

Recovery and Demise of Marine Protected Areas in the Channel Islands

Lecture by **Dirk Rosen**

Where: Santa Barbara Maritime Museum, 113 Harbor Way, Santa Barbara

When: Thursday, June 13, 2019 at 7:00pm

Doors open to SBMM Members at 6:15pm and to non-members at 6:45pm

Cost: \$10 (SBMM Members) ♦ \$20 (Non-members)

Register: www.sbmm.org or (805) 456-8747

Sponsored by: **Marie L. Morrisroe**



Santa Barbara and the Channel Islands pioneered the implementation of networked Marine Protected Areas (MPAs) in 2003. This bold California conservation mandate eventually resulted in creation of the 124 networked reserves we have statewide today, the largest such network. Marine Applied Research & Exploration (MARE), a non-profit, was formed to fill the knowledge gap in deep-sea ecosystems through deployment of remotely operated vehicles (ROVs). This presentation will discuss the collaborative work of the Channel Island National Marine Sanctuary, Department of Fish and Game and MARE, deploying ROVs inside and outside MPAs to document change over time to fish and invertebrate populations. So far the results are mostly promising, with large increases in abundance of most targeted fish species over the past 15 years. Deep-sea video will showcase the health, biodiversity and the challenges down deep, in one of the world's richest ecosystems.

Dirk Rosen is an ocean engineer from U.C. Santa Barbara and founder of Marine Applied Research & Exploration (MARE). Rosen has 30+ years of deep-sea equipment design, building and operations experience with ROVs, manned submersibles and tow sleds. He has led or co-led 37 ocean expeditions assessing Marine Protected Areas, characterizing National Marine Sanctuaries, performing fish stock assessments, evaluating impacts of wave power, recovering lost equipment at sea, and removing derelict fishing gear. Rosen and MARE have performed a census of California's network of MPAs from Mexico to the Oregon border since 2003.

Previously, Rosen was president of Deep Ocean Engineering, a test pilot for all three Deep Rover 1,000 meter-rated manned submersibles, and co-designer of hundreds of ROVs. Later, at Hawkes Ocean Technologies, he managed the construction of Challenger, an 11,000 meter-rated manned submersible designed to explore the Marianas Trench. He also worked with NASA for 5 years, helping implement robotic standards now used on the International Space Station.

Since 2000, the [Santa Barbara Maritime Museum](#) has featured many artifacts and stories to share the history of the Santa Barbara Channel with more than 40,000 visitors annually and provides year-round experiential maritime history and marine science education for local youth. Featuring the impressive *First-Order Fresnel Lighthouse Lens* from Point Conception, SBMM's current exhibits explore the *History of Oil in Santa Barbara Channel & Chumash Use of Asphaltum*, the *Honda Disaster*, and *Wives and Daughters: Keepers of the Light*.

SBMM is located at the historic Santa Barbara Harbor at 113 Harbor Way, Suite 190, Santa Barbara, CA 93109. Visit sbmm.org or call (805) 962-8404 for details.