated tackle is attached to eye bolt and pin. The buoy is placed about ten feet below the surface.

#### **Guidelines on Anchoring and Safety**

- 1) Look for a mooring rather than dropping anchor. (This mooring booklet was put together to help guide you).
- 2) Use your boat hook or have someone in the water grab the upline. Take your bowline, thread it through the upline's thimble and tie it off on your boat cleat.
- 3) Do not attach the upline directly to your cleat. That can cause the mooring to wear out faster, and depending on the size of the boat, could potentially yank the mooring out of the bottom.
- 4) Allow the threaded bowline enough slack to have some play in the swells. (Again, to avoid wear and tear to the mooring, or causing the mooring to be pulled out).
- Conduct a proper inspection of the day-use mooring before use. Send a diver down to the bottom to check the bridle. shackles, and chain to ensure mooring integrity before using.
- to rough sea conditions.

#### **WRONG** • Larger vessels may not be safely moored during moderate WAY Tagline/ Upline Moorings require regular maintenance. If boat operators

Upline line tied to boat.

**RIGHT** 

WAY

**Boat Line** 

Thimble

Tagline/Upline

Boat line loops through the thimble.

#### To Minimize Maintenance:

take the time and care to tie up properly, the amount of maintenance required on moorings can be significantly reduced. In order to keep moorings functioning well and

avoid excessive maintenance costs or labor, consider adopting the following techniques.

#### Always be Generous with Bowline Scope.

It is important to remember that the more scope you have, the less force and pull from the weight of the boat will actually make it all the way down to the mooring anchor point itself. More scope allows the mooring system to absorb more stress and provides a more comfortable experience for those onboard. Make sure, however, that you do not put out so much scope that your boat will be in danger of hitting the shore or other boats in the immediate area.

#### Avoid Tying Off in Heavy Weather or Swells.

It's better to avoid tying off to moorings in heavy weather and swells. Remember that even though moorings can be strong and durable, they are not indestructible.

#### Do Not Back Down on Moorings.

Continual pressure can damage, weaken or destroy a mooring. Take caution; use good seamanship skills to see how slowly and easily a vessel can tie up to a mooring. Make an extra effort as captain and crew to be gentle and treat the moorings well. Avoid being heavy-handed on your boat throttles, use seamanship skills, and be "gentle."

Mahalo for helping protect our coral reefs!

#### Safety & Etiquette Guidelines

#### FOR SNORKELING, DIVING & BOATING

- Carefully select entry and exit points to avoid areas of reef. Avoid surf zones and watch for currents.
- 2) Always have a buddy.
- 3) Practice good fin stroke and body control to avoid accidental contact with the reef.
- 4) Practice neutral buoyancy and train others to do so.
- Keep gauges, fins and other accessories from dragging on the bottom.
- Respect all marine life and do not harass (chase, touch, poke, feed) them.
- 7) Observe marine life approach laws and recommended approach limits:
  - Give sea turtles at least a 20-foot radius of approach.
  - Give monk seals at least a 100-foot radius of approach (law).
  - Give dolphins at least a 50-yard radius of approach.
  - Give whales 100-yard radius of approach (law).
- 8) Take only pictures and leave only bubbles do not collect shells or organisms.
- 9) Observe animals exhibiting their natural behaviors rather than stimulate them to entertain.
- 10) Do not feed marine life; they are fine without us and can become aggressive if fed.
- 11) Avoid grasping the coral, standing on it, or kicking up sediment.
- 12) Apply a waterproof sunscreen at least 30 minutes prior to entering the water.

Always keep your eyes on the waves.

Keep safety equipment handy - i.e. floatation, flares, and calling capabilities.

Never leave the boat unattended.

Motor outside moored boats to avoid snorkel and diver collisions.

A dive flag is to be posted if there are divers or snorkelers in the water within 50 ft. of the flag. Likewise do not motor within 50 ft. of a dive flag to avoid motoring over divers or snorkelers.

