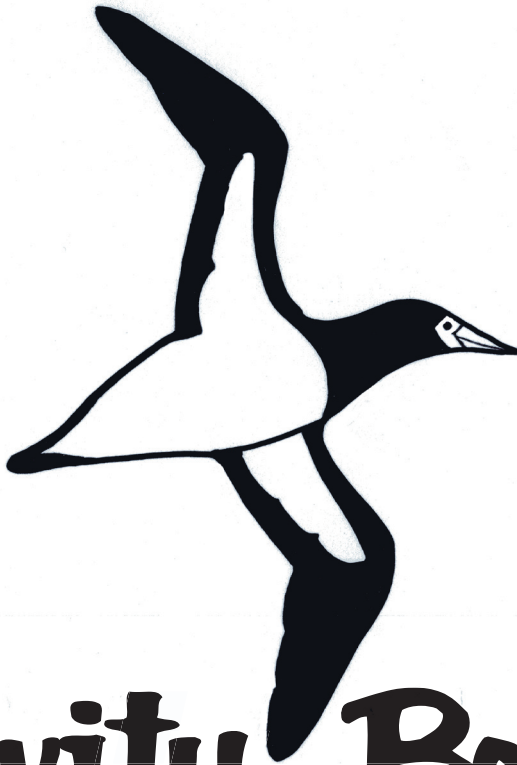
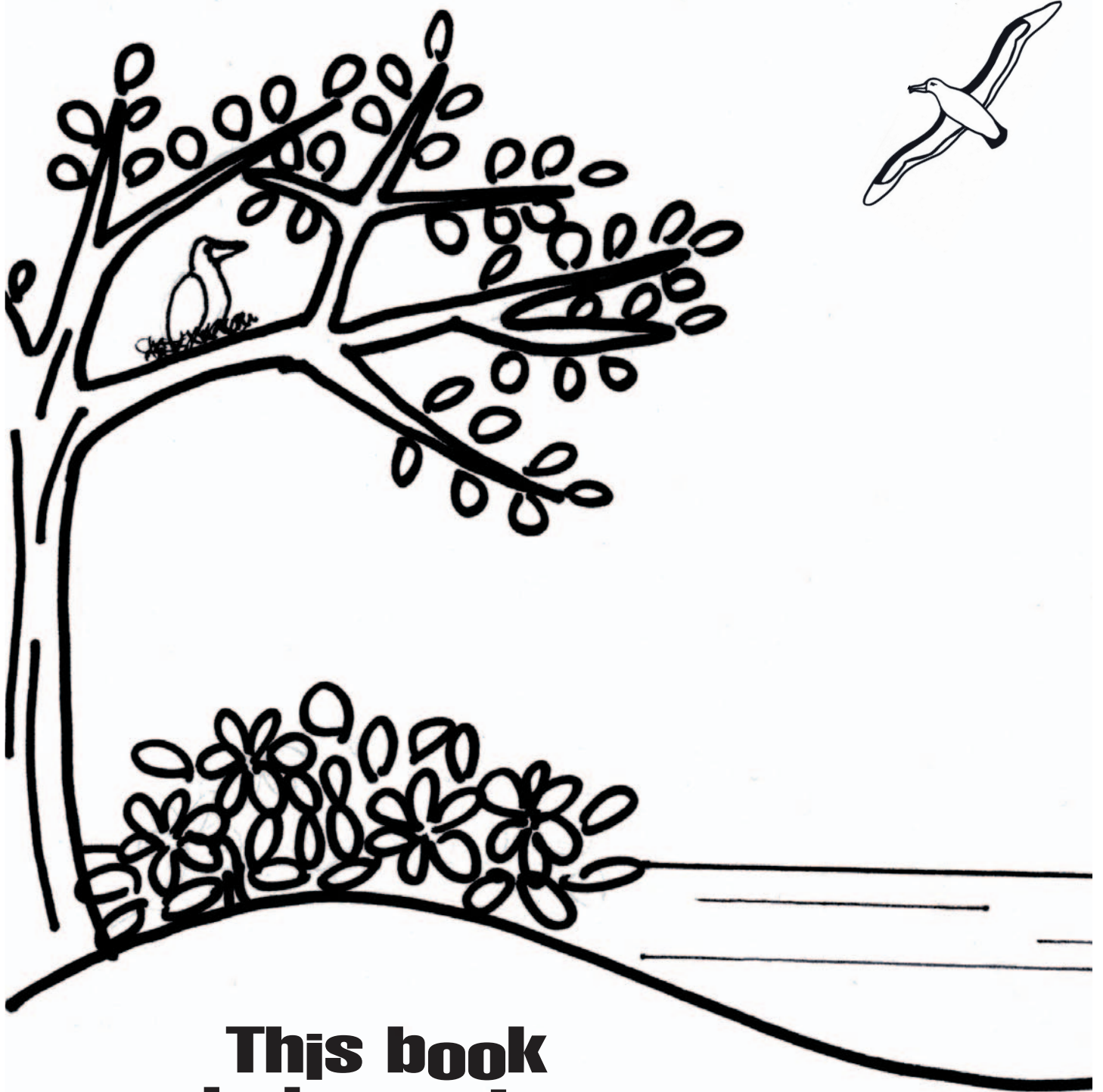


**SEABIRDS
&
SHOREBIRDS**
of Hawai'i



Activity Book



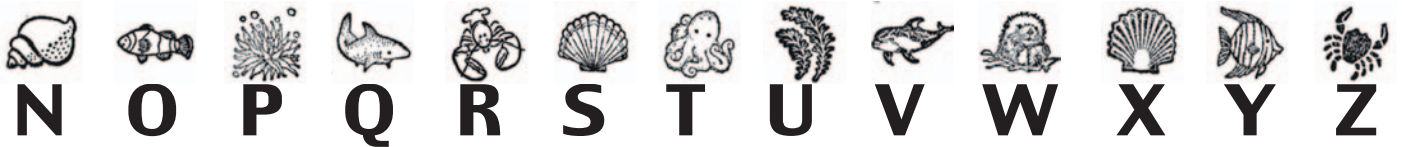
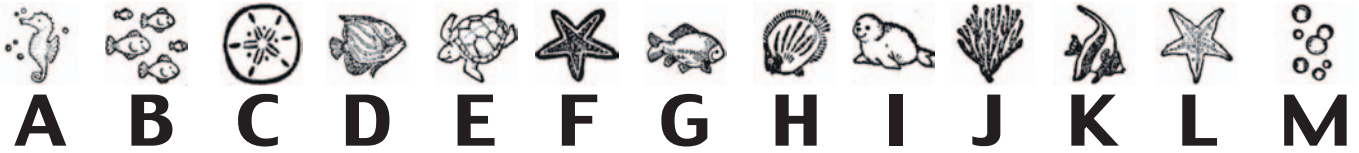
**This book
belongs to:**



SEABIRDS SECRET CODE

DIRECTIONS: Use the secret code to reveal the answers, then read the sentences to learn about Hawai'i's Seabirds.

