



NATIONAL MARINE
SANCTUARIES

Seafloor Mapping as a Foundation for Resource Conservation at the Cordell Bank National Marine Sanctuary

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NOAA's National Marine Sanctuaries



Scale varies in this perspective.
Adopted from National Geographic Maps.



NOAA Ocean Service



Complementary Mission Statements

*“The **National Marine Sanctuary Program’s** mission is to serve as the trustee for the nation’s system of marine protected areas to conserve, protect and enhance the biodiversity, ecological integrity and cultural legacy of these ecosystems.”*

*“The mission of the **California Ocean Protection Council** is to ensure that California maintains healthy, resilient and productive ocean and coastal ecosystems for the benefit of current and future generations.”*

Complementary Mapping Goals

Marine Sanctuary System Wide Monitoring Plan

System question No. 5:

“What is the distribution of major habitat types and how is it changing?”

California Ocean Protection Council 5 Year Plan

Objective 2 of the research and monitoring theme:

“Monitor and map the ocean environment to provide data about condition and trends.”

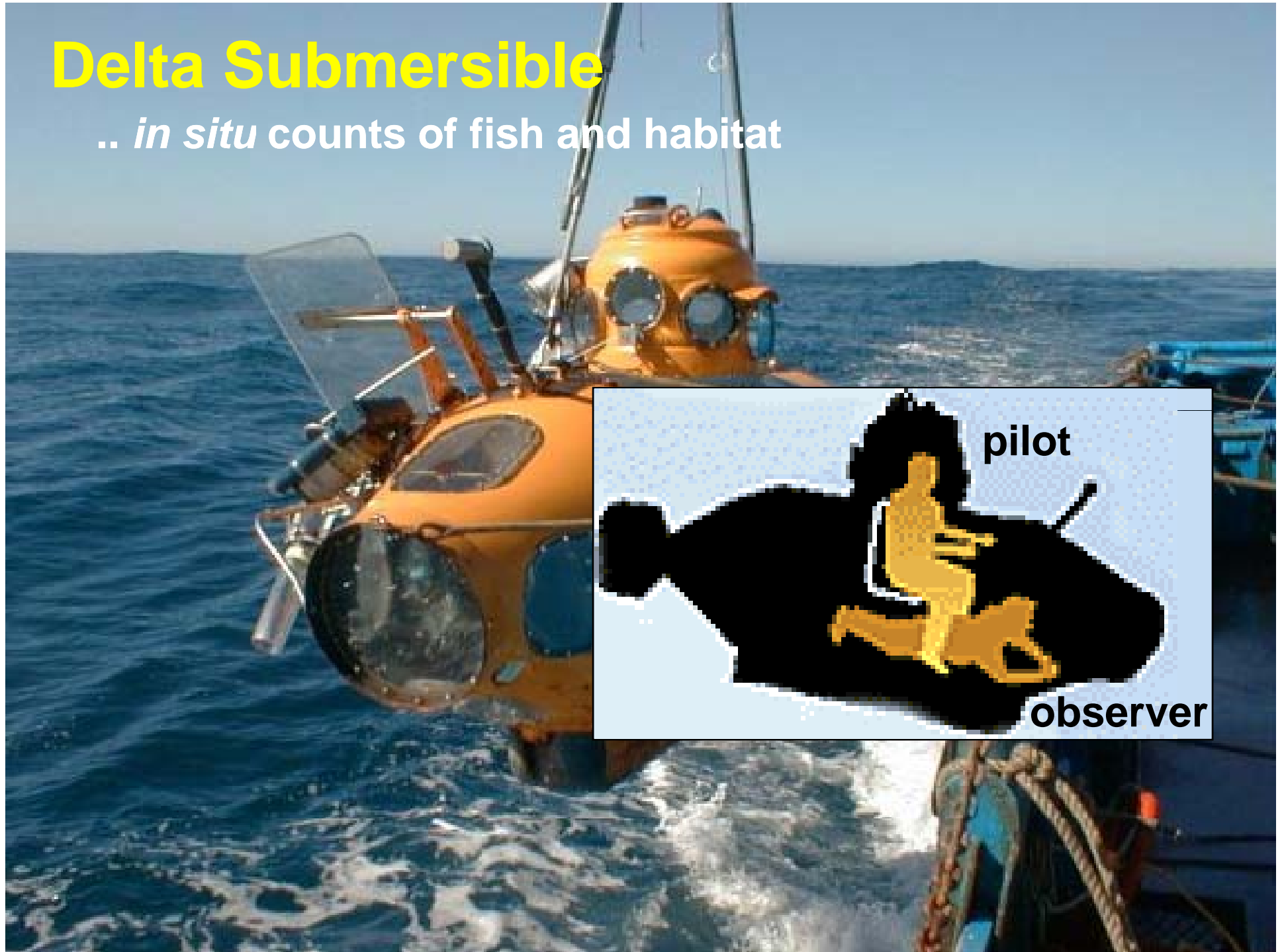
Action 2d of the Research and Monitoring Goal

“Pursue funding and partnerships to complete sea floor maps of all state waters.”

