

# NATURE DETECTIVES



Spring 2018



## A Squadron of Pelicans Returns

“Look!” Scout yelled, pointing at the distant sky.

“Oh, wow.” Alex breathed out softly. “The pelicans are back from the Gulf of Mexico.” Alex and Scout watched as the huge white birds with black-edged wings soared toward them over Cottonwood Marsh.

The birds circled silently then landed on the far side of the marsh. The pelicans touched feet first onto the water, using their legs like water skis. Their big, webbed feet pushed forward against the water, slowing the birds as they settled on top of the pond.

Scout laughed. “Remember when grandpa didn’t believe there were pelicans in Boulder County?”

“I’d guess a lot of people don’t know that American white pelicans summer here. They have to see them with their own eyes. Like Grandpa did,” Alex added.

“They remind me of pterosaurs, you know, those ancient flying reptiles. I wish the pelicans would nest on one of the little islands at Walden Ponds.”

“They need more room for a whole bunch of them to nest together. And, they don’t like to nest near people. Good thing they don’t mind flying even 60 miles to fish for stuff to feed their babies.”

## Foraging for Food

The two kids stared as the birds paddled silently across the marsh, peering into the water for prey. They dipped their bills under water over and over. The expandable pouch on the lower half of a pelican’s large bill works like a fish net. Alex and Scout watched the birds raise their heads to drain water from their pouch before they swallowed the trapped fish or maybe a salamander, a crayfish or some tadpoles.



## Flying Squadrons and Synchronized Swimmers



American white pelicans are the biggest birds in Colorado. It is awesome to see a group of them fly in formation and land together with military precision. At times they also cooperate while feeding with precisely coordinated movements.

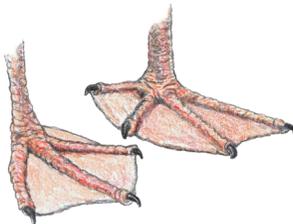
By swimming forward together in a line or forming a semi-circle, they herd little fish into tight groups or into shallower water for easier trapping. Sometimes the birds flap their wings on the water as they swim to help drive schools of fish close together for an easy catch.

The pelicans repeatedly plunge their bills into the water and scoop up many more fish than they could catch working solo. They never dive from the air to catch fish. In shallow water they may tip up like dabbling ducks to capture prey.

### Forming the Nesting Colony

Boulder County pelicans choose a partner soon after arriving from their southern, coastal wintering grounds. They impress each other by flying in circles, strutting, bowing and head bobbing. They will nest on islands in the middle of large reservoirs out on the plains, many miles from some of their foraging waters.

The nesting birds settle close together in large colonies. The pairs posture and grunt to threaten their neighbors and claim a nest site. They have a flat horn on top of their upper bill. The bony growth is like a tiny plate balanced on edge. Pelicans jab at their neighbors and joust with their bills to defend their space in the crowded colony. After nesting season, they lose their bill-top plate.



White pelicans make simple nests by scraping dirt and any bits of vegetation into a circular rim. The female lays two eggs, a couple days apart. The parent birds take turns keeping the eggs protected and at the right temperature by placing them under their big webbed feet.

### Weird Noisy Eggs!

Unhatched pelicans, nearly ready to break out of their shell, will squawk loudly if they feel too cold or too hot. They are noisy complainers after hatching too. The parents switch to protecting the hatchlings by resting their feathered body over the babies instead of placing their big feet on top of them.

### Hungry, Hungry Chick

Parents take turns fishing day and night to feed their young. They regurgitate fish onto their own feet or onto the ground for a new hatchling. As the chick grows, it grabs food right from mom or dad's pouch. When it gets bigger yet, the chick forces its own bill down into the parent's throat in its rush to get food.



## Dangers for Eggs and Hatchlings

White pelicans are easily spooked off their nests by people or predators. A loud motorboat or a low-flying airplane will cause them to fly from the island. Gulls nesting nearby will quickly seize any opportunity to eat an unprotected egg or snatch a hatchling. Ravens will also devour untended eggs.