SECRET CODE:



- Midway atoll has the largest _____ colony in the world with 388,000 mated pairs.
- The _____ does not dive to feed, it gets its fish from the surface of the water while sitting down.
- Nicknamed the "nightbird", the _____ nests in underground burrows that can be one meter deep and three meters long.
- The courtship displays of the _____ include mid-air wheeling, gliding, and circling.
- The _____ plunges 30 feet into the ocean to search for food. It prefers flying fish and squid for dinner.
- A nocturnal bird, the _____, is known for its haunting moan.

7. The _____ is so adapted



for flying that it cannot swim or walk. The Hawaiians named this bird "Iwa", or thief, since they commonly steal prey from other birds.

8. Distinguishing characteristics of the _____



_____ include a deeply forked tail and a black line through its eye.



9. The _____ spends its first five years of life in flight.



It depends on tuna to chase its prey to the surface.

10. This curious bird, known as the _____ lays a single egg



directly on a tree branch. Underneath its snow-white feathers hides shiny black skin.

11. The _____ was named for its courtship display,



which includes head nodding and fish transfers from one mate to the other.

12. This cliff nester, known as the _____ is similar to



the brown noddy but is smaller, darker, and has a contrasting gray tail as an adult.



,



!



SHOREBIRDS WORD FIND

DIRECTIONS: Read the paragraphs on shorebirds and then look up, down, forward, and backward to complete the word search for the words listed below.

- Arctic
- Bristle-thighed Curlew
- Coastlands
- Colonies
- Eggs
- Endangered
- Flocks
- Insects
- Invertebrates
- Hawaiian Stilt
- Migration
- National Wildlife Refuge
- Pacific Golden-Plover
- Protection
- Ruddy Turnstone
- Sanderling
- Shorebird
- Wandering Tattler
- Wetlands



LEARN ABOUT SHOREBIRDS:

Although shorebirds spend most of their lives on land, they fly long distances over the open ocean each time they migrate from their breeding grounds to their wintering grounds. There are about 35 shorebird species that can be found in Hawai'i. Only one of these, the Hawaiian Stilt, does not migrate.

Shorebirds feed on a variety of creatures, including insects, and small invertebrates, particularly crustaceans. Larger shorebirds may also eat small reptiles, amphibians, and rodents.

Shorebirds are usually gray or brown in color, but some such as the Hawaiian stilt have bold color patterns. They have long, thin legs and their bills range from short to very long and may be straight or curved.

Shorebirds breed in a variety of ways. Some have a single mate and others have more than one mate. Some also breed in small colonies.

The Hawaiian Stilt and the Bristle-thighed Curlew are the only shorebirds listed as endangered species, but all shorebirds deserve to be protected. We can help ensure their protection by supporting local national wildlife refuges that take care of the shoreline and wetland habitats that shorebirds rely on.



SEABIRDS OR SHOREBIRDS?

DIRECTIONS: Read the phrase and decide whether it describes a seabird or a shorebird or both. Circle the correct answer or answers.

1. Seabirds Shorebirds have large wingspans
2. Seabirds Shorebirds feed in the open ocean
3. Seabirds Shorebirds have long, thin legs
4. Seabirds Shorebirds migrate to winter breeding grounds
5. Seabirds Shorebirds are threatened by marine debris
6. Seabirds Shorebirds often mate for life
7. Seabirds Shorebirds are sometimes clumsy on land
8. Seabirds Shorebirds spend most of their life on land
9. Seabirds Shorebirds feed primarily on fish
10. Seabirds Shorebirds commonly nest on island cliffs or in large colonies on remote islands
11. Seabirds Shorebirds have shallow nests in the ground
12. Seabirds Shorebirds are usually dull in color
13. Seabirds Shorebirds primarily feed on insects and small invertebrates
14. Seabirds Shorebirds are threatened by loss of habitat



BIRDS AND THEIR NESTS

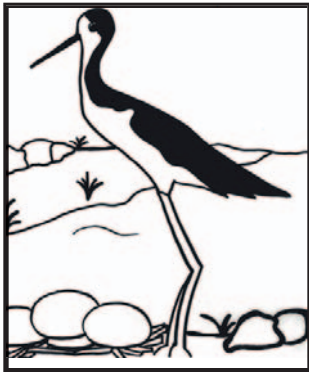
DIRECTIONS: Read the phrase describing each bird's nest then draw a line to match the correct pictures.

1.



Shearwaters build their nests in burrows that are dug into mountain slopes.

2.



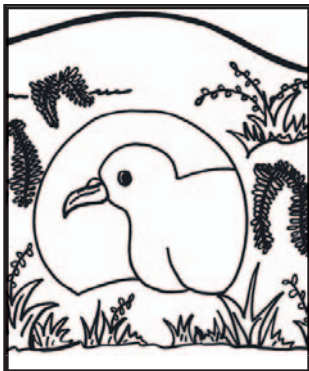
Booby birds build their nests of sticks in trees or shrubs.

3.



Hawaiian stilts build their nests on mud flats in marshes and ponds.

4.



Albatrosses build their nests on sandy ground near the shoreline.

Always view birds from a distance and never disturb their nests!