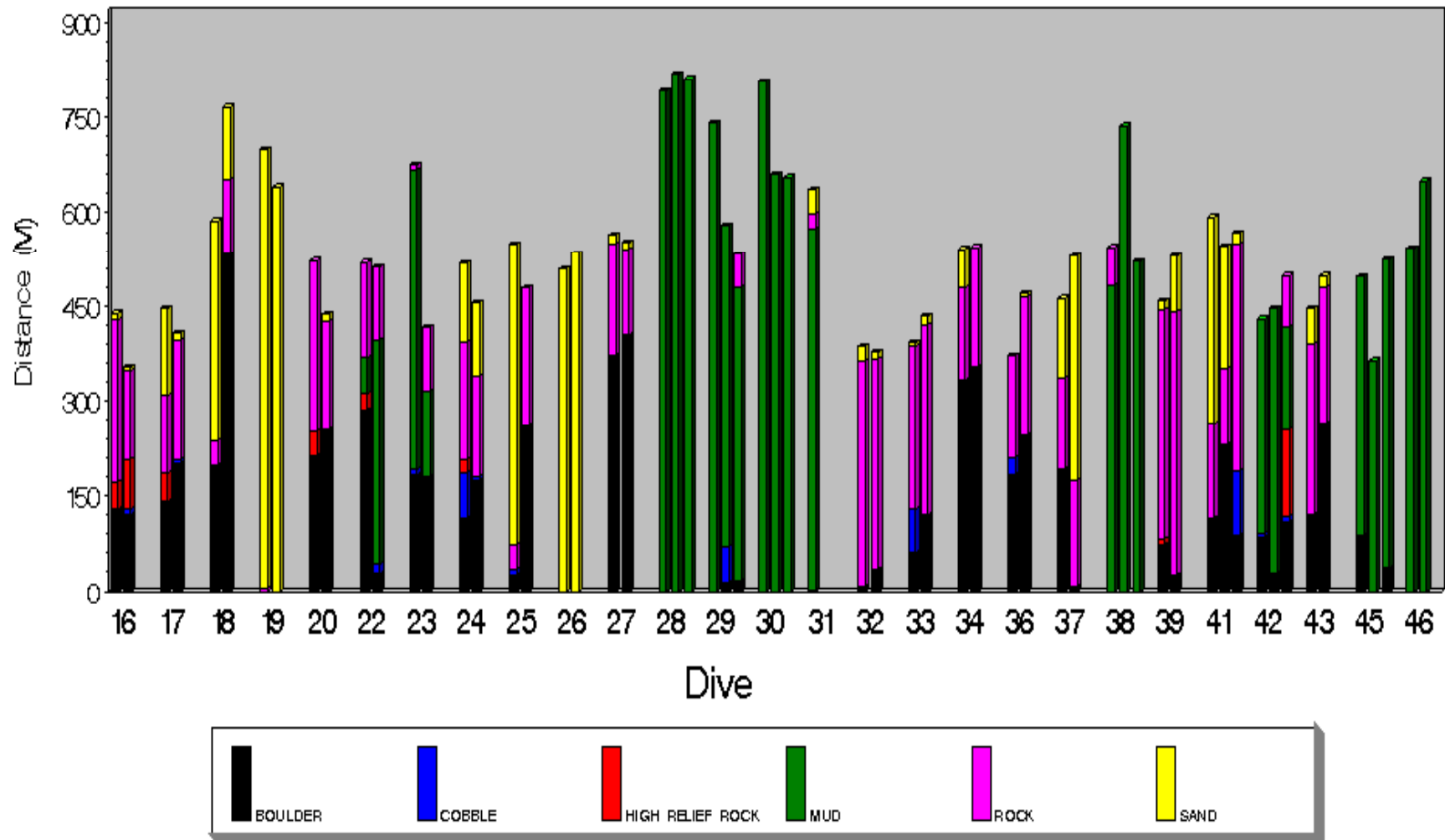
What's
Down
There?

