ROV surveys of soft and rocky deep-water habitats along California’s North Central Coast; MPA baseline data collection

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Why monitor MPAs?
Monitoring MPAs tells us if they work.
Monitoring inside and outside of MPAs shows the effects of the MPAs.
Monitoring informs adaptive management.

What are we monitoring?
Species of Interest – fishes and invertebrates including selected exploited and non-exploited species identified as priorities.
Habitat – composition and complexity as they have direct effects on fish and invertebrate diversity.

SPECIES OF INTEREST
Lingcod Ophiodon elongatus
Wolf eel Anarrhichthyus ocellatus
Outback rockfish Sebastodes muller
Red sea urchin Strongylocentrotus franciscanus
California cucumber Parastichopus californicus

How are we monitoring?
ROV Beagle – owned by TNC operated by MARE.
F/V Donna Kathleen – owned by Capt. Tim Marich and his family Donna and Tyler.

Baseline data collection
Establishing baseline conditions is important to assess changes over time

Pt. Arena MPA Cluster
Bodega Head MPA Cluster
Southeast Farallon Island MPA Cluster
Pillar Point SMCA & Montara SMR

Rapid Assessment
Taxonomic distribution and abundance plots (TDAPs) plot the geo-referenced occurrence of key species groups and landscape attributes at one-minute intervals over the area surveyed by the ROV. These plots provide managers with a timely snapshot of community structure inside and out of the new MPAs while more intensive frame-by-frame analysis of project imagery is conducted.

Funding for this research project provided by:
• California MPA Monitoring Enterprise through California Sea Grant and a State Coastal Conservancy Grant
• Undergraduate Research Opportunities Center at CSUMB
• Interested fishermen and citizens who have added us in our data collection.
A special thanks to all participants on our project, including:
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