



### **Fun Tail Facts:**

- The peduncle, or whale tail, contains the strongest muscles of any animal on earth.
- Humpback whale tails move up and down to propel them forward through the water.
- The unique pattern found on the underside of a whale's tail flukes are like a human fingerprint and can help us identify the individual whale. No two are alike!







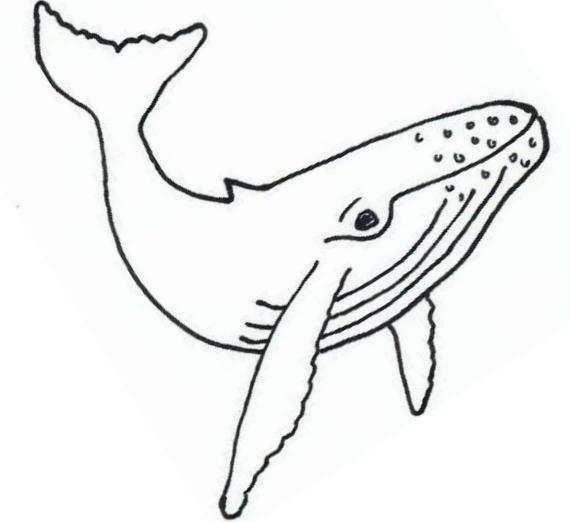


## **Table of Contents**

- Coloring Pages
- Fun Facts
- Craft Projects
- Draw the Habitat
- Crossword Puzzle
- HIHWNMS Virtual Dive
- Video Links
  - HSPLS Tails and Tales with NOAA Video Playlist:
     https://www.youtube.com/playlist?list=PLwp9id7RKgdUumVhHALrcregu
     MYTfJPeQ
  - Ocean Classroom: SeaKids Humpback Whale Keiki Style:
     <a href="https://www.facebook.com/waikikiaquarium/videos/860240454794915">https://www.facebook.com/waikikiaquarium/videos/860240454794915</a>
  - Whale Anatomy: <a href="https://oceantoday.noaa.gov/whaleanatomy/">https://oceantoday.noaa.gov/whaleanatomy/</a>
  - Ocean as a Lab: Whale Tagging:
     <a href="https://oceantoday.noaa.gov/oceanasalab\_whaletagging/">https://oceantoday.noaa.gov/oceanasalab\_whaletagging/</a>
  - Watch Out for Spouts: <a href="https://oceantoday.noaa.gov/watchoutforspouts/">https://oceantoday.noaa.gov/watchoutforspouts/</a>
  - Whale Disentanglement in the HIHWNMS:
     <a href="https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide">https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide</a>
     <a href="https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide">https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide</a>
     <a href="https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide">https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide</a>
     <a href="https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide">https://www.facebook.com/NOAAOfficeofNationalMarineSanctuaries/vide</a>
- And More!



Humpback Whale Coloring Sheet





Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration



### **HUMPBACK WHALES**

- A humpback whale can jump out of the water as high as 18 feet!
- Humpback whales have belly buttons, just like humans.
- An adult humpback whale is as long as a big yellow school bus, about 45 feet!
- Humpback whales are filter feeders and have baleen plates in their mouths instead
  of teeth.
- Adult male humpback whales sing songs that can be heard up to 20 miles away!
- When in their cold water feeding grounds, a single humpback whale can eat up to 1.5 tons (about 3,000 pounds) of krill every day.
- During migration, a humpback whale can complete a 3,000 mile trip from Alaska to Hawai'i in approximately 28 days!
- A humpback whale can expand its mouth to hold over 5,000 gallons of sea water.
- An adult humpback whale can weigh more than 5 adult African elephants!
- The humpback whale evolved from 4-legged, even-toed hoofed ancestors that lived on land about 50 million years ago.
- Each fist sized bump, called a tubercle, on a humpback whale's head contains a single hair!
- Humpback whales have the longest appendage of any animal. One pectoral fin can be over 15 feet long!