Delta Submersible

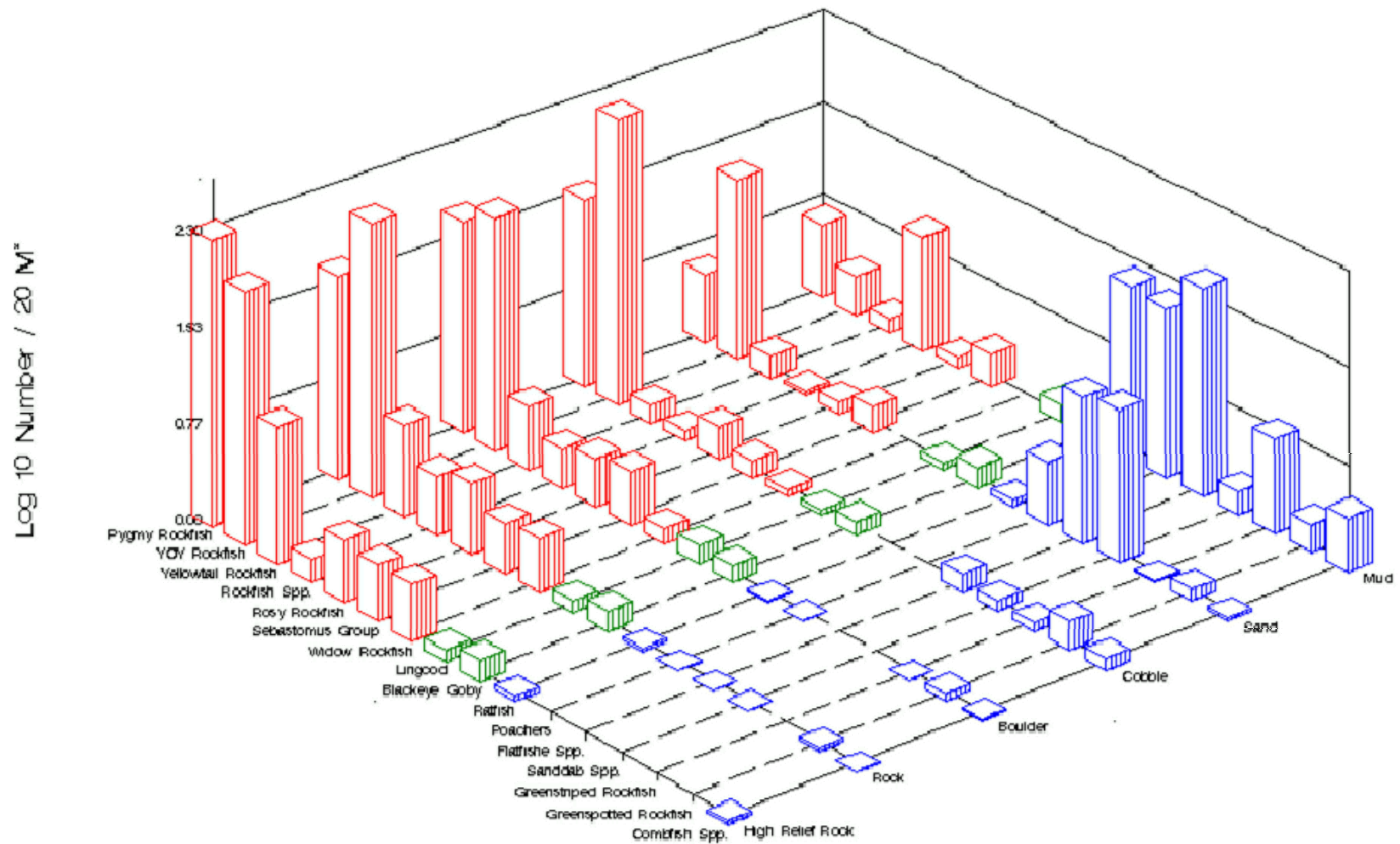
.. *in situ* counts of fish and habitat



Habitat Typing

