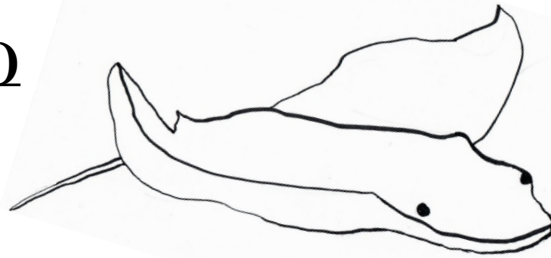


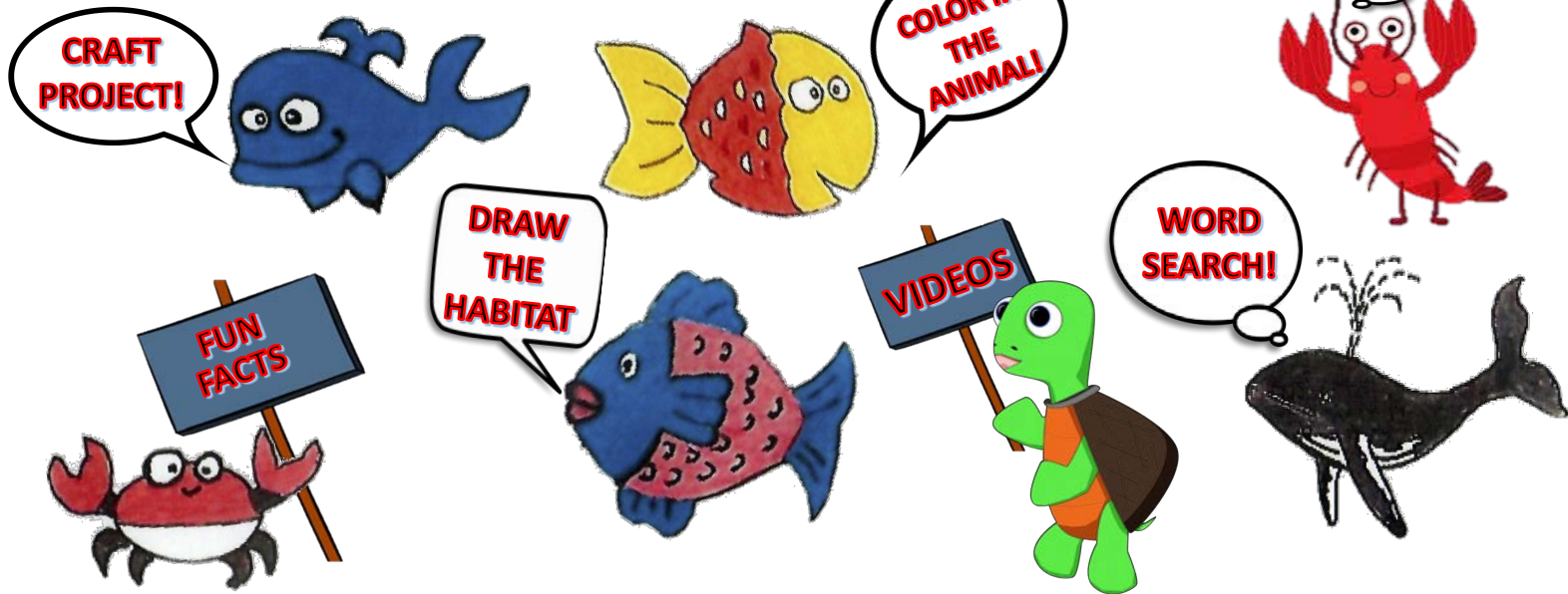
HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY



Manta Ray (Hāhālua)



Inside this packet you will find:



Fun Tail Facts:

- Manta rays have harmless, long, whip-like tails that luckily don't have the poisonous stinger found on many sting ray tails!
- Manta rays tails are long and thin, although shorter than their bodies, and is somewhat flattened.