- If approaching a mooring in use, attempt radio contact with moored vessel to coordinate use
  of mooring, and navigate carefully should they have divers below.
- When on a mooring, have radio on at a high enough volume and tuned to channel 16, so approaching vessels can contact you.
- If approaching a vessel with a dive flag, approach slowly and carefully to avoid driving near divers' bubbles.





South Kaua'i - I Buoy & Mooring Locations

#### Hale o Honu

Latitude (GPS) – 21 54.446 N Longitude (GPS) – 159 33.769 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### Getting Here/Finding Mooring

This site is located approximately 100 yards offshore, a mile west of Salt Pond.

#### What's Below

Hale o Honu (House of Turtle) is named for the large populations of Hawaiian green sea turtles (honu) that congregate here to rest and utilize the many "cleaning stations" on the reef. The top of the reef is 18 feet, dropping to 65 feet at a large shelf drop off. Moray eels can be seen in the cracks in the reef.

#### **1** Important Information

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).

#### Description of Bearings

#### **Amber's Arches**

Latitude (GPS) – 21 53.223 N Longitude (GPS) – 159 36.132 W Mooring Depth – 45 feet Ball Depth – 15 feet Mooring Type – pin

#### Getting Here/Finding Mooring

Travel from Port Allen Boat Harbor and mooring is half mile southeast of channel.

#### What's Below

This site varies in depth from 45-75 feet. The submerged reef consists of large archways that are home to many nocturnal species of fish and crustaceans. Orange cup coral is found attached to the overhangs. Divers may

encounter a resting white tip reef shark and other predatory fish, such as jacks, hiding in the underwater topography. Hawaiian green sea turtles (honu) rest here and domino damselfish families defend the cauliflower coral heads.

- Can have very strong current, make sure to check conditions.
- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Hawaiian Green Sea Turtle • honu



Hawaiian Monk Seal • 'Ilio holo i ka uaua • {Endemic}



#### Description of Bearings Turtle Bluffs

Latitude (GPS) – 21 52.518 N Longitude (GPS) – 159 31.409 W Mooring Depth – 62 feet Ball Depth – 18 feet Mooring Type – pin

#### Getting Here/Finding Mooring

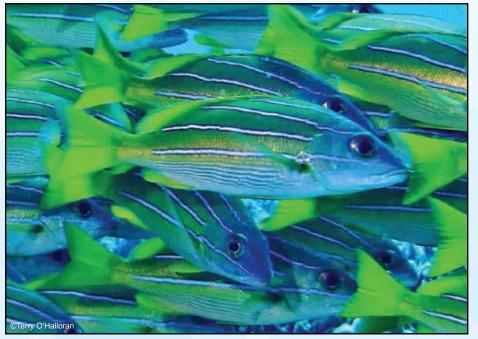
This mooring is located southwest of Palama buoy on the south shore.

#### What's Below

The bottom depth ranges from 80 to 90 feet. There is a ledge that runs parallel to shore, and the mooring is located in a cove before the ledge line. Rare black coral can be found outside the sea caves. Common visitors

on this site are white tip reef sharks, huge schools of ta'ape, and many Hawaiian Green sea turtles.

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).
- This dive site can have a strong current.



Blue Striped Snapper • ta'ape

#### { SOUTH KAUA'I - II }

#### Description of Bearings

# Fish Bowl Latitude (GPS) – 21 52.587 N Longitude (GPS) – 159 31.508 W Mooring Depth – 45 feet Ball Depth – 20 feet Mooring Type – pin