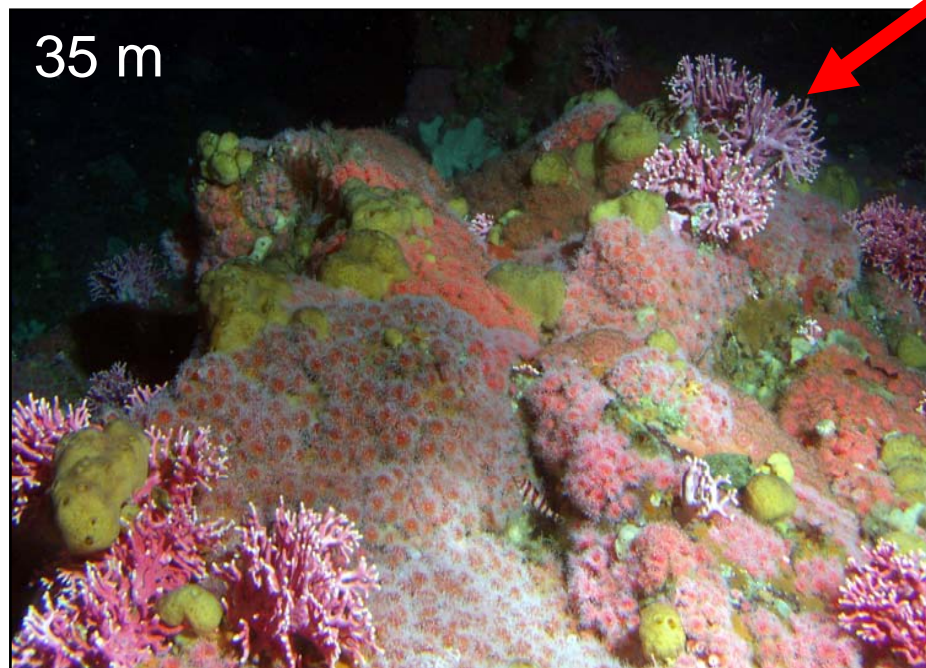
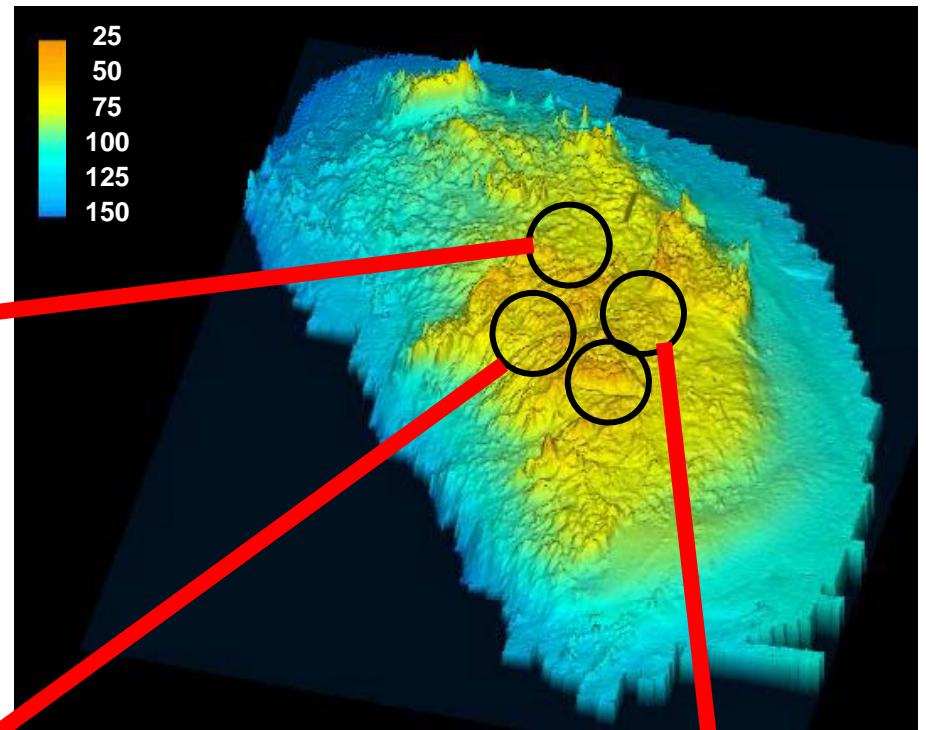
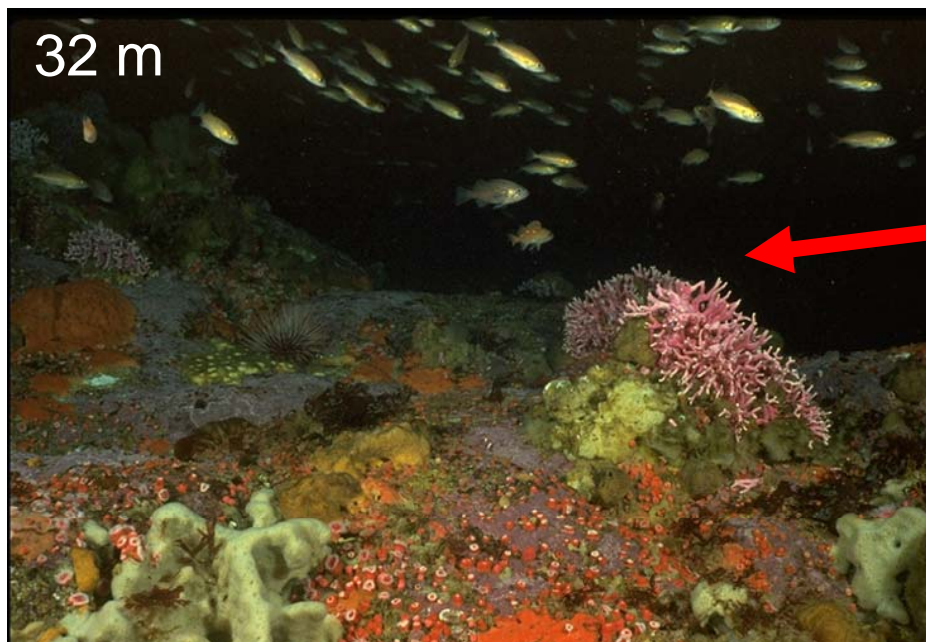