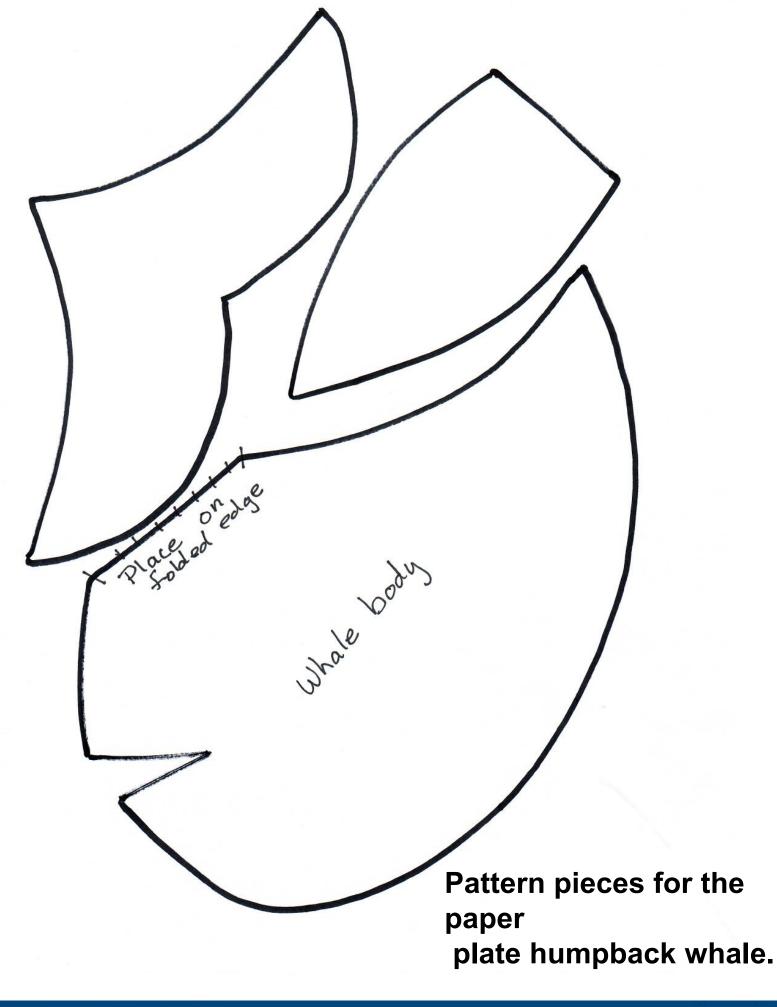
### **CRAFT PROJECT**

### **Humpback Whales**



This cute humpback whale is made from a paper plate. The attached page has patterns that you can use to trace onto a paper plate. Fold the paper plate in half. The thinner the paper plate the easier to use. Place the folded part of the pattern on the folded edge of the plate. Cut along the curved edges of the pattern. The left over sections of the paper plate can be used to make the tail and the fins. Make the "blow" for the whale out of paper or pipe cleaners etc. Add the eyes, the lines for the ventral pleats and color your whale.





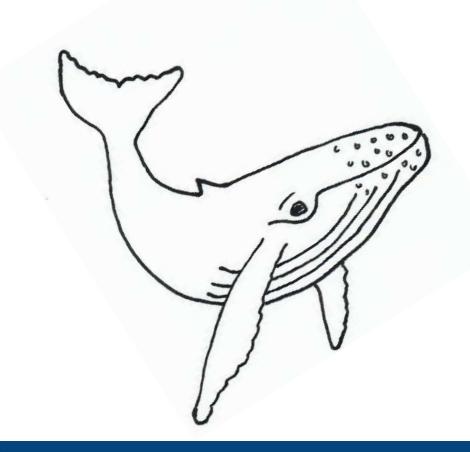


### Where does a humpback whale live?

Draw in and color its habitat below!

