
CONSERVING BIRDS
IN NORTH AMERICA

BY ALINA TUGEND

avian

Sanderlings

Conservation



Throughout the country,

from California to Maryland, zoos and aquariums are quietly working behind the scenes to rehabilitate local birds whose populations have dropped dramatically or disappeared.

The efforts take time, money, staff and a lot of patience, but avian curators say the results—not just in saving bird species, but in partnering with other Association of Zoos and Aquariums-accredited facilities and conservation organizations and educating the public—is well worth it.

“We’ve learned so much and our work has helped with other species,” said Hannah Bailey, curator of birds and natural encounters with the Houston Zoo in Houston, Texas.

Since 1994, the Zoo has been working with partners to save the Attwater’s prairie chicken, a species native to coastal Texas. In the early 1990s, the chickens, once plentiful in the area, decreased to 35 individuals, largely due to loss of habitat and the establishment of fire ants from South America, which devour the soft-bodied insects that the chicks eat in the early weeks of their lives.

“It was decided then that breeding in managed care was the only thing that would save them,” said Bailey.

It was a steep learning curve. At first, lots of the eggs produced in managed care were infertile. To ensure genetic diversity, the chickens had to be managed in pairs, which is not how the fowl mate in the wild.

“I now have staff experts on the love life of the female prairie chicken,” said Bailey.

While the population climbed to more than a hundred a few years ago, she said, recent flooding has been devastating to the nests. Now it’s down to about 50.

“We’ve been doing this program for over 20 years,” Bailey said. “It’s a good example that conservation doesn’t happen overnight.”

Aimee Greenebaum, curator of aviculture at the Monterey Bay Aquarium in Monterey, Calif., knows the challenges of avian rehabilitation well while working with conservation groups and state parks to save the threatened western snowy plover. The bird likes to nest on beaches, where it can be disturbed by people and dogs; the eggs and chicks can then be separated from their parents.

Over the years, the Aquarium has received about 206 eggs, chicks and juvenile adults, and released about 135 back into the wild. The numbers vary year by year; in 2014, “we had almost 40 chicks and eggs, and that’s a lot for us,” she said. So far, this year, only one chick and a few injured adults have been brought in for rehabilitation.

While the Aquarium does have an exhibit of native shore birds, only two snowy plovers are on exhibit, and those two can’t go back in the wild due to injuries.

The experience of the Monterey Bay Aquarium shows how such conservation efforts can grow and spread among other AZA facilities. Because many people were traveling hours to bring eggs or chicks to the Aquarium, Greenebaum contacted the Santa Barbara Zoo in Santa Barbara, Calif., about 235 miles south, to help.





Snowy plover



Great Lakes piping plover

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Great Lakes piping plover

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“Aimee reached out in late 2014 and said people are bringing plovers from almost four hours away,” said Rachel Ritchason, curator of birds and records at the Santa Barbara Zoo. “She wanted to create a place closer to some of the breeding sites on the central coast of California.”

Ritchason said that because the Zoo had not done rehabilitation before, it didn’t have the scientific collecting and rehabilitation permits needed.

“We went through quite a process to get permitted with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Migratory Bird Office,” she said. They also sub-permitted with a non-profit rehabilitation group—but even that took about a year.

But, “there’s a lot more to rehabilitation than just taking in birds,” said Ritchason. “I wanted to make sure the staff had the skills needed to care for this species.” So keepers and veterinarians travelled to the Monterey Bay Aquarium for training.

The overall costs for the program, she said, is about \$400 per bird, which mostly goes to buy its food of live invertebrates while it lives

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at the Zoo—usually about two months. That doesn’t include staff overtime or medical costs, which can come to about \$1,500 for the season.

As soon as the Zoo received the permits in early 2016, she sent out emails to let anyone who might come across the snowy plover know that they were ready to help.

“We got a call almost immediately and successfully reared two chicks in 2016,” she said. “This really put us on the map for western snowy plover rehabilitation.”