Fish/Habitat Affinity





Top of Bank – *Diverse inverts*



Top of Bank / Rocks & Boulders



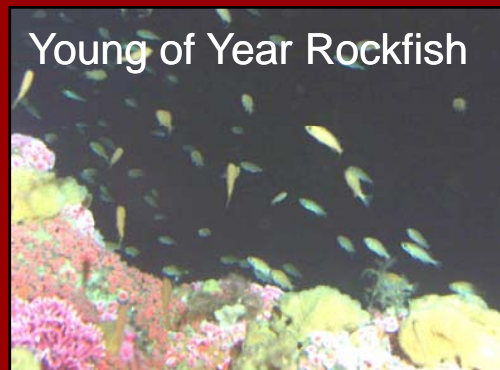
Blue Rockfish



Quillback Rockfish



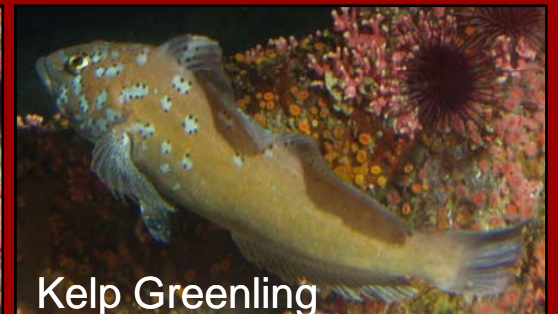
Yellowtail Rockfish



Young of Year Rockfish



Rosy Rockfish



Kelp Greenling

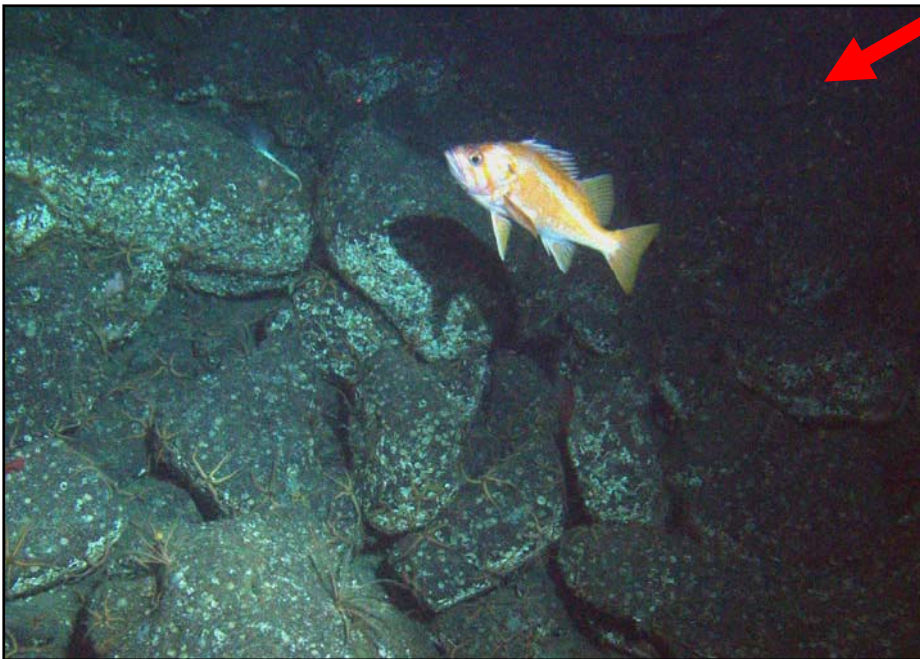
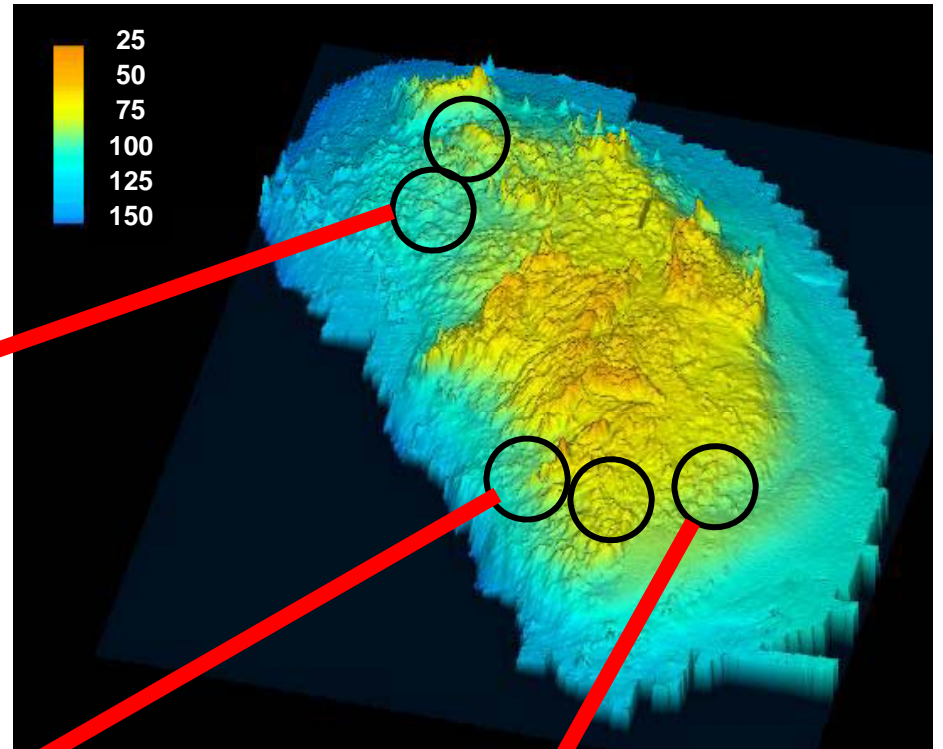