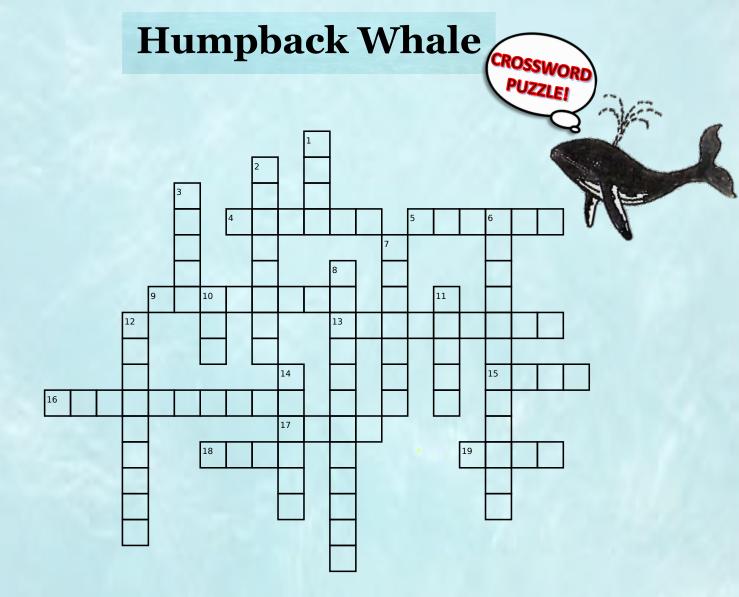












#### Down

- 1. One marine predator of humpback whale calves.
- 2. This creature is found on a whale's body and usually falls off during migration to the mating grounds.
- 3. One of the two lobes of a whale's tail.
- 6. To navigate or find food by making sounds and listening for the echo.
- 7. The insulating layer of fat on a humpback whale.
- 8. What happens when a humpback whale gets caught up in marine debris.
- 10. Number of blowholes found on a humpback whale.
- 11. The small shrimp-like crustaceans eaten by humpback underwater.whales.17. The word
- 12. When a humpback whale moves from its feeding grounds to its mating grounds.
- 14. Sometimes humpback whales get caught in this.

#### Across

- 4. When most of a humpback whale jumps out of the water.
- 5. What a humpback whale has in its mouth instead of teeth.
- 9. The group of mammals that includes whales, dolphins, and porpoises.
- 13. The fist sized bumps found on a humpback whale's head.
- 15. What a baby whale is called.
- 16. Instrument used to listen to and record sounds underwater.
- 17. The word used to describe a male humpback whale.
- 18. Made of keratin, one of these sticks out of the tubercules on a humpback's head.
- 19. Only male humpback whales perform this behavior.





# TAKE A VIRTUAL DIVE IN HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY

Jump into the waters of Hawaiian Islands Humpback Whale National Marine Sanctuary

Dive #1: Watch this video about humpback whales!

**Dive #2:** Read about the significance of Kānaka Maoli – Native Hawaiian – culture.

**Dive #3:** Experience a <u>virtual dive</u> with *honu*—*green* sea turtles—and whitetip reef sharks in this 360° video! Use your computer mouse to rotate around and explore.

\*\*Pair your smartphone with a virtual reality headset or goggles of your choice and click the on an extra-immersive experience.

Dive #4: Name these Hawaiian marine organisms and click to learn more!



Photo: J. Moore/NOAA



Photo: Ed Lyman/NOAA



Photo: Ed Lyman/NOAA



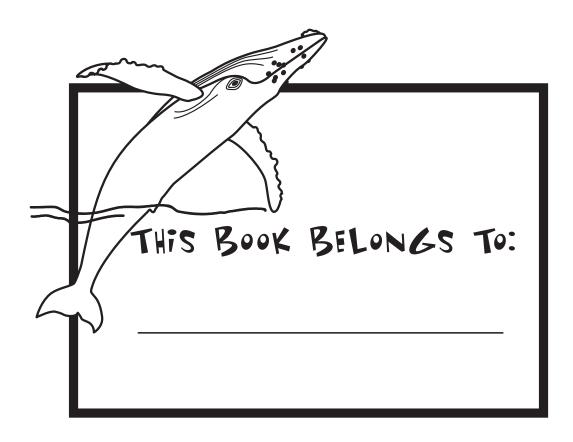
Photo: Ed Lyman/NOAA



ACTIVITY BOOK he Hawaiian Islands Humpback Whale National Marine Sanctuary lies within the shallow, warm waters surrounding the main Hawaiian Islands and is one of the world's most important humpback whale habitats. Hawai'i is the only place in the United States where humpback whales mate, calve, and nurse their young. Every year, from November to May, more than half of the North Pacific humpback whale population migrates nearly 3,000 miles to the warm protected waters of Hawai'i. During whale season it is common to see humpback whales resting near shore or performing acrobatic displays that can be seen from miles away. In the spring and summer, humpback whales return to feed in the cool, nutrient-rich waters near Alaska and other northern areas. The sanctuary helps protect Hawai'i's ocean wilderness through research, education, conservation and stewardship.

Explore fun games and activities and learn more about humpback whales and the sanctuary online at:

http://hawaiihumpbackwhale.noaa.gov





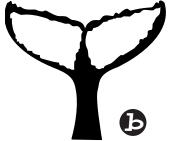
# Identification

Scientists identify individual humpback whales by studying their tails, which are also known as flukes. The scalloping, color patterns, and scars on the undersides of the flukes are as unique as your fingerprints.



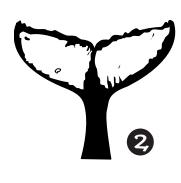
Match the numbered flukes on the left with the same flukes on the right.

