By contrast, the Detroit Zoo in Royal Oak, Mich., is a veteran of avian conservation projects; since 2001, it has coordinated the efforts of more than a dozen zoos to operate a captive rearing facility for the endangered Great Lakes piping plovers. Each nest is monitored daily; sometimes eggs are abandoned because of predators, storms or other events. The eggs are salvaged and brought to the facility at the University of Michigan’s Biological Station, where they are reared and released.

The population was down to a few dozen nests in the early 1980s, but has since recovered to over 70 nests with a much larger Great Lakes distribution, said Tom Schneider, the curator of birds at the Detroit Zoo. The goal, he added, is 150 nesting pairs.

The Detroit Zoo is also involved in restoring habitat for the common tern on Belle Isle Park in Detroit. Back in the 1960s, terns were abundant at the site, but because of loss of habitat, disturbances to nests and competition from gulls, they abandoned it completely.

Since 2009, the Zoo, working with local government agencies, has tried to woo the terns back, by playing tern calls over a sound



system and using tern decoys. This year, there have been about a dozen tern nests, Schneider said, adding that “we hope that this colony continues to grow to its historic size of hundreds of nesting pairs.

The work doesn’t always have to be done right in one’s own backyard. Since the 1990s, the National Aquarium in Baltimore volunteered with the National Audubon’s Project Puffin to reestablish puffins that had historically nested on the islands of Maine.

The loveable Atlantic puffin was common along the Atlantic coast until the late 19th century when people collected eggs from puffins and other seabirds for food, and puffin meat was popular. By 1901, although not rare in the rest of the world, only a single pair of puffins were known to nest in the United States, on a barren rock island in Maine.

That started changing in the 1960s, when the Migratory Bird Treaty Act banned the killing of most wild birds in the U.S., but the puffin had a hard time making a comeback. In 1973, the National Audubon Society started Project Puffin to transplant young puffins to Eastern Egg Rock in Maine, with the hope they would return to breed. This was the first attempt to restore a puffin colony and it wasn’t known if it would succeed—but it did. According to the National Audubon Society, there are now 150 pairs on Easter Egg Rock.

So why did the National Aquarium get involved? Firstly, puffins are part of a sea cliffs exhibit at the Aquarium. Another reason, said Debra Dial, assistant curator of Australia and Rain Forests, is that the “the National Aquarium is dedicated to protecting the world’s aquatic treasures, but we have a special



Atlantic puffin

connection with the Atlantic Ocean in our own backyard. And definitively, Maine is close and shares similarities with our coast.”

Every year, an aviculturist from the Aquarium spends about two weeks in Maine, when the puffins return from the sea to breed. They weigh chicks, assess the birds’ health and learn from each other, Dial said.

The Aquarium is also involved in the Delaware Shorebird Project; thousands of shore birds migrate annually from the tip of South America, stop once at the Delaware Bay to feed—their visit coincides with the horseshoe crab spawning period—and then fly on to Arctic breeding grounds.

But the number of shorebirds making the spring stopover has been dropping dramatically. The Delaware Shorebird Project, started about 20 years ago by state and federal scientists as well as local volunteers and international

researchers, aims to discover what the problem is and halt the downward trend.

Members of the Aquarium staff who want to work in the field rotate in and out during the eight weeks when the birds arrive and leave, help weigh and measure birds and survey bands to see where the birds have traveled from, Dial said.

“We’re promoting conservation in the big picture, but also do it on the local level,” she said.

For Ritchason, at the Santa Barbara Zoo, the rehabilitation program not only helps individual chicks and species, but “we also get to share our experiences with our guests.” They do tours of the hospital area where the plovers are kept, and provide education on proper beach use to avoid disturbing the birds.

“I’ve worked with birds coming upon 20 years,” she said. “This has been one of the most rewarding projects I’ve been involved in.”

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