Created through cooperation with:

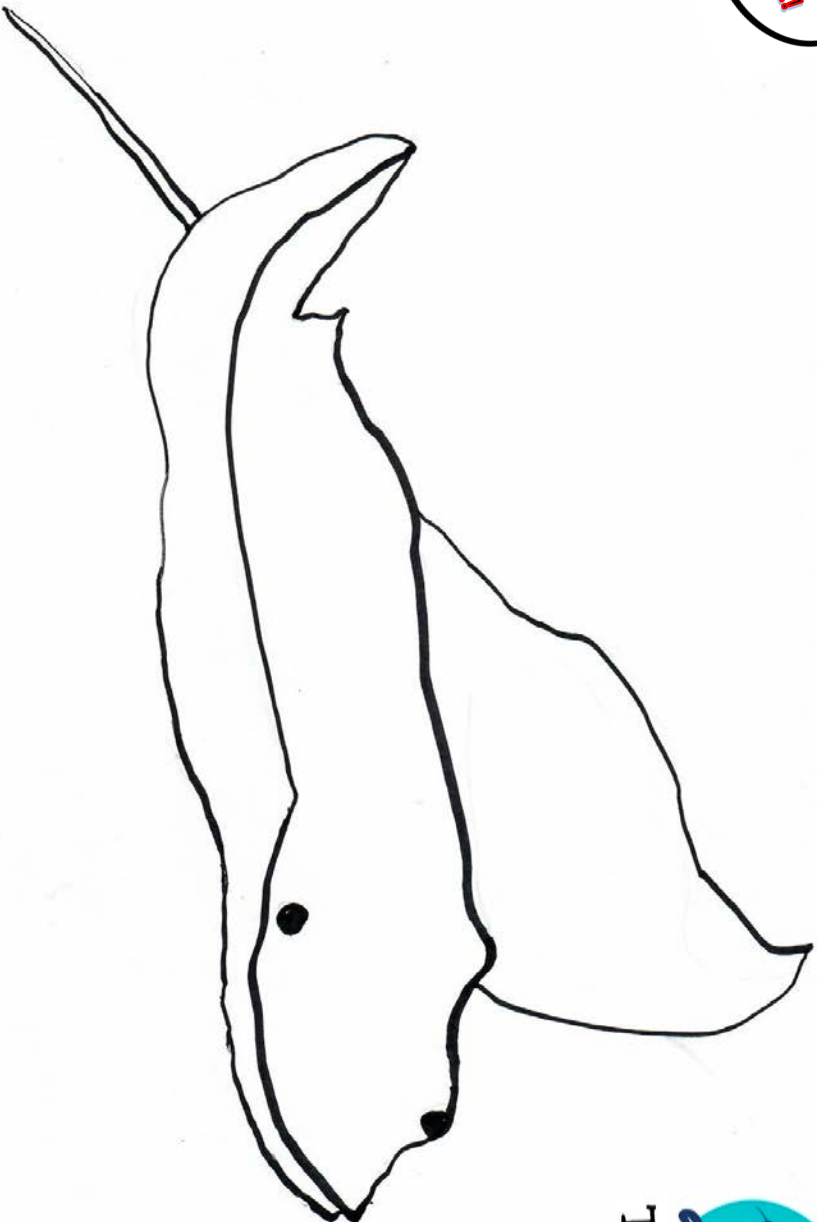


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 - Weird Animals: Manta Ray:
https://oceantoday.noaa.gov/weirdanimals_mantaray/
- And More!



