



Year 2 Progress Report for Seabird Monitoring Within the North Central Coast Study Region of California's Marine Life Protection Act (Sea Grant# RMPA-6A)

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Background

In 2011, PRBO Conservation Science (PRBO), in collaboration with the U.S. Fish and Wildlife Service (USFWS), successfully completed its second year of monitoring seabirds within the North Central Coast Study Region (NCCSR) of the Marine Life Protection Act (MLPA). Seabird monitoring represents one component of a larger effort to collect baseline data within the NCCSR. The seabird component was funded as a three-year project, with the first 2 years dedicated to data collection and the third to data analysis and report synthesis.

The overarching goal of the seabird monitoring project is to determine how seabirds are using coastal habitats inside and outside of newly established Marine Protected Areas within the NCCSR. Specific tasks for seabird monitoring include 1) disturbance surveys, 2) foraging surveys, and 3) breeding colony surveys. Disturbance surveys focus on Special Closures designed to keep human activities away from important seabird breeding colonies. Data on human disturbance rates are being collected by USFWS within Special Closures and by PRBO at control sites in the Bodega and Tomales Point areas. Foraging surveys focus on the use of State Marine Reserves (SMRs) and State Marine Conservation Areas (SMCAs) by foraging seabirds. PRBO and USFWS are conducting surveys at three SMR/SMCA clusters: Bodega Head SMR/SMCA, Point Reyes SMR/SMCA, and Montara SMR/Pillar Point SMCA. Foraging rates are measured inside each SMR and SMCA and at control sites designated for each cluster. Breeding colony surveys focus on five species identified in the MLPA Master Plan as likely to benefit from marine protected areas: Pigeon Guillemot, Pelagic Cormorant, Brandt's Cormorant, Common Murre, and Black Oystercatcher. The goal of these surveys is to 1) estimate annual population size for all species and 2) estimate annual rates of productivity for all species except Pigeon Guillemots.

Progress Towards Proposed Goals

The seabird monitoring project is a collaborative effort between Dan Robinette (PRBO) and Gerry McChesney (USFWS). PRBO is collecting data in two areas (Duncan Point to Tomales Point and Montara to Pescadero) while USFWS is collecting data around Point Reyes and Drakes Bay (Figure 1). Figure 2 shows the original proposed milestone chart for grant RMPA-6A in addition to milestones reached during Year 1 and Year 2 (April 1, 2010 – March 31, 2012) of the monitoring project. PRBO successfully completed all monitoring surveys for both Year 1 and Year 2. All data have been entered into PRBO's database and quality checked. PRBO is currently working with the Monitoring Enterprise in their effort to develop metadata standards for use across all NCCSR projects.

Expenditures as of February 28, 2011

As of March 30, 2012, PRBO has billed \$109,626 to grant RMPA-6A. This is \$7,359 (6%) less than what was originally budgeted for Year 1 and Year 2. There is a surplus in all spending categories except for travel. There was more travel than anticipated due to the need to coordinate training among sites and attend meetings hosted by the Monitoring Enterprise. As of March 30, 2012, there is \$25,849 remaining in the three-year budget. We anticipate finishing the three-year project within the proposed budget.

Table 1. Funds billed to grant RMPA-6A as of March 30, 2012. Also shown are the proposed budgets and remaining funds for Year 1 (April 1, 2010-March 31, 2011) and Years 1 through 3.

	Year 1			Year 2			All 3 Years	
	Billed	Budgeted	Remaining	Billed	Budgeted	Remaining	Budgeted	Remaining
Salaries & Benefits	37,175	41,053	3,878	38,615	43,105	4,490	98,930	23,160
Equipment	2,290	3,230	940	61	200	139	3,500	1,079
Travel	5,552	3,000	-2,552	3,899	3000	-899	6,000	-3,451
Indirect Costs	11,254	11,821	567	10,780	11,576	796	33,107	5,061
Total Costs	56,271	59,104	2,833	53,354	57,881	4,526	135,537	25,849

