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	2
Study Region	South Coast

Project Title & Number

Baseline Characterization and Monitoring of Rocky Intertidal Ecosystems for MPAs in the South Coast Region, R/MPA-22A

PI name

Carol Blanchette

Co-PI name

Peter Raimondi, Julie Bursek, Jayson Smith and Jenifer Burnaford

PI Contact Info

Co- PI Contact Info

(please list additional PIs and contact info in the "Project Personnel" section if necessary)

Address

Marine Science Institute
University of California, Santa Barbara, CA 93106

Address

Institute for Marine Sciences
Long Marine Lab, UC Santa Cruz
Santa Cruz, CA

Email blanchette@msi.ucsb.edu

Email raimondi@biology.ucsc.edu

Phone 805-893-7189

Phone 831-459-5674

Project Goals & Objectives

The goals and objectives of our project are to:

1. Produce a quantitative baseline characterization of the structure of rocky intertidal ecosystems in all of the South Coast MPAs that have accessible rocky intertidal habitats consistent with those in the Central and North-central study regions 2. Provide a quantitative comparison between the rocky intertidal ecosystems in these MPAs and associated reference areas in the South coast region using a combination of biodiversity surveys and targeted species sampling 3. Analytically explore the baseline characterizations for potential indicators of the state of the rocky intertidal ecosystems using newly collected data along with historical and contextual data from the region 4. Evaluate the suitability of proposed draft metrics and other metrics for long term monitoring 5. Assess initial changes in size and abundance of targeted species across newly created MPAs, existing MPAs and reference areas 6. Integrate these assessments with other components of the baseline program (e.g., Kelp Forest, Sandy Beach, etc.) to inform the role and design of those programs for a future monitoring and evaluation program.

Summary of Project Activities Completed to Date

Overview of Project Year _2_ Activities, including progress towards meeting goals & objectives

In our second year of sampling we have been able to re-sample targeted species at a selected number of sites, as well as continue to add several sites to our biodiversity dataset.

In year 2 we completed biodiversity surveys at the following sites:

La Jolla Caves

Lechuza Point

Sequit Point

Boy Scout Camp (San Clemente Island)

West Cove (San Clemente Island)

Navy North

Cabrillo III

Crook Point

Additionally we re-surveyed targeted species at the following sites:

Ellwood

Sequit

Lechuza

Pt Vicente

La Jolla Caves

Wind and Sea

Sea Ridge

We have completed approximately 50% of the data entry from year 2 so far, and we are in the process of QA/QC on the data and metadata.

In this year we have also focused on analysis of data from the LIMPETS group, and have resurveyed 3 sites (Coal Oil Point, Carpinteria and Deer Creek) to compare the data generated using two different methods, and two different sampling teams.

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

We were successful in finishing the biodiversity surveys and targeted species surveys at most of our sites, as well as adding 2 new sites in San Clemente Island. We plan to go back to San Clemente Island this summer to add several new sites.

Our comparisons with the LIMPETS group turned out to be very interesting, with both teams (Southcoast MPA baseline and LIMPETS) learning from one another. We presented the results of the comparisons at the annual MARINE meeting in Forks, WA in a workshop focused on citizen science. We were also able to engage approximately 18 middle and high school teachers in laboratory trials of the comparisons and survey them on their thoughts and ideas for how to improve the LIMPETS program.

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

The only proposed sites that we have not been able to sample have been Government Point, and the 2 Santa Barbara Island sites.

We have had continuing difficulty getting permission to access the Government point site due to private property issues.

We were tentatively going to try to sample Santa Barbara Island again this fall, but due to lack of good low tides for the proposed trip, we've decided to reschedule the SBI site for spring 2014.

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

Our data are currently in raw format in .csv files and .xls spreadsheets. Once we are done with QA/QC we will upload all relevant data and metadata to the data catalog.

Activities Planned for following Project Year _3_ (if applicable) – *Please describe remaining work and approximate timelines for completing that work, including any anticipated budget variances necessary to complete the project.*

Our year 3 sampling activities will largely focus on expanding to several new sites on San Clemente, as well as biodiversity sampling at the Santa Barbara Island and Government Point sites if we are successful in accessing them in the next year.

We will use the periods of time in between field seasons to focus on data management (data entry, metadata documentation and uploading) as well as analysis of our data and historical data. Our comparative analysis of the LiMPETS data and ours will guide the refinement, development and testing of protocols for long-term monitoring. These protocols will be field tested with LiMPETS staff and volunteers in the next year, and we will work with the LiMPETS group to facilitate their broad-scale adoption. Much of year three will focus on synthesis of data and analysis in preparation for final reports as well as recommendations for long term monitoring.

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

	Students Supported	Student Volunteers
K-12		
Undergraduate		4
Masters		1
PhD		2

Number of other Volunteers not counted above:

6

Additional PI contact info not listed on first page:

Julie Bursek, Julie.Bursek@noaa.gov, Channel Islands National Marine Sanctuary

Jayson Smith, jaysonsmith@csupomona.edu, CSU Pomona

Jennifer Burnaford, jburnaford@fullerton.edu, CSU Fullerton

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.*

Name of Organization or Individual	Sector (City, County, Fed, private, etc.)	Nature of cooperation (If financial, provide dollar amount.)
Channel Islands National Park	Federal	Transportation and Lodging at Island Sites
PISCO	*Private*	*Database support*

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

For information on many of the sites, species and trends over time:

http://www.eeb.ucsc.edu/pacificrockyintertidal/index.html

For information in the LIMPETS program:

http://www.limpetsmonitoring.org