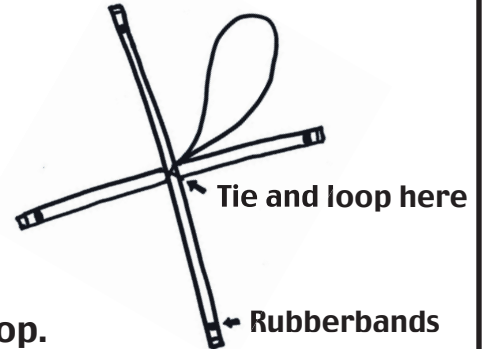
SEABIRDS MOBILE

SUPPLIES NEEDED:

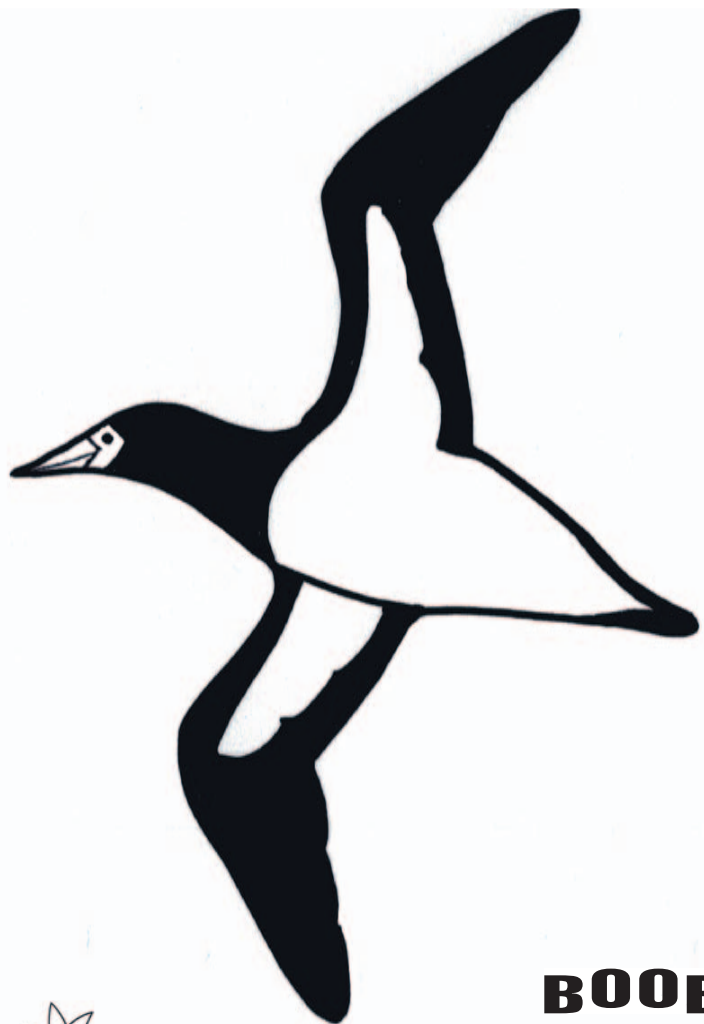
1. 1 pair of Chop Sticks
2. Yarn or String (1 – 6" piece and 5 pieces of varying length)
3. Rubberbands (4)
4. Hole Punch
5. Crayons or Markers

DIRECTIONS:

1. Color the seabirds.
2. Cut out the seabirds.
3. Punch one hole in the top of each seabird.
4. Tie the yarn around the center of the chop sticks so that the sticks form an X and the string forms a loop.
5. Tie a string to each seabird.
6. Tie one seabird to the center of the chopsticks.
7. Tie the other four seabirds to the end of each of the four sticks. Use rubberbands to hold the strings in place on the ends.
8. Hang your mobile
9. Enjoy!

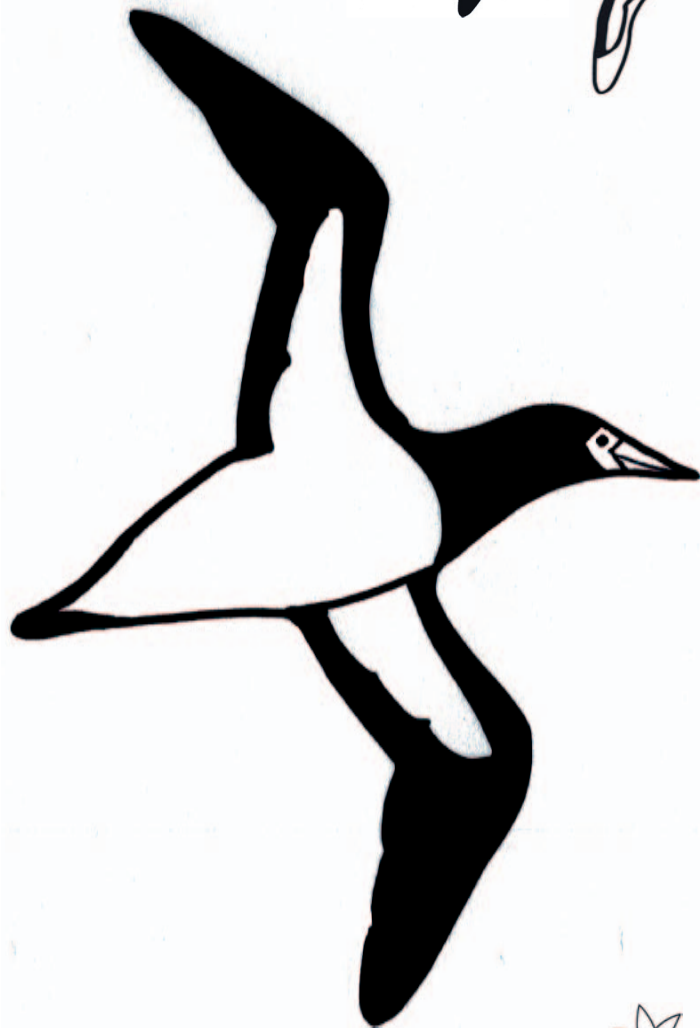
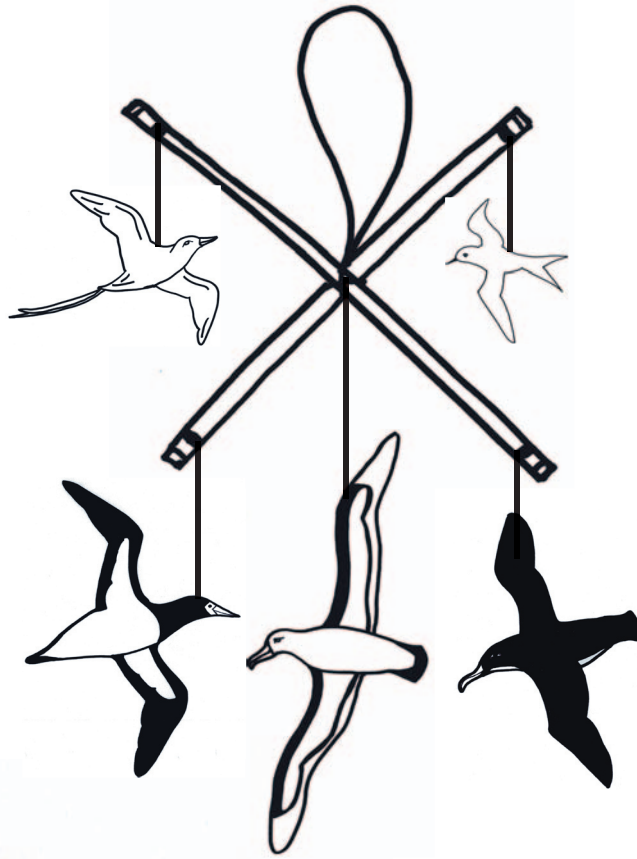


