Farallon Mouse Removal Field Trip Report: Island Conservation – PRBO – USFWS; November 14, 2011

The IC Farallon fall field crew of Aurora Alifano, Erik Oberg, Rory Stansbury and Dan Grout arrived on Southeast Farallon Island on Nov. 8th aboard the *Salty Lady* out of Sausalito for a week of research to support the planning for the Farallon mouse removal project. We were joined by recent USFWS hire Jonathan Shore, the new Farallon Wildlife Refuge Specialist. Jim Tietz and the PRBO interns assisted us in the transfer of our equipment and supplies onto the island, and have been very helpful in assisting us collect important data for the project this week. It was great that Gerry McChesney was able to allow Jonathan to join us on island for his first week on his new job, as he will be instrumental in assisting with biological and permitting aspects related to the invasive mouse removal and island restoration project.

Thanks to the hard work and innovation of the entire field crew, the bait stations and bait degradation cages for placebo (non-toxic or inert) bait were constructed and set out in strategic locations on the island in less than two days, so that they were in place just prior to the rain that fell Friday Nov. 11th. Daily monitoring of the bait stations has been conducted and so far both designs have been used by mice, and both designs have stood up to being crawled over by pinnipeds, and neither has attracted any attention from the gulls. Very few gulls have been present on the island this fall so far, with most days averaging just a couple hundred gulls on Southeast Farallon, and most of these on offshore islets.

The bait cage design employed for the bait degradation study seems to be very effective so far in keeping the mice from interfering with the bait inside the bait degradation cages. A total of 18 bait degradation cages were installed and placed on three different substrates (rock, soil and vegetation) at

six sites throughout the island in order to sample the full range of microhabitat types. The study will need to be continued for several weeks to determine the length of bait availability for each of the four placebo bait types being tested (Bell 25Wet, Bell 25Dry 2g and 1g, and Ramik D50).

In addition to the daily monitoring of the bait stations and bait degradation experiments, several other surveys have been conducted. Four caves were found to harbor the endemic Farallon Camel Cricket. These were located and mapped, and estimates of cricket numbers in each cave were made, generally several hundred or more per cave. Surveys of other invertebrates were also made on the island, and inspections so far reveal no exposure to the bait pellets in other invertebrates.

A survey of West End Island was made with Jim Tietz on Sunday the 13th for possible caves, for access, and to count marine mammal present. While no significant caves were found, numerous mice were seen. The number of mice present and visible foraging on Southeast Farallon during the day these past few weeks appears to be even larger than during November 2010. No mice appear to be in reproductive condition at this time, and many were seen dying of starvation or exposure/disease, and were seen and photographed cannibalizing each other. It is likely the mice are now on the declining slope of their annual population cycle. Fleas and ectoparasites were extremely common and numerous on almost all mice captured. Fifty additional mouse tail DNA samples were collected for long-term genetic storage, and20 additional mice samples were collected and frozen for collaborative genetic and neurologic tests.

Burrowing owls are still numerous on the island, and several have been seen eating mice. The last Ashy-storm petrel chick on island is due to fledge any day now, if it avoids the burrowing owls in the area.

A circumnavigation of the islands was conducted by boat this weekend to survey access points and locations of possible caves and coves. Rough seas have made access by boat difficult, but the weather on island has been mercifully sunny and fogless so far, although a little on the windy and brisk side due to the northwest winds and approaching winter frontal systems brewing off-shore. A regular exercise regimen has been adopted to keep the crew fit, consisting of full sprints by the entire team to higher ground and better viewing posts whenever the words "*Shark Attack!!"* are heard over the PRBO radio from the Lighthouse, which is usually once a day. While most attacks are over in a few minutes, there have been a few red slicks and thrashing tail slaps of the white sharks as they feed on the elephant seals.

We will be continuing to monitor the bait stations and bait degradation sites for the next few days, and will conduct salamander surveys tomorrow with PRBO to assess them for possible biomarker exposure. We will depart the island on Wednesday Nov. 16th weather permitting, and Jonathan Shore will depart island Friday Nov. 18th on the Sari Ann, which will be bringing a new stove and refrigerator for the USFWS house. PRBO has agreed to assist in conducting a one hour per week assessment of the bait degradation cages for the next several weeks after the USFWS and Island Conservation crews depart.

Many thanks to our Farallon Project Partners at the USFWS, PRBO Conservation Science and the support for this important project from its many funding sources, including the Luckenbach Trustee Council, California Coastal Conservancy, and most recently the National Fish and Wildlife Foundation, which we found out today has decided to award a grant funding some of the necessary monitoring and communication needs for this project!