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Species Profile...

Brown Pelicans: Decline and Comeback

I was sitting in a restaurant at The Strand in Galveston looking at brown pelicans perched on the boat docks. The birds were so beautiful and so stylish that they looked like the decorative woodcarvings of a master carver.

The adult birds in their breeding plumage had silvery grayish-brown bodies and a rich mahogany color that ran up the back of their long necks all the way to their napes. Their crowns had golden-yellow feathers that extended slightly down the sides of their necks. Silky white feathers trimmed the front of their necks, setting off the blend of brown and yellow tones.

How peacefully they seemed to repose on the docks, heads tilted back in order to park their bulky beaks on their breasts.

It has been heartening to see brown pelicans return to Galveston over the past 10 years. For a long time, they were only a memory. They began to disappear from Texas in the 1950s, and by the 1960s, there were no brown pelicans in Galveston or anywhere along the Texas Coast except for a handful of birds near Brownsville.

And yet, the majestic birds were once so common that fishermen in the 1940s had to shoo them off fishing piers all along the Gulf Coast from Texas to Florida. Louisiana had adopted the abundant brown pelican as its state bird and had placed its image on the state seal.

But the pelicans were completely gone from Louisiana by the early 1960s and all but gone from the entire Gulf Coast. Remnant populations survived only in South Texas and on a few islands off South Florida.

Throughout its range from the Atlantic Coast of the Carolinas to Florida and to the Gulf Coast, the eastern race of the brown pelican (*Pelecanus occidentalis occidentalis*) had begun to disappear. The California race (*Pelecanus occidentalis*) was also vanishing.

Brown pelicans went on the endangered species list in 1970.

Why such a dramatic decline of the birds? Primarily because of dichlorodiphenyltrichloroethane, better known as DDT.

In 1939, a Swiss scientist, Paul Muller, discovered that DDT--- first formulated in 1873--was a highly effective insecticide against disease-carrying mosquitoes and crop destroying pests. It became the insecticide of choice in the United States, with almost 700,000 tons used for pest control during the three decades following World War II. But there were serious problems with DDT. Many insects developed a resistance to the chemical, and worse, DDT became amplified in the food chain.

Residues of DDT accumulated in large concentrations in plants and animals, particularly in fish. Brown pelicans that feed entirely on fish began to amass DDT in their fatty tissue. The pesticide altered the ability of pelicans to metabolize calcium, which caused them to lay eggs with ultra thin shells that broke during incubation.

Because the pelicans could no longer reproduce, their populations plummeted---as did the populations of birds like eagles, ospreys, and peregrine falcons.

Rachel Carson, a marine biologist, raised public awareness of the devastating effects of DDT in her 1961 book, *Silent Spring*. Due largely to public outcry, the federal government banned the use of DDT on December 31, 1972.

Brown pelicans and other birds began a slow recovery of their populations.

Four years before the ban on DDT, the Louisiana Department of Wildlife and Fisheries together with the Florida Game and Fresh Water Fish Commission started reintroducing brown pelicans to Louisiana. With the DDT ban, nesting success of the pelicans increased, and by 1979, nearly a thousand birds fledged on North Island in Louisiana's Barataria Bay.

In 1990, brown pelicans---probably coming from Louisiana---returned to Galveston Bay.

My wife recalls that I jumped up and down like a little boy when I spotted a brown pelican in Galveston in the summer of 1990. And well I might have acted like a kid, because I hadn't seen the bird anywhere near Galveston in 30 years!

Brown pelicans began nesting on Little Pelican Island in Galveston Bay in 1994. By 2001, their numbers in the bay had increased to 2,200 breeding pairs.

The Houston Audubon Society played a large role in the recovery of brown pelicans by managing the islands in Galveston Bay where the birds nest. Due to successful recovery of brown pelicans, the National Audubon Society recommended removing the birds from the endangered species lists of Texas and Louisiana.

To see brown pelicans is to be grateful we did not allow the birds to vanish.

They fly low over the surf on a 6-7 foot wingspan, cruising single file with slow wing beats and long glides over the turbulent air created by bow waves. Suddenly, they'll twist and soar straight up in the air 20 to 60 feet, then pull their wings back, extend their necks, and dive spectacularly into the water.

With an expandable pouch that hangs from their lower mandible like a fish net, they scoop up fish and seawater all at the same time. Then, they quickly drain the water from their catch.

The fishing acumen of brown pelicans makes every person who's ever fished envious.

Breeding season for the Texas population of brown pelicans runs from February through September. Being social birds, the pelicans nest in colonies on small islands in Galveston Bay. Their nests are often no more than scrapes in the sand, but sometimes can be elaborate platforms of sticks and seaweed built in a shrub or a tree.

Pelicans also feed, loaf, and roost together in groups. The birds I saw on the Galveston docks were preening their feathers and otherwise loafing after a likely successful morning of fishing.

Brown pelicans, elegant in stature and graceful in flight, are once again a common sight on Galveston's beaches, docks, and fishing piers.

But to keep them a common sight, we must remain vigilant against such things as human disturbance on breeding islands, physical harm from carelessly discarded fishing lines and fishhooks, and contamination from oil spills.

We never again want brown pelicans to be only a memory.

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