Brown Pelicans

Brown Pelicans: Articles and Activities

Grades: 3-8

Articles

Students will read two articles about brown pelicans and discover how pelicans' long bills, stretchy pouches, long necks, and strong wings all work together to create one interesting bird. They also learn how brown pelicans raise their young, what makes them different from white pelicans, and what brought them to the brink of extinction.

Activities

- Students will play a game of tag in which some of the students are pelicans and some are fish.
- Students will make a Venn diagram to compare and contrast brown and white pelicans.

ACTIVITIES

Gone Fishin'

Time: 15 minutes

Materials: none

Procedure:

Organize a tag game in which some students are pelicans and others are fish. Establish boundaries (shorelines) and challenge the pelicans to work as a team to herd the fish so they can catch them. The pelicans can hold their arms out like scoops and use them to tag the fish.

Brown or White?

Time: 30 minutes

Materials:

- The Scoop on Pelicans student page
- Books/Internet for research

Procedure:

The brown pelican is one of two North American pelican species. Have students make a Venn diagram to compare and contrast white and brown pelicans. On the student page that follows below, have them record similarities in the overlapping center section and unique characteristics in the outer sections. Direct students' attention to characteristics such as color, size, habitat, range, feeding habits, and nesting.

Super Scoopers: Questions for Students

- Have you ever seen a pelican? Where?
- What did you notice about how it looked or behaved?
- How many kinds of pelicans are there in North America?
- What do pelicans eat?
- Where do pelicans build their nests?
- How do pelicans feed their babies?
- Unlike brown pelicans, which live along the coasts, white pelicans live inland on freshwater lakes. How do you think their lives are different from the lives of brown pelicans as a result of their different habitat?

When the Food Web Gets Out of Balance: Questions for Students

- Why did scientists decide to study the pelicans?
- What did scientists find out when they watched the pelicans at their breeding areas?
- What did the scientists think was the cause of the problem?
- Where did the DDT come from?
- What solved the problem of thin-shelled pelican eggs?

Activities from Ranger Rick Educator's Guide, September 2005, Animal Tracks Activity Guide, National Wildlife Federation 1995
www.nwf.org/nationalwildlifeweek email: educators@nwf.org

Brown Pelicans

Super Scoopers

by Claire Miller

No other bird can swoop, dive, and scoop up its supper as well as a peli-can!

Brown pelicans are some of the funniest birds to watch. With their huge beaks and goofy pouches, their snaky necks and wings that seem too long-they're really wacky-looking birds. And talk about funny—wait till you see their babies!

If you visit an ocean beach in the United States, you may see brown pelicans in action. You might watch some cleaning their feathers with their long beaks or a line of them flying along the beach. Or you could even be lucky enough to see pelicans that are on a fishing trip.

It's not unusual to see pelicans these days. But they were in trouble when your parents were kids. A lot of them died from chemicals that got into the ocean and poisoned their food, so brown pelicans were put on the endangered species list. In Texas and Louisiana, for example, 50,000 of them had nested every spring. But by the early 1970s, the birds were wiped out in Louisiana, and there were just a few nesting pairs left in Texas.

Now that there are laws to stop the pollution, the birds are coming back to the places where they once lived. They still have their share of problems, but they are no longer endangered in some places. That means we all have a much better chance of seeing these super scoopers catch a meal.

Diving for Dinner

It's amazing to watch a flock of pelicans snatching fish. They fly above the water, looking for schools of fish below. Sometimes they fly one after the other in a long line. Then suddenly they dive-bomb from the sky, hitting the water beak-first—Splish, splash, SPLOOSH!

Underwater, they open their beaks wide, and their pouches stre-e-e-tch out like huge fishing nets. The pelicans can scoop up as much as three gallons of water and lots of fish in their pouches. Then it's back to the surface, where the water drains out as they lift their heads. And what's left inside the pouches when the water's gone? Dinner! The birds toss their heads back and swallow the fish whole.

