

# Tracking Ospreys with Transmitters

*Christopher Neill*

Consider this travel itinerary:

On September 14, 2001, a male osprey named “KC” left his summer home on Martha’s Vineyard. One day later he checked in from Dover, Delaware. On September 16 he was flying over the Atlantic Ocean off of the coast of Georgia. Two days later, he made it to Osceola County, midway down the east coast of Florida. He passed Miami on September 19.

KC made the short hop to Cuba on September 20, where he slowed his pace a bit.

After cruising eastward along Cuba’s central hills toward Guantanamo Bay, he left Cuba for Haiti on September 29, crossed the Caribbean, and, still on a southeast heading, hit the Lake Maracaibo region of northern Venezuela on September 30.

KC reached his wintering ground, which appears to be southern Venezuela, by October 9, where he continues to send daily reports.

KC is one of the roughly seventy pairs of ospreys that make up the Vineyard’s breeding colony.

I can tell where KC is at any given moment, because during the last week of June, Gus Ben David of the Massachusetts Audubon Society’s Felix Neck Sanctuary and ornithologists Mark Martell and Rob Bierregaard sewed a solar powered satellite transmitter – the equivalent of a tiny osprey cell phone – into the feathers on his back.

“The solar radios are on for ten hours, then turn off for twenty-one, so we get signals every day, though not at the same time every day,” explains Martell, the Coordinator of Conservation Programs at the Raptor Center of the University of Minnesota in St. Paul, who visited the Vineyard last summer to outfit the birds.

Martell receives the data and converts it to maps that are displayed, in real time, on the Raptor Center’s web site <<[www.raptor.cvm.umn.edu](http://www.raptor.cvm.umn.edu)>>.

He has participated in the tagging of 130 to 140 ospreys, although he said not all of the radios have worked as well as the one on KC.

Three other Vineyard ospreys were tagged this summer, and there is one still carrying a transmitter from the summer of 2000, Martell said. The signal from one of the newly tagged birds recently quit over the Caribbean, Martell said, maybe because the transmitter was lost or maybe because the bird died.

The transmitters generally work for three to four years. They cost about \$3,500 each, plus about \$2,000 to get the data from Argos, Inc., the company that operates the polar-orbiting satellite.

While it’s remarkable to watch the daily progress of these birds on their migration

routes, this technology also yields new insights into ospreys' annual movements.

Wintering ospreys from North America spread out all over Central and South America, Martell explains. "We see them from southern Florida, northern Mexico to central Brazil. We know they go as far as Argentina."

But there is no concentration point. Birds from Martha's Vineyard do not go to one place in the Neotropics. "In good habitat you see numerous ospreys," Martell said, but these are "a mix of birds from a wider area."

Males and females move independently. So the pairs, which return to the same nesting platform year after year, spend their winters apart.

This information comes from placing transmitters on whole family groups of ospreys from Minnesota.

The females leave the nest site earlier, just after the young begin to fly. Females generally go farther south than the males, which stay with the young longer, leave later, and don't winter as far into Central or South America.

"Young birds move independently of adults," Martell said. They can rapidly develop affinity for wintering and migration routes, to which they remain faithful for years.

First-year birds spend one and a half years on their wintering grounds. When they make their first trip north, they return to the general area where they were born. One young bird Martell tracked, for example, stayed eighteen months in the wintering area it had selected in Panama and then returned to Minnesota and spent most of the summer about sixty miles north of its birthplace.

Tracing bird migration routes has always been a tricky proposition. Hundreds of thousands of songbirds have been banded, but almost none are ever recovered. So tracing birds' southward progress, for example from Cape Cod to the tropics, is simply not possible. This leaves, for most species, some very basic questions unanswered.

Do birds that breed in certain regions of North America, say New England, have characteristic winter ranges? Are populations of birds that breed in particular areas at risk because they all winter in areas where the habitat is threatened? Or do they mix in winter with birds from many different areas?


Martell's ospreys would seem to indicate the latter.

Martell said the project he'd like to do next summer is to place transmitters on an osprey family group from Martha's Vineyard.

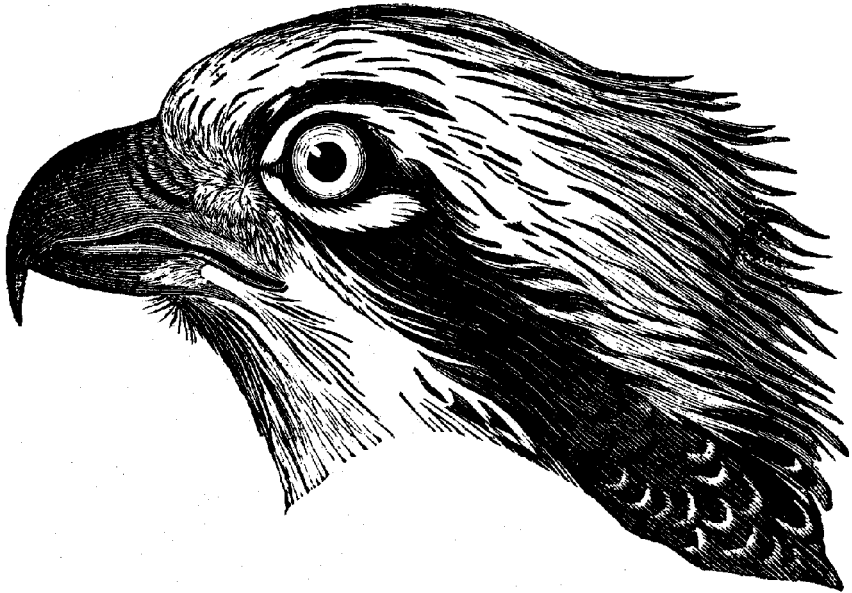
I find it remarkable that "our" ospreys can travel to Venezuela in a matter of two weeks, remain apart from their mates for seven months, then reunite on the same nesting platform year after year to raise young that will themselves cross the Gulf of Mexico and the Caribbean without adults to show them the way.

Different birds travel the earth in different ways, at varying speeds, visiting

different places, developing their own traditions and creating different tracks. Satellite transmitters give us a small, thrilling window into that process.

I will be watching the internet for more maps. 

*Christopher Neill is an ecologist at the Marine Biological Laboratory in Woods Hole. This article originally appeared in the Falmouth Enterprise.*



OSPREY, ANON.

#### From MassWildlife

**Vineyard Ospreys** — University of North Carolina researcher Rob Bierregaard reports that a Martha's Vineyard osprey, dubbed KC, is wintering along the tropical waterways of Venezuela, almost exactly where the bird wintered the previous year. A satellite telemetry unit has enabled the bird's migration path to be mapped and posted on the Carolina Raptor Center website at [www.birdsofprey.org](http://www.birdsofprey.org). The maps are accessible by clicking on the "Migration" icon. If the bird and telemetry equipment survive the winter the northward migration of the osprey will be plotted beginning in February or March.

Fifty-eight pairs of ospreys nested on the Vineyard in 2002 producing a total of 77 young.