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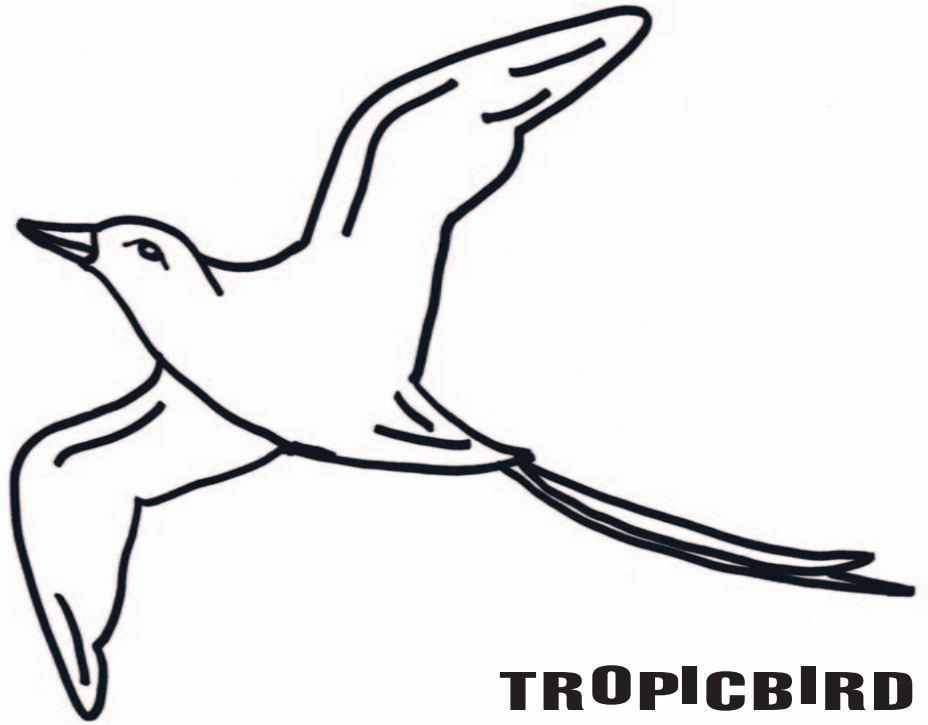