Manta Ray Coloring Sheet

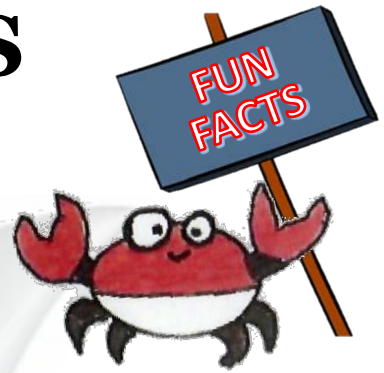


Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration

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MANTA RAYS



- Some manta rays can reach a weight of 3,000 pounds.
- The manta ray can live as long as 50 years.
- The giant manta ray has the largest brain of any fish.
- Manta rays average wing span is 15 feet but can be as large as 29 feet!
- The manta ray is a filter feeder that can sieve billions of plankton out of the water with their giant “vacuum-like” mouths.
- When baby manta rays are born, they look like a rolled-up burrito.
- Manta rays are very smart and can recognize themselves in a mirror!
- Manta rays are found all across the world in tropical and warm temperature oceans.
- The unique spot pattern on the underside of a manta ray are just like a human fingerprint!
- A manta ray has about 300 tiny, peg-like teeth (about the size of the head of a pin!) in their mouths but they’re not used for chewing food.
- Manta rays can sometimes be spotted leaping out of the water and when they do, they look like they are flying!
- At birth, a baby manta ray already has a wing span between 4 and 6 feet.
- Manta rays don’t have skeletons made of bones; it is all made up of lightweight cartilage!

