

**SOUTHERN CALIFORNIA EDUCATIONAL INITIATIVE  
PROGRAM YEAR 14  
QUARTERLY REPORT 2**

*for the period*

*October 1, 2002 – December 31, 2002*



*A Cooperative Program  
between the  
**University of California**  
and the  
**Minerals Management Service***

*January 17, 2003*

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**Russell J. Schmitt**  
Program Manager

Coastal Research Center  
Marine Science Institute  
University of California  
Santa Barbara, California 93106

*January 17, 2003*

## Program Manager's Report

*for the period October 1, 2002 – December 31, 2002*

This constitutes the quarterly report for the second quarter of Program Year 14 of the Southern California Educational Initiative, a cooperative research agreement between the Minerals Management Service, the state of California and the University of California.

As of this quarter, 2 projects currently are being conducted under the aegis of the Southern California Educational Initiative.

Actions Pending MMS Approval:

- We are waiting for MMS comments on the Draft Final Report for the project *Mitigating the Impact of Offshore Oil Development*, Woolley and Lima, PIs;
- We require approval of a no-cost extension for the above contract to June 2003, to finalize the remaining projects;
- We are waiting for comments on the Draft Final Report for the project *A Design for a Time Series Study of a NIMBY Response*, Smith PI.

Major programmatic progress and actions during the quarter are summarized below for the period of October 1 – December 31, 2002.

- The Final Report for the project *Ecological Effects of Chronic Exposure to Produced Water: A Field Test* and *Environmental Effects of Produced Water: A BACIP Field Assessment*, Osenberg, Holbrook, Schmitt and Carr, PIs, will be submitted to MMS next quarter in hard copy and PDF formats;
- The Final Report for the project *Effects of Produced Water on Demographic Rates and Environmental Recovery Following Cessation of a Produced Water Discharge*, Schmitt and Osenberg, PIs, will be submitted to MMS next quarter in hard copy and PDF formats.
- The draft final report for the project *Effects of an Oil Spill on Multispecies Interactions that Structure Intertidal Communities*, Raimondi, PI, was received and will be submitted to MMS for review next quarter.

*Effects of an Oil Spill on Multispecies Interactions that Structure Intertidal Communities*

**Principal Investigator: Peter Raimondi**, Department of Biology, University of California, Santa Cruz, California 95460.

**Major Accomplishments, October 1, 2002 – December 31, 2002**

The project draft final report was submitted to the Coastal Research Center for formatting during this quarter.

*Detecting Ecological Impacts: Effects of Taxonomic Aggregation in the Before-After/Control-Impact Paired Series Design*

**Principal Investigators:** **Sally Holbrook**, Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara, CA 93106, **Mark H. Carr**, Department of Biology, University of California, Santa Cruz, CA 95064, **Craig W. Osenberg**, Department of Zoology, University of Florida, Gainesville, FL 32611-8525.

**Major Accomplishments, October 1, 2002 – December 31, 2002**

- We continue to contribute to the application of BACIPS methodology in other contexts. BACIPS and its role in the assessment of Marine Protected Areas and artificial reefs (such as the Rigs-to-Reefs issues) were highlighted by Carr and Osenberg in several public presentations and invited talks. Their insights benefited from MMS-sponsored research on the BACIPS design.
- We did not make any progress on data analyses.
- We did not make any progress in archiving samples at the LA County Museum.

**Future plans:**

Osenberg will conduct data analyses using the Gaviota, Carpinteria, San Onofre data sets as time permits. Following analyses, Osenberg and Carr will initiate the preparation of the final report. As indicated in the 2001 Annual Report, the project has not yet been finished due to unforeseen delays in the taxonomic identifications. Carr and Holbrook will continue in their efforts to have all samples archived at the Los Angeles County Museum.

**Estimated Percentage of Budget Expended:**

All funds were expended previously. Due to delays in the species-level identifications, all analyses have had to be done following the end date of the project.

## *Early Development of Fouling Communities on Offshore Oil Platforms*

**Principal Investigators: H. Mark Page, Jenifer Dugan, and Jason Bram**, Marine Science Institute, University of California, Santa Barbara, California 93106

### **Major Accomplishments, October 1, 2002 – December 31, 2002**

During the reporting period, we continued to investigate whether selected early successional species inhibit, enhance, or have no effect, on the composition and rate of development of the invertebrate assemblage using field experiments at Platform Houchin. We are experimentally manipulating the abundance of three invertebrate taxa (barnacles, encrusting bryozoans, and colonial tunicates) that are important as early colonizers on ceramic tiles placed on Platform Houchin at three depths (6 m, 12 m, and 18 m). Each treatment involves the monthly removal of one taxon from the experimental tiles. These taxa were chosen based on their presence in early successional sequences observed on this platform in 1999–2001. Preliminary observations suggest that encrusting bryozoans and colonial tunicates compete for primary space; encrusting bryozoans occur at a high % cover on tiles when colonial tunicates are removed, while colonial tunicates occur at a high % cover when encrusting bryozoans are removed. Barnacles have continued to occur in low cover on all tiles.

We continued statistical analyses and interpretation of our results on species composition, biomass and percent cover of invertebrates that colonized tiles (15x15 cm) exposed for various time intervals (2, 4, 6, 12, 24 months) at depths of 6, 12, and 18 m at Platform Houchin. We also continued analyses of our results on the percent cover and biomass of invertebrates that colonized experimentally scraped 20 cm x 20 cm quadrats on conductor pipes and plastic mesh tuffys at depths of 6, 12, and 18 m at Platform Houchin from April 1999 to April 2001.

A master's thesis and a manuscript on these results are in preparation.

### **Upcoming work**

We will continue to monitor the field experiments and analyze data from the vacuum samples of scraped plots and the tiles. Hypotheses concerning factors influencing community development will be examined using additional statistical analyses. The Introduction, Results and Discussion sections will be written for the master's thesis and manuscript.

**Problems Encountered:** None

**MMS Action Required:** None

### **Estimated Percentage of Budget Expended:**

Project Year 1	100%
Project Year 2	100%
Project Year 3	80%