



MPA Baseline Program

Annual Progress Report



Principal Investigators - please use this form to submit your MPA Baseline Program project annual report, including an update on activities completed over the past year and those planned for the upcoming year. This information will be used by the MPA Baseline Program Management Team to track the progress of individual projects, and will be provided to all MPA Baseline Program PIs and co-PIs prior to the Annual PIs workshop to facilitate discussion of project integration. Please submit this form to California Sea Grant when complete (sgreport@ucsd.edu, Subject [Award Number, project number, PI, "Annual Report"].)

Project Information

Project Year: 2011/12 Study Region: South Coast Study Region

Project Title & Number: Citizen Scientist monitoring of rocky reefs and kelp forests: Creating a baseline for California's South Coast MPAs; Project #: R/MPA-21, Grant #: MPA10-049

PI name: Jan Freiwald Co-PI name: Gregor Hodgson

PI Contact Info Co- PI Contact Info (please list additional PIs and contact info in the "Project Personnel" section if necessary)

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Project Goals & Objectives

Reef Check California (RCCA) programs objectives for the SCSR baseline monitoring are:
1. Provide a quantitative baseline characterization of the rocky reef and kelp forest ecosystem feature in and outside of MPAs in the SCSR.
2. Provide pre-MPA implementation data and historical context to ongoing data collection by analyzing RCCA's existing dataset in the context of the new MPAs.
3. Analytically explore the baseline characterizations for potential indicators of the state of the kelp forest ecosystem (i.e. ecosystem indicators) and make recommendations for long-term monitoring.
4. Build capacity for cost-effective long-term MPA monitoring through the continued involvement of community members in the monitoring of MPAs.
5. Expand existing public online data dissemination and illustration tool (NED) to inform managers, stakeholders, policymakers and the public about the status of the marine environment in the SCSR.

Summary of Project Activities Completed to Date

Overview of Project Year 1_ Activities, including progress towards meeting goals & objectives

Providing a baseline of the rocky reef and kelp forest ecosystems at the time of MPA implementation in the SCSR
RCCA began baseline monitoring in 2011 and is currently in the second season of baseline monitoring in the SCSR. Overall, 2011 was a very successful survey season and RCCA conducted 39 surveys in the south coast study region. With the MPA baseline monitoring project beginning in the later part of the survey season that year it was difficult to monitor all proposed sites in 2011 (see below). In 2012, the program has so far surveyed all sites that have been scheduled and with about two more months of the survey season remaining we are on track to complete all proposed sites.

Provide pre-MPA implementation data and characterizations of potential indicators

RCCA's monitoring data from the years prior to baseline monitoring project (2006-10) are readily available and have been converted into a data format that is consistent with the data requirement in the other baseline monitoring regions in which the program is participating. Data analysis for this region is scheduled to commence later in the project period.

Capacity building for cost-effective long-term MPA monitoring

For the first time, in 2011 Reef Check retained more volunteer citizen scientists than trained new ones. 52% of previously trained volunteers returned. This demonstrates how RCCA's body of volunteers is maturing and how more and more divers stay involved over the years. For a program such as RCCA that requires intensive training, it is of critical importance to retain skilled volunteers.

The spring of 2012 was the first training season after the new MPAs had been implemented and RCCA completed the six proposed citizen scientists trainings. These were conducted as public trainings lead by RCCA staff as well as in collaboration with partner institutions such as UCSB and the Catalina Island Marine Institute (CIMI). In addition to these trainings of new divers, RCCA conducted six recertification courses for previously trained volunteer citizen scientists. We will hold one more training later this year (2012) in collaboration with the Humboldt State University diving program on Catalina Island and these students will survey several of RCCA's sites on the Island directly following their training. Overall, the program trained or recertified 104 volunteers so far this year in the SCSR. This is very similar to previous years and is right around RCCA's target number of active volunteers. This successful recruitment has led to a very successful survey season and the new as well as seasoned volunteers will build the foundation for future long-term MPA monitoring in the study region.

Expand public online data dissemination and illustration tool (NED)

All of RCCA's statewide data is available online through Reef Check's public online Nearshore Ecosystem Database (NED). Data are available in interactive formats as soon as they are entered and proofed by RCCA staff. The entire database is available for download making RCCA's data from 2006 to 2011 available for anyone who is interested. Over the first year of the SCSR baseline monitoring project we have updated NED's software and began a project to increase its functionality by migrating the portal to a Google earth-based interface. This project will ensure that RCCA's data will be available in the latest online formats, while the program's online presence stays attractive and compatible with the increasing online mapping and display capabilities.

Highlights from project progress so far, such as successes achieved or interesting stories from the past year

Reef Check California is about to release a report on its first six years of statewide rocky reef and kelp forest monitoring. This report will high light some of the findings that are starting to emerge from the six year dataset and will summarize RCCA's partnerships, educational and training activities as well as provide data summaries from all monitoring sites including the SCSR sites. This report will be available at

To further expand opportunities to collaborate with the business community, Reef Check has recently launched an Adopt-A-Reef program. Under this program, companies such as hotels and resorts or water sport related businesses, agree to sponsor annual surveys of selected rocky reefs. They can then share the results with their customers through video, brochures and on-line. Through these corporate partnerships, the Adopt-a-Reef program allows the California business community to participate directly in marine conservation in the state.