## Behavior

Whales are often seen leaping from the water (breaching) or slapping the surface of the water with their pectoral fins and flukes. These behaviors may serve a number of social functions. Whales may engage in these behaviors to communicate to other whales, to check out what is going on above the surface, or to simply play. If you are ever in a boat or swimming and see a whale exhibiting these behaviors, be sure not to get closer than 100 yards. Whales are protected by law, and we should be especially careful not to disturb them in a whale sanctuary, where they have come to give birth to their young.

Find and circle the words that relate to whale behavior.

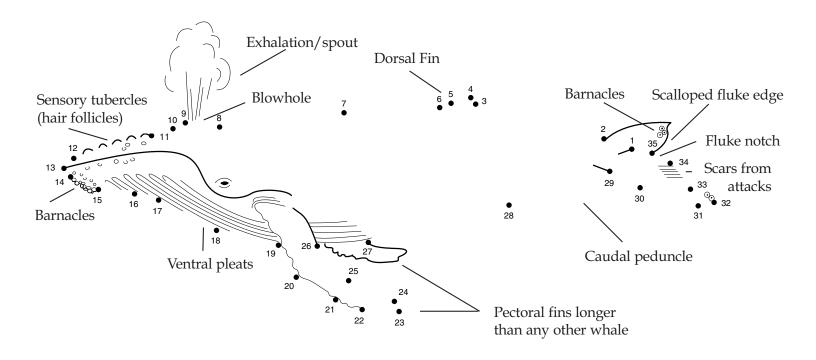
breach
flukes up
pec slap
head rise
dive
tail slap
blow
migrate
calve

P	H	5	ī	E	•	F	6	1	V	T	W
5	E	P	V	5	E	K	V	L	F	A	T
ī	A	•	E	٧	ī	D	E	F	•	ī	5
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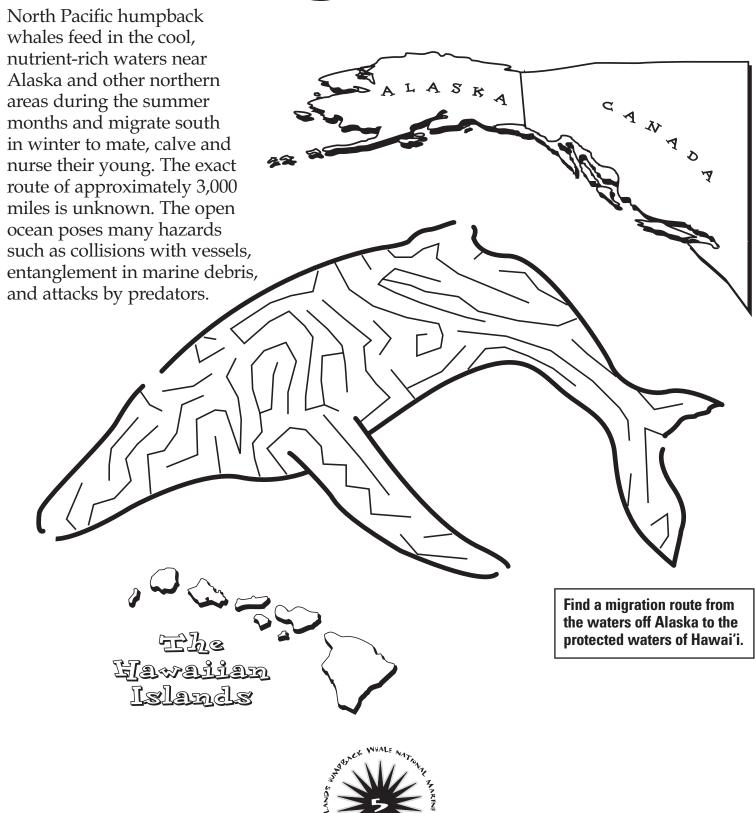
# North Besifie Unpobeds Whale

Connect the dots to complete the humpback whale.





