

ANNUAL REPORT

Project Title: Baseline Monitoring of Ecosystem and Socioeconomic Indicators for MPAs along the North Central Coast of California - Kelp Forest Ecosystem Surveys

Grant #09-015, Project # R/MPA-12

Since the beginning of the grant period we have made substantial progress toward the goals and objectives identified in the proposed MLPA Baseline monitoring program for kelp forest ecosystems in the North Central Coast Study Region. Field operations were completed for the first season in October 2010. Of the total 35 sampling sites (= "cells") proposed to meet our intended replication of 4 cells inside and 4 cells outside of each MPA (where possible), fish surveys were completed at 33 cells and benthic (ie, invert and algae) surveys were completed at 34 cells. We were prevented from completing fish surveys at two cells at the northern end of the study region (Pt. Arena SMR and one of its reference areas), and benthic surveys at one cell (Salt Point SMR) due to onset of rough conditions in October (wind and swell) resulting in reduced water visibility levels.

Through our collaboration with ReefCheck California, size frequency surveys for red abalone and red urchins were completed at all 34 cells visited for benthic surveys. This represents a doubling of the sampling effort proposed for this project, and has resulted in a more thorough representation of population size structure for these species in the region.

Since the completion of diving operations, our team of technicians has been working on entering and double checking survey data in the PISCO database. As of this writing, data entry and checking for all sites and all survey types has been completed.

Completion of the remaining project objectives is scheduled to proceed as planned. A second year of field surveys will be conducted in the period of Aug-Oct 2011 followed by a period of data entry and processing. In year three of the project period we will complete the final objectives: analytical exploration of the baseline characterizations for potential indicators of the state of the kelp forest ecosystems (i.e. ecosystem indicators), and the integration of these assessments with other components of the baseline survey to inform the role and design of those programs for a future monitoring and evaluation program.

Project Timeline

	2010												2011												2012											
Tasks and Milestones	J	F	M	A	M	J	J	A	S	O	N	D	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Training and Preparation							D													P																
Field Surveys								D	D	D										P	P	P														
Demobilization and Data Entry									D	D											P	P														
Data Management											D												P													
Analyses																										P	P	P								
Syntheses/Ecological Indicators																												P								
Monitoring Recommendations																													P							
Report writing																	D										P			P						

D=done, P=planned

BUDGET

More was spent on salary and benefits during Year 1 than budgeted (see table below). This was partly due to greater than anticipated effort placed in preparing and mobilizing (locating sites and access points, preparing field logistics) for the first field season. Also, technicians were retained longer than planned to complete the data entry and checking of the first year of monitoring data. Since this was the first year of field surveys for the PISCO subtidal program in a remote section of the coast, many of the lessons learned and efficiencies developed during this period will be applied to the second field season, reducing the overall time spent in preparing for and conducting field surveys, as well as the time that field staff are retained for data entry and checking.

More was also spent on supplies than was budgeted for in year 1. This occurred for two reasons: (1) field sampling supplies (SCUBA equipment, sampling gear, etc.) that are to be used in both years 1 and 2 were purchased in advance before the start of the first field season; and (2) instead of leasing a vessel from Bodega Bay to conduct surveys on the north central coast as originally planned, field surveys are being conducted using the UCSC vessel Paragon. Funds for the planned vessel lease (originally budgeted in the "other" category) will now be used for maintaining and operating this vessel. Therefore part of the shortfall in funds for supplies can actually be made up for by using the funds allocated for vessel charter.

Billing Period: March 1, 2010 - February 28, 2010

R/MPA-12	Task 1/Year 2010 Budgeted	Billed to Date	Cost Incurred in this Period	Total Remaining Task 1/Year 2010
Salaries and Wages	79,500.00	101,811.23	101,811.23	(22,311.23)
Benefits	25,083.00	29,128.66	29,128.66	(4,045.66)
Supplies	15,275.00	46,773.99	46,773.99	(31,498.99)
Major Equipment				-
Travel	8,500.00	9,319.01	9,319.01	(819.01)
Other - Vessel Charter /Tuition	15,000.00	2,331.58	2,331.58	12,668.42
Indirect (not on equip)	35,839.00	47,341.15	47,341.15	(11,502.15)
TOTAL PROJECT COSTS	179,197.00	236,705.62	236,705.62	(57,508.62)