CALL OF THE WILD

FLORIDA PANTHERS HAVE BEEN LISTED AS ENDANGERED SPECIES SINCE 1967. THEIR NUMBERS DROPPED TO LESS THAN FIFTY IN THE EARLY 1990S, BUT A GENETIC RESTORATION PROGRAM HAS HELPED INCREASE THE POPULATION TO ABOUT EIGHTY.

THE TAMING OF THE SUNSHINE STATE

Florida's rapid growth has a serious impact on its animal residents

Not that long ago, Southwest Florida was a relatively undiscovered area, a land of swamps and marshes where the wild things were in abundance. But in the span of an average human lifetime, the scene has changed dramatically. In the past twenty years or so alone, people have flocked to this region the way that wood storks and other wading birds used to, and cities have sprung up where panthers and bears used to roam freely. Now one of the fastest-growing areas in the United States, Southwest Florida is increasingly becoming a place for people, and their presence is changing the face of the natural paradise and pushing the edge of the wilderness farther and farther away.

For the animals that live here, this explosion in growth has often meant significantly altered and/or restricted habitats. It has also led to increasingly frequent encounters with humans and the need for animals to adapt to their presence if they are to survive. Stories of bears wandering into subdivisions, alligators showing up in swimming pools, and panthers attacking farm animals are heard ever more frequently, occurrences that are apt to happen even more often as the urban boundaries are extended.

The overall results are easy to see. The Florida Fish and Wildlife Conservation Commission now lists forty-one species that live at least part of the year in or around Florida as endangered. These species range from corals and butterflies to fish, birds, and sea and land mammals. But the news is not entirely negative. Some species—like the bald eagle—appear to be rebounding or at least stabilizing, thanks in large

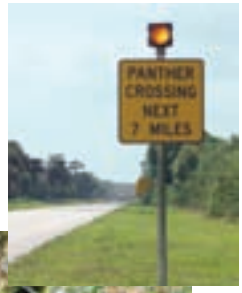
BY JANINA BIRTOLO

PHOTO BY ALAN MALTZ. MALTZ WAS RECENTLY DESIGNATED THE OFFICIAL WILDLIFE PHOTOGRAPHER FOR THE STATE OF FLORIDA BY THE WILDLIFE FOUNDATION OF FLORIDA AND THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION.

measure to education efforts. For others, though, the future is either bleak or not at all clear. Here, we look at three of the best-known endangered species in this area, in hopes that telling their stories will prompt interest and concern.

MIGHTY BUT THREATENED

Perhaps the most familiar endangered species in this region is the Florida panther. Although rarely seen outside of zoos and animal preserves nowadays, these large cats once roamed throughout the entire Southeast, from Texas to the Atlantic Ocean and as far north as Tennessee.



THOUGH THE GENETIC RESTORATION PROGRAM HAS BEEN A SUCCESS, THE FLORIDA PANTHER IS STILL IN DANGER DUE TO LOSS OF HABITAT.

Their numbers probably started to decline as soon as people began settling in the region. They were hunted as a menace to farm and ranch animals and suffered as their habitat was taken over by humans and as the prey they hunted likewise declined. By 1967, Florida panthers were listed as endangered under the Endangered Species Preservation Act, and the population was restricted to the southern tip of Florida.

Decades of isolation led to declining numbers and subsequent inbreeding, which eventually resulted in heart defects, sperm abnormalities, and other genetic deficiencies. By the early 1990s, it was estimated that only thirty to fifty Florida panthers remained, and that many of those had genetic defects. To counteract that disturbing fact, a genetic restoration plan was initiated in 1995, with the release of eight female pumas from Texas.

"Cats from Texas were chosen because they were the closest subspecies that historically integrated with the Florida panther," explains David Shindle, a biologist with the Conservancy of Southwest Florida. "Five of the Texas panthers successfully reproduced, and their descendants still roam the wilds of Florida today. By 2003, all of the original Texas cats had either died or were removed from the wild. We are now a decade into the genetic restoration plan, and all indications are that it has been a resounding success. The panther population has increased in size, and the genetic health has been improved, with many of the maladaptive genetic traits absent in those panthers with Texas ancestry."

Despite the success of this program, however, the future isn't exactly bright for the Florida panther. This top predator is a roaming animal. Females maintain a range of about eighty square miles. For males, that figure soars to two hundred square miles. The Florida Panther National Wildlife Refuge in Collier County provides 26,400 acres of suitable habitat, but the panthers are not and cannot be confined to just that area. As a result, the expansion of urban areas and the development of interior regions could easily negate the progress that has been made, a reality that makes Shindle "cautiously pessimistic" about the panthers' future.

"Although the current conservation lands in public ownership will always be able to support a small number of panthers, the panther habitat remaining on private lands is critical for the persistence and recovery of the panther population in the future," he says. "Whether the pressures of unregulated growth and urban sprawl will win out over the desire of Floridians to protect the remaining panther population for future generations remains to be seen. That said, I am encouraged by the impassioned and dedicated scientists, environmental advocates, and everyday citizens who are fighting against this tide of encroachment and, in doing so, are giving the Florida panther at least a fighting chance."

