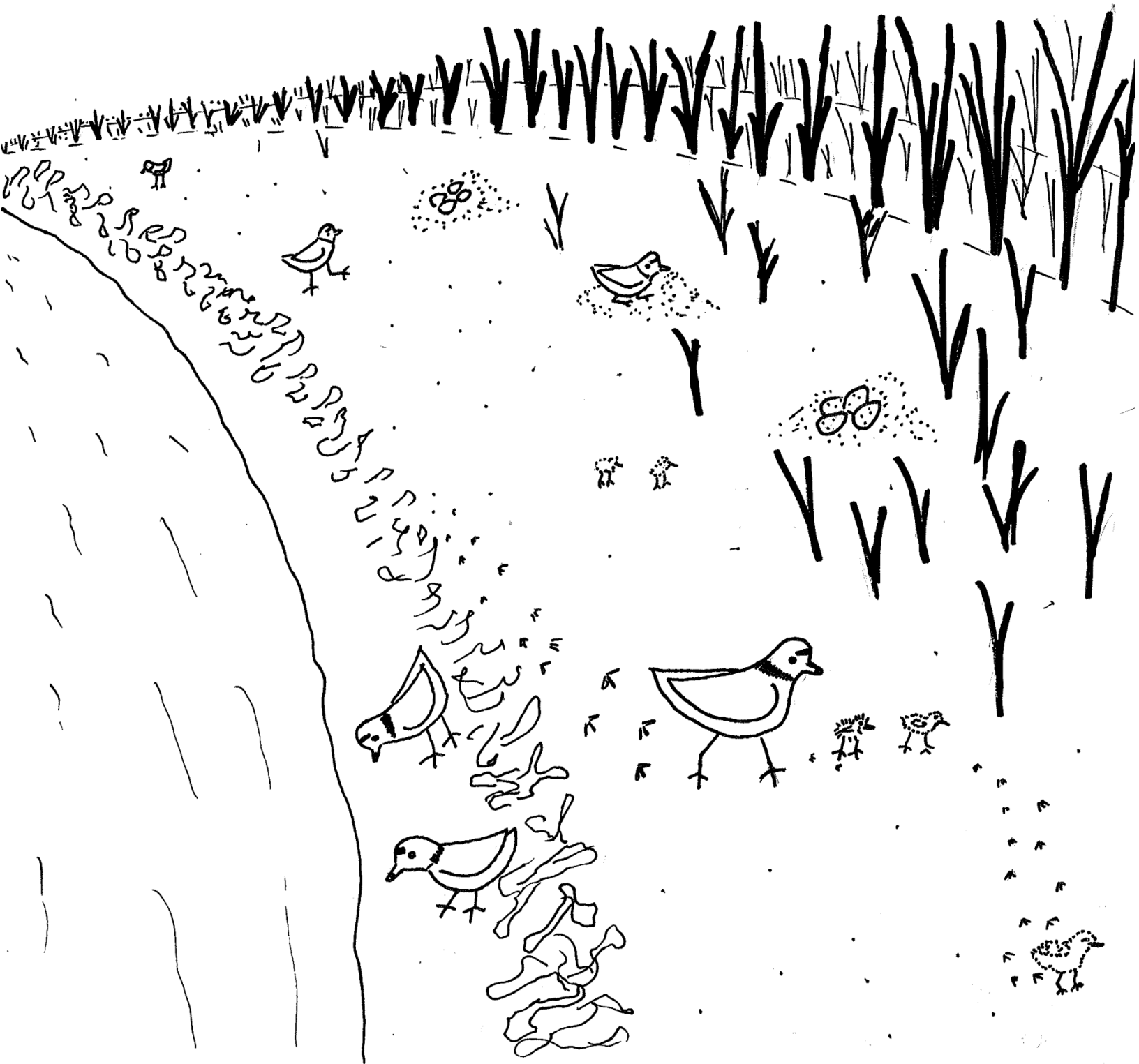


Share the Beach



Funding for this workbook was provided by a USFWS Challenge Cost Share grant. Our goal is to provide a resource to educate families about threatened and endangered beach nesting bird species found along the coast of Maine.



Help beach nesting birds!

The Piping Plover became a protected species under the Endangered Species Act in 1986. The Endangered Species Act provides penalties for killing, harassing or harming listed species. Along the Atlantic Coast, the Piping Plover is federally threatened. This means that unless the species and its habitats are protected through human intervention and management, it is likely to become extinct. Extinction means the animal disappears forever. The Piping Plover is also listed as endangered under Maine's state Endangered Species law.