Juv. Yelloweye Rockfish



Squarespot Rockfish

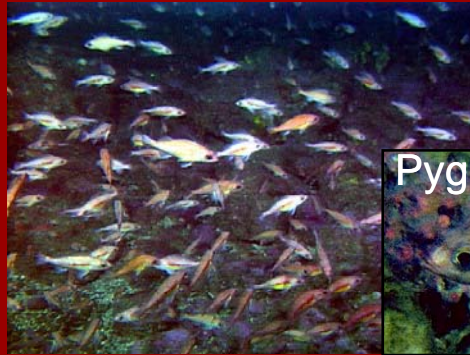
Lower Bank - *Boulder fields*



Lower Bank / Rocks & Boulders



Starry Rockfish



Pygmy Rockfish



Bocaccio



Yelloweye Rockfish



Flag Rockfish



Vermilion Rockfish

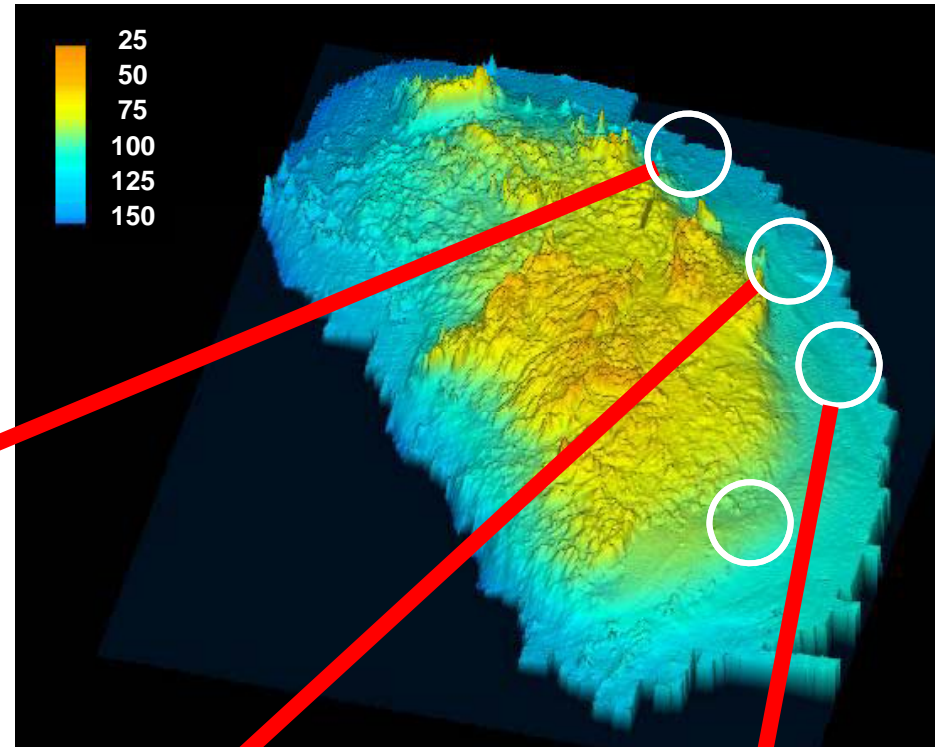
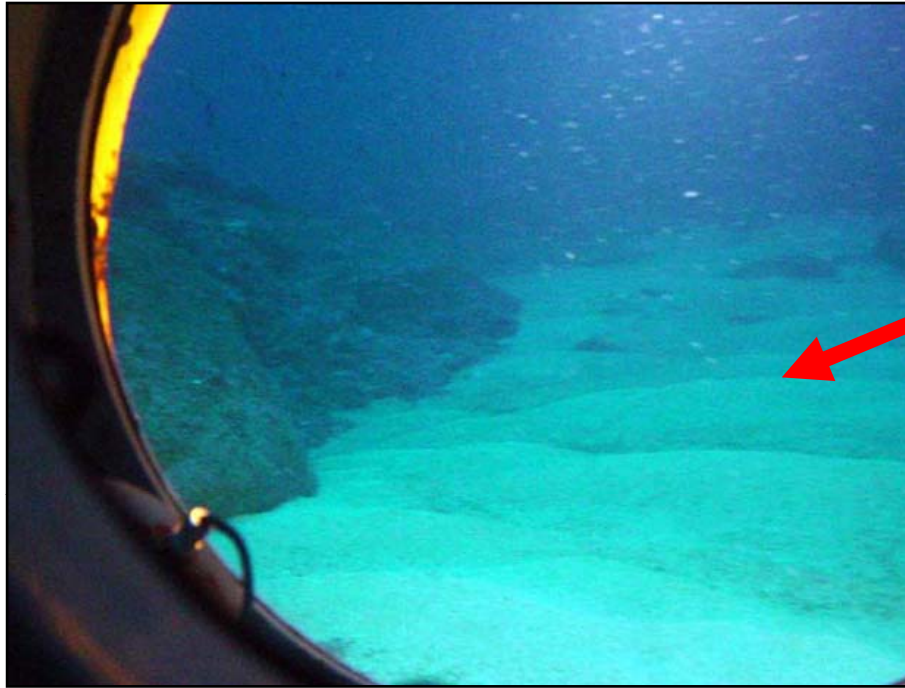