UNDERSTANDING THE TERMS

EXTINCTION
To be gone from the earth forever

ENDANGERED
In danger of extinction due to a critically low population and serious loss of habitat; survival is questionable without active assistance now

THREATENED
Likely to become endangered in the foreseeable future if current trends continue, such as rapid decline of population, habitat, and/or range and human disturbance

WADING TO SURVIVE

Habitat loss and alteration have also had a crucial effect on a more visible Southwest Florida species. The American wood stork migrates here in the winter to nest and fledge its young. The birds, distinguishable by their large white bodies topped by featherless, gray heads, can often be seen along roadside canals, wading in the water in search of food, much like the egrets and herons with which they sometimes keep company.

There is a distinct difference, however, between the storks and other wading birds, and it's one that plays a role in their precarious numbers. Storks are grope-feeders, finding the minnows and sunfish they eat by feeling underwater with their bills. To be successful, they need large concentrations of fish in relatively shallow water. To fledge two young, a nesting pair needs about four hundred pounds of fish during the breeding season. If the water is too deep, the chance of finding that bounty is slim.

PANTHER PHOTO BY ALAN MALTZ

"Wood storks are completely and utterly dependent on feeding in shallow wetlands," explains Ed Carlson, director of Corkscrew Swamp Sanctuary in Collier County, where Florida's largest colony of wood storks nests each year. "When you look at how much of the shallow wetlands have been drained and permitted, you see why the storks can't find enough food. The shallower wetlands are the easiest to drain. And they've been taken out almost entirely."

That lack of suitable feeding sites has had a dramatic effect on the stork population. In the 1930s, there were about twenty thousand breeding pairs in the United States. Today, there are fewer than five thousand. The loss of the shallower wetlands has also meant that the breeding season, which used to start in November, now doesn't begin until January or February.

"They need four months to do their whole breeding cycle," Carlson says. "Just when they need the most food, the rainy season can start. Last year was a complete wipeout because of the heavy rains. We have six hundred nests this season, and I think they're going to fledge—if the wet season holds off long enough."

THERE ARE LESS THAN FIVE THOUSAND BREEDING PAIRS OF WOOD STORKS IN THE UNITED STATES; DURING THE 1930S THERE WERE TWENTY THOUSAND.

Although he doesn't foresee ever reaching historical population levels for the wood stork, Carlson does think there is a simple way to stop the decline in numbers. "Have the regulatory agencies put their foot down and look at wetlands as precious resources we need to protect," he says. "That would help the wood storks more than anything. There's even the possibility for restoration of some wetlands, like in the Golden Gate Estates area. Those lands are in their feeding range, and rehydrating that area is going to help."

The vagaries of weather will always have an unpredictable impact on the wood stork population, but the protection and/or restoration of wetlands would give the population the chance to overcome seasonal fluctuations. Corkscrew, as an Audubon sanctuary, will always be able to provide suitable nesting grounds for some wood storks. But whether people are willing to set aside other appropriate land will determine whether wood storks as a whole survive.

TOP PHOTO BY GLENN OSTLE

JUST THE FACTS

Below, find statistics, characteristics, and other information about the three species profiled in this story.

FLORIDA PANTHER

STATUS: Endangered (so listed by both Florida Fish and Wildlife Conservation Commission and United States Fish and Wildlife Service)
RANGE: Southern Florida
HABITAT: Prefers upland habitat but will use diverse habitats. Males defend home ranges up to two hundred square miles, females range eighty square miles.
EATING HABITS: Primarily deer and hogs
PHYSICAL CHARACTERISTICS: Overall coat color is tan, often darker along center of back, with a creamy white underside and black on back of ears, muzzle, and tail tip. Males average 130 pounds, females eighty pounds.
REMAINING POPULATION: Estimated at about eighty
FOR MORE INFORMATION: http://floridapanther.fws.gov

AMERICAN WOOD STORK

STATUS: Endangered (so listed by both Florida Fish and Wildlife Conservation Commission and United States Fish and Wildlife Service)
RANGE: Breeding restricted to Florida, Georgia, and South Carolina; after breeding, populations migrate north as far as Arkansas, Tennessee, and North Carolina, with occasional sightings in all states east of the Mississippi River.
HABITAT: Freshwater marshes, narrow tidal creeks, or flooded tidal pools
EATING HABITS: Small fish from one to six inches long; feeding occurs in water six to ten inches deep and is done by feeling with the bill.
PHYSICAL CHARACTERISTICS: The long-legged wading birds stand about fifty inches tall, with a wing span of sixty to sixty-five inches. Plumage is white except for black primaries and secondaries and a short black tail; the head and neck are largely unfeathered. The bill is black and thick at its base.
REMAINING POPULATION: Estimated at eleven thousand adults; since 1978, fewer than five thousand pairs have bred each year.
FOR MORE INFORMATION: www.corkscrew.audubon.org

