## **Texas Drought and Bird Migration Patterns**

Strange things are aloft in the bird world.

Endangered whooping cranes flew 2,500 miles from Canada to Texas, where they usually spend the whole winter. Instead, they pecked around for a short time and flew back. In Nebraska, other cranes never left.

Some ducks just kept flying south — all the way to Belize in Central America. And a snowy owl was spotted near Dallas, only the sixth time that's ever happened.

Throughout the winter, scientists have noticed these and other examples of bizarre bird migrations — a result, they believe, of flocks becoming desperate for food and habitat becoming increasingly scarce because of the stubborn drought in Texas. The unusually mild winter in the Northeast and Midwest has even persuaded some birds they could stay put, fly shorter distances or turn back north earlier than normal.

The concerns go beyond a few lost flocks. Migratory birds often use the winter months to rest, eat and gain energy for the long journey back to their nesting grounds, so biologists can only guess at the effects of this season's peculiar movements.

What will happen if the birds' diets are altered or if they expend too much energy? What if they fail to migrate at all? Will they still be able to breed after a stressful winter?

In a typical winter, the Texas Gulf Coast is packed with tens of thousands of birds — songbirds, waterfowl, catbirds, gnatcatchers, warblers and other migrants. But this year, an annual count done just before Christmas found the population had dropped steeply.

The number of water-dwelling birds was down significantly. Geese, for example, were 61 percent below their 19-year average. Dabbling ducks dropped 43 percent, diving ducks 60 percent and spoonbills 74 percent.

Part of the problem is lack of food. The drought — the worst one-year dry spell in Texas history — parched thousands of acres of wetlands along the coast, a habitat that is normally rich with fish, seafood, berries and insects.

At the Nature Conservancy's Mad Island preserve alone, wetlands have been depleted from 1,100 acres to a mere 200 acres. Habitat provided by rice paddies will also probably decline because many farmers are not expected to get water for irrigation. And with so little rain, freshwater is scarce.

Lucky for the birds, they can fly.

A mid-winter population survey revealed that overall numbers were down about 3 percent compared with last year. In the rain-starved Panhandle, where ducks typically rely on water-

filled natural basins as habitat, there were 15,000 birds this year, compared with 36,000 last winter.

The unexpected population shifts weren't limited to waterfowl on the coast. Surveys show inland species are on the move, too. They were observed in greater numbers near the Gulf, probably because their usual homes offered little food. So they kept flying — all the way to the coast, where they hoped to find more mice, snakes and other small prey.

The disruption in natural migration comes with risks, even for the birds who survive into the spring. Birds that switch migratory paths may be fine for a couple years, but they could die later if they follow the same path only to find that their destination has become much warmer or colder than expected.

One of the biggest concerns is for the whooping crane. There are only about 300 of these majestic, 5-foot birds left in the wild. This endangered flock, which scientists and the federal government have been working to revitalize for decades, flies every year from its nesting grounds in Wood Buffalo National Park in Canada to the Texas Gulf Coast.

In 2009, the year of the last major drought, an estimated 23 birds died, probably because they were unable to find enough of the high-protein blue crabs and wolf berries to eat in Texas. Scientists were concerned the same thing could happen again.

But the first census found many of the birds weren't even on the coast. Only about two-thirds of the cranes were spotted. One family, or about a half-dozen cranes, reached the Gulf, then turned around to spend the winter at Granger Lake about 225 miles north.

A few others were seen in unusually mild Nebraska. The rest are missing.

"They may show up on later censuses, or they may be scattered out in different places where they're finding good resources," one biologist said, "Just because the birds have not parked in the place people are accustomed to this year, doesn't mean they aren't going to come back there."