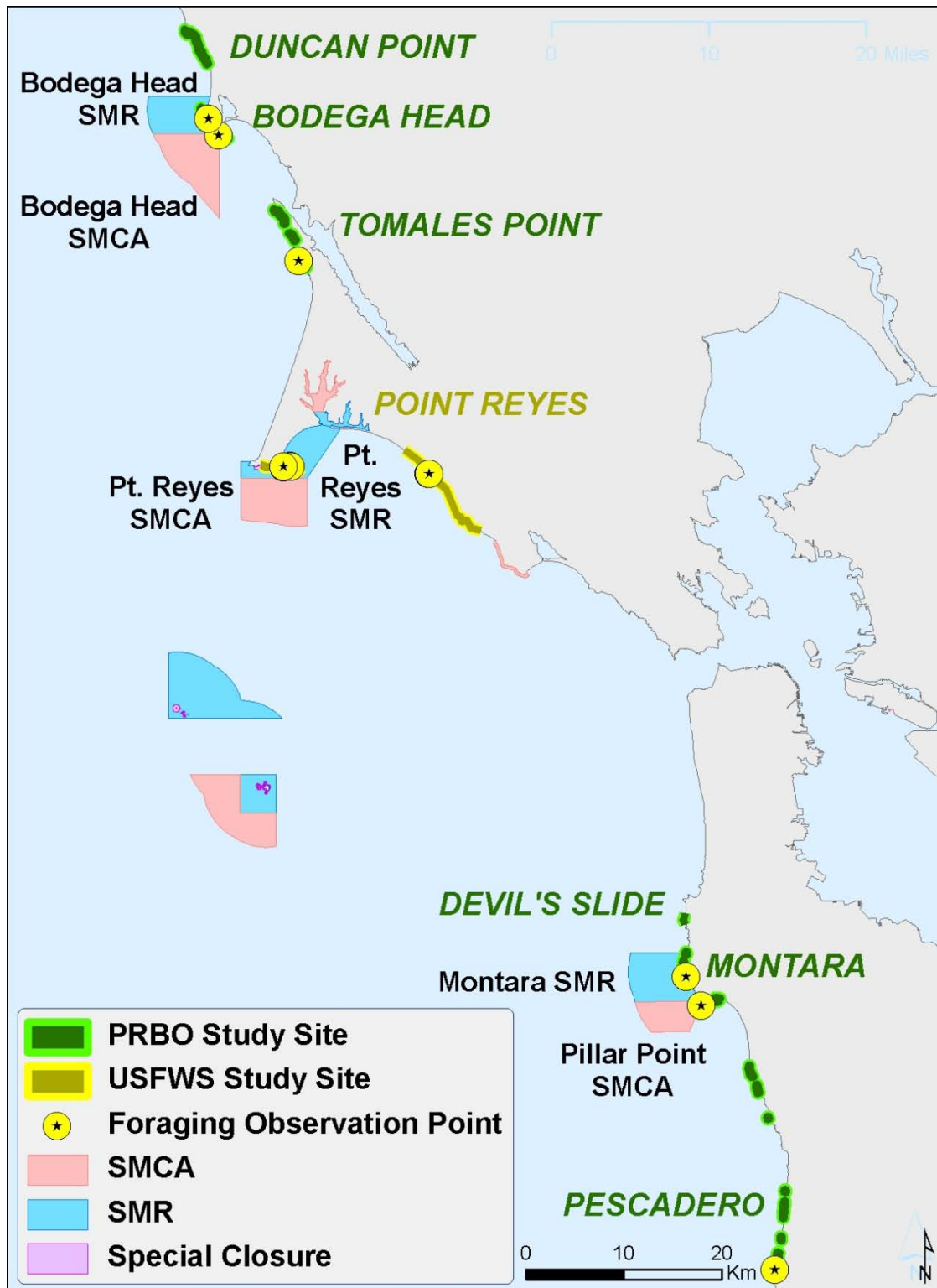


Figure 1. Map of NCCSR showing seabird monitoring focal areas for PRBO Conservation Science (Robinette) and U.S. Fish and Wildlife Service (McChesney)

MILESTONES CHART










	2010	2011	2012
TASKS AND MILESTONES	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
1) Compile Existing Data			
2) Collect New Data			
3) Develop Annual reports			
4) Integrate data into management framework (e.g., PRBO's CADC)			
5) Integrate Existing and Newly Collected Data Sets			
6) Develop Final Report of Baseline Seabird Metrics Within the NCCSR			

Figure 2. Milestone chart for tasks associated with grant RMPA-6A. Black lines showed proposed timelines for accomplishing tasks while green lines indicate tasks that have been completed.