# Getting Here/Finding Mooring This mooring is located west of Kukui'ula Harbor, just south of Palama buoy.

#### ♥ What's Below

SOUTH KAUA'I - II

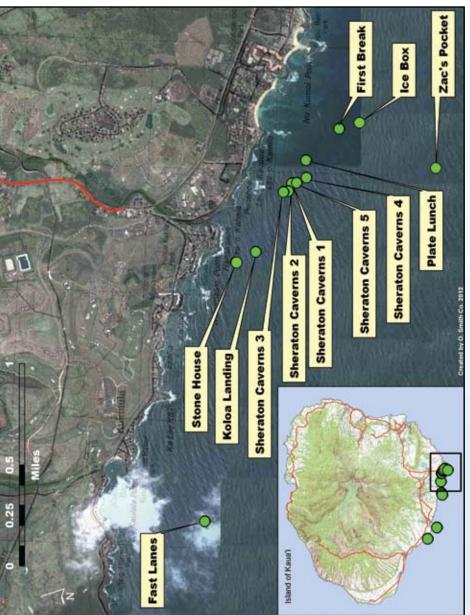
As the name suggests, "Fish Bowl" is home to schools of various fish species. The top depth is 45 feet and the bottom depth reaches to the sand at 80 feet. This site offers nice

underwater topography, good shark viewing with swim-bys, and a lot of colorful fish viewing. Large schools of blue striped snapper seek refuge around the mooring and hide under the ledges.

- Can have very strong current, make sure to check conditions.
- · Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Tinker's Butterflyfish



#### **Fast Lanes**

Latitude (GPS) - 21 52.570 N Longitude (GPS) - 159 28.671 W Mooring Depth – 35 feet Ball Depth – 15 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring is found between Kukui' ula Harbor and Stone House (see page 13) on the south shore.

#### What's Below

Divers can explore two extensive lava fingers that head offshore perpendicular to the coastline. These lava fingers provide "lanes" for reef sharks and other larger marine life to swim down and through. The depth ranges from 45-90 feet on the outer slope of the reef. There is a large black coral tree on the west finger that is home to the rare long nose hawkfish, and schools of pyramid butterflyfish can be seen on the edges of the reef.

{ SOUTH KAUA'I - III }

#### **1** Important Information

- · Be watchful of boat traffic.
- Use a mandatory dive flag (state law).

Longnose Hawkfish

#### Description of Bearings

#### **Stone House**

Latitude (GPS) - 21 52.616 N Longitude (GPS) - 159 28.306 W Mooring Depth - 50 feet Ball Depth – 18 feet Mooring Type - pin

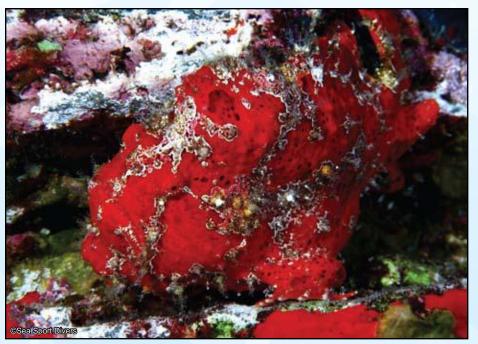
#### **⊜** Getting Here/Finding Mooring

This mooring is located near Koloa Landing in Po'ipū, offshore of Whalers.

#### What's Below

This dive site offers ledges with the top depth at 35 feet and the bottom depth reaching 60 feet. Expect to see beautiful, healthy antler coral heads, octopi, and frogfish sightings on this dive. This site is named after a house that was destroyed by Hurricane Iniki. Pennent and milletseed butterflyfish, frogfish, and pin cushion sea stars can usually be found on the reef.

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Frogfish

#### **Koloa Landing**

Latitude (GPS) - 21 52.532 N Longitude (GPS) - 159 28.250 W Mooring Depth - 30 feet Ball Depth - 10 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring is located in a horseshoe-shaped bay, excellent for shore diving or advanced snorkeling. This site is frequently used for SCUBA certification classes and is an excellent site for shore diving.

#### What's Below

There are large schools of reef fish that congregate on the sides of the bay and hidden

flounders in the sandy middle. Hawaiian green sea turtles (honu) rest here during the day and, on occasion, curious Hawaiian monk seals have been spotted beneath the water. Keep a lookout for lagoon triggerfish and boxfish among the coral rubble. Once the main harbor on Kaua'i, divers and snorkelers may still see anchor chains and remnants of boating activity underwater.