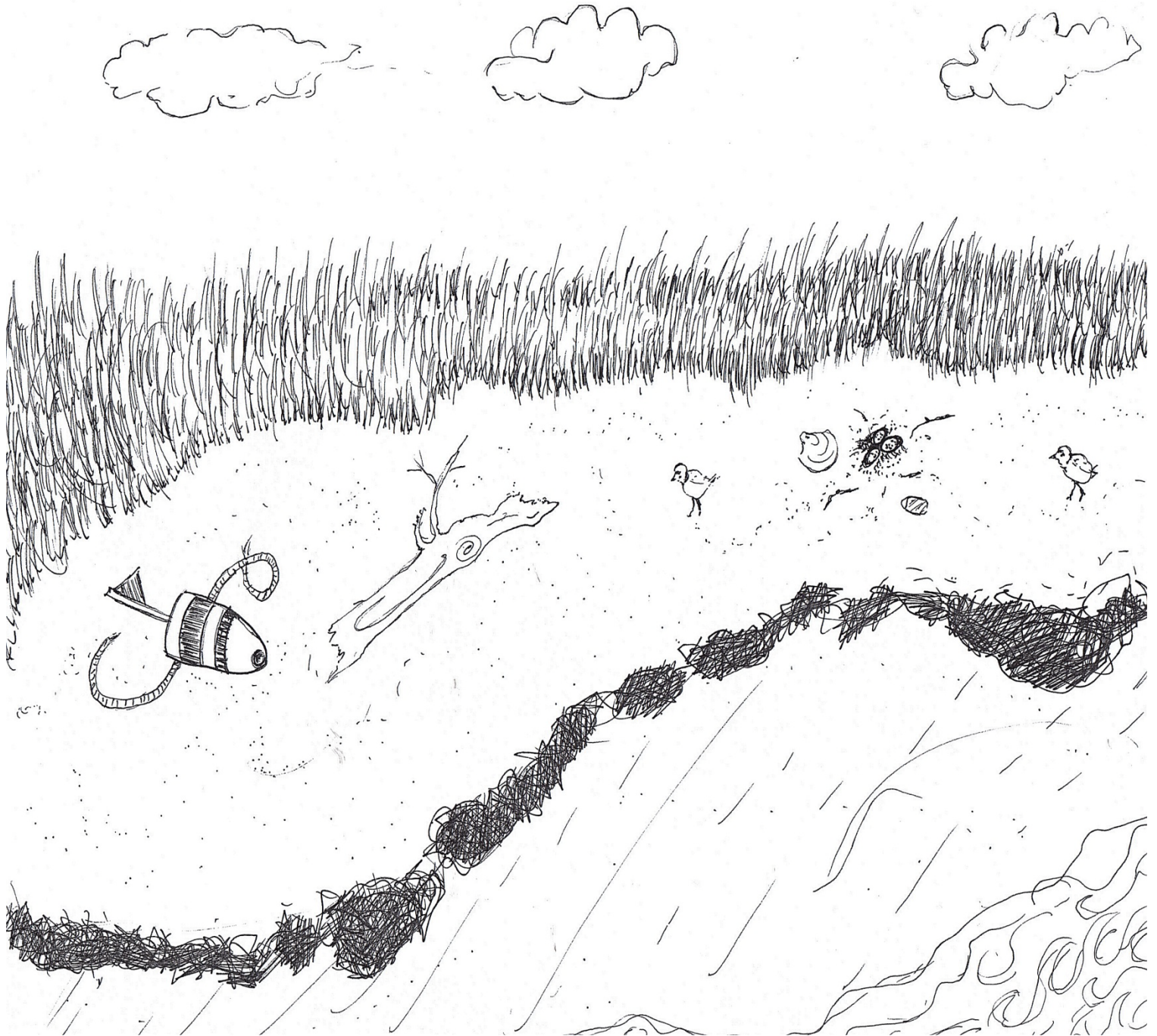
Least Terns are another rare bird that nests along Maine's coast. The Least Tern is listed as endangered under Maine's Endangered Species law, and is a species of high conservation concern throughout its range.

Piping Plovers and Least Terns were once common along the Atlantic Coast. However, these birds were excessively hunted for their feathers to make hats and clothing. Development of coastlines, building of seawalls and the popularity of beaches for human and pet use has limited the space available for plovers to nest and feed. Animals such as crows, gulls and fox have increased, and they sometimes eat plovers and terns. Plovers and terns have a hard time surviving with these challenges.

As you can see, beach nesting birds need your help! Now that you are learning about these birds and their habitats, you will be able to help protect them and teach others to do so as well!

Piping Plovers build nests that look like shallow dips or “scrapes” in the sand, laying up to 4 eggs with each nest. Piping Plover chicks are precocial. This means that they can run around and eat bugs after they hatch. Unlike other birds, Piping Plover chicks do not need their parents to feed them. Piping Plovers may pretend to have a broken wing to lure predators away from eggs or chicks.