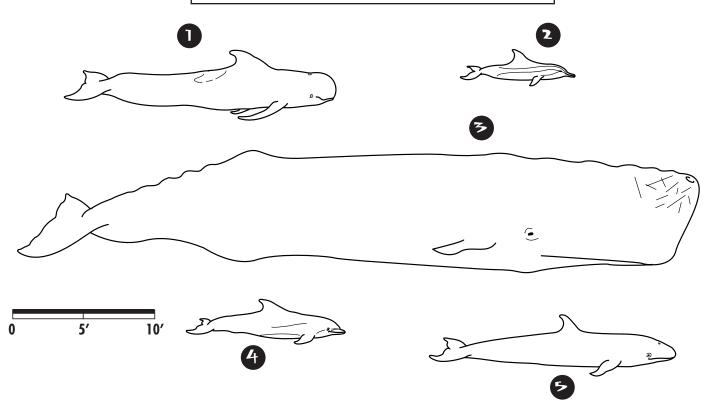
# Miggretion



## Cetacenas

Whales, dolphins, and porpoises are part of a group of mammals called cetaceans. There are about 80 different species of cetaceans in the world. Humpback whales (also known by their scientific name, Megaptera novaeangliae) are one of the more easily recognized cetaceans in Hawaiian waters. Don't forget that Hawaiian waters also provide habitat for numerous other marine species including Hawaiian monk seals, green and hawksbill turtles, many species of fish, and coral reef inhabitants. Some of these are found nowhere else in the world.

Connect the cetaceans shown below with their names to learn what other species may be found in Hawai'i.



- a. sperm whale

  Physeter

  macrocephalus
- b. short-finned pilot whale Globicephala macrorhyncus
- c. bottlenose dolphin Tursiops truncatus
- d. false killer whale e.

  Pseudorca

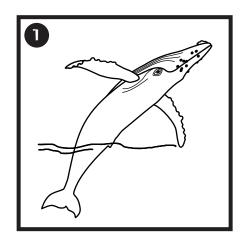
  crassidens
- e. spinner dolphin Stenella longirostris



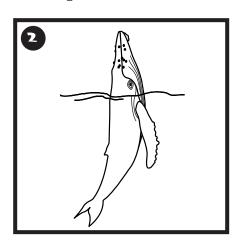
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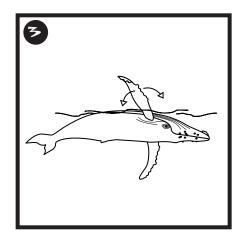
Humpback whales display a wide variety of behaviors while in the waters off Hawai'i. Can you identify the various humpback whale behaviors below?

Tail Slap Peduncle Slap Head Slap Spy Hop Breach Pec Slap

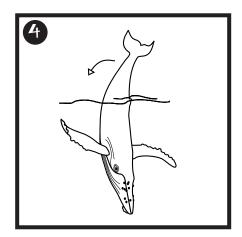


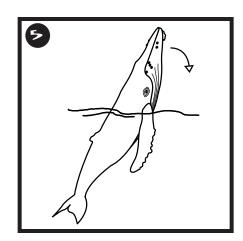
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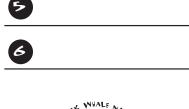




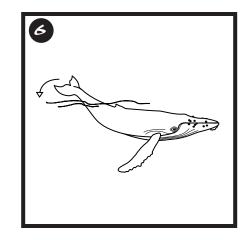
**3 4** 











# Humppeels Quis

Answer the following questions with true or false. Can you explain your answers?

1.	Whales are fish because they live in the ocean.	ユ	or	Ę
2.	Humpback whales live in Hawaiian waters all year long.	ユ	or	£,
3.	Pec slapping may be a way that whales communicate.	ヹ	or	Ł,
4.	Humpback whales come to Hawai'i to feed.	ヹ	or	Ł,
5.	The flukes of every humpback look the same.	ユ	or	Ł,
6.	Whales are protected by laws.	ユ	or	Ł,
7.	Humpback whales have hair follicles just like other mammals.	ユ	or	Ł,
8.	Whales do not play. They are very serious animals.	ユ	or	Ę
9.	You must stay at least 100 yards away from a humpback whale.	ユ	or	Ł,
10.	North Pacific humpback whales migrate over 6,000 miles	ユ	or	£,
	every year.			

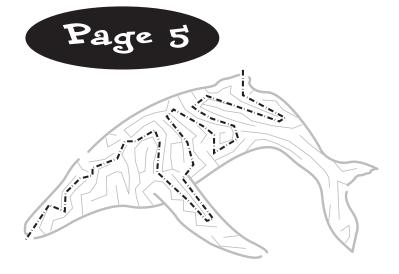


# Answers

Page 2,

Answer: 1.b, 2.d, 3.a, 4.c

### Page 3



### Page 6

Answer: 1.b, 2.e, 3.a, 4.c, 5.d

Page 7

- 1. Breach
- 2. Spy Hop
- 3. Pec Slap
- 4. Peduncle Slap
- 5. Head Slap
- 6. Tail Slap

Page 8

Answer: 1. False. Whales are mammals. 2. False. They migrate to Hawaii in the winter. 3. True. As well as other social functions. 4. False. Most humpbacks feed in the colder waters off Alaska. 5. False. Humpback tail flukes are unique to each individual. 6. True. 7. True. 8. Whales, as well as humans engage in playful activity. 9. True. 10. True. Round trip from Alaska to Hawai'i is approximately 6,000 miles.

## HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY

http://hawaiihumpbackwhale.noaa.gov E-mail: hihumpbackwhale@noaa.gov

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1151 Punchbowl St.

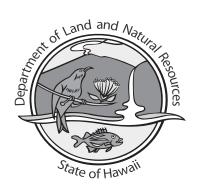
Suite 330

Honolulu, HI 96813

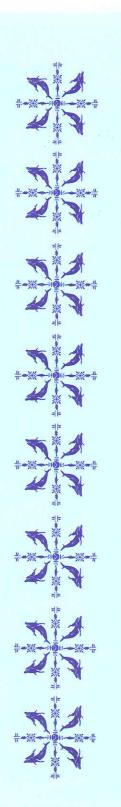
Phone: (808) 587-0106

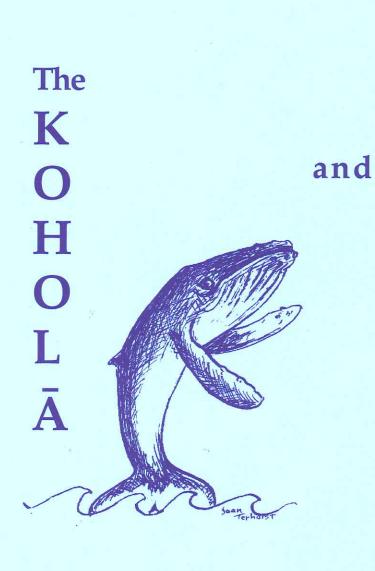






Humpback Whale Activity Book 5th Edition January 2010





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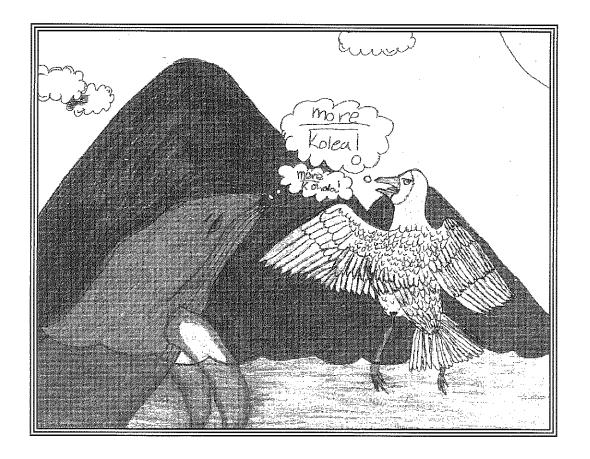
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### The Whale and the Plover

Retold by Allen Tom Hawaiian Islands Humpback Whale National Marine Sanctuary Program

Hawaiian Translation ©Claire Cappelle & ©Mākala Ailana

Illustrations ©Joan Terhorst & ©Nā Lei Ulu O Ke 'Āina



# The Koholā and the Kolea



Kawena Early Nā Lei Ulu O Ke 'Āina

#### A coloring book in English and Hawaiian

March 1997 Produced by the Hawaiian Islands Humpback Whale National Marine Sanctuary

Adapted from an oral tradition of the Marshall Islands (The Whale and the Sanderling) by ©Jane Downing, Ministry of Education, Marshall Islands One bright winter's day, the sea was calm, the sun was shining and the mountains of Hawai'i were covered in green with delicate white clouds.

But the whale and plover, having just returned from their long migration, were arguing.

"There are more whales than plovers in the world," said the whale.

"Not true, there are many more plovers," cried the plover.

"More whales."

"More plovers."

The bickering could be heard all over the island and across the ocean.

"More whales."

"More plovers."

kekahi lā hoʻoilo ʻalohi, ua mālie ke kai, e ʻalohi ana ka lā a uluwehi nā kuahiwi.

'Akahi nō a hoʻi mai ke kōlea lāua ʻo ke koholā, ua lohe ʻia kā lāua namunamu ʻana.

"'Oi aku ka nui o nā koholā ma mua o nā kōlea," wahi a ke koholā.

"'A'ole paha, 'oi aku ka nui o nā kōlea," i 'ōlelo ai ke kōlea.