Greenspotted Rockfish

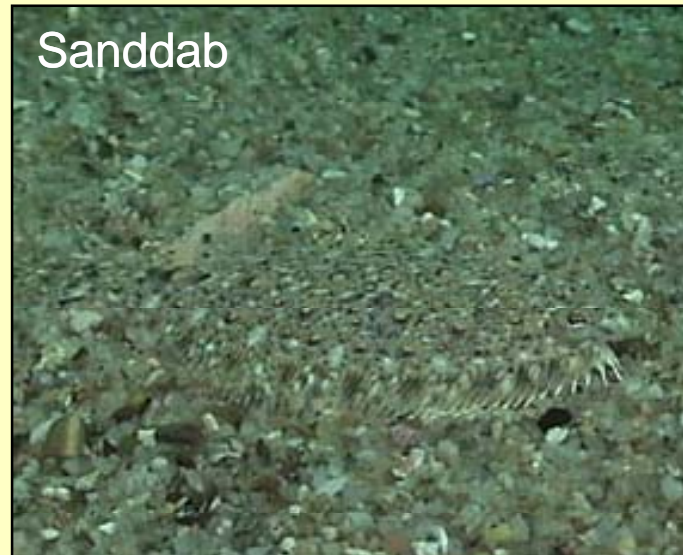
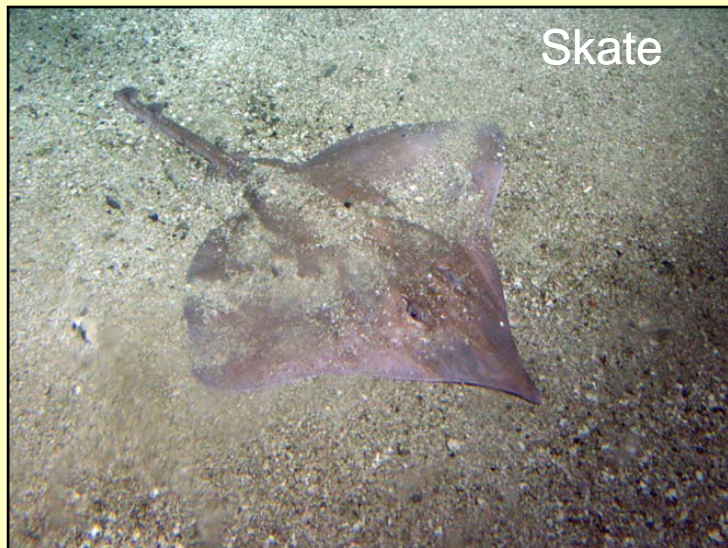