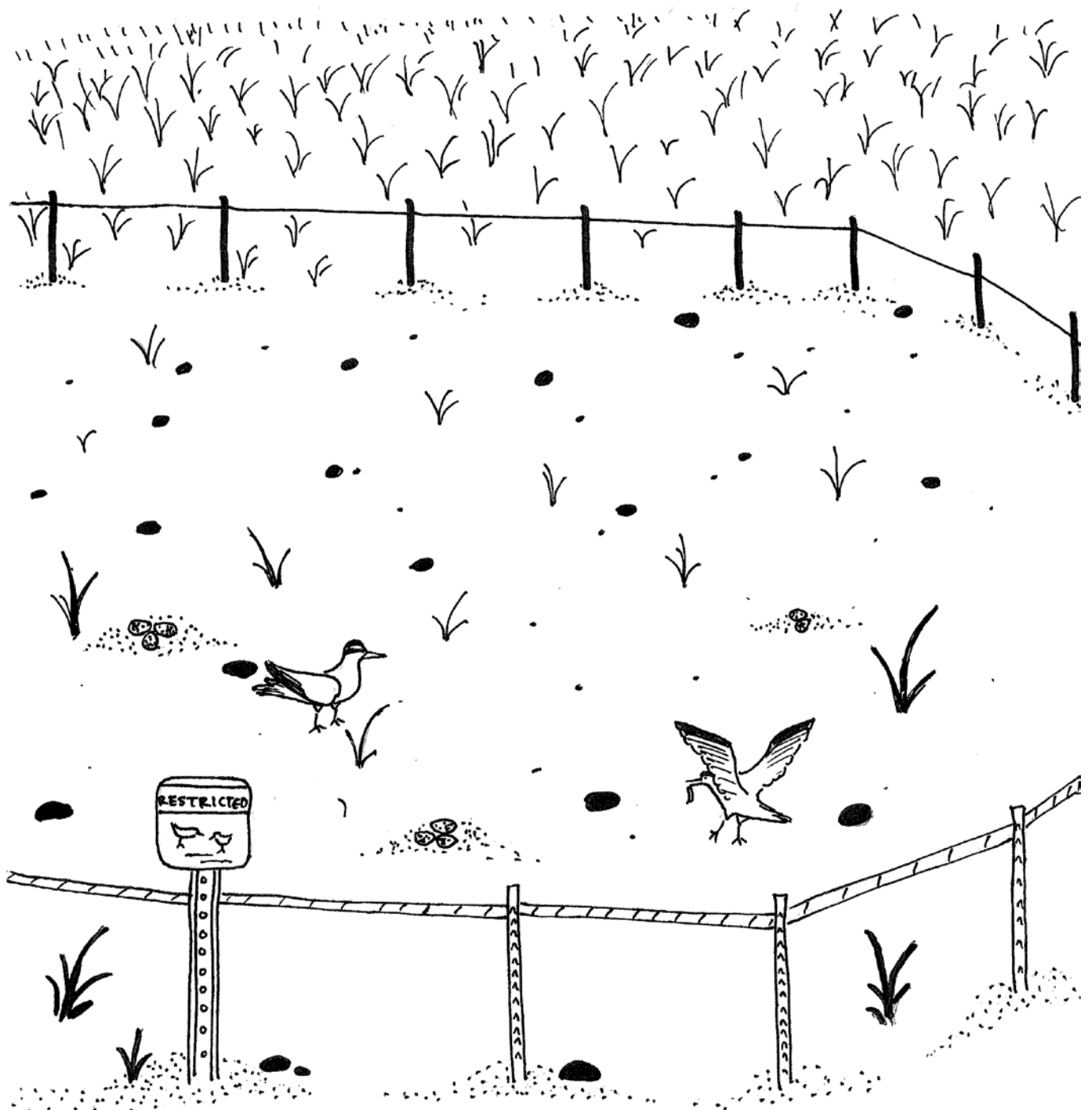
Can you find the Piping Plover nest and color in the habitat?



Illustrated by Joseph J. Auclair

Least Terns are another beach nesting bird. Adults lay between 1 and 3 eggs per nest. These birds will defend their nests aggressively against humans and predators. Chicks cannot move for the first few days after they hatch, so their parents bring them food.

Find the three Least Tern nests on this page and color in their habitat.