"Keu ka nui o nā koholā."

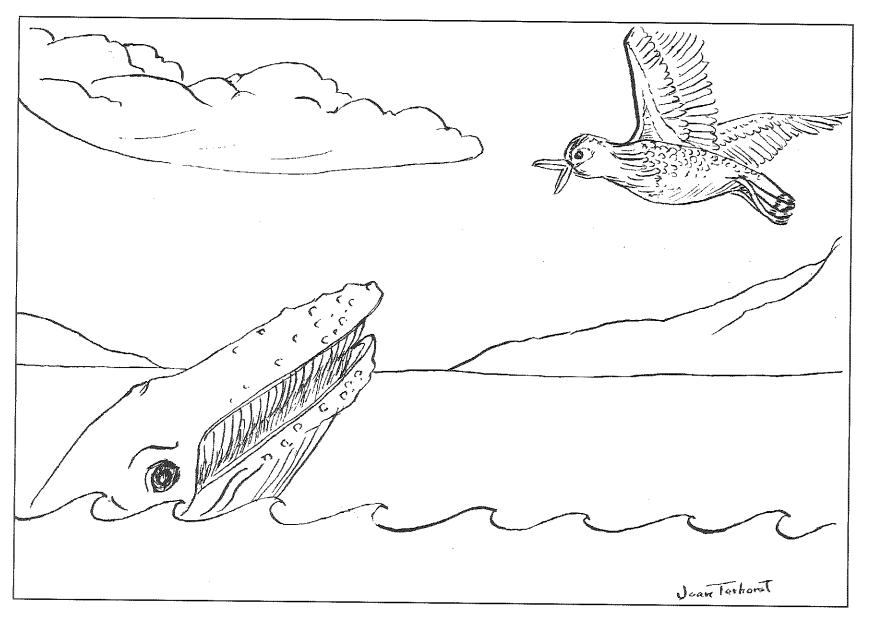
"Keu ka nui nō o nā kōlea."

Ma nā wahi like 'ole i lohe 'ia ai kā lāua ho'opa'apa'a 'ana.

"Nui nā kōlea."

"Nui nā koholā."





Suddenly the whale stopped shouting and started to sing...

"Hele mai, water to the sky.
Calling all whales, come swim to me.
From the East, the West, the North,
the South,
Come faster to me."

And they came. From the East, they came pushing the waves high. From the West, from the North, from the South, pushing the waves up to the sky.

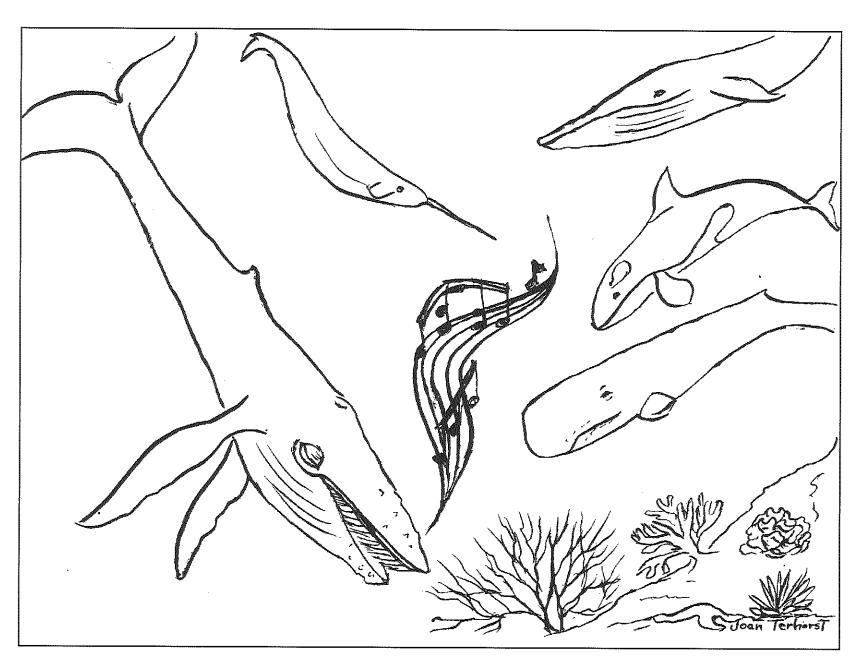
See," said the whale, "There are more whales than plovers." I ka pau 'ana o ko ke koholā 'uā 'o ka ho'omaka akula nō ia o kona oli 'ana.