CRAFT PROJECT

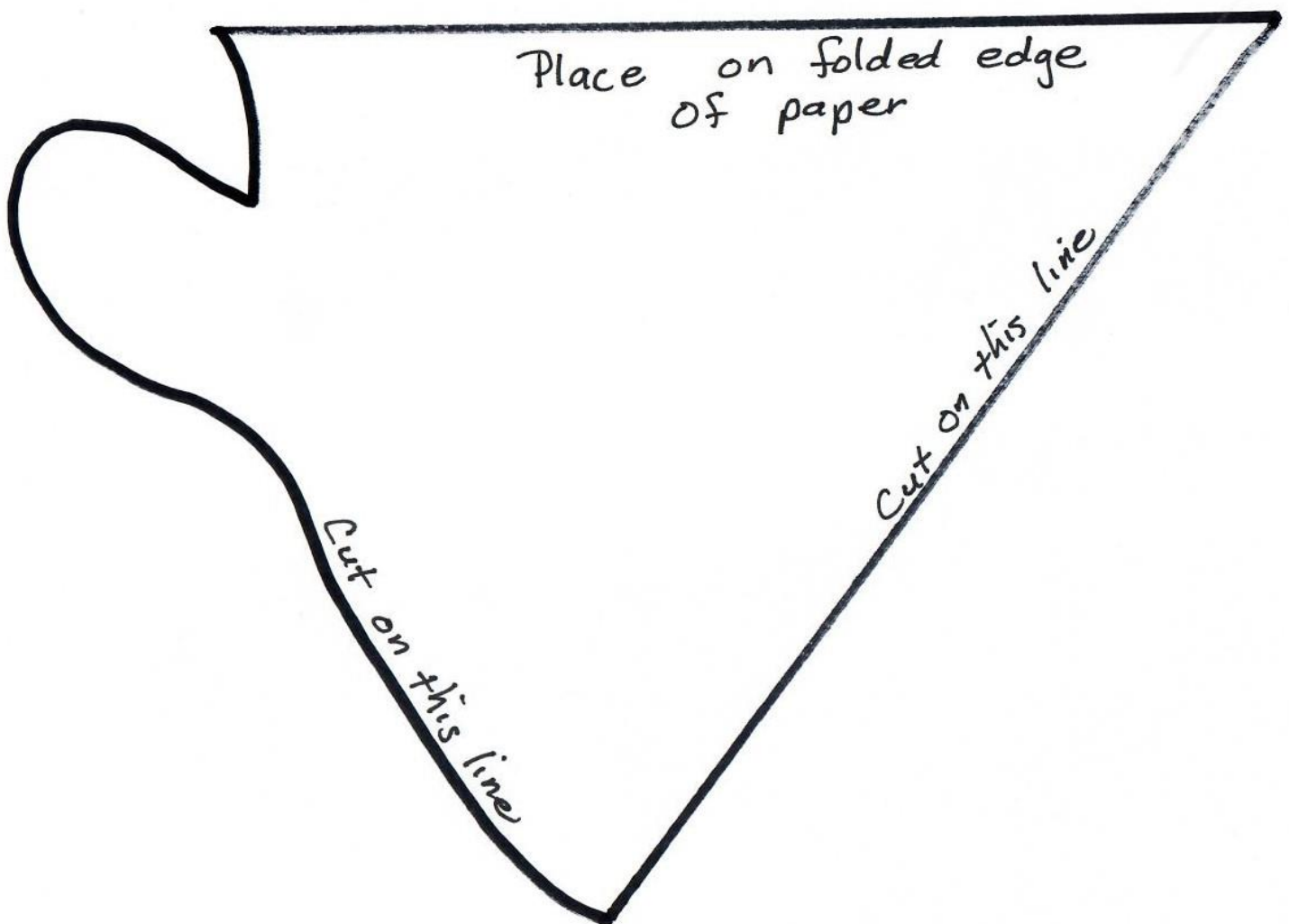
Manta Rays

Manta Rays are a flat animal with big eyes and a long tail. This first manta ray is made from a paper plate with a cut out section for the mouth and added eyes and a tail. The yellow example is made from a folded piece of paper. See the following page for the directions on how to cut this pattern. Be creative, how many kinds of rays can you make?



Manta Ray Pattern

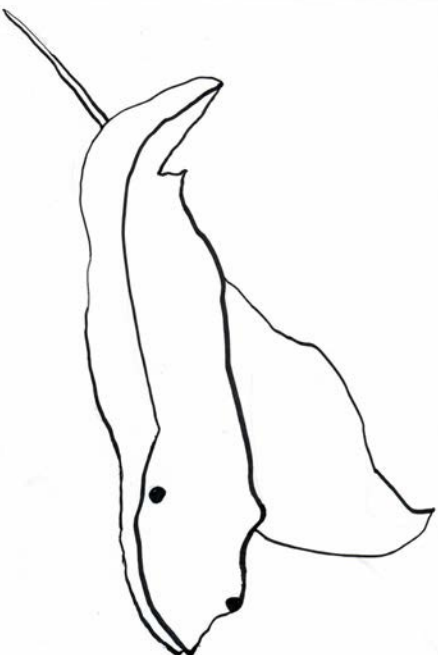
- Take a piece of paper and fold in half.
- Cut out the pattern and trace it onto the folded piece of paper
- Make sure you place the folded edge of the pattern is on the folded edge of the paper.
- Cut on the lines that say cut.
- Decorate your manta ray, add eyes and a tail





Where does a manta ray live?

Draw in and color its habitat below!



Manta Ray Word Search

Circle the words in the puzzle below!

**WORD
SEARCH!**



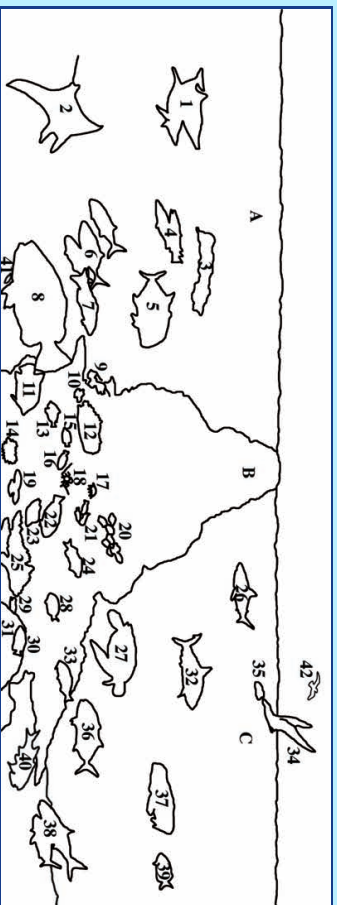
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R	A	S	R	K	E	E	R	E	N	N	A	A	E
E	I	T	G	I	I	E	A	O	A	H	I	R	F
D	L	O	S	A	S	T	I	G	I	A	N	A	K
E	G	P	N	A	O	H	N	T	F	I	O	T	E
E	G	S	I	G	G	I	L	L	S	G	T	N	P
F	D	I	N	R	P	P	I	F	A	R	K	A	M
R	O	E	A	I	M	O	U	T	H	L	N	M	T
E	I	I	S	N	T	R	O	P	I	C	A	L	O
T	L	P	R	T	T	E	G	I	T	R	L	C	L
L	O	C	E	A	N	A	S	W	N	N	P	P	A
I	O	N	A	P	S	G	N	I	W	E	A	A	E
F	R	T	D	T	C	A	R	T	I	L	A	G	E
N	F	I	S	H	I	A	L	E	A	P	I	N	G