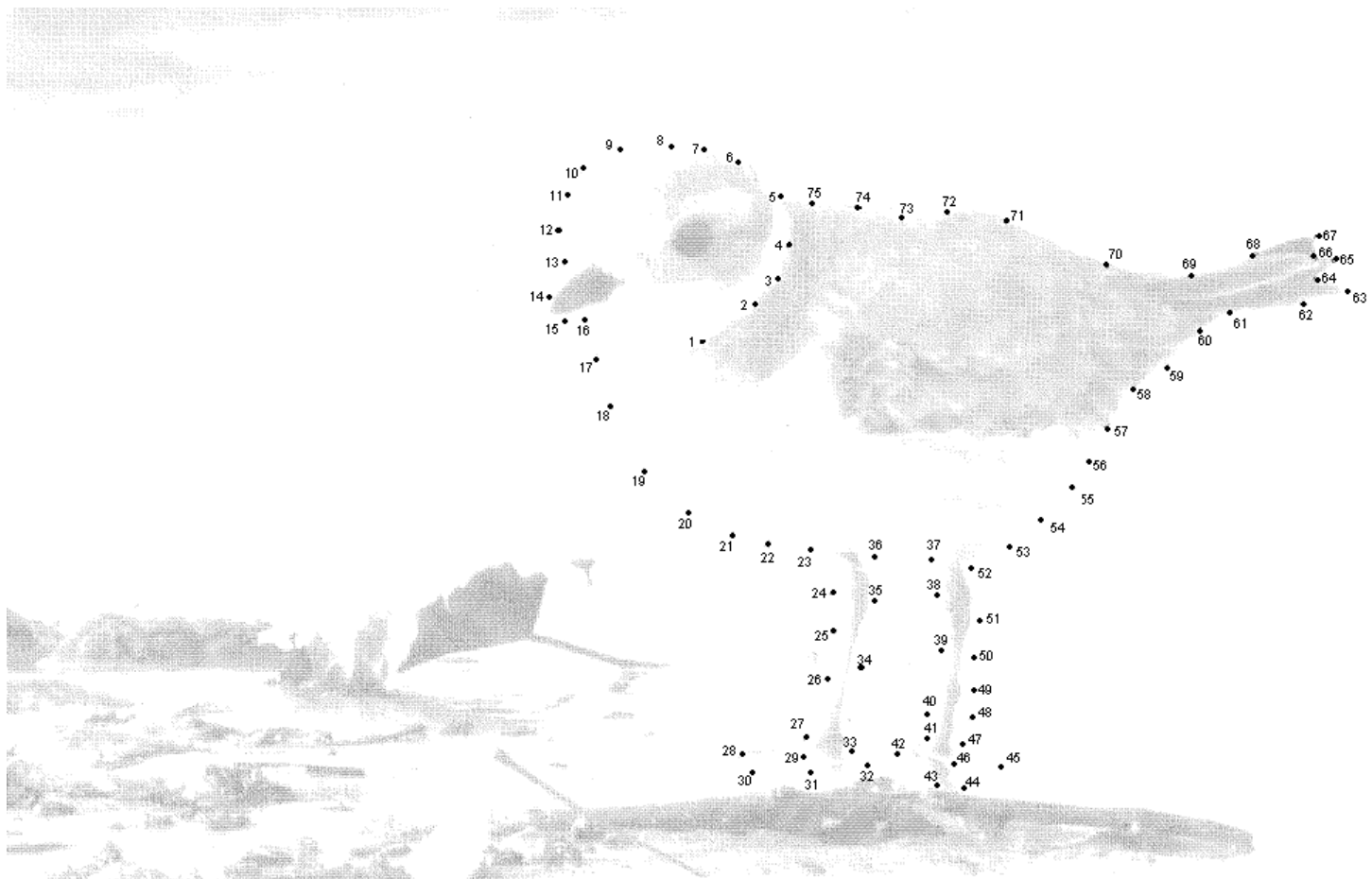
Beach Nesting Birds Puzzle

Find the **BOLD** words from the paragraph below about beach nesting bird management in this wordsearch.

K	Z	R	L	C	H	T	B	Y	O	M	W	L	H	E
Y	W	Y	R	A	Y	R	K	E	L	G	M	S	D	J
P	P	T	W	M	W	E	Y	Y	U	I	A	V	B	O
E	Z	X	R	O	Q	V	O	L	P	R	N	H	C	S
E	L	C	O	U	Y	O	L	E	T	V	A	A	R	P
X	X	L	T	F	C	L	J	I	V	S	G	B	I	K
C	R	V	A	L	B	P	C	G	U	N	E	I	I	M
L	E	N	D	A	N	G	E	R	E	D	M	T	X	Y
O	A	K	E	G	E	N	V	M	Q	B	E	A	C	H
S	T	Z	R	E	C	I	N	O	H	V	N	T	K	M
U	D	G	P	B	V	P	E	O	O	R	T	S	C	U
R	O	G	H	A	A	I	W	M	R	Z	X	E	F	G
E	K	E	L	L	X	P	T	E	R	N	S	N	D	P

The **PIPING PLOVER** and the Least **TERN** are both types of **BEACH** nesting birds. Their colors help them to **CAMOUFLAGE** in sandy, rocky environments so that they are difficult for predators to see. Piping Plovers are **ENDANGERED** in the state of Maine, and Least Terns are threatened, so it is important to protect their **HABITAT** by using certain types of **MANAGEMENT**. This is to ensure the **SURVIVAL** of these species. A **PREDATOR**, such as a **GULL** or crow, may try to find a plover's or a tern's **NEST** because a chick or an **EGG** is something they'd like to eat. To protect piping plover nests from these and other predators, a circular fence around the nest called an **EXCLOSURE** is used. This works because the plovers run off their nests and are able to easily fit through the holes in the fence. You can do your part to help plovers and other beach nesting birds by removing your **TRASH** from the beach when you leave so it doesn't attract predators and by not flying your **KITE** on the beach, because it could look like a large predator, which might scare them away from that beach.

Connect the dots and color in this picture...



Unscramble these words about beach nesting birds and their predators...