BOOBY

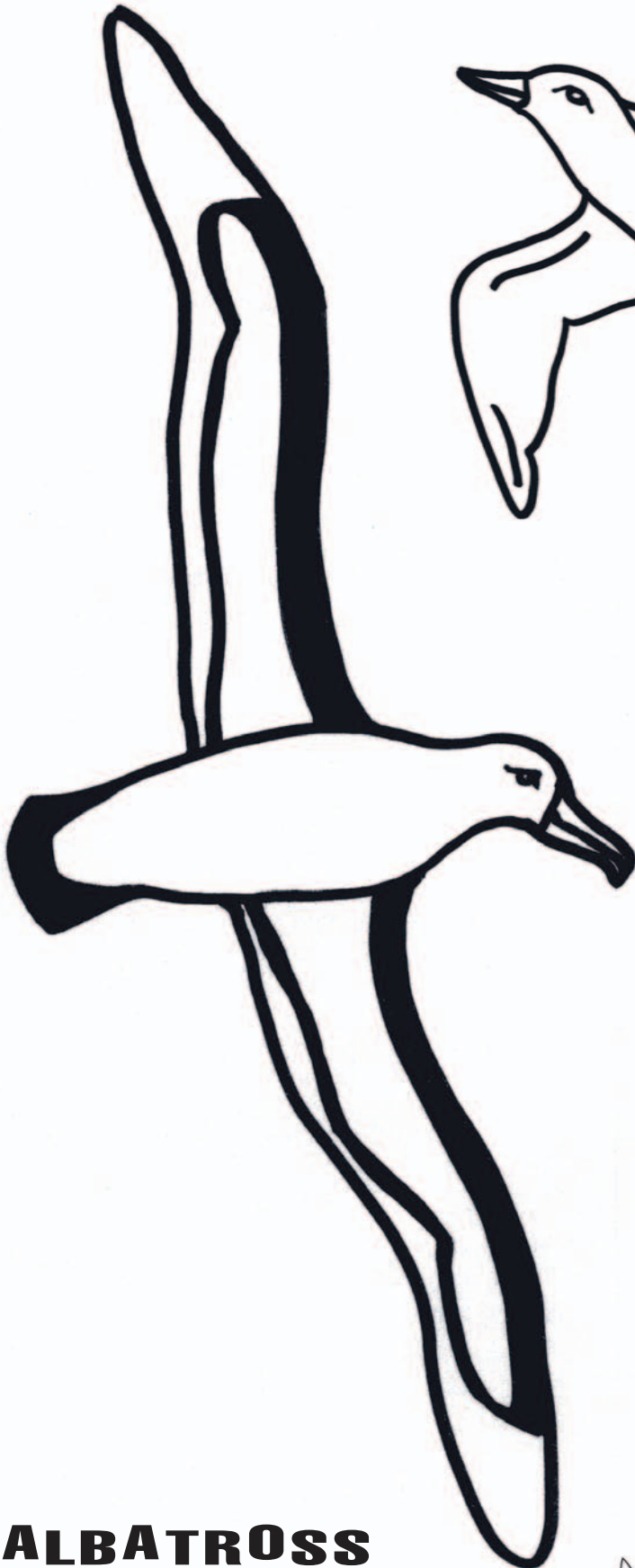
SEABIRDS MOBILE



**SEABIRDS
MOBILE**



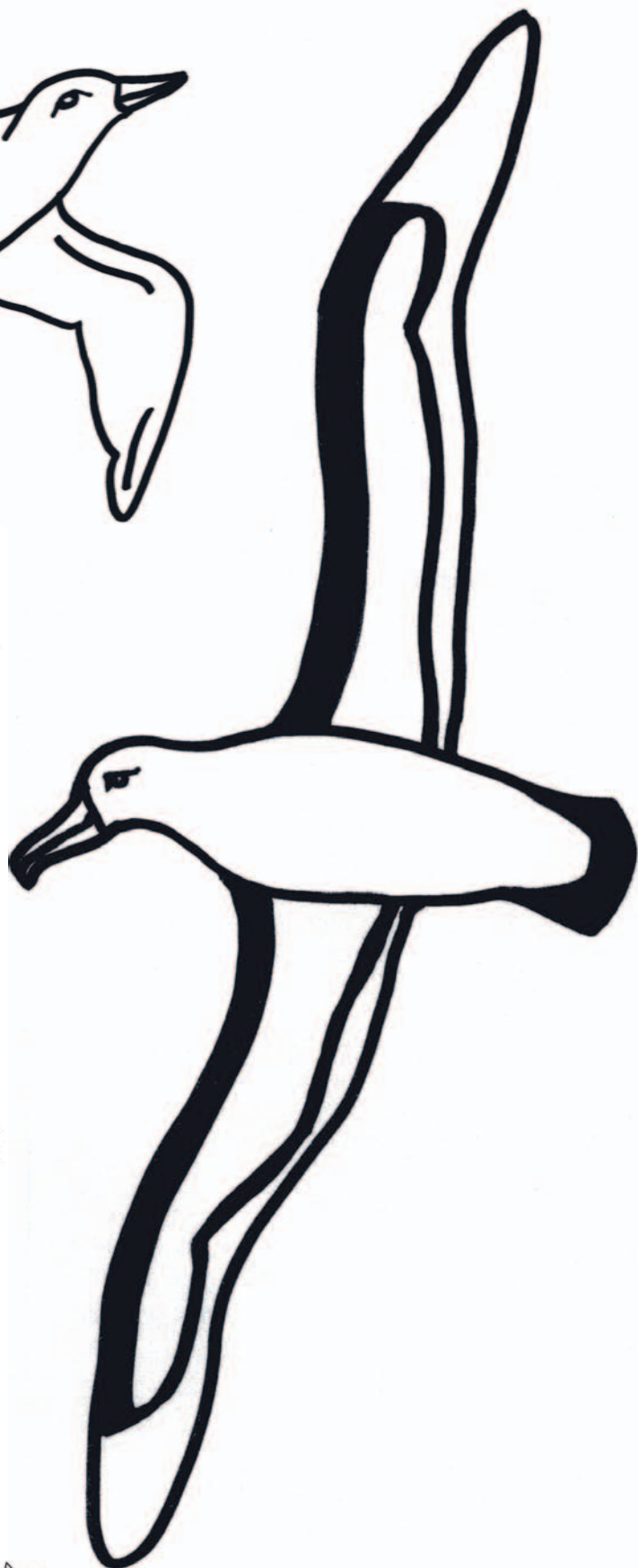
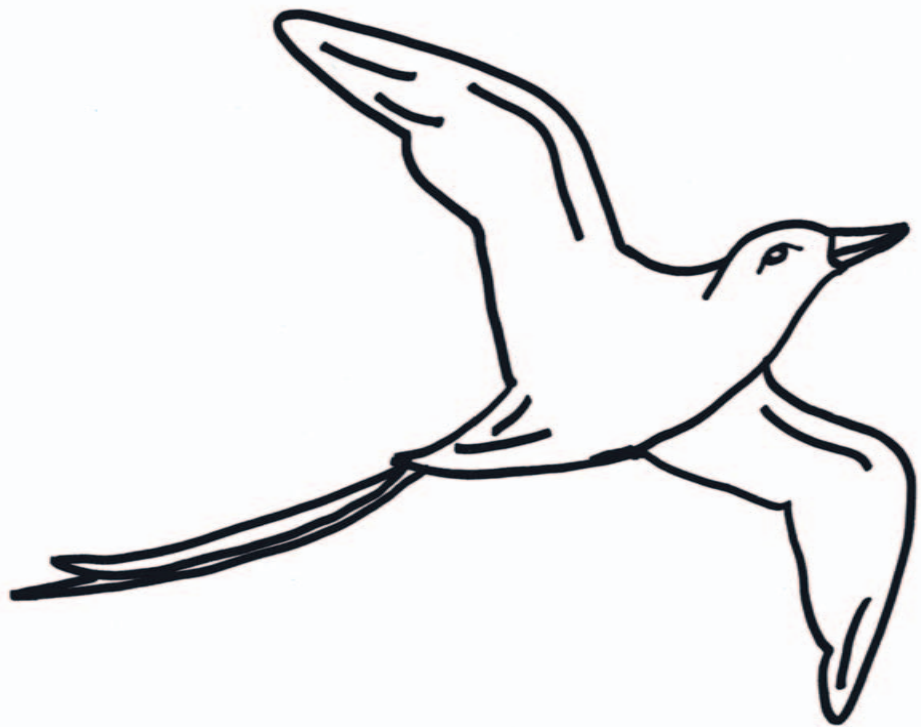
TROPICBIRD



ALBATROSS



SHEARWATER



PLOVER LOVER SCRAMBLE

DIRECTIONS: Read the paragraph below. Unscramble each of the clue words. Copy the letters in the numbered blocks to reveal a cool fact about the Pacific golden plover!

Known as *kolea* in Hawaiian, the Pacific golden plover is a shorebird that many are familiar with. Each year kolea embark on an amazing journey flying south from Alaska to places such as Hawai'i. They fly up to 3,500 miles non-stop. In Alaska, they breed and nest in diverse habitats, such as tundra, while feeding mainly on insects and worms. They begin their migration to warmer weather around August, with adults arriving first, followed by juveniles. Here in Hawai'i you may see kolea on rooftops or feeding in grassy areas. Beginning in late February, kolea molt and their golden winter plumage is replaced by darker summer breeding colors. Protected by law, kolea are still threatened by habitat loss.

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35 23 3

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15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

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30 7 31 32 33 34 35 36

HOW YOU CAN HELP THE KOLEA:

- ~ Let them eat their natural foods, insects and worms - do not feed them.
- ~ Check to see if they have leg-bands. Note the color order of the bands on each leg, then call Annette Kaohelauli'i at #235-5431 and report your sighting! You'll help in yearly kolea tracking efforts.



