

Friends of the Island Fox, Inc.
3760 Groves Place, Somis CA 93066
www.islandfox.org admin@islandfox.org

Island Fox Research 2008

Managing Island Fox Populations

Managing island fox populations has different challenges on different islands. Island fox recovery owes much of its success to the Island Fox Working Group and the sharing of information and strategies between the various land managers. The following are summaries of research findings on:

- ◆ Radio Tracking
- ◆ Estimating Population Recovery
- ◆ Monitoring Golden Eagle Attacks

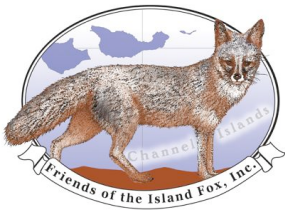
Radio Tracking

Radio tracking, either manual or automated telemetry and/or GPS, offers the most effective way to monitor island fox populations so that threats can be identified quickly and management decisions made promptly with the best possible outcome. GPS records data to the collar, but does not allow land managers to monitor fox mortality on a daily basis. The automated radio telemetry system being tested on San Nicolas Island enables one person to monitor mortality among a large number of foxes on an island. This system works best on islands with minimal mountains and valleys because there is less transmission interruption between the radio collar and the signal towers. A similar automated telemetry system will be installed on San Miguel Island later in 2008. The suggested goal is 60 collared animals evenly distributed across each island. (Island Fox Working Group, 2008)

References:

Island Fox Working Group. (2008, June 25). *Wild population management and recovery planning group*. Tenth Annual Meeting, Island Fox Working Group, Ventura, CA.





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Estimating Population Recovery

On San Miguel Island, as the population is recovering, older foxes are experiencing lower survival rates (Coonan, 2008a). Similar findings came to light on San Nicolas Island. There researchers examined mortality patterns across the island fox population. Older foxes had a five times greater risk of mortality than young foxes. During the study, young foxes only died from vehicular trauma, while older foxes died from a number of factors including “emaciation, heavy parasite load and trauma.” The researchers warned that current recovering island fox populations may be rebounding rapidly because the majority of the population is comprised of young individuals. As the population ages, the rate of recovery may slow as natural mortality rates increase (Hudgens & Ferrara, 2008).

References:

- Coonan, T. (2008, June 24, a). *San Miguel Island update*. Paper presented at Tenth Annual Meeting, Island Fox Working Group, Ventura, CA.
- Hudgens, B.R., & Ferrara, F.J. (2008, February 5-7). *Age specific mortality patterns in island foxes*. Paper presented at Seventh California Island Symposium, Oxnard, CA.



Monitoring Golden Eagle Attacks

The removal of golden eagles on the Northern Channel Islands is vital to island fox recovery and the continuation of stable future populations. As part of the recovery plan, each land management agency will be required to have an eagle management plan. Monitoring predation events on radio-collared foxes will provide the first alert that a golden eagle is present on an island. The key to successful preventative action is knowing the least number of fox fatalities that signals a golden eagle in residence on an island (Collins & Latta, 2008).

References:

- Collins, P.W. & Latta, B.C. (2008, February 5-7). *Food habits of golden eagles (Aquila chrysaetos) nesting on Santa Cruz and Santa Rosa Islands, Santa Barbara county, CA*. Paper presented at Seventh California Island Symposium, Oxnard, CA.