COCONRA

SUNKK

XFO

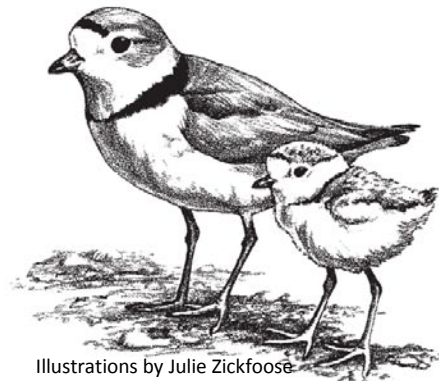
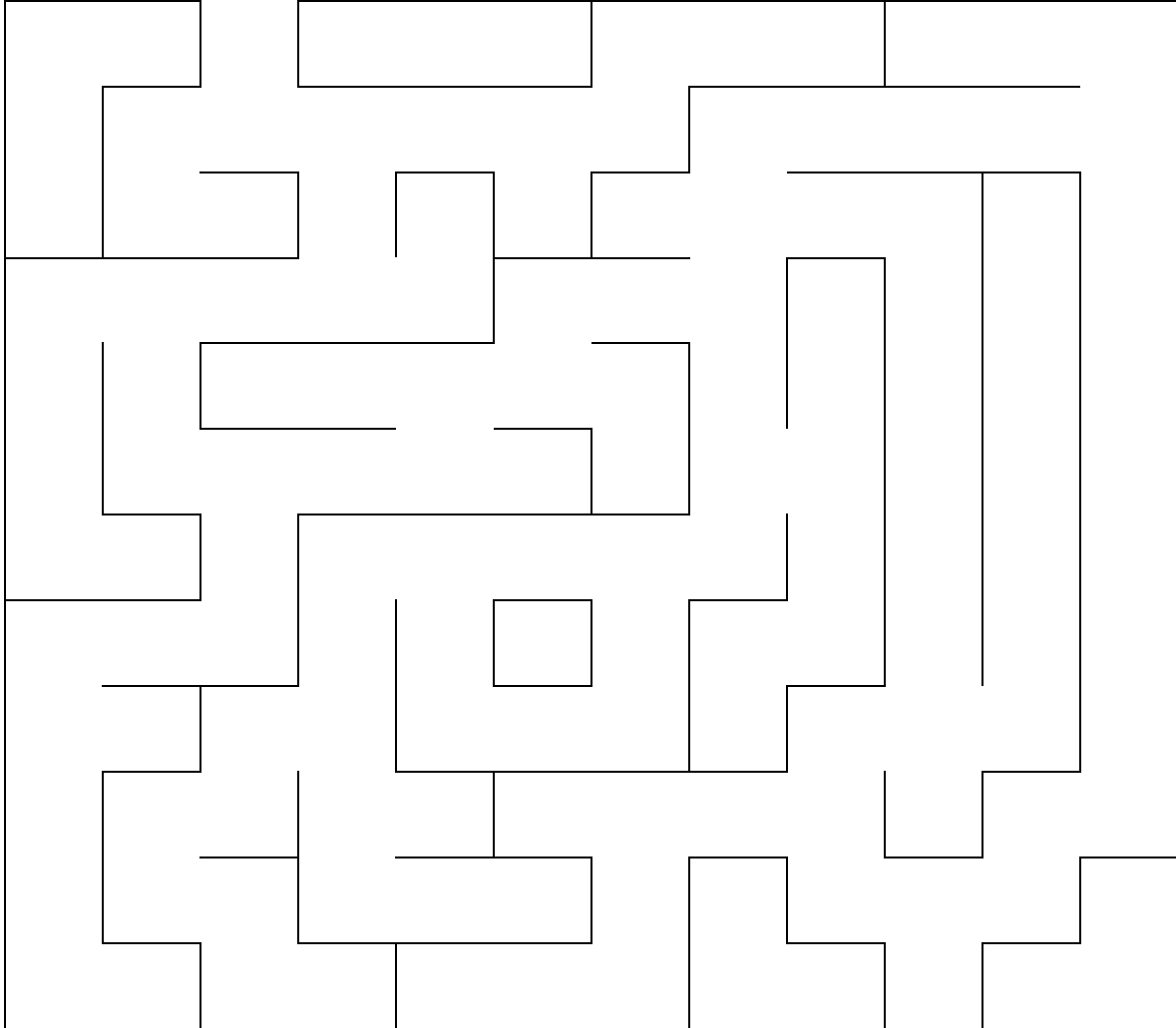
AGESLUL

