



Technical Announcement

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Minerals Management Service
Pacific OCS Region

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Translocation, Homing Behavior and Habitat Utilization of Groundfishes around Offshore Oil Platforms in the East Santa Barbara Channel

OCS Study MMS 2009-033

The Minerals Management Service (MMS), Pacific OCS Region, announces the availability of a new environmental study report, *Translocation, Homing Behavior and Habitat Utilization of Groundfishes around Offshore Oil Platforms in the East Santa Barbara Channel*.

There are 27 oil platforms (23 Federal, 4 State) offshore the southern California coast from Point Arguello to Huntington Beach. Eventually, deepwater (>121 m) platforms will be decommissioned. Existing MMS regulations require complete structure removal. Complete removal will have effects on the local populations of marine life associated with the underwater structure, as explosives are often used to separate the vertical stanchions below the seafloor. Using non-explosive methods, when technically feasible, still removes long-standing habitat and the entire biofouling community. Of particular concern are the rockfishes, whose populations have been depleted due to overfishing on natural reefs. MMS-funded submersible surveys conducted over the past 13 years by Dr. Milton Love at the University of California Santa Barbara have shown significantly higher densities of larger adult rockfishes residing around oil platforms compared to nearby natural reefs.

Platforms provide complex structure spanning the depth of the water column and provide habitat for recruits in shallower depths and larger individuals toward the base. Fishing within and around the structure is difficult and sometimes restricted. As a result, platforms function like *de facto* marine reserves. Although there is growing evidence that platforms provide important habitat to rockfishes, decommissioning decisions on many California platforms is rapidly approaching. Understanding the relationship between the platforms and the fishes may be helpful in identifying finding suitable alternatives that mitigate the effects of platform removal on overexploited stocks.

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In an earlier MMS-funded study, Dr. Christopher Lowe at California State University, Long Beach demonstrated that tagged rockfishes from three oil platforms in the Santa Barbara Channel had variable levels of site fidelity to the platforms and that some individuals moved between platforms. By the end of the study, more than 60% of the tagged fishes had gone undetected, suggesting movement away from the platforms after a 2-year period. If provided with suitable rockfish habitat of comparable depth, it may be possible that fishes removed from an oil platform and released on a natural reef would remain at the reef sites.

Moreover, translocating fishes inside a marine reserve offers protection from recreational and commercial fishing and may provide the opportunity to monitor the fishes over a substantial time frame. The overall goal of this study was to determine whether rockfishes and lingcod from offshore oil platforms in the Santa Barbara Channel would home back to their platforms of capture if translocated to a natural reef at Anacapa Island.

Researchers acoustically tagged 79 rockfishes and lingcod from three oil platforms in the Santa Barbara Channel and translocated them inside historically rich rockfish habitat of comparable depth inside the Anacapa Island State Marine Reserve. Automated acoustic receivers were deployed at both Anacapa Island and each of the three oil platforms to monitor the movements of fishes at Anacapa Island and around the oil platforms. Receivers were downloaded and maintained every 2 months for a 2-year period. Using presence-absence data, researchers quantified the proportion of fishes that homed, degree of site fidelity to the translocated area, their movements at Anacapa Island and around the platforms.

This report is available from the Minerals Management Service Pacific OCS Region by referencing OCS Study MMS 2009-033. The report may be downloaded from the MMS website through the [Environmental Studies Program Information System \(ESPIS\)](#) and is also available in PDF at <http://www.mms.gov/omm/pacific/enviro/Studies/2009-033-Translocation-Final-Report.pdf>. The report is available for viewing in PDF on the California State University, Long Beach's website at www.csulb.edu/web/labs/sharklab. Additionally, requests for the report can be made through the following contacts:

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