KOLEA MIGRATION

DIRECTIONS: Plot the migration route of a kolea using the latitude and longitude points below (the first two points are marked for you).



#	Date/Time	Lat/Long	Description
1	Aug. 7, 2005/10:00am	N 60 W 145	A female plover leaves her breeding and nesting grounds in Alaska to begin her journey to winter feeding grounds in Hawai'i.
2	Aug. 7, 2005/6:00pm	N 57 W 145	She is now over open ocean, just 8 hours into her 3,500 mile journey.
3	Aug. 7, 2005/10:00pm	N 54 W 150	In the dark, high above the Pacific ocean, she sees the faint lights of a boat in the distance.
4	Aug. 8, 2005/7:00am	N 51 W 150	The sun has risen beautifully on day two.
5	Aug. 8, 2005/4:00pm	N 50 W 155	Thirty hours into her journey, she looks below and spots a large fishing vessel.
6	Aug. 8, 2005/9:00pm	N 46 W 157	Soaring through the night sky she sees millions of stars above.
7	Aug. 8, 2005/11:00pm	N 44 W 160	Somewhere below she hears a splash! She knows it can't be a humpback whale since they don't begin their migration till November.
8	Aug. 9, 2005/5:00am	N 40 W 156	She knows she is close to her destination as the sun rises on day three.
9	Aug. 9, 2005/7:00am	N 34 W 155	Below she spots two large ships slowly moving along.
10	Aug. 9, 2005/10:00am	N 29 W 160	Almost there!
11	Aug. 9, 2005/3:00pm	N 21 W 157	Finally, the island of O'ahu is in sight! She made it! She can taste the worms and bugs already!

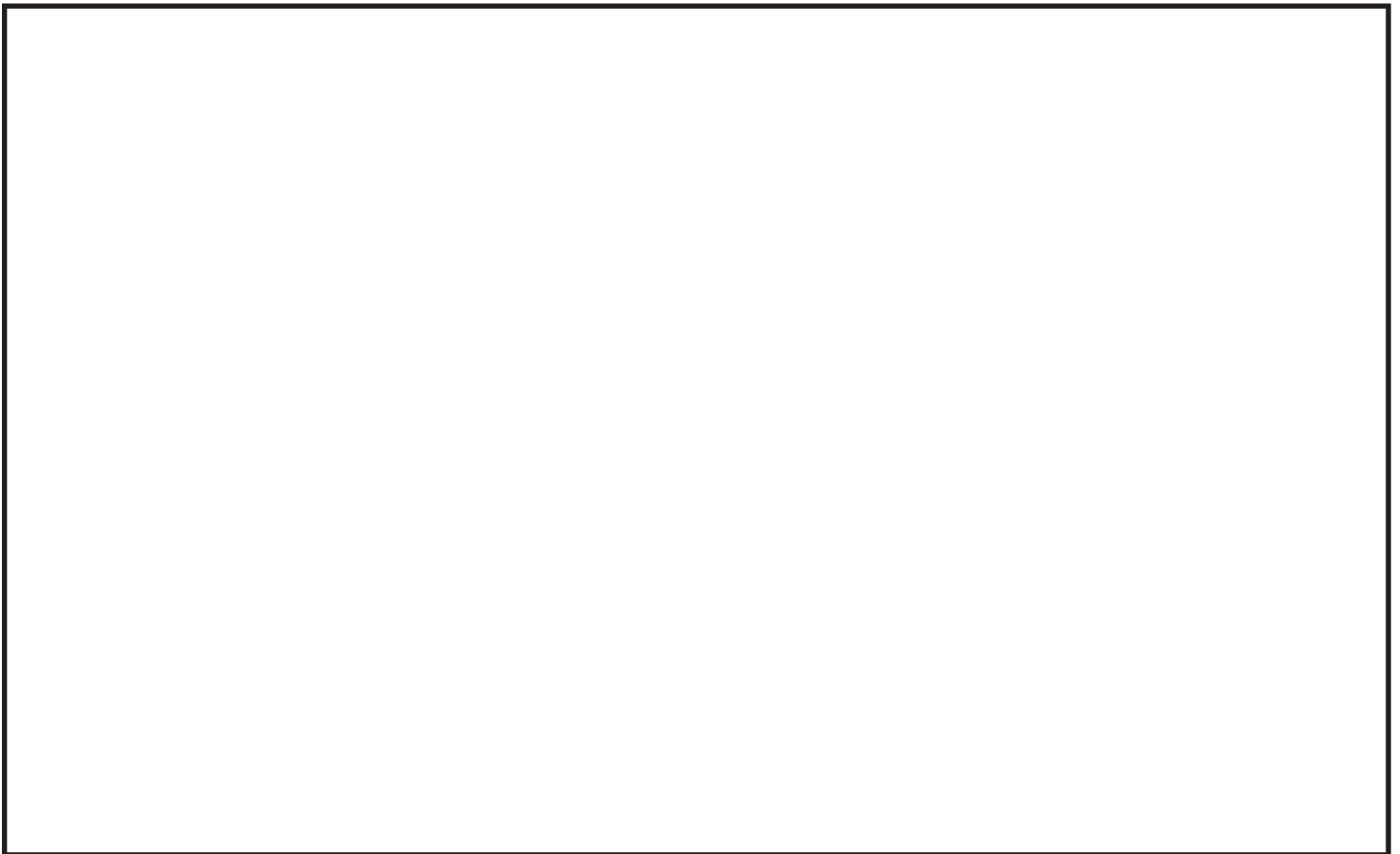
SEABIRD & SHOREBIRD THREATS

DIRECTIONS: Read the information below then draw a picture and write a story about how you can protect your favorite bird.