WOCR

TCA

KWHA

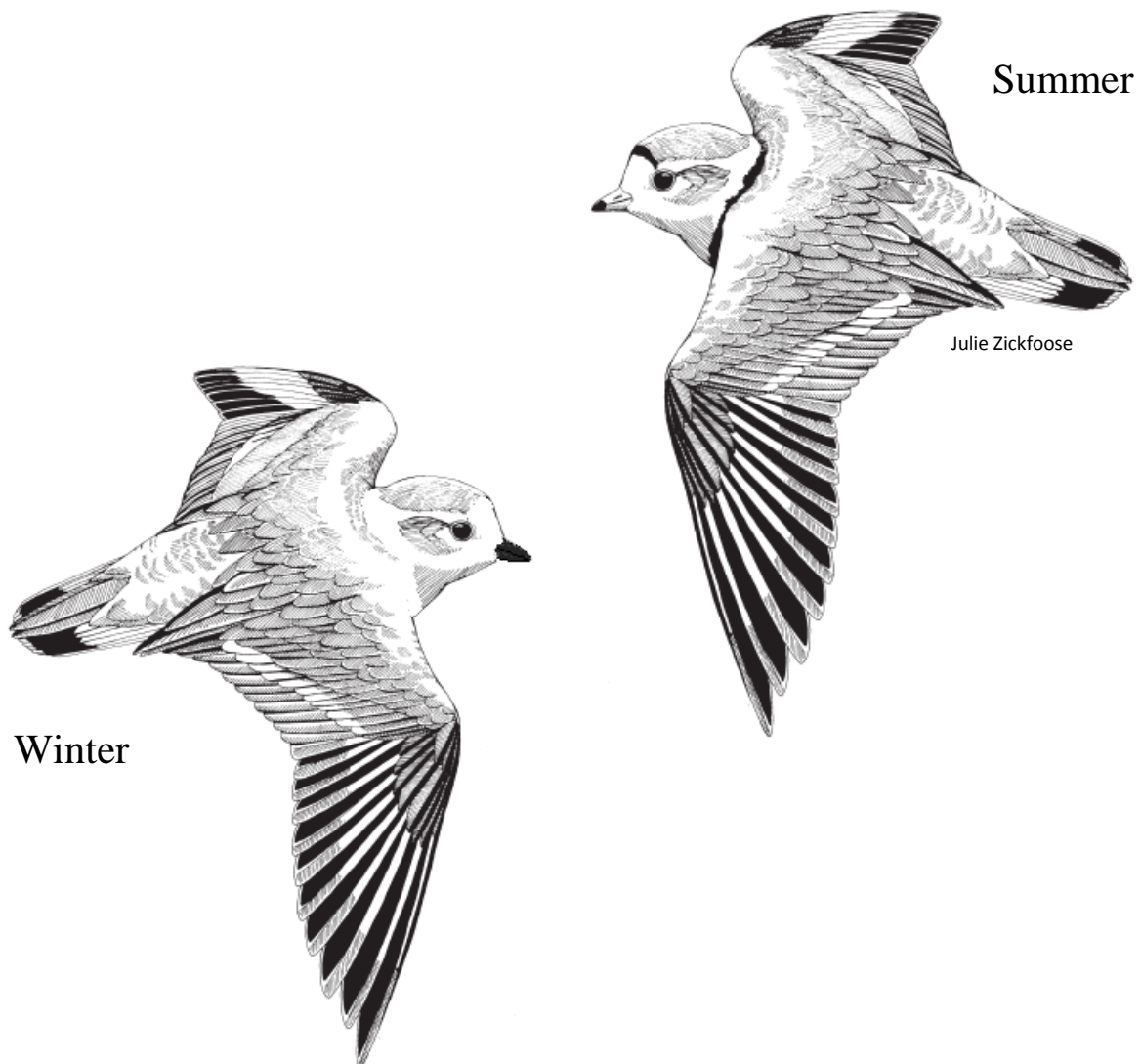
Help the Piping Plover chick find its way back to its family!