OCEAN
MANTA RAY
TROPICAL
TEETH
FILTER FEEDER
WING SPAN
BRAIN
MOUTH
PLANKTON
LEAPING
GIANT
CARTILAGE
SPOTS
FISH
GILLS

Papahānaumokuākea Marine National Monument



Art by Layne Luna
 Model located at Mokapu
 Discovery Center in Hilo, Hawaii



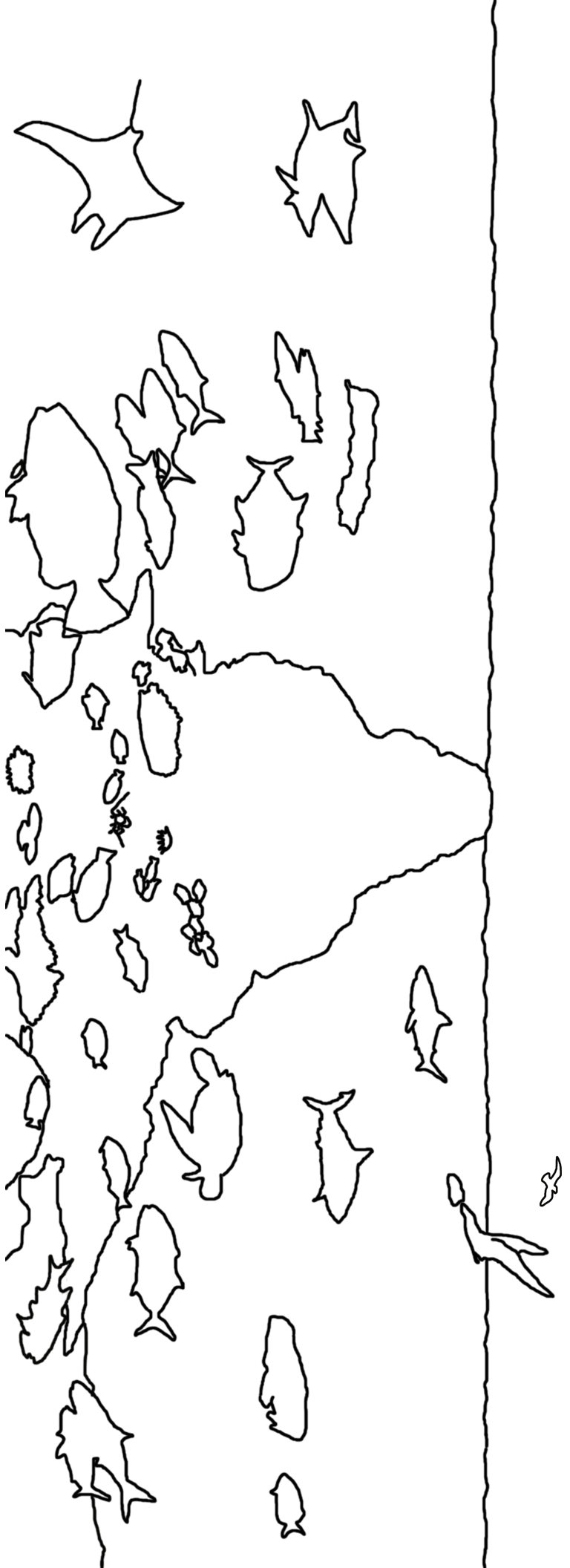
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- | | | |
|---|---|---|
| <p>A Open Ocean</p> <p>B Reef Crest</p> <p>C Atoll Lagoon</p> <p>1 Spinner dolphin, <i>Stenella longirostris</i></p> <p>2 Manta ray, <i>Manta birostris</i></p> <p>3 Bigeye scad, <i>Selar crumenophthalmus</i></p> <p>4 Great barracuda, <i>Sphyraena barracuda</i></p> <p>5 Giant trevally, <i>Caranx ignobilis</i></p> <p>6 Amberjack, <i>Seriola lalandi</i></p> <p>7 Green jobfish, <i>Aprion viracens</i></p> <p>8 Hawaiian black grouper, <i>Epinephelus diaphanus</i></p> <p>9 Penman butterflyfish, <i>Hemitochus diphrates</i></p> <p>10 Yellow tang, <i>Zanclus cornutus</i></p> <p>11 Spotted knifefish, <i>Opilegatus punctatus</i></p> <p>12 Cauliflower coral, <i>Pocillopora meandrina</i></p> <p>13 Morwong, <i>Cheilodactylus vittatus</i></p> <p>14 Chevron butterflyfish, <i>Chaetodon trifasciatus</i></p> <p>15 Japanese angelfish, <i>Centropyge intermedia</i></p> <p>16 Crown-of-thorns seastar, <i>Acanthaster planci</i></p> | <p>18 Spiny lobster, <i>Panulirus marginatus</i></p> <p>19 Pearl oyster, <i>Pinctada margaritifera</i></p> <p>20 Convict surgeonfish, <i>Acanthurus triostegus</i></p> <p>21 Big-scale soldierfish, <i>Myripristis muriei</i></p> <p>22 Spectacled parrotfish, <i>Chloromus perspicillatus</i></p> <p>23 Triton's trumpet, <i>Charonia tritonis</i></p> <p>24 Whitesaddle goatfish, <i>Parupeneus porphyreus</i></p> <p>25 Table coral, <i>Acropora cytherea</i></p> <p>26 Tiger shark, <i>Galeocerdo cuvier</i></p> <p>27 Green sea turtle, <i>Chelonia mydas</i></p> <p>28 Masked angelfish, <i>Genidarnatus personatus</i></p> <p>29 Dragon moray, <i>Echinocyttus pardalis</i></p> <p>30 Japanese angelfish, <i>Centropyge intermedia</i></p> | <p>31 Lobe coral, <i>Porites lobata</i></p> <p>32 Galapagos shark, <i>Carcharhinus galapagensis</i></p> <p>33 Blue goatfish, <i>Parupeneus cyclopterus</i></p> <p>34 Red-footed booby, <i>Sula sula rubripes</i></p> <p>35 Flying fish, <i>Exocoetidae volitans</i></p> <p>36 Bluefin trevally, <i>Caranx melampygus</i></p> <p>37 Hawaiian monk seal, <i>Monachus schauinslandi</i></p> <p>38 Bonefish, <i>Albula glossodonata</i></p> <p>39 Gray chub, <i>Kyphosus bigibbus</i></p> <p>40 Threadfin, <i>Proyulacryus scyllis</i></p> <p>41 Hawaiian clemer wrasse, <i>Laternoides philippinensis</i></p> <p>42 Laysan albatross, <i>Phoebastria immutabilis</i></p> |
|---|---|---|

