



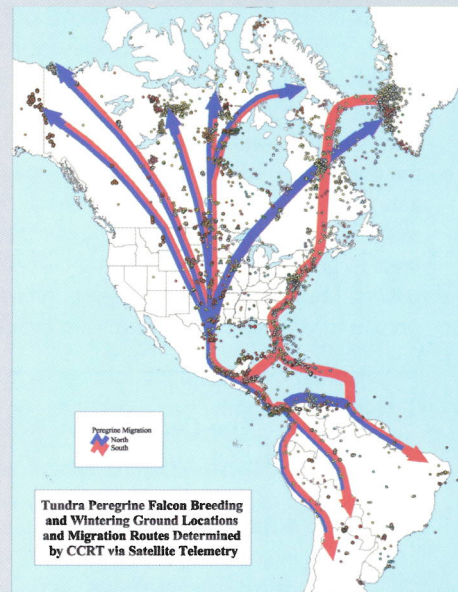
# GULF CROSSINGS

## THE TECHNOLOGY OF BIRD CONSERVATION

By CHRIS EBERLY, ASSOCIATE DIRECTOR

Effective bird conservation depends on knowing the best places to invest our resources. A well-funded acquisition or restoration project in the wrong location wastes our financial and human capital. Technology has been central to bird conservation. As technology has improved, so has our understanding of avian migration. The first use of “technology” was putting leg bands on birds and is still widely used. A Red Knot with a leg tag of B95 was originally banded in 1995 as an adult (at least 2 years old) and most recently spotted last year, making it at least 21 years old. B95 has been dubbed “The Moon Bird” because it has flown the distance it takes to reach the moon and most of the way back. Banding requires a bird to be recaptured or re-sighted, and does not provide full connectivity data for long-distance migration.

GCBO Scientific Advisory Board member Dr. Sid Gauthreaux pioneered the use of weather surveillance radar to examine trans-Gulf migration and identify migratory stopover hotspots led to the discipline of radar ornithology. Our Site Partner Network utilizes this data to target key stopover sites around the Gulf of Mexico, and hotspot maps are now in place for the Atlantic coast. Satellite tracking opened up a brave new world of migratory connectivity by allowing researchers to track birds throughout the entire Western Hemisphere by downloading tracking data to their computers. A Platform Transmitter Terminal (PTT) fitted on a bird sends a signal to a satellite, which can then be downloaded. The first 18 months of satellite returns on Peregrine Falcons provided more data than 25 previous years of leg band returns. Satellite PTT’s are still too heavy for songbirds – for now. Radio telemetry and light-level geolocators provide increasingly better data for smaller birds, automated radio telemetry arrays are increasing the efficiency of this technology. This issue of *Gulf Crossings* highlights how GCBO is using technology to improve the efficacy of our conservations actions.



Satellite telemetry locations of Peregrine Falcons showing breeding, wintering, and migration locations. Northbound (spring) migration routes are shown in blue, and southbound (fall) routes in red. Padre Island and the Texas coast are vital links in falcon migration, especially in the spring.

Map courtesy of Earthspan (<http://www.earthspan.org/>)



A migratory flock of Red Knots, Photo by Sam Bland



Peregrine Falcon fitted with satellite tracking backpack. Photo © Earthspan

Masthead photo:  
Green-headed Tanager  
by Michael L. Gray

## MONTANA OSPREYS BECOME WINTER TEXANS

BY SUSAN A. HEATH, PHD

When Deborah Repasz took some photos of Ospreys near her home in Clear Lake, Texas in early October 2014, she had no idea where it was going to lead. While looking at her photos later she noticed one of the birds had a colored leg band. She was intrigued so she went back to get better photos. But as soon as she got anywhere near, the Osprey took off leaving her with an empty camera frame. She tried hiding in the bushes and changing cars but the bird just would not cooperate. However, a fishing gear disguise enabled her to get a photo that showed two of the three codes on the band. She contacted me and I put her in contact with Adam Shreading at the Raptor View Research Institute in Missoula. Adam had given another GCBO member information on a different banded Osprey in Texas so I thought this might be his bird too. It wasn't, so Adam put Deborah in contact with Dr. Marco Restani, a professor of Wildlife Ecology at St. Cloud (Minnesota) State University who also has an Osprey banding program in conjunction with Yellowstone Valley Audubon Society. Bingo! It was his bird, but he needed all three digits of the code to determine exactly which bird it was.

