



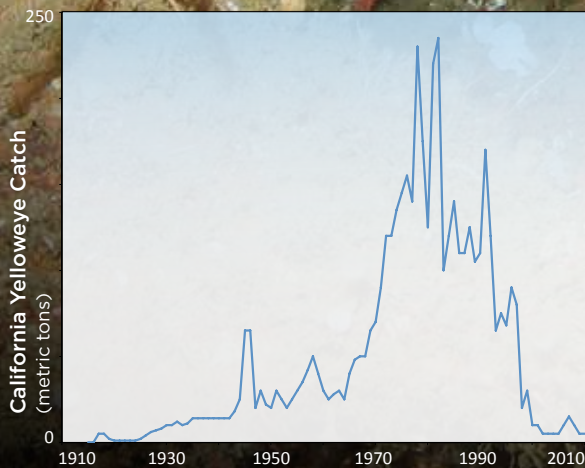
MARE

MARINE APPLIED RESEARCH & EXPLORATION

Annual Report 2013



Yelloweye rockfish (Sebastes ruberrimus)



New hope for Rockfish?

Following enormous increases in fishing pressure during the 60s, 70s and 80s, fisheries around the globe began to collapse. Yelloweye rockfish are one of six West Coast species now protected from all fishing in hopes of restoration. MARE's deepwater robotic camera systems are helping fishery managers determine whether these populations are rebuilding and, hopefully, when it will be safe to lift fishing restrictions.

Source: PFMC



Rockfish

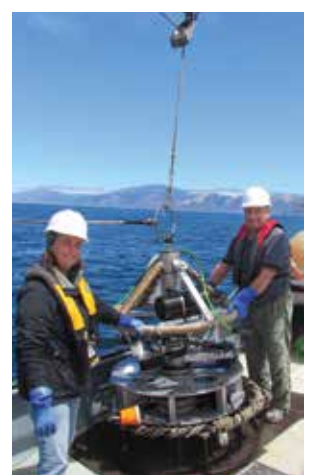
China rockfish (Sebastes nebulosus)



Cowcod (Sebastes levis)

Many rockfish are tasty! So it's not surprising they're among the most important commercial and recreational fish along the California coast. But because they produce relatively few offspring and many species don't reproduce until they are 20 years old, they are easily threatened by overfishing. Over 90% of the oldest and largest rockfish (the best breeders) are already gone!

Dr. Rick Starr, Moss Landing Marine Laboratories (right), and Dr. Mary Gleason of The Nature Conservancy pose with MARE's newly developed Stereo Video Lander. "The Lander is greatly improving our ability to assess Rockfish Conservation Areas — places closed to fishing to protect overfished species," explains Starr. "By providing an affordable means of getting our eyes deep in the water, it enables us to confirm habitat type, fish abundance, and the size of bottom dwelling species, all of which is helping us better understand rebuilding and healthy fish populations. Our ultimate goal is to be able to fine-tune decisions about the need for fishing closures."



MARE in the Field

Marine Protections: Measuring Their Success

MARE continued efforts to document deepwater fish and invertebrates in California's new network of Marine Protected Areas (MPAs). By conducting assessments now, as the MPA network is established, we are developing baseline knowledge critical to evaluating MPA performance over time — in addition to managing these conservation zones in order to maximize their beneficial impacts with minimal harm to fishermen and coastal communities.

In 2013, we worked with California's MPA Monitoring Enterprise to conduct surveys in various Southern California sites. In 2014, MARE will return to the Channel Islands after more than ten years of implementation to assess this network of MPAs.



Corals & Sponges

Working with NOAA and the Channel Islands National Marine Sanctuary, MARE completed deepwater coral and sponge surveys. The cruise provided a first look at some of the beautiful and bizarre corals living there.

Finger Goblet Sponge (Heterochone calyx)

Sustainable Fish Dinner

In June, we hosted our first annual Sustainable Fish Dinner featuring remarks by Former California Secretary of Resources Huey Johnson. We thank the Dolphin Club for donating their fabulous space, and we thank our generous dinner and raffle donors, including Kanaloa Seafood, Rodney Strong Vineyards, Thirsty Bear Brewery, and Hog Island Oyster Company. Everyone had a great time and learned about our threatened and valuable oceans. We look forward to seeing you at next year's dinner!



Exploring our National Marine Sanctuaries

In 1972, Congress established the National Marine Sanctuaries program with the goal of protecting significant marine environments. Since then, 13 sanctuaries and a national marine monument have been established, encompassing 170,000 square miles of habitat. MARE is helping managers learn what's in the deepwater portions of their sanctuaries. Next year we will return to the Cordell Bank National Marine Sanctuary, which is located just north of San Francisco. To date, we've worked extensively in four of the five West Coast sanctuaries.



Message from the Executive Director

MARE turned 10 this year! After a decade diving deep and documenting little known marine ecosystems and their inhabitants we've:

- completed over 600 ROV and Video Lander dives
- surveyed 1,591 kilometers of sea floor (almost 1,000 miles!)
- collected over 5,200 hours of video footage

Spending this much time at sea allows MARE to become familiar with the changing state of our ocean and how it varies up and down the coast. We explore unknown marine environments, observe creatures never before seen, assist in better understanding of coastal fish populations and increase our knowledge of critical deepwater habitats. MARE's valuable expertise informs assessments of ocean health in support of sustainable fisheries for future generations.

MARE was founded to establish a biological baseline of the first network of Marine Protected Areas in the **Santa Barbara Channel Islands**. Given their age, spectacular ocean productivity, and both northern and southern California water temperature regimes, we believe they will be the first area to demonstrate real change. As we come full circle, ten years later, MARE has launched an expedition to return to the Channel Islands in 2014 and 2015. Please join us and support MARE's continued exploration to better understand and manage our fragile oceans.

Best regards,

Dirk Rosen
MARE Executive Director and Founder

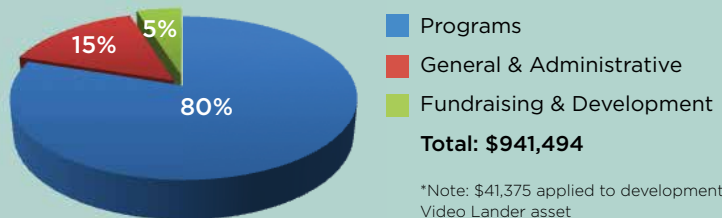
About MARE

With unprecedented threats from climate change, pollution and overfishing, our oceans are vulnerable. This alarming situation requires new scientific initiatives to better understand our marine ecosystems. Policy makers and ocean managers need consistent, reliable information on marine species and the habitats they depend on to track changes in fish populations over time, as well as the effects of conservation measures, including marine protected area (MPA) designations. This requires the ability to see and work in underwater environments, beyond diver depths.

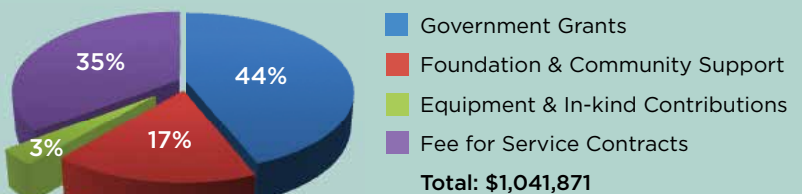
Marine Applied Research & Exploration (MARE) provides this needed deepwater technology and data analysis expertise. Founded in 2003 as a nonprofit 510c3 organization, MARE's mission is to help protect and restore the ocean's invaluable, yet threatened resources by enabling science-based marine conservation efforts.

Statement of Activities, FY 2012-2103

EXPENSES



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