Description of any unforeseen events and substantial challenges, and resulting effect on data collection

Overall, RCCA had two very successful survey seasons during the SCSR baseline monitoring project. Despite almost flawless survey seasons, we have had some minor setbacks. An unfortunate event was the cancelation of one sampling trip in 2011 at which RCCA's team of volunteer citizen scientists was scheduled to survey four sites along the northern Los Angeles coast. This trip had to be terminated because of mechanical problems with the charter boat. Since this trip was scheduled for late in the survey season no replacement of the trip could be scheduled leading to those four sites not being surveyed in 2011. Nevertheless, RCCA has data on the four sites from previous years and will be surveying them in October of 2012.

RCCA was not able to form a collaboration, as proposed, to monitor sites at the Swami SMCA since the group we hoped to collaborate with did not get funded for the baseline monitoring project. Since it is difficult to reach these sites with commercial charter vessels we have decided to focus our efforts elsewhere and not include the Swami SMCA in our baseline monitoring.

Data status (i.e., paper/raw format or digitized; if digitized, what format?)

Reef Check California's data from the SCSR has been entered into Reef Check's Nearshore Ecological Database (NED). Up-to-date data is available through the online interface of NED. All of RCCA's data from 2006-11 is available in two common data formats for download. It is available in an Access database and as comma delimited text files. Metadata according to the Metadata standards will be developed in collaboration with the other monitoring projects.

Activities Planned for following Project Year 2 (if applicable) – Please describe remaining work and approximate timelines for completing that work, including any anticipated budget variances necessary to complete the project.

RCCA will continue the second seasons of baseline monitoring into the next project year. In the spring of 2013 we will again trained new citizen scientists and recertify previously trained volunteers to begin another year of monitoring. This will be the beginning of shifting from baseline monitoring into sustainable long-term monitoring of the MPAs in the SCSR. In 2013, we will begin analyzing the data from the two years of baseline monitoring and work with our collaborators to develop a baseline and benchmark of the status of the rocky reef and kelp forest ecosystem at the time of MPA implementation in southern California.

TASKS AND MILESTONES	2011					2012					2013					2014					
	Budget years																				
	year 1					year 2					year 3										
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Hire SCSR Volunteer Coordinator (X) & period of employment (-)	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Train SCSR Volunteer Coordinator	C	C																			
Purchase supplies for training and survey season	C						C	C	C												
Outreach & presentations by SCSR VC (recruit volunteers for trainings)							C	C	C												
RCCA Community Trainings & recertifications	C						C	C	C												
Assist with academic and institutional classes			C	C				C	C	C			C	x							
Conduct RCCA SCSR surveys	C	C	C	C	C				C	C	C	C	C	x	x						
Data entry and QA/QC				C	C	C								x	x	x					
Develop report queries and distribute data									C	C				x	x	x					
coordinate with collaborators and through integrative framework	C	C	C											x	x	x	x	x	x	x	x
Data analysis & Final report															x	x	x	x	x	x	x
Deliver data w/corresponding metadata and reports																					x

C = COMPLETED, X = PLANNED

Project Personnel – Please indicate additional project personnel involved in your MPA baseline project, including students and volunteers, or additional PI contact information if necessary.

	Staff	Student Volunteers
Regional manger	1	
Volunteer coordinator	1	

Number of other Volunteers not counted above:

RCCA trains about 250 volunteer citizen scientists every year.

Additional PI contact info not listed on first page:

Cooperating Organizations and Individuals - Please list organizations or individuals (e.g., federal or state agencies, fishermen, etc.) that provided financial, technical or other assistance to your project since its inception, including a description of the nature of their assistance.

<i>Name of Organization or Individual</i>	<i>Sector (City, County, Fed, private, etc.)</i>	<i>Nature of cooperation (If financial, provide dollar amount.)</i>
<i>PISCO UCSB</i>	<i>University</i>	<i>Technical, collaboration in field and use of PISCO boat</i>
<i>Humboldt State University</i>	<i>University</i>	<i>Trained divers, helped with Reef Check surveys</i>
<i>Campbell Foundation for the environment</i>	<i>Private Foundation</i>	<i>Funding for California program part of which was used for monitoring in SCSR</i>
<i>RLFF</i>	<i>Private Foundation</i>	<i>Funding for California program part of which was used for monitoring in SCSR</i>
<i>CLifBar Family Foundation</i>	<i>Private Foundation</i>	<i>Funding for California program part of which was used for monitoring in SCSR</i>
<i>Department of Fish and Game</i>	<i>State</i>	<i>Boat time, scientific diver training for RCCA staff</i>
<i>Long Beach Aquarium of the Pacific</i>	<i>NGO</i>	<i>Trained divers, helped survey sites</i>

Additional Information – Please provide any other project-relevant information, such as descriptions of attached materials, media coverage your project has received, etc.

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