The Best Nests

A pair of brown pelicans usually build their nest about a beak's reach from other pelican nests. How they build their nests depends on where they live. In the East, they often nest in trees on islands near the mainland. They gather sticks in their long beaks (above) and weave them into nests among the trees. In the West, they often make nests of grass and sticks on rocky cliffs. And sometimes, in the East or West, they scratch holes in the sand and lay their eggs on the beach.

A female pelican usually lays two or three eggs in her nest, and then the male and female take turns keeping the eggs warm. Adult pelicans usually are quiet birds, but they make clucking sounds when one comes to take over the egg-sitting job from the other.

Noisy Babies

When the naked babies peck out of their shells, they soon start screaming to be fed. While one parent goes off to find food for the chicks, the other one protects the featherless youngsters from enemies and shades them from the sun.

At first the parents throw up partly digested food into the babies' mouths. But soon the young birds learn how to dive headfirst into their parents' breakfast-bowl pouches.

As the babies get bigger, the parents offer larger pieces of fish. And by the time the young birds are almost ready to leave the nest, they are gulping down small, whole fish.

But their wings and beaks will have to get longer before they fly off to catch their own food. Each young pelican will eat about 150 pounds (70 kg) of fish during the three months it takes to grow up. That's a lot of work for Mom and Dad, but these super-scoopers know just how to do it!

White or Brown: What's the Difference?

White, but Not Light

Brown pelicans have white cousins, which live in North America too. It's no surprise that you can tell a white pelican by the color of its feathers. And white pelicans are usually heavy-weights compared with their brown buddies.

A Lake's No Mistake

You don't have to go to the ocean to watch white pelicans. In summer you can see them around lakes in some of the western

Pollinator's Journey

states. But in winter, they head for warm ocean beaches.

No Tree for Me
White pelicans usually build their nests on islands, just as brown pelicans do. But they lay their eggs in nests on the ground. Baby white pelicans walk away from their nests long before they can fly. They gather in noisy crowds, while their parents fly back and forth with food.

The Lunch Bunch
White pelicans usually catch fish while sitting on the water. And sometimes they help each other get a mouthful. Here's how it works: They gather together on the water and splash with their wings, beaks and feet. All that splashing scares the fish toward shallow water, where they're easier to catch. Or the birds form a circle and push the fish to the middle of it. When the fish are crowded together, it's a snap for the birds to tip forward and fill their pouches.

Brown or White—What a Sight!
Maybe this summer you'll have a chance to see some pelicans in action. You can always count on them to put on a super show!

From Ranger Rick, July 1999

When the Food Web Gets Out of Balance
Pelicans and pesticides

The pelican is an important bird in the United States. It occurs on both the eastern and western coasts of North America, and is the state bird of Louisiana. But in the 1970s, pelicans nearly disappeared. At first, scientists were puzzled. Where did all the pelicans go?

They began to watch the pelicans to find out what was happening. They watched the pelicans at their breeding areas. The pelicans laid their eggs, but within a week or two of laying the eggs, all the eggs were broken. This meant that very few pelican chicks were born. This could explain why there were so few pelicans!

But why were the eggs breaking? Was some mysterious predator coming in the middle of the night to break all the eggs? And why would anybody or anything do that? Slowly, scientists guessed that the eggs were simply too thin and they broke when the parents sat on them. Why were the egg shells so delicate?

The scientists collected some broken egg shells and studied them. What they discovered surprised lots of people. The eggshells were thin because the pelicans had high levels of DDT in their systems. But why would the pelicans eat DDT? DDT is a pesticide made for insects, not pelicans. Even more studies traced the DDT to the fish in the ocean. These fish had been exposed to DDT from the runoff of water into the ocean after it had rained.

So, amazing as it sounded, scientists had to conclude that the reason pelican populations were declining was because farmers sprayed DDT on their crops.

The good news is that when farmers stopped using DDT on their crops, the pelican shells got thicker, and more baby pelicans were born. Now we have many pelicans once again.