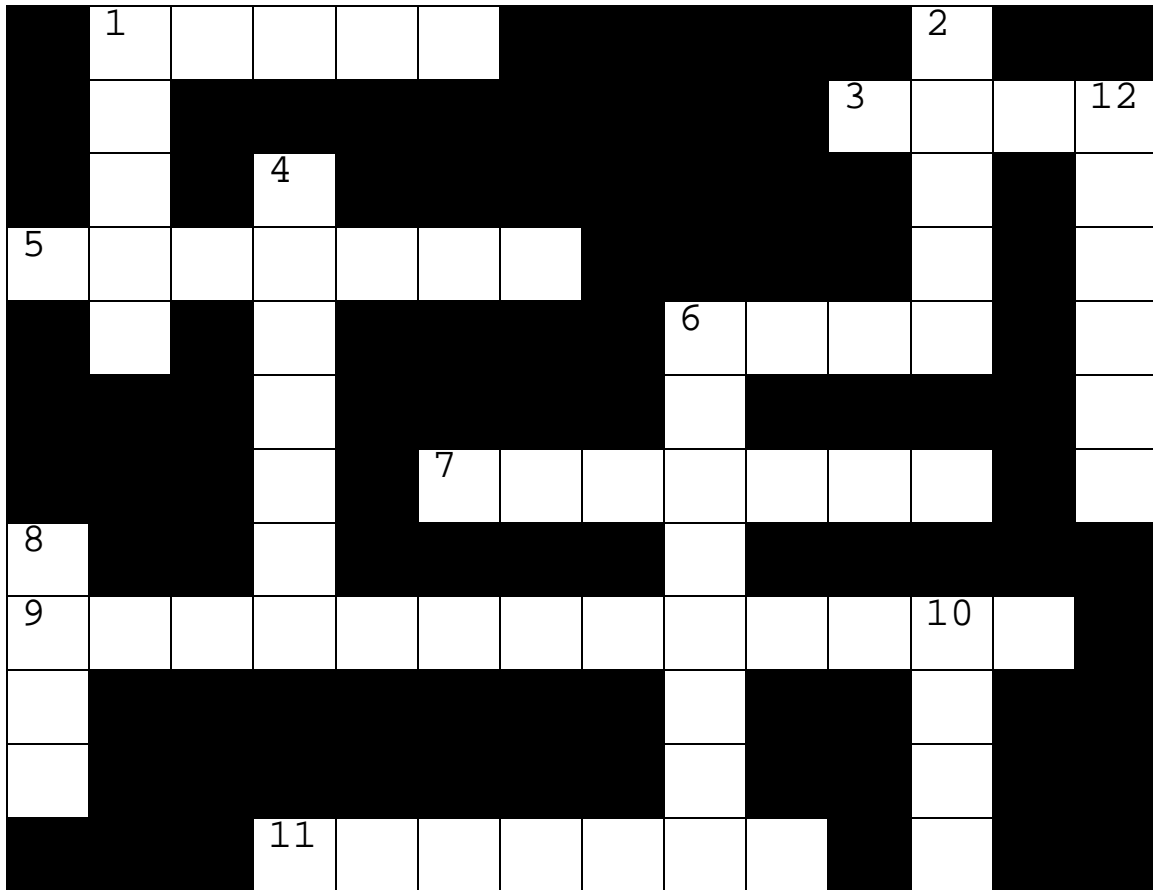
Illustrations by Julie Zickfoose

For many birds, their coloration is different in the summer than it is in the winter. This is true for piping plovers, too. In the summer, their legs are orange, and in the winter, they are yellow. Their backs and wings are a sandy, gray color year round, and their underside is white. In the summer, breeding plovers will have a black tip on their orange bill, a black stripe between their eyes, and a black band around their necks. In the winter, both stripes are gone, and their bill is completely black.

Can you spot the differences between these summer and winter piping plovers? (Hint: there are three.)



Fill in this Crossword puzzle about beach nesting birds...



Across

1. Piping Plovers and Least Terns live on the _____.
3. Color of a Piping Plover's wings.
5. Plover nests look like _____ in the sand.
6. Keep these on a leash to protect beach wildlife.
7. Piping Plovers and Least Terns are types of _____ nesting bird.
9. Piping Plovers eat different types of these. (Hint: they have no backbone!)
11. Piping Plovers and Least Terns _____ to warmer habitats in the winter.

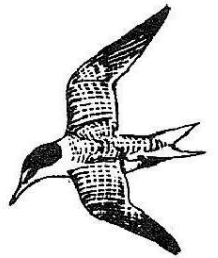
Down

1. The color of the tip of a Piping Plover's beak.
2. Black birds that eat Plover and Tern eggs and chicks.
4. This can attract predators if you don't take it with you when you leave the beach.
6. Piping Plovers _____ predators to defend their nests.
8. Plovers and Terns like to build their nests above the _____ tide line.
10. Piping plovers have spotted _____.
12. In the winter, Plovers have this color legs.

Across: 1. beach 3. gray 5. scrapes 6. dogs 7. coastal 9. invertebrates 11. migrate
Down: 1. black 2. crows 4. garbage 6. distract 8. high 10. eggs 12. yellow

Fill in the blanks using what you have learned about beach nesting birds and the words provided below...

The _____ is a sandy-colored, stocky bird. Adult piping plovers have _____ legs, a _____ band across their foreheads and a _____ ring around their neck. Atlantic coast piping plovers breed on coastal _____ from Newfoundland and southeastern Quebec to North Carolina. Piping plovers and _____ nest on some of the beaches right here in your backyard! When the plovers have found their nesting territories they begin courtship rituals.



The _____ begins courtship rituals in late March or early _____. Plovers usually lay _____ eggs that hatch in about _____ - _____ days. These tiny chicks are very fragile and small. Most Least Tern nests have _____ eggs, and when the chicks hatch, they are difficult to find because they hide from _____. Some threats to the beach nesting birds are _____ and _____, and natural predators like _____, _____ and _____.

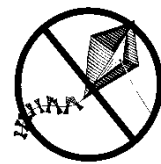
Dogs
Cats
Twenty-five
April
Orange
Piping Plover
Least Terns
Beaches
Foxes

Black
Two
Raccoons
Piping Plover
Predators
Black
Four
Skunks

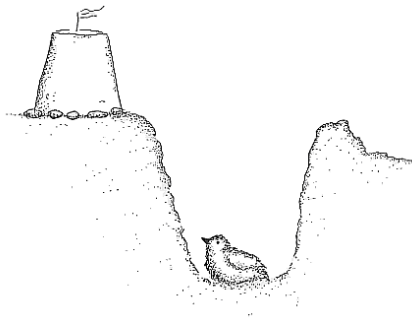
What you can do to help protect the beach nesting birds in your area...



- Respect all fenced or posted areas
- Keep pets leashed!
- Do not litter... garbage on the beaches not only looks bad, but it attracts predators too!

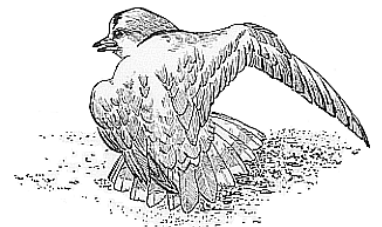


- Do not fly kites near Plover or Tern nests.