Threats to seabirds and shorebirds include:

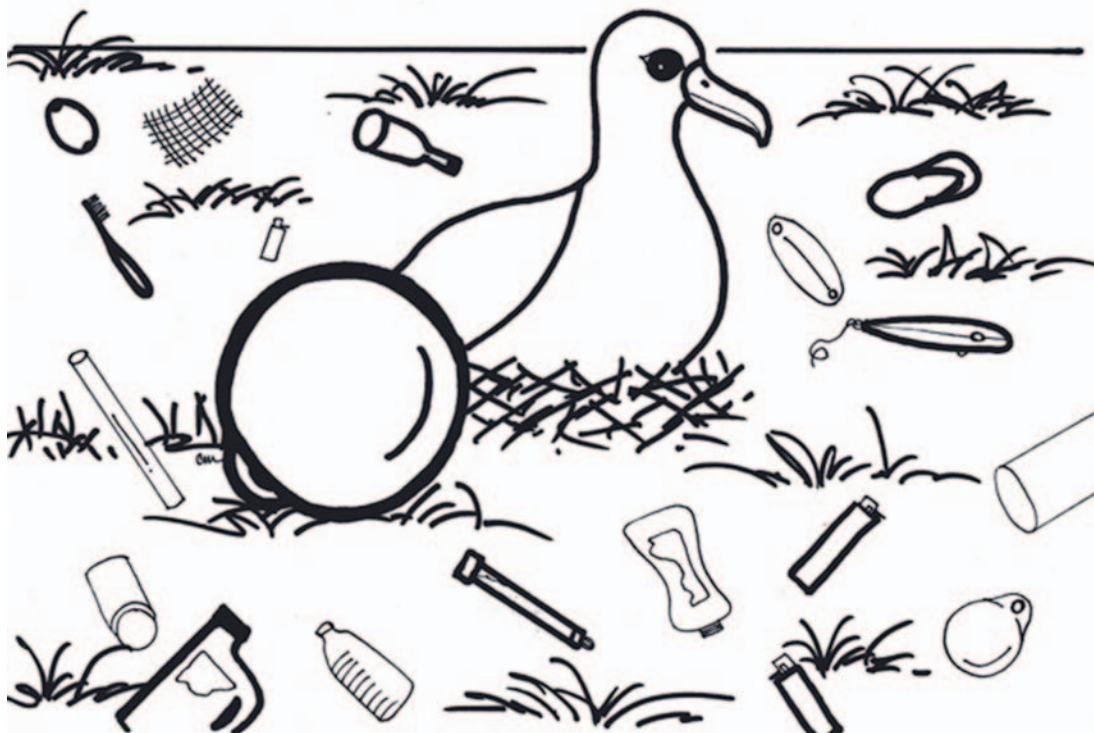
MARINE DEBRIS
POOR WATER QUALITY
LOSS OF THE AREA WHERE THEY NEST OR FEED
ARTIFICIAL LIGHTING
NOISE

Help protect your favorite bird from the threats that can cause it harm!



MARINE DEBRIS SCRAMBLE

DIRECTIONS: Unscramble the names of some common marine debris items shown in the drawing.



- Buoy
- Light stick
- Cigarette lighter
- Styrofoam float
- Toothbrush
- Rubber slipper
- Fishing lure
- Soda bottle
- Plastic tube
- Detergent bottle

————— Marine debris, from land and sea, litters shorelines. —————
Some seabirds, like the Laysan Albatross, make their home among the debris.

1. HIFGSIN RULE

2. OBHUOTHTRS

3. OYBU

4. EGDRENET TLETBO

5. BEURBR LPRISPE

6. ASDO ELTBTO

7. ARTMSFOYO ATLOF

8. THIGL CITSK

9. TEAGITECR TRHLEGI

10. SCLATPI ETUB

ALBATROSS ADVENTURE

DIRECTIONS: The albatross needs your help to get through the maze without running into marine debris. Good Luck!



“I like to feed after sunset on squid that rise to the surface at night. I like the glowing light from the squid... unfortunately though, sometimes I accidentally eat marine debris which is floating in the ocean.”

LAYSAN ALBATROSS FLIER

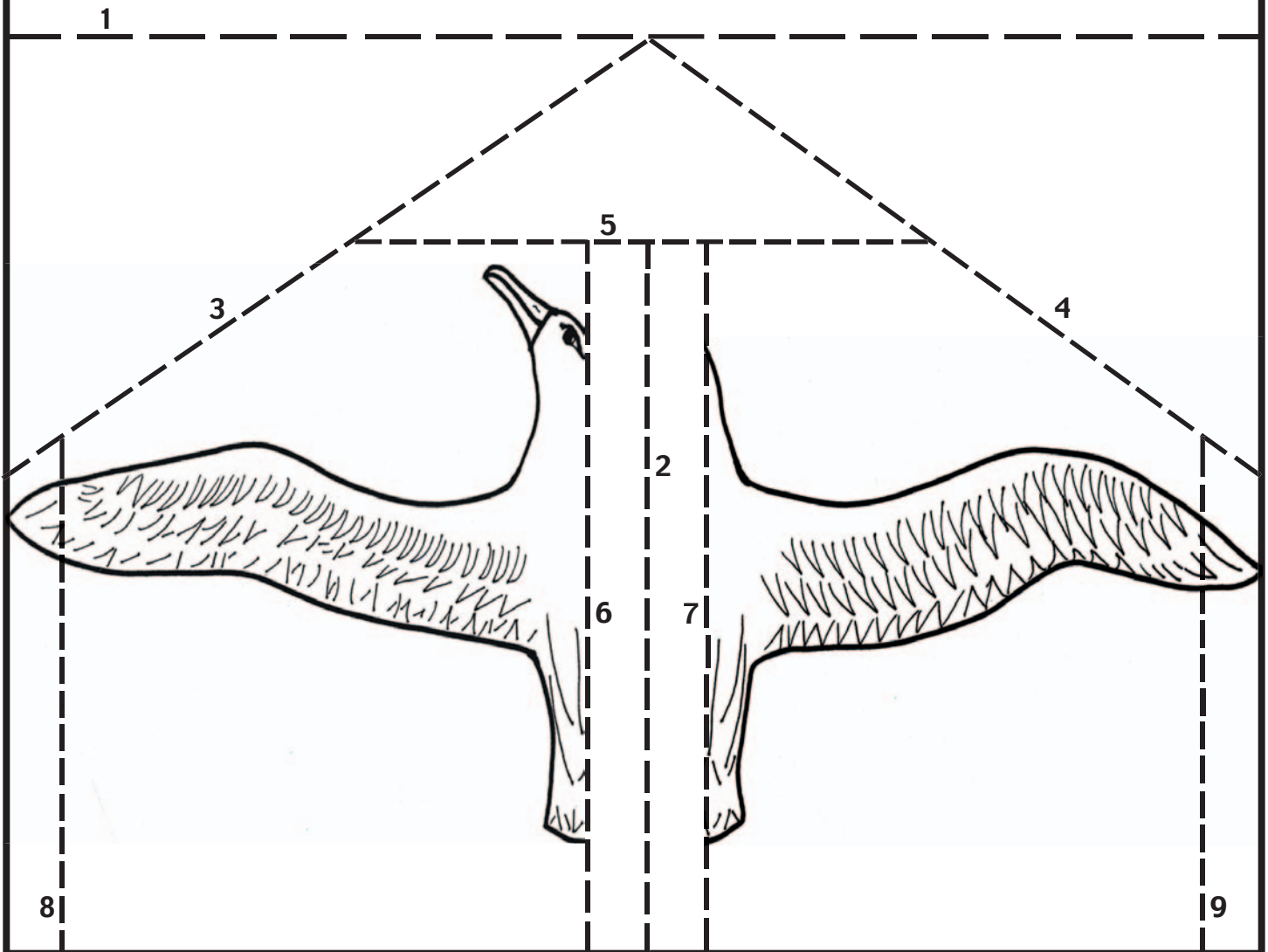
DIRECTIONS: Follow the instructions to make a Laysan albatross flier using the picture on the next page. When you're finished, test your albatross' flying ability!