From Animal Tracks Activity Guide, National Wildlife Federation, 1995

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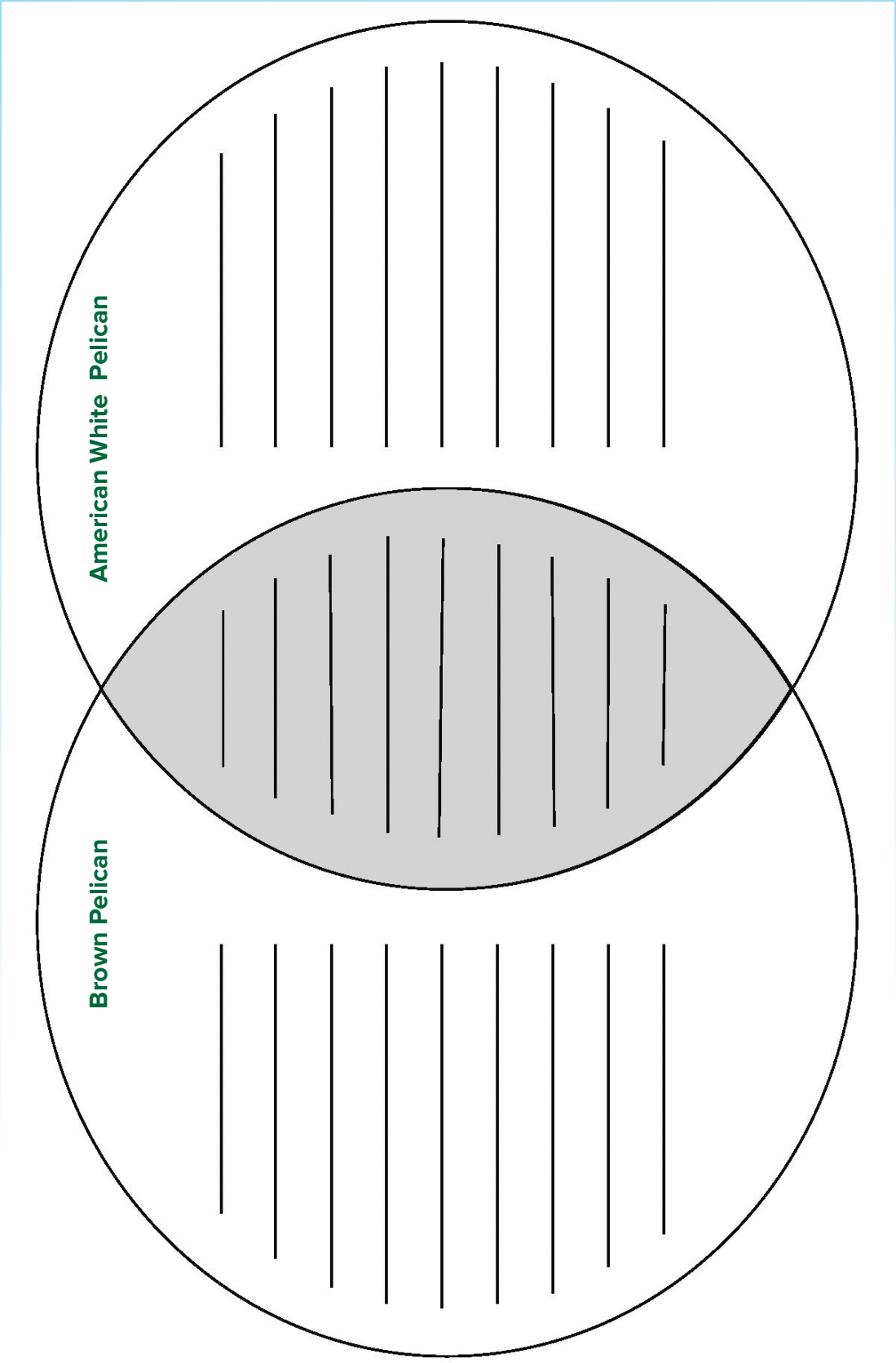
The Scoop on Pelicans Student Page

Brown pelicans and American white pelicans are relatives. Like any family, they have some things in common—but not everything! These pelican eggs need your help to figure out how they should turn out. Fill in the diagram with similarities in the center section and differences on the outsides.



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