#### **1** Important Information

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).
- Be extra cautious during periods of high south swell (anything over 4 feet).

# © Keold Stender

Reef Triggerfish • humuhumu nukunuku apua'a

#### Description of Bearings

#### **Sheraton Caverns 1**

Latitude (GPS) – 21 52.389 N Longitude (GPS) – 159 27.929 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### **Sheraton Caverns 2**

Latitude (GPS) – 21 52.404 N Longitude (GPS) – 159 27.966 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### **Sheraton Caverns 3**

Latitude (GPS) – 21 52.424 N Longitude (GPS) – 159 27.970 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### **Sheraton Caverns 4**

Latitude (GPS) – 21 52.329 N Longitude (GPS) – 159 27.900 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### **Sheraton Caverns 5**

Latitude (GPS) – 21 52.369 N Longitude (GPS) – 159 27.925 W Mooring Depth – 40 feet Ball Depth – 15 feet Mooring Type – pin

#### Getting Here/Finding Mooring

Sheraton Caverns is located about 400 yards off the Sheraton Kaua'i Resort.

#### What's Below

Ancient blown-out lava tubes (caverns) consisting of archways and overhangs covered in orange cup coral that house a variety of nocturnal and diurnal fish species. It is also common to see large white mouth moray eels, conger eels, spiny lobsters, and many resident Hawaiian green sea turtles (honu).

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Hawaiian Turkeyfish • nohu pinao • {Endemic}

### **Plate Lunch**

Latitude (GPS) - 21 52.318 N Longitude (GPS) - 159 27.830 W Mooring Depth – 45 feet Ball Depth – 10 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring rests 200 yards east of Sheraton Caverns moorings (see page 15).

#### What's Below

Divers will encounter a large ledge system that drops into a 60-foot valley. There are three large rocky formations that are home to a colony of both Hawaiian spiny and slipper lobsters. This

site is most often used as a great way to start a "drift dive' to Sheraton Caverns moorings.

#### **1** Important Information

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).

Hawaiian Spiny Lobster • ula • {Endemic}

#### Description of Bearings

#### First Break

Latitude (GPS) - 21 52.212 N Longitude (GPS) - 159 27.637 W Mooring Depth – 55 feet Ball Depth – 10 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring is located directly offshore from Marriott's Wai'ohai Beach Club Resort. The mooring name is derived from the surf break which is in front of the dive site.

#### What's Below

Below divers will find large patches of coral rubble that provide great habitat for reef fish. There is an elevated plateau that houses a resident Hawaiian green sea turtle (honu) cleaning station with many occupants being cleaned. One of the main attractions for divers at this site is a chance to see a rare endemic Hawaiian morwong.

- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Hawaiian Morwong • kikākapu • {Endemic}

#### **Icebox**

Latitude (GPS) - 21 52.128 N Longitude (GPS) - 159 27.637 W Mooring Depth – 50 feet Ball Depth – 20 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring is found east of Sheraton Caverns (see page 15) in front of Po'ipū Beach.

#### What's Below

This site offers divers a series of broken lava ledges with depths ranging from 55-90 feet. It is very likely that you will encounter sharks, rare whiskered boarfish, and frogfish hiding

under the ledges. Large schools of reef fishes are also easily spotted on the outside of the reef ledges.

#### **1** Important Information

- If a longshore current is present, the visibility may suffer.
- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).

#### Description of Bearings

#### Zac's Pocket

Latitude (GPS) - 21 52.773 N Longitude (GPS) - 159 30.174 W Mooring Depth – 15 feet Ball Depth – 18 feet Mooring Type - pin

#### Getting Here/Finding Mooring

This mooring is located off Makahū'ena Point, which is the southernmost tip of Kaua'i.

#### What's Below

The top ridge is 45 feet deep but the majority of the dive is at 55 feet and then descends to over 100 feet. The water is usually very pristine with exceptional visibility which

offers opportunities to encounter swim-bys of various species that inhabit deeper waters. The Hawaiian morwong, a rare endemic species, can be found hiding under ledges and shelves in this area. There is also a good chance of seeing deeper water fish such as large jacks and white tip reef sharks. At times divers have even been fortunate enough to have swim-bys of the Hawaiian humpback whale (in season).

