

TRAVELS OF PEREGRINE FALCON #5735

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While we know, in general terms, where peregrine falcons breed, migrate and winter, we know little about their individual movements. Satellite technology provides an opportunity to learn more. Now that transmitters are small enough to use on this species, we attached a 28 g transmitter to an adult female Peregrine Falcon in northern Alberta to determine where it went and its habitat use. The transmitter had been used in 1997 to track another female peregrine from her nest in Wood Buffalo National Park (WBNP) to Mexico and back, and then on May 11, 1998, was removed from that falcon after her return.

On July 6, 1998, Geoff Holroyd and Jeff Dixon, senior warden, WBNP, caught a female peregrine at her nest near Fort Chipewyan in northeastern Alberta. Even though she was only two years old, the falcon had 3 healthy young. We could tell her age since she had a few brown feathers on her mostly slaty blue back. We applied an aluminum band to her tarsus and, adding a fresh battery, we applied satellite transmitter #5735 to her back. She remained near the nest through July and August.

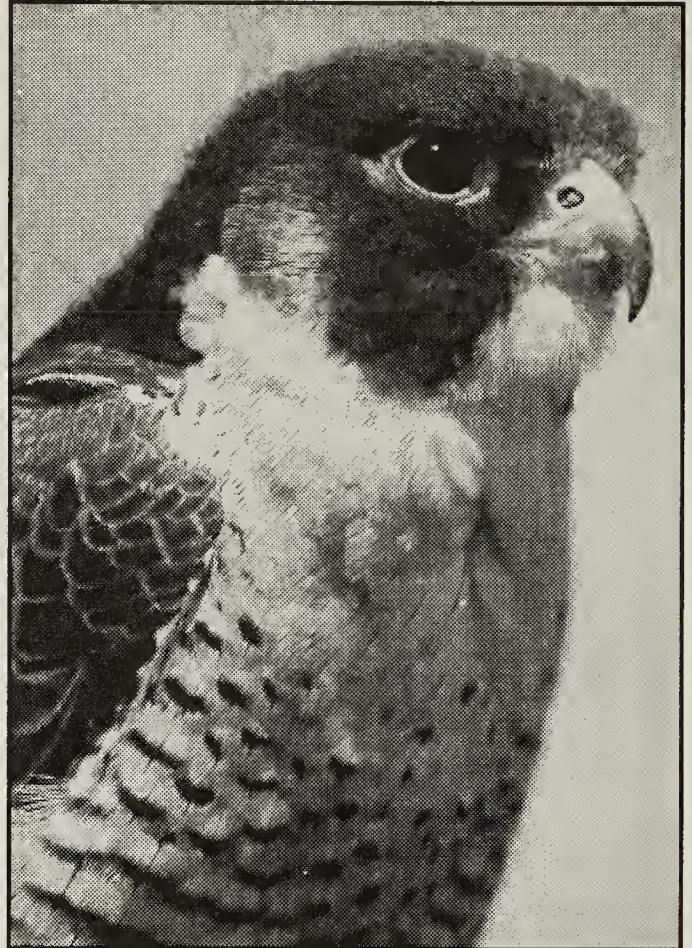
Here are updates on the travels of the falcon.

#1 Autumn Update

On August 29, warden Jeff Dixon confirms that she is still near the nest site tending her young, which have been flying for a month.

By mid-September, she was making flights away from her nest site but returning daily. On September 17 she flew 63 km east to the south shore of Lake Athabasca. On September 20 she was 97 km west of her nest in the giant wetlands of the Peace Athabasca Delta.

Three days later she crossed the border and entered into North Dakota. That morning,



Peregrine Falcon.

Photo by Geoffrey L. Holroyd

September 23 at 8am, she had been near Boissevain, Manitoba, 1300 km southeast of her nest. By 3 p.m. she was in Minnesota another 400 km southeast. She had travelled at 50 km per hour all day to cross into North Dakota.

On September 26 she was near Davenport, Illinois about 230 km west of Chicago. She moved little that day, possibly feeding in the wetlands of the Mississippi River. Three days later she was near Decatur in northern Alabama along the Tennessee River. Again, she moved little that day. On October 2, she was on the Gulf coast of northern Florida, 50 km south of Tallahassee. During 5 hours she drifted 95 km east along the coast of Apalachee Bay. She had travelled southeast 3900 km from her nest in less than 12 days, for an average of 325 km per day.



Releasing Peregrine #5735 with satellite radio .

Photo by Geoffrey L. Holroyd

This female falcon was moving even faster than the falcon that was tracked in 1997. That bird had flown 5000 km in 21 days from Wood Buffalo National Park to Veracruz, Mexico, where she stopped abruptly and stayed for the winter. She had migrated a month earlier and was in her winter home by October 2.

Where is our second falcon headed? We do not know. Maybe she will cross the Gulf of Mexico and head into South America. Stay tuned.

#2 Autumn Update

On October 5 she is at Key Largo, Florida at the base of the Florida Keys. The transmitter signal is received for 2 hours (6 - 8 p.m.) and the location does not change.

On the 8th, she was near the end of the Keys, at the Pine Islands, east of Key West. By October 11, she had crossed the Straits of Florida and was on the north coast of Cuba, in the islands of the Sabana Archipelago north of Sagua la Grande and La Sabana, 250 km east of Havana. She was at the same location on October 14.

#3 Autumn Update

Our female falcon continues south. On October 17 she is near the south coast of Cuba, 30 km west of Santiago de Cuba, a few km inland at the east end of Sierra

Maestra. Since the locations were determined at night we can assume that she is roosting in the foothills of this Sierra. This location is 535 km southeast of her location on October 14. Her direction since leaving Wood Buffalo has been fairly consistently southeast.

