

A horizontal banner with a stylized American flag background. The left side features a dark blue field with white stars, and the right side features red and white wavy stripes. The text is centered in white with a slight glow effect.

Bureau of Ocean Energy Management, Regulation and Enforcement

Learning More About the Role of Oil and Gas Platforms in the Lives of Southern California Rockfish



Two U.S. Department of the Interior agencies, the Bureau of Ocean Energy Management, Enforcement and Regulation, and the U.S. Geological Survey completed the cooperative agreement research project entitled "***The Ecological Role of Natural Reefs and Oil and Gas Production Platforms on Rocky Reef Fishes in Southern California.***" The study began May 1995, and a final report was published in June 2003. Research objectives of the study are twofold: (1) to understand the biology and ecology of rockfish living under oil and gas production platforms and at nearby natural reefs and (2) to determine the importance of oil and gas platforms as habitat for juvenile rockfish or as an attraction device for rockfish populations. Rockfishes were selected for this research because they contribute significantly to the California fishing economy and are targets for both commercial and recreation fisheries in the State. The results of this research will help the Bureau and other interested parties to more fully understand the effects of offshore oil and gas platforms on rockfish populations and to examine options for future decommissioning of OCS platforms in the Pacific Region.

A team of researchers from the University of California-Santa Barbara (UCSB), University of Alaska-Fairbanks (UA-F), and the National Marine Fisheries Service (NMFS) are conducting the research. Dr. Milton Love from UCSB is the Research Program Manager. The research area is on the Pacific Outer Continental Shelf (OCS) at fifteen Federal and two State of California offshore oil and gas production platforms located at Pt. Arguello in the Santa Maria Basin to the eastern Santa Barbara Channel and off Huntington Beach. In addition, research is being conducted at adjacent natural reefs (twelve in shallow water and five in deep water).

The basic research program components include:

Synthesis of Existing Rockfish Information

- Development of a monograph on Northeast Pacific Rockfishes which will include species synopsis, ecology, physiology, paleontology, fisheries management, age/growth, and systematics.
- Development of a lay person's Guide to Rockfishes of the Northeast Pacific with life history summaries of each rockfish species.

Rockfish Recruitment (Settlement) Studies

- Conducting trawling surveys to estimate the distribution of juvenile rockfishes near oil and gas production platforms.
- Collection of physical oceanography data (e.g., currents and temperature) by Scripps Institution of Oceanography via satellite imagery to study hydrographic influences on the distribution and abundance of rockfish larvae and juveniles.
- Modeling of rockfish recruitment processes to link current and circulation features that affect juvenile abundance and movement.

Rockfish Habitat and Community Studies

- Conducting scuba diver and submersible surveys of rockfish at oil and gas production platforms to determine species composition, abundance, and size.
- Conducting visual and video surveys to investigate species composition, abundance, and size of rockfishes at natural reef features in the vicinity of oil and gas production platforms.

Genetic Diversity Studies on Spawning Rockfish Populations

- Analyzing rockfish DNA to determine genetic diversity.
- Conducting rockfish population systematic studies.