



Chile

Ecology and conservation of the threatened seabird community of the Juan Fernández Islands

As part of our research program on the ecology and conservation of the threatened seabird community of the Juan Fernández Islands, Chile, we are studying aspects of the foraging ecology of pink-footed shearwaters, *Puffinus creatopus*, a species of procellariiform seabird endemic to Chile. The species is globally listed by the IUCN as Threatened, in recognition of threats to populations on all three of their known breeding islands, two of which are in the Juan Fernández Islands. The Juan Fernández Islands, located 670 km off the central coast of Chile, have received national and international recognition for their biological uniqueness, having been designated both a Chilean national park and an UNESCO International Biosphere Reserve.

One of the factors potentially impacting shearwaters is interactions with commercial fisheries on their foraging grounds. We are using satellite tracking to determine foraging trip locations of breeding shearwaters in conjunction with diet studies in order to assess the possibility of overlap between shearwater foraging grounds and areas of commercial fisheries activities. This approach will enable us to better evaluate the likelihood of incidental bycatch of shearwaters in these fisheries. We will also combine the satellite tracking data with remote sensing data to investigate what oceanographic factors (i.e., sea surface temperature, chlorophyll *a* concentrations, bathymetry) shearwaters may be using as cues for finding productive foraging areas. In addition to the research component of our project, we are also actively developing community-based conservation and education programs for the resident community of the islands.



Peter Hodum

Peter Hodum (California State University Long Beach) & Michelle Wainstein (University of Washington), co-directors of the Juan Fernández Islands Conservancy



Pink-footed shearwater

Photos courtesy of Peter Hodum and Nathalie Hamel respectively

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Southeastern United States

Distribution and movements of American white pelicans

USDA Wildlife Services offices in the southeastern United States began receiving complaints of American white pelicans, *Pelecanus erythrorhynchos*, foraging in commercial channel catfish, *Ictalurus punctatus*, ponds in 1990. Because of the relatively shallow pond depth and high fish stocking rates used by most catfish producers, commercial catfish ponds provide a near perfect foraging environment for pelicans. Although the impacts of pelican foraging can be significant, the potential for pelicans to transmit trematode infections and other diseases to aquaculture can be devastating.

In spring of 2001, a multi-year study was initiated to determine the corridors and timing of migration, daily movements, habitat use, and ranges of American white pelicans. Twenty-one pelicans were captured at loafing sites near aquaculture facilities in the southeastern U.S. and fitted with 70 g Argos/GPS PTTs. Preliminary analyses of these data show that although the birds wintered in the southeastern U.S., they ranged widely. During the summer months, immature birds tended to remain in the southeastern U.S., whereas adult pelicans migrated to northern breeding areas.



Tommy King holding an American white pelican

This winter and spring another twenty Argos/GPS PTTs will be deployed in the southeastern United States. Data from this ongoing study will provide a better understanding of the regional and continental movements of pelicans, determine the extent of the role played by pelicans in the distribution of the *Bolbophorus* trematode, and help better evaluate current control methods and develop new control strategies to reduce pelican impacts to aquaculture.

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Flock of American white pelicans

Photos courtesy of Tommy King and Brent Harrel respectively

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