- There can be strong current.
- This site is exposed to trade winds and not user-friendly when the wind and current are opposing.
- Be watchful of boat traffic.
- Use a mandatory dive flag (state law).



Whiskered Boarfish



Grey Reef Shark • mano

#### Acknowledgements

#### How You Can Help







Mahalo to the Malama Kai Foundation for applying for a grant to cover the cost of developing this important booklet and for all the hours put into making Hawaii's Public Day-Use Mooring Buoy program a priority!

Mahalo to the Hawaii Tourism Authority for providing funding to develop this important user-friendly tool.

Mahalo to the Department of Land and Natural Resources, Division of Boating and Ocean Recreation and Division of Aquatic Resources.

#### Special Thanks to the following for assistance with this guidebook:

#### **PHOTOS**

Marvin Otsuji (Sea Sport Divers)
Jeff Leicher (Jack's Diving Locker)
Keoki Stender (MarinelifePhotography)
Steve Juarez (Hawaiian Rafting Adventures)
Terry O'Halloran (Malama Kai Foundation) www.malama-kai.org

#### SITE DESCRIPTIONS

Marvin Otsuji (Sea Sport Divers) Kyle Ingram (Sea Sport Divers) Linda Marsh (Bubbles Below) Neil Shields (Aloha Kai Surf and Scuba)

#### OTHER MOORING BOOKLET CONTRIBUTORS

Terry O'Halloran (Malama Kai Foundation) www.malama-kai.org Kater Bourdon (Malama Kai Foundation) Geoffrey T. Moore (Silver Moon Art & Design) Orlando Smith (O.Smith Co.)

#### **SPECIAL THANKS TO KAUA'I VOLUNTEERS**

Sea Sport Divers-(Marvin Otsuji, Larry Widhelm, Kyle Ingram, Matt Hager, Ryan Ferry, Dennis Spicer, James Begeman, Adam Szpiler, Paka Monette), Linda Marsh (Bubbles Below), Peter Ricciardi (Bubbles Below), and Rob Lucas (Bubbles Below)

The Hawaii Day-Use Mooring Buoy system is made possible by contributions from people like you! Your donations are needed to install and maintain the day-use mooring buoys in Hawaii. The maintenance and expansion of Hawaii's public Day-Use Mooring Buoy system depends on private donations and volunteer assistance.

The Malama Kai Foundation is a 501(c)(3) organization with a mission to conserve Hawaii's coastal and marine resources through community action, education, and outreach. The Day-Use Mooring Buoy system has been a primary focus of the Malama Kai Foundation since it was founded in 1991. Malama Kai Foundation is responsible for coordinating the installation and maintenance of the day-use mooring buoys statewide (except Molokini).

Malama Kai Foundation is a non-profit organization dedicated to ocean stewardship for current and future generations through community service and public education. We rely on your support to keep our message going and appreciate any donation amount you can give and will put it to good work.

#### Our donation system is processed through PayPal and 100% secure

Donations can be made to Malama Kai Foundation using our safe and secure paypal system on the website to support the Day-Use Mooring Buoy system statewide, by island, or special project (see www.malama-kai.org).

Your contribution to Malama Kai Foundation is tax deductible (IRS Tax ID #99-0285490) to the extent allowable by law.

The public Day-Use Mooring Buoy system would not exist without the help of dedicated individuals and businesses. Numerous dive shops around the state collaborate with Malama Kai to install, monitor and maintain the buoys. Please show your support for the public Day-Use Mooring Buoy program by patronizing these dedicated businesses.

Malama Kai Foundation: P.O. Box 6882 • Kamuela, HI 96743



Find us on Facebook or www.malama-kai.org

Mahalo!



Day-Use Mooring Buoy

## MAHALO...



...for helping protect our coral reefs!