If water surrounding the island sanctuary gets too shallow, coyotes or red foxes may raid the nests. Their approach causes the parent birds to soar away.

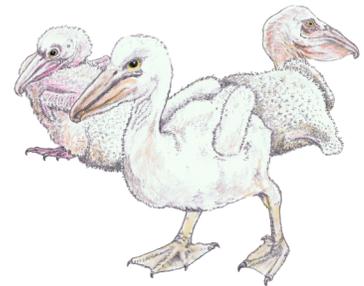
It is tough to be a baby pelican. In any unprotected nest, eggs or baby birds can quickly overheat in the sun or get chilled on a cool day. Eggs that accidentally roll out of the nest or are pushed out of the nest by the first hatchling are abandoned.

The chick from the first egg laid in the nest has the best chance for survival. It is bigger than its younger sibling. It bullies the younger bird away from the food and sometimes all the way out of the nest. It is difficult for adult birds to provide enough food for two offspring. It takes about 150 pounds of fish to raise just *one* baby pelican. That's a lot of fishing!

No wonder pelicans are clever at stealing large fish from another pelican. They will even steal fish from hatchlings in other nests.

## Baby Pelicans Huddle Together

Three-week-old hatchlings can walk. Walking allows them to cluster in groups with neighboring youngsters.



The parents now forage together night and day to feed their rapidly growing offspring. With their parents mostly off fishing, more and more babies huddle together for warmth and for some protection from predators. Great horned owls and bald eagles will snatch a lone hatchling. Gulls sometimes harass them until the nervous baby pukes up a fish meal for the gull.

## Up, Up and Away

Young pelicans learn to fly when they are about nine weeks old. They are capable of swimming even before they can fly. By ten weeks they leave the nesting site to forage and fly with the flock. Juveniles migrate south with the adults. Most juveniles won't return north until they are two years old, and they won't become parents until their third spring.

Surviving the first couple years is difficult, but predators don't bother adult pelicans much. If they can avoid diseases and accidents, a pelican can live over 20 years.

### What About Brown Pelicans?

Have you seen brown pelicans at the sea shore? Brown pelicans are smaller than American white pelicans, and brown pelicans live near the ocean all year. They fish by diving into the water after their prey. They don't migrate to Colorado.



## Unique Features of American White Pelicans

American white pelicans have bodies equipped for spending most of their time in the air or on the water. These pelicans are about four feet tall. Weighing in at around twenty pounds, they are one of the heaviest flying birds in the world.

Their wings measure nine feet across their body, from wing tip to wing tip. With a slow and steady wing flap, they are capable of flying long distances.

They are equally at home on water. Little air sacs under their skin allow them to float effortlessly. They paddle easily with very large webbed feet as they swim around marshes or lakes searching for fish.

### How Do You Measure Up?



*How tall are you? Get a tape measure or yardstick and have someone help you measure how tall you are. Then, spread your arms wide and have someone measure the distance fingertip to fingertip across your body. How do your measurements compare to a pelican?*

*Next time you're in a swimming pool, use a small floatee or noodle under your arms and wear some flippers. When you kick your way across the pool, you'll see how easy it is for pelicans to move on the water.*

### Now That's a Big Gulp!

American white pelicans can hold as much as three gallons of water in their expandable skin pouch. After they scoop up a fish, they slowly let the water out of their pouch, but they keep their catch trapped. With a quick jerk, they send a fish down their throat – lunch is served!



### Try This....

*To see how this works, cut the tip off a balloon. Go to a pond or stream and find something you want to catch – maybe a leaf, rock or some other small object. Catch the object in your balloon along with the water. Then, outside the pond or stream, slowly push the water out of the balloon until only your object is left inside.*



**Sherlock Fox Says:** Did you know? Pelicans don't breathe through their nostrils – they breathe through their mouth. Think about when you have a cold and can't breathe through your nose. Good thing you know how to breathe like a pelican!



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