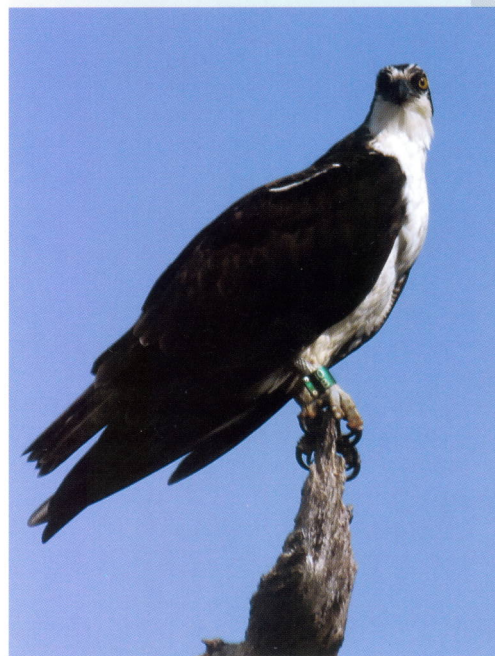
Undeterred by the wily bird, Deborah bought some camouflage clothing and tried a gradual sneak up. No dice. Finally in December she noticed the bird fly to a perch in a nearby park. She parked about a block away, walked down a hidden path, crossed through some brush, and was able to sneak to within 25 yards of the bird and snap off a few quick photos before the bird realized she was there and took off. Finally! She got the whole band code, a number 10 over a letter B, written as 10/B. Dr. Restani said this Osprey was banded as a chick on 15 July 2013 along the Stillwater River in Montana. It had three siblings and was about 35 days old when it was banded.

I admire Deborah's tenacity and the Osprey banders were thrilled to find out where their bird was. But this wasn't the first banded Osprey on the Texas Coast. In late November 2012, Greg Lavaty and Margaret Sloan spotted an Osprey with a satellite transmitter near Freeport. They got some great photos and identified the band code as 54. They contacted Adam Shreading. Rapunzel, as she is known, was banded on 26 July 2012 in Montana's Bitterroot Valley. She arrived on what would become her winter territory near Freeport on November 25. Subsequently she stayed in Freeport for a year and a half until 11 May 2014 when she finally headed back north. She reached the Bitterroot Valley in 10 days and flew right over her fledging site but didn't even stop in to say hello to mom and dad. She continued north into Canada and eventually settled down on the Blackfeet Indian Reservation. She left that area on 3 September 2014, and was back in Freeport 10 days later for the winter!



Dr. Restani was notified of two more of his Ospreys enjoying our Texas winter. One was unfortunately electrocuted on a power pole near Port Isabel and the other was captured in a photo placed on Facebook by a photographer on North Padre Island in early December. That bird, 80/B, was banded on 21 July 2014 in Livingston, Montana. Adam Shreading reported another one of his satellite tagged birds, Olive spending the winter on Mustang Island and ranging around Aransas NWR, Aransas Bay, and the Rockport area. Those Montana Ospreys certainly do seem to like spending the winter in

Texas! Google the Raptor View Research Institute to find their page with satellite tracks of several of their birds. Isn't it fascinating what we can learn about birds through technology?!



*Osprey 10/B all grown up and posing briefly in Seabrook, Texas.*

*Photo by Deborah Repasz*



*Rapunzel (Osprey 54) and siblings at banding in the Bitterroot Valley of Montana.*

*Photo courtesy of Raptor View Research Institute*

*Rapunzel, the Freeport Osprey sporting her satellite transmitter and band.*

*Photo by Margaret Sloan*