#4 Autumn Update

Our falcon is still heading south and east. During the night of October 20/21 she roosted on the south coast of Haiti, immediately south of Port-au-Prince, about 400 km southeast of her location on October 17 on the south coast of Cuba. Will she continue southeast and fly over the Caribbean to South America, or will she follow the island chain east to the Leeward and Windward Islands? Where will she stop to winter?

#5 Autumn Update

Hurricane Mitch has affected our peregrine's progress in this week's update! On October 20/21 our female peregrine was roosting near the south shore of Haiti. The next transmitter location placed her 500 km south of Haiti over the Caribbean Sea at midnight, October 24, presumably heading south for Venezuela. In fact she was only 150 km from the Guajira Peninsula, the closest landfall.

At the same time, Tropical Storm Mitch, centered to the west of her, was being

upgraded to a Class 3 Hurricane (ultimately to a rare Class 5 Hurricane). The sustained winds at the centre of the hurricane were 160 kph at the time with stronger gusts.

Winds were blowing from the south, but we do not know the wind speed where the peregrine was flying. Her flight speed was about 45 kph and she must have been travelling into winds with a speed close to or greater than that. At 2 a.m., she was west of her midnight location and by 7 a.m. she was clearly headed back north. Hurricane Mitch was too much. Even had she known that land was only 150 km to the south, she was wise to turn back north if the head winds exceeded her flight speed.

On October 27 she was located on Pte-à-Gravois on the southwest corner of Haiti, south of Les Cayes. She clearly wanted to fly to South America but she had been thwarted in her attempt to take the short cut across the Caribbean rather than the long route through the Leeward and Windward Islands. Stay tuned for the next exciting episode!!

#6 Autumn Update

Apparently Peregrine 5735 has lost interest in the sites off the southern coast of Haiti. Subsequent transmissions on October 27 indicated she was possibly trying to cross the Caribbean once again. Three hours after her last transmission over land, she was approximately 110 km south east of Pte-à-Gravois over the Caribbean Sea, apparently committed for South America. But, her effort must have been thwarted once again, as the next transmission on the 30th had her located on the island of Navassa, an uninhabited U.S. territory, 110 km east of Jamaica, and about 60 km west of Haiti.

This two-square-mile (5.2 km²) island was first discovered by crewmen of Christopher Columbus in 1504 and has been under U.S. jurisdiction since 1857. In that year, the island was claimed under the U.S. Guano Act of 1856, which provided that any uninhabited island containing guano could be claimed as a U.S. territory. Some of the buildings from the 19th century guano mining colony still stand.

Navassa has a narrow lower plateau (the lower flat) ringing it from the northeast to

the southwest. The upper flat is covered with scrub trees and has a lighthouse in the northeast at the island's highest elevation (88 m). Sharp cliffs surround the island and range in height from 9 to 18 m. Grass, underbrush, and scrub trees cover the flats.

Isn't it interesting that by following a migratory raptor, we can learn interesting things about places we have never heard of before?

This place seems interesting enough to keep a falcon for a while. Whatever species are creating the guano on the 18 m cliffs could be the possible reason why Peregrine 5735 was still located in the vicinity of Navassa on her latest transmission, on November 2. She was still in the same area on November 5 at 8:14 a.m. local time. Will she stay on Navassa for the winter?

#7 Autumn Update

This week we join our Peregrine on the move again. She's heading south-west! Remnants of powerful storm systems from Hurricane Mitch may have kept her on Navassa, as her signal indicated. She may also have been refueling on Navassa's potentially bountiful supply of prey.

However, on November 8 her signal was 640 km south-west of Navassa at 6:01 a.m. local time. (By the way, her local time at this moment is Eastern Standard). This placed her over the Caribbean approximately 450 km north of Panama and around 610 km east of Nicaragua. Basically, in the middle of nowhere with no land in sight.

The next signal location, one hour and 44 minutes later, had our Peregrine 171 km farther south-west, which works out to an amazing average speed of 99 km/h! Try getting that kind of data from a band recovery! Her next transmission located her approximately 10 km to the north and only around 80 km to the west. But this leg of her trip took 2 hours and 39 minutes; she had slowed down to a leisurely rate of 30 km/h. This suggests that a) the 171 km flight was aided by a tail wind and the latter flight was fighting some of that tail wind; b) the 171 km flight tired her out and she simply slowed down; or c) both of the above.

Map: Travels of Peregrine #5735



So where is Peregrine 5735 heading? Her path suggests the Colombian and Nicaragua Islands off Central America.

#8 autumn update

Sadly we have not had any signals from the satellite transmitter since November 8. As we told you in the last message she was in the middle of the Caribbean Sea but appeared to be changing direction, maybe unsure where she was headed. The transmitter signals did not appear on November 11 as expected. While the transmitter may have failed, it seems more likely that she is underwater. The last signals from the transmitter did not indicate any problem with the electronics or battery. It is difficult to be optimistic at this time.

#9 Post-script

We learned a little about the migration of this peregrine falcon from this transmitter. Hopefully in the future we can use more of

these transmitters to gain a fuller understanding of the migration route, winter locations, and flight speeds of peregrines.

On May 21, 1999, a visit to her nest site in Wood Buffalo National Park confirmed that she had not returned. The same male had returned to the nest, but by June 6 a different female had joined him. On June 17, park wardens Bob Reside and Willie Courtoreille established that the new female is not wearing a transmitter, although she has a leg band, placed as a nestling only 20 km from her current nest. Peregrine Falcons tend to return to the same nest every year, therefore we sadly suspect that 5735's absence is further evidence she did not survive the migration.

For more information about this project and to read updates on other falcon's movements, please visit the web site at: <http://www.mb.ec.gc.ca/english/life/endspecies/pfalcon.html>