PAPAHĀNAUMOKUĀKEA
Marine National Monument




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HAWAIIAN ISLANDS HUMPBACK WHALE

Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration

HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY



A SPECIAL PLACE

Hawaiian Islands Humpback Whale National Marine Sanctuary protects one of the world's most important humpback whale habitats. Between November and April, more than half of the North Pacific humpback whale population returns here to mate, give birth, and nurse their young. The sanctuary is co-managed by NOAA's Office of National Marine Sanctuaries and the State of Hawaii's Department of Land and Natural Resources.



The sanctuary protects humpback whales and their habitat by working with the community to reduce harmful impacts and monitor their health.



Sanctuary programs focus on educating the public about humpback whales in Hawai'i and other ocean life.



The sanctuary enhances awareness of Native Hawaiian culture and its values to protect humpback whales and the marine life of Hawai'i.



Research is conducted by the sanctuary and its partners to broaden the understanding and protection of humpback whales.

Background photo: Jason Moore/NOAA, under NOAA Permit #15340



TO LEARN MORE

Stop by our visitor centers to learn more about Hawai'i and its unique marine environment, its cultural significance, and how your national marine sanctuary and marine national monument are protecting these extremely important areas.

Sanctuary Visitor Center

The scenic beachfront visitor center in Kihai on Maui provides a unique setting to learn about the sanctuary. Volunteer docents share knowledge about the marine environment.

Kalepolepo Fishpond

One of Maui's last remaining Native Hawaiian fishponds is located in front of the sanctuary visitor center. Tours are offered by reservation.