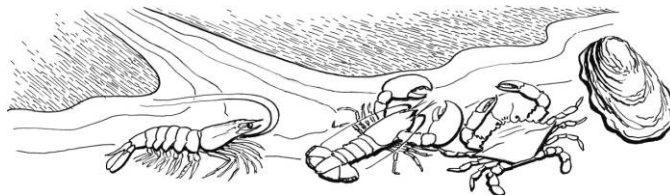
- Fill in your holes before you leave the beach...a small hole to you could mean a big fall for a tiny plover chick!

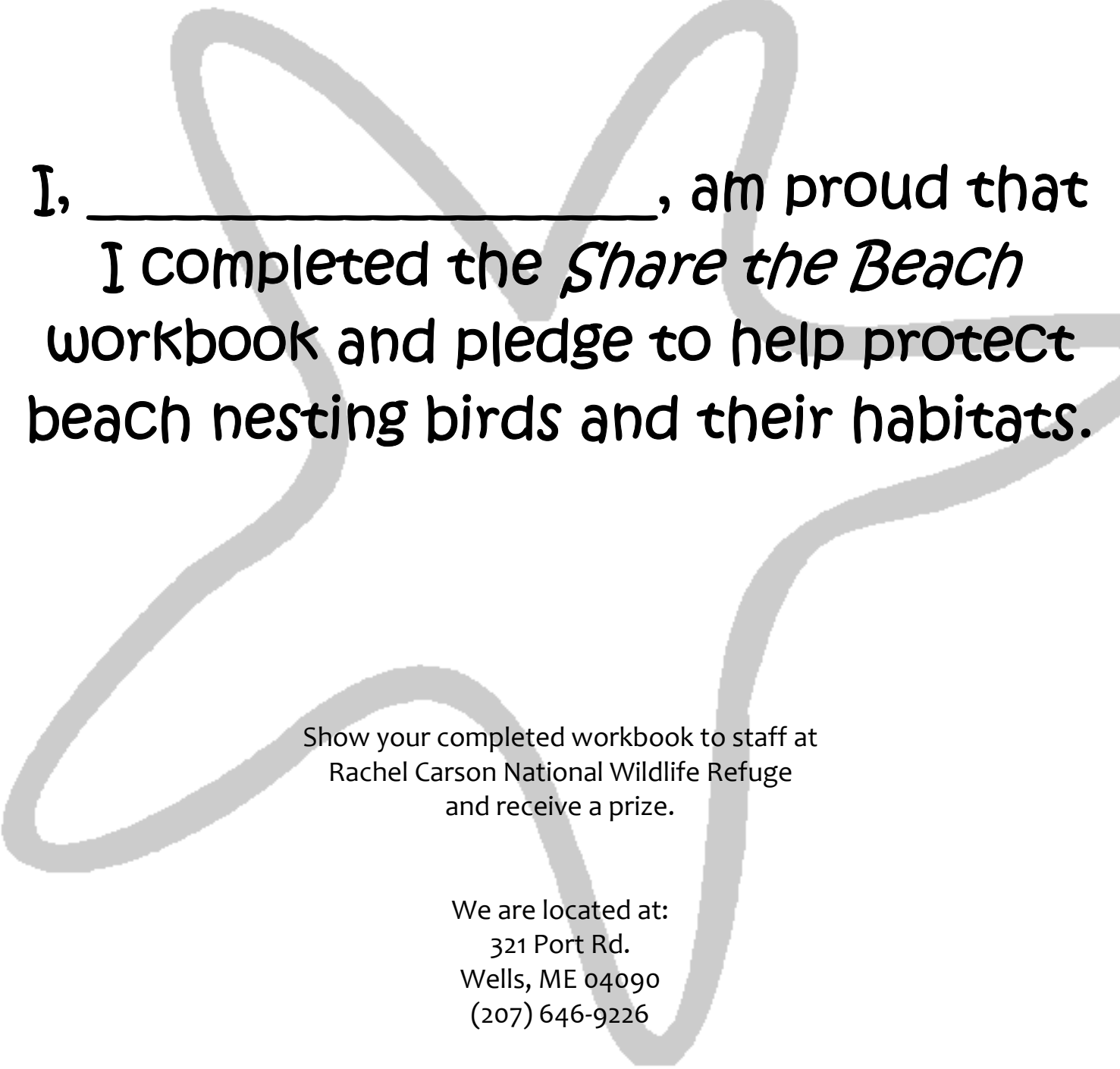
• Avoid beach nesting birds and their nests. A “broken wing” display and peeping sounds by an adult plover, or loud calls and low flying by an adult least tern, could mean that you are too close to their chicks or eggs.



Record what you see at the beach







I, _____, am proud that
I completed the *Share the Beach*
workbook and pledge to help protect
beach nesting birds and their habitats.

Show your completed workbook to staff at
Rachel Carson National Wildlife Refuge
and receive a prize.

We are located at:
321 Port Rd.
Wells, ME 04090
(207) 646-9226

For more information on beach nesting birds, please visit these websites:
www.fws.gov/northeast/pipingplover
www.fws.gov/northeast/rachelcarson

www.fws.gov/refuges

Mission of the National Wildlife Refuge System

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.



July 2010