

The Southern Cross Peregrine Project...

Overview:

The Peregrine Falcon (*Falco peregrinus*) is perhaps the most widely distributed bird on earth. It occurs on every continent (with the exception of Antarctica) and many isolated oceanic islands. Because of this broad distribution and subsequent isolation, 17-19 distinctive subspecies or “races” have evolved over time. Despite their name, which means “wanderer”, the majority of peregrine subspecies are sedentary, remaining at or near their breeding sites throughout the year. Only five subspecies are strongly migratory. All of them breed in the northern Arctic regions and migrate south in the winter. Two races nest in North America and three others breed across Europe and Asia. The most highly migratory race is the North American tundra peregrine (*F.p. tundrius*), which breeds across the North American Arctic from Alaska to Baffin Island.

Every September, these falcons fly south into the US, Central America and the Caribbean to winter. Some continue to migrate into northern South America. A special few, the “deep peregrines”, fly all the way to central/southern Chile and Argentina, well south of the Tropic of Capricorn. In a sense, these are “super peregrines”, some flying perhaps 9,000 miles in both the fall and spring every year. They have traveled across two continents and more than a dozen countries (Canada, US, Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru and Chile) on their journeys to the south. Band returns have demonstrated that Alaskan peregrines undertake the longest migration of any raptor in the western hemisphere and we suspect they also perform the longest migration of any peregrine in the world.

As peregrine biologists, we are particularly interested in deep peregrines and have chosen Chile as the most promising country to conduct research on their distribution and behavior. Although some deep peregrines spend the majority of their lives in Chile (up to 6 months per year), almost nothing is known about their wintering behavior or distribution. We do not know how many winter in Chile. We do not know where they breed in the high Arctic. Team member Christian Gonzalez has observed North American migrant falcons as far south as Puerto Montt in south-central Chile. Among the thousands of peregrines banded in North America, there are only five band returns from Chile. Two were banded as nestlings in Canada; two were captured as fall migrants in Texas and Florida. The fifth was caught in 1989 by Anderson and Gonzalez at Caldera in the Atacama Desert in Chile. It was subsequently caught by our colleague, Oscar Beingolea, in Peru in April on its northbound migration.

In February 2007, our multi-national team* will travel to Chile and radio-tag up to ten adult female and two adult male North American peregrines. While other studies of satellite-tagged peregrines (Fuller et al. 1998, Britten 1998, and McGrady et al. 2002) have focused on North American breeders and migrants, this will be the first time that satellite transmitters have been applied to peregrines in South America. We will be using the new solar-powered GPS PTT** satellite transmitters manufactured by Paul Howey of Microwave Telemetry, the leading expert in the field. These remarkable 30 gram transmitters produce multiple daily signals accurate to within 20 meters, a great improvement over conventional PTTs. As a result, we will be able to follow the tagged falcons (via the Argos satellite system) every day of the migration north in April and again on their way south in September. The units are capable of operating for three or more years, so we hope to monitor each falcon over a period of

multiple years if all goes well. Our transmitters will provide three locations per day, depending on the amount of sunlight, the position of the bird, and the condition of the transmitter battery.

We hope to establish the onset of migration, locate daily stopover points, document their roosting sites, establish the duration of the migration and pinpoint their arrival times at each nest site. Our primary goal is to locate their breeding sites in the Arctic. Since Fuller et al. (1998) have determined that migrant peregrines generally travel about 100-120 miles per day, we expect that the fall and spring migratory periods will last approximately 6-8 weeks. The northern birds are known to arrive in central Chile in late October or early November (C. Gonzalez). They depart for the north sometime in April or possibly May.

A secondary goal is to share this on-going adventure with as many people as possible in the western hemisphere. We would especially like to link hundreds of schools from Chile to Canada so they can follow the radio-tagged peregrines. We believe that sharing this information widely will eventually result in greater public knowledge of this species. As a result, we think that people will be motivated to protect peregrines in the future. To meet this goal, we will be posting the detailed movements of each falcon on this website. In addition, we plan to post daily field reports from Chile during the capture phase of this study (18 February-7 March) and November 2007. Readers are invited to follow these reports.

Our website was put together by FRG members Mark Prostor, Don McCall and Pat Little. The initial grant for this research was provided by Dr. Clayton White of BYU in Provo, Utah. Subsequent funding was generated by the generous personal contributions of over 200 individuals in the United States, all members of the Falcon Research Group. Their support reflects their concern for and deep curiosity about these remarkable birds. Our entire team is deeply grateful for these contributions. In addition, Keith Bildstein of the Hawk Mountain Sanctuary in Pennsylvania and Mike McGrady of Natural Research Ltd. in Scotland/Austria, have kindly donated two male PTT transmitters for this study.

Peregrines are wonderful natural teachers. History has shown that they have the power to inspire a generation. We believe that they are a natural “ambassador”, and can effectively help connect our two continents and multiple countries, as well as our cultures and classrooms.

* Tom Maechtle, Mark Prostor, Zach Smith, Kathy Gunther, Bud Anderson from the United States, Jesus Garcia Ubierna from the Canary Islands in Spain and Christian Gonzalez from Chile.

**Platform Terminal Transmitter.

Literature Cited:

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