Mokuapapa Discovery Center

Housed in Hilo's historic, century-old Koehnen Building, Mokuapapa features the unique geography, resources, and cultural connections of Papahānaumokuākea Marine National Monument. The center features a 3,500-gallon saltwater aquarium, interactive educational exhibits, life-size models of wildlife found in the Northwestern and main Hawaiian Islands, and artwork inspired by those islands and Hawaiian culture.

THINGS TO DO



Wildlife Viewing

Hawai'i marine environments nurture many marine species beyond humpback whales. In addition to large animals, Hawaiian waters are also home to important coral reefs, which sustain thousands of marine plants and animals. Extensive coral reef colonies are also found in the remote Papahānaumokuākea Marine National Monument. This vast area supports a dynamic habitat containing an incredible diversity of coral, fish, birds, marine mammals, and other flora and fauna, many of which are unique to the Hawaiian Island chain. Hawaiian marine wildlife remains fragile and vulnerable. Care should be taken when viewing.

Whales & Dolphins*

- Over 20 species in Hawaiian waters
- Look for spouts and breaching
- Give them space, do not approach
- Best seen from boats



Hawaiian Monk Seals*

- Only about 1,400 remain
- Haul out on beaches to rest
- Feed both during day and night
- Endemic - found nowhere else



Sea Turtles*

- Green sea turtles are most common
- Rest on shore during the day
- Require air to breathe
- Swim close to shore



Seabirds & Shorebirds*

- More than 30 species
- Foraging, breeding, nesting habitats
- Endemic, resident, migratory species
- Nest in coastal and upland areas



Ocean Etiquette

- Keep your distance and watch quietly
- Don't feed wildlife
- Keep pets on leash
- Dispose of trash properly



Threats

- Human disturbance
- Marine debris
- Changing ocean conditions
- Feral and invasive animals



*These animals are protected under federal and state law. Photo (left to right): NOAA, under NOAA Permit #14937; Paul Wong/NOAA; E.J. Lynan/NOAA; Paul Wong/NOAA; HHS/NOAA, under NOAA Permit #14937; E.J. Lynan/NOAA, under NOAA Permit #15242



Whale Watching

During the winter and spring, humpback whales are easily seen from shore. Many companies offer whale watching tours to observe whales on the water.



Snorkeling and Diving

Coral reefs in sanctuary waters are some of the best places to be immersed among sea life. You may even hear humpback whales sing.



Surfing

Hawai'i is a year-round surfing destination for beginners and veteran surfers. While surfing, always be cautious of submerged rocks and powerful waves.



Paddle Sports

Canoes, kayaks, and stand-up paddleboards provide unique on-water experiences. Businesses provide rentals, lessons, and tours for paddlers of all skill levels.



Fishing

Whether from shore or charter fishing boat, there are many places to fish in the sanctuary. Please follow all regulations so that future anglers can enjoy this activity.



Boating

Whether by motor or sail, while deep-sea fishing, wildlife or whale watching, you are almost guaranteed to have a wonderful time in the sanctuary.



Cultural Experiences

Learn more about Native Hawaiian culture. Participate in cultural canoe tours, Hawaiian fishpond restoration, and Hawaiian dance and music classes.



Volunteer

The sanctuary needs you! Be a volunteer and participate in wildlife monitoring, beach cleanups, and more. Contact us to learn about great opportunities.

Protecting Humpback Whales

Federal and state regulations prohibit approaching humpback whales by any means within 100 yards or within 1,000 feet when operating an aircraft. Interception or "leapfrogging" into the path of a humpback whale is also prohibited.

All whales, dolphins, and seals are protected under the Marine Mammal Protection Act. Humpback whales are additionally protected by Hawaiian Islands Humpback Whale National Marine Sanctuary regulations and Hawai'i state law. See NOAA regulations: 50 CFR Sections 216.11, 216.19, and 15 CFR 922.184.

For more information:

Hawaiian Islands Humpback Whale National Marine Sanctuary
725 South Kihai Road
Kihai, Hawai'i 96753
Phone: (800) 831-4888
Email: hihumpbackwhale@noaa.gov