1. Color the Laysan albatross.
2. Cut along the outer (solid) line.
3. Fold along the dotted lines
 - a. Line 1 – fold back (away from the picture)
 - b. Line 2 – fold in half and then unfold and lay albatross face down
 - c. Lines 3 & 4 – fold back
 - d. Line 5 – fold back and then fold in half again along Line 2
 - e. Lines 6 & 7 – fold to open the wings
 - f. Lines 8 & 9 – fold up
4. Place tape above and below the albatross picture to secure your flier.
5. Fly your Laysan albatross.

DID YOU KNOW?

- ~ Albatrosses are the largest seabirds in the northern Pacific Ocean.
- ~ Albatrosses can be found many miles from shore when they are not nesting.
- ~ Albatrosses have a six-foot wingspan.
- ~ When albatrosses aren't nesting they spend most of their time flying throughout the Pacific.
- ~ Albatrosses also fly north to find food in colder water.
- ~ Albatrosses can see well at night which is when they feed.
- ~ Albatrosses mate for life.
- ~ Albatrosses nest in the same spot each year.
- ~ Laysan albatrosses start nesting when they are 8 or 9 years old.

LAYSAN ALBATROSS FLIER



ANSWERS

SEABIRDS SECRET CODE – PAGE 2 & 3 PLOVER LOVER SCRAMBLE – PAGE 11

1. Laysan Albatross
2. Black-footed Albatross
3. Bonin Petrel
4. Red-tailed Tropicbird
5. Red-footed Booby
6. Wedge-tailed Shearwater
7. Great Frigatebird
8. Gray-backed Tern
9. Sooty Tern
10. White Tern
11. Brown Noddy
12. Black Noddy

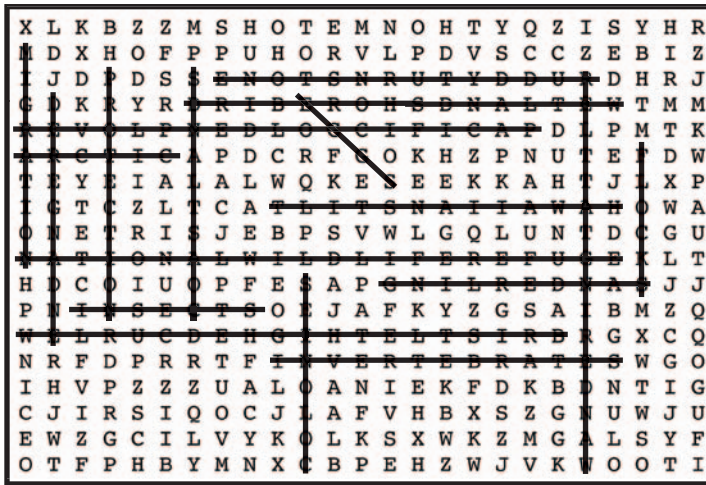
HELP PROTECT HAWAII'S SEABIRDS!

1. Pacific
2. Alaska
3. Tundra
4. Insects
5. Kolea
6. Plover
7. Migration
8. Plumage
9. Hawaii
10. Protected

ONE OF THE FARTHEST MIGRATING BIRDS IN THE WORLD!

KOLEA MIGRATION – PAGE 12

SHOREBIRDS WORD FIND - PAGE 4



MARINE DEBRIS SCRAMBLE – PAGE 14

SEABIRDS OR SHOREBIRDS - PAGE 5

1. Seabirds
2. Seabirds
3. Shorebirds
4. Shorebirds
5. Seabirds & Shorebirds
6. Seabirds
7. Seabirds
8. Shorebirds
9. Seabirds
10. Seabirds
11. Shorebirds
12. Shorebirds
13. Shorebirds
14. Seabirds & Shorebirds

1. Fishing Lure
2. Toothbrush
3. Buoy
4. Detergent bottle
5. Rubber slipper
6. Soda bottle
7. Styrofoam float
8. Light stick
9. Cigarette lighter
10. Plastic Tube

BIRDS & THEIR NESTS - PAGE 6

1. Albatrosses
2. Hawaiian Stilts
3. Booby Birds
4. Shearwaters

ALBATROSS ADVENTURE – PAGE 15



ACTIVITY REFERENCES

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PRODUCED BY:

The Hawaiian Islands Humpback Whale National Marine Sanctuary protects humpback whales and their habitat in Hawai'i and works to instill a conservation ethic among community members.

<http://hawaiihumpbackwhale.noaa.gov>

The University of Hawai'i Sea Grant College Program supports an innovative program of research, education, and extension services to improve understanding and stewardship of coastal and marine resources.

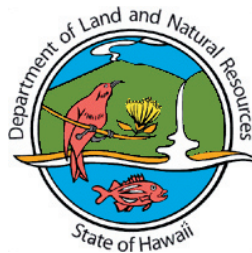
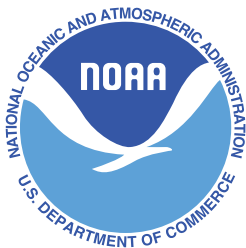
<http://www.soest.hawaii.edu/seagrant>

COPIES OF THIS BOOK CAN BE DOWNLOADED AT:

http://hawaiihumpbackwhale.noaa.gov/kids_page.html

**Created by Christine Brammer, Breena Martin & Carey Morishige
with special assistance from Annette Kaohelaui'i.**

March 2006 



**Hawaiian Islands Humpback Whale
National Marine Sanctuary**
<http://hawaiihumpbackwhale.noaa.gov>

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<http://www.soest.hawaii.edu/seagrant>