



## Protecting Ocean Wildlife and Food Webs

Based on PRBO and partner data spanning three decades, we identified seabird feeding “hotspots” across the California Current (off the West Coast from Canada to Baja, Mexico), provided the scientific foundation for their protection to regulatory agencies, and published our findings in the prestigious journal *Ecological Applications*.

*Next Steps: Identify where human threats (e.g. overfishing and shipping) overlap with food web hotspots to guide conservation efforts.*

### **Conserving Marine Wildlife in the California Current Project Summary**

PRBO will identify areas where specific management actions need to be taken to address human threats to marine wildlife in the California Current and collaborate with relevant agencies and conservation organizations in implementing those recommendations.

PRBO recently mapped wildlife hotspots throughout the entire California Current from Baja, California to British Columbia, Canada. Our findings confirmed the conservation importance of much of the area within the boundaries of all the National Marine Sanctuaries along the West Coast. We also found that the area between Cape Mendocino in northern California and Heceta Bank in central Oregon is of high conservation importance yet does not have any protected areas. While the National Marine Sanctuaries provide protection against some threats, such as oil and gas exploration, they do not necessarily address direct threats such as impacts from fishing, shipping, or alternative energy facilities.

At the same time, NOAA's Marine Protected Areas Center and the Marine Conservation Biology Institute completed the California mapping, for the first time, the full range of significant human uses of the ocean in state and federal waters of the coast of California.

To guide ocean managers in addressing the most acute threats to marine wildlife, we will integrate our most recent maps of wildlife hotspots in the California Current with the Ocean Uses Atlas (see <http://mpa.gov/dataanalysis/atlas/>) completed by NOAA's Marine Protected Areas Center and the Marine Conservation Biology Institute. Combining our tools will enable us to identify specific human ocean uses that threaten wildlife at specific locations as the basis for developing recommended management actions to address them. For example, simple management actions such as reducing vessel speed in areas where shipping is a main threat will significantly decrease underwater noise pollution and potential for ship strikes on whales while also reducing air pollution.

One immediate application of our integrated tool will be the planning and design of a new National Marine Sanctuary in the vicinity of the Klamath River mouth in northern California that NOAA is now discussing with stakeholders. NOAA has already mentioned to PRBO the importance of our information for this purpose and their desire for our collaboration in this process.

In addition, we will use the tool across all of California with great prospects for significant improvements in conserving marine wildlife in southern California, especially around the Channel Islands and the Santa Barbara Channel. By pinpointing specific threats, impacts and management actions, we will help address some of the most urgent conservation priorities for marine wildlife in the California Current.

We will collaborate with managers at all the National Marine Sanctuaries in California on implementing our recommended actions. We will assist NOAA in designing a new National Marine Sanctuary for the Klamath River mouth region. The cumulative benefits of these actions may include reducing shipping effects on whales, reducing by-catch threats on seabirds, reducing pressure on Chinook salmon and rockfish populations, and increasing foraging opportunities for all wildlife.

<b>Total Project Budget:</b>	\$300,000
<b>Remaining Funding Need:</b>	\$250,000