"E helele'i iho ka ua. Ke kāhea 'ia nei nā koholā. E holo mai. E hui pū mai. E 'ākoakoa mai. Mai ka Hikina, mai Kumuhana, mai ka 'Ākau a ka Hema."

Uhaele mai nō lākou. Mai ka Hikina lākou i 'au a'ela ai i ka 'ale. Mai Kumuhana, mai ka 'Ākau, a ka Hema, pi'i a'ela nā 'ale.

**E** nānā," i 'ōlelo ai ke koholā. "'Oi aku ka nui o nā koholā ma mua o nā kōlea."





The plover said nothing but began to sing...

"Calling to the world, calling all plovers to come quickly. From the East, the West, the North, the South, Come quickly and save me."

As the bird sang, a high wind blew in from the East, it blew from the West, from the North, from the South.

The flapping of a hundred thousand wings. All the plovers came and the whole sky was dark.

See," said the little plover, "I told you there are more plovers then whales."

Me ka 'ōlelo 'ole i oli ai ke kōlea.

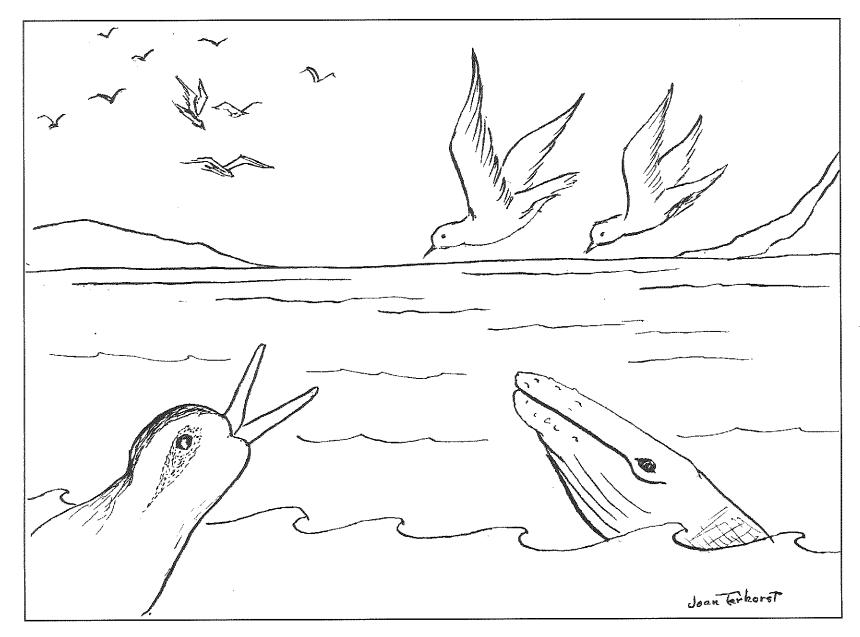
"Ke kāhea 'ia nei nā kōlea,
E lele mai.
E hui pū mai.
E 'ākoakoa mai.
Mai ka Hikina, mai Kumuhana, mai ka 'Ākau a ka Hema.
E kāko'o mai ia'u."

ka manu e hīmeni ana, pā mailā nō ka makani mai ka Hikina, pā maila ka makani mai Kumuhana, mai ka 'Ākau, a me ka Hema.

He kini a manomano 'o ka upa'i 'ana o nā 'eheu o nā manu, a hiki mai nā kōlea a pau. He pō'ele ka lewa.

**L**ā, " i 'ī aku ai ke kōlea li'ili'i. "Ua ha'i au iā 'oe, 'oi aku ka nui o nā kōlea ma mua o nā koholā."





Wait. You'll see more," laughed the whale and loudly came the whale chant...

"Hele mai, Black fins above the sea. Calling all sharks and fish. Come fast to me. From the East, the West, the North, the South, Come faster to me."

From the four points of the world, The ocean filled with fins.

More whales, more fish, more than plovers, more, more, more," shouted the clever whale.

Alia. E nui a'e ana," I 'aka'aka ke koholā a pōhā akula ka leo oli ona.

"E ō mai e nā kualā 'ele'ele o ke kai, e nā i'a o ke kai papa'u a hohonu.
Ke kāhea nei i nā manō a nā i'a like 'ole.
E holo mai.
E hui pū mai.
E 'ākoakoa mai."

Mai nā kihi 'eha o ka honua, piha a'ela ke kai i nā kualā.

He keu ka nui o nā koholā. He nui a lehulehu," i 'uā aku ai ke koholā.