WEST INDIAN MANATEE

STATUS: Endangered (so listed by both Florida Fish and Wildlife Conservation Commission and United States Fish and Wildlife Service)
RANGE: Florida, Georgia, Puerto Rico, Texas, Mexico, and the Caribbean, but individuals can range as far north as Rhode Island.
HABITAT: Shallow, slow-moving rivers, estuaries, saltwater bays, canals, and other coastal areas
EATING HABITS: Primarily sea grasses
PHYSICAL CHARACTERISTICS: Large gray bodies taper to a flat, paddle-like tail, with two forelimbs (flippers) with three to four nails. The head and face are wrinkled with whiskers on the snout. Adults average eight hundred to twelve hundred pounds.
REMAINING POPULATION: Approximately three thousand
FOR MORE INFORMATION: www.savethemanatee.org

Gentle Giants of the Sea

You might think that an animal with no natural enemies would be safe from the threat of extinction, but the West Indian (or Florida) manatee proves the fallacy of that idea. The combination of a slow reproductive rate, loss of habitat, and human impacts has pushed these sea mammals to endangered status.

"The main reason why the manatee population is not rebounding quickly is their low reproduction rate," says Toni Westland, park ranger and environmental education specialist at the J.N. "Ding" Darling National Wildlife Refuge. "They have a thirteen-month gestation period, and each mother will have only one or maybe two babies. The babies stay with the mother for about three years. So they're not going to come back quickly."

Habitat loss is also a critical factor. Manatees are sensitive to the cold and thus concentrate in Florida waters in the winter. When the temperature in the Gulf falls below sixty-eight degrees, they move into warmer, inland waterways. They feed on sea grasses and other aquatic plants and consume 10 to 15 percent of their body weight daily. Since adults weigh between eight hundred and twelve hundred pounds, that translates to a need for a significant amount of vegetation.

Because the sea grasses grow in shallow waters, manatees frequently come in contact with boats as well. In 2005, there were 396 recorded manatee deaths. The greatest causes were undetermined (105) and perinatal (88). But eighty deaths were the result of collisions with the hulls of boats or other watercraft. Manatees also suffer from being sociable animals. They love to be scratched and rubbed by humans, but such encounters prompt them to lose their natural fear of people, a loss that may make them more likely to put themselves in harm's way.

Despite these factors, however, the future for the manatee is not completely bleak. The Florida Manatee Sanctuary Act of 1978 made it illegal to annoy, harass, or disturb manatees, and the Florida Manatee Recovery Plan, coordinated by the U.S. Fish and Wildlife Service, set forth a list of tasks to boost population numbers. In October of 1989, the Florida Department of Environmental Protection was charged with reducing injuries and deaths in thirteen counties. The resulting slow speed zones on waterways have helped to lessen watercraft collisions, and such groups as Save the Manatee have raised the public consciousness.

A SLOW REPRODUCTIVE RATE COUPLED WITH A LOSS OF HABITAT AND HUMAN IMPACTS SPELL TROUBLE FOR THE WEST INDIAN MANATEE.

Westland believes that the most important factor is education and points to the establishment of Lee County's Manatee Park and the educational programs at Ding Darling as great steps forward. "Maybe I'm just an optimist," she says. "But in the four years I've been at the refuge, I've seen more and more people want to learn about manatees. So my view is very positive. My main job is to teach the children in schools. By reaching them, I think we're going to save the manatees. After all, they're the voters of the future."

Based in Naples, freelance writer Janina Birtolo has been writing about Southwest Florida for the past fourteen years.

A Complete List of Endangered Animals in Florida

- American crocodile
- American wood stork
- Anastasia Island beach mouse
- Bachman's warbler
- Blackmouth shiner
- Cape Sable seaside sparrow
- Choctawhatchee beach mouse
- Fin whale
- Florida grasshopper sparrow
- Florida mastiff bat
- Florida panther
- Florida salt marsh vole
- Gray bat
- Green sea turtle
- Hawksbill turtle
- Humpback whale
- Indiana bat
- Ivory-billed woodpecker (may or may not be extinct)
- Kemp's ridley sea turtle
- Key deer
- Key Largo cotton mouse
- Key Largo wood rat
- Kirtland's warbler
- Leatherback turtle
- Lower Keys marsh rabbit
- Miami Blue butterfly
- North Atlantic right whale
- Okaloosa darter
- Perdido Key beach mouse
- Peregrine falcon
- Pillar coral
- Schaus' swallowtail butterfly
- Sei whale
- Shortnose sturgeon
- Silver rice rat
- Snail kite
- Sperm whale
- St. Andrews beach mouse
- Stock Island tree snail
- Striped mud turtle
- West Indian manatee

MANATEE PHOTO BY THERESA T. BALDWIN

IT IS HOPED THAT EFFORTS LIKE THE FLORIDA MANATEE RECOVERY PLAN COMBINED WITH PUBLIC EDUCATION HELP TO BOOST THE MANATEE POPULATION.