Lingcod

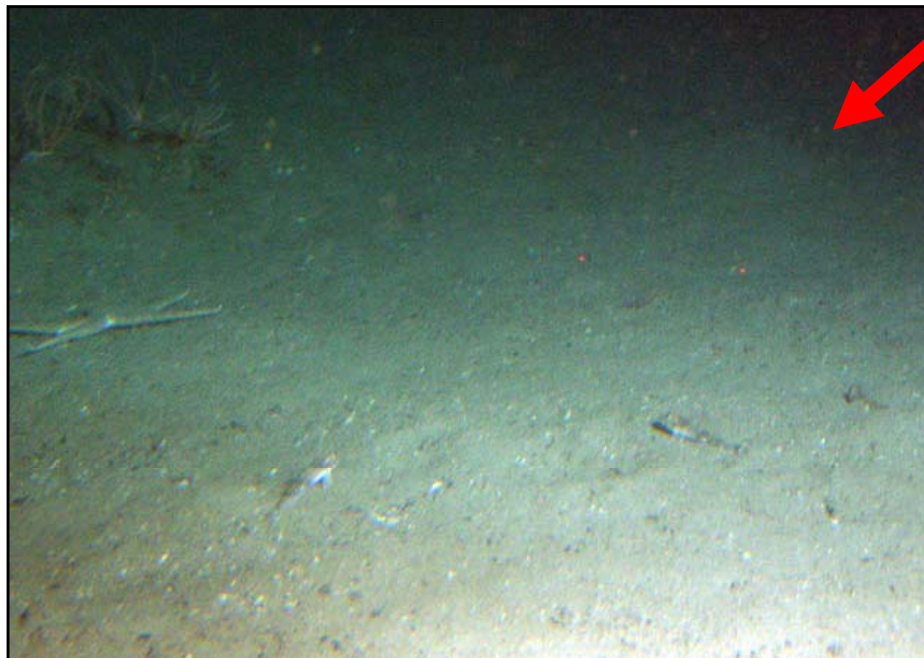
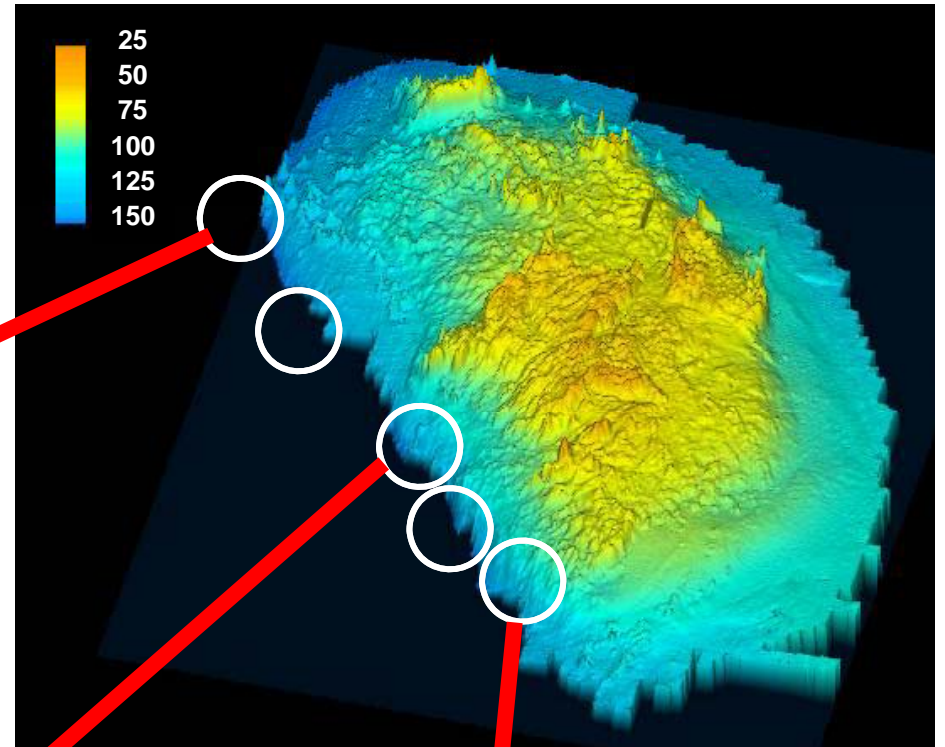
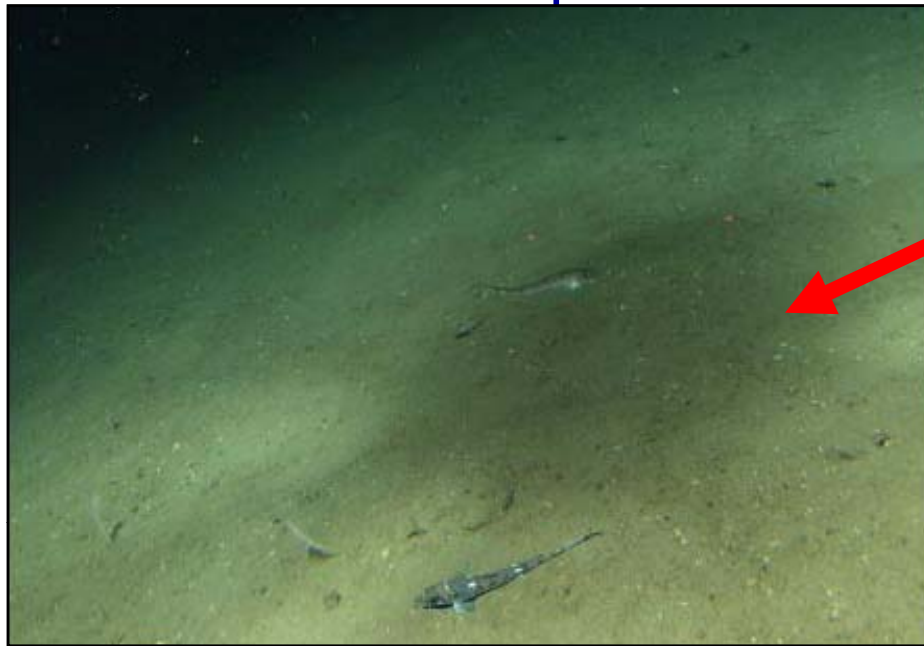
Lower east-side - *Sand waves*



Lower east-side Sand



Continental slope - *Mud*



Mud Slope

Hagfish Grotto



Spotted Ratfish



Longspined combfish



Poachers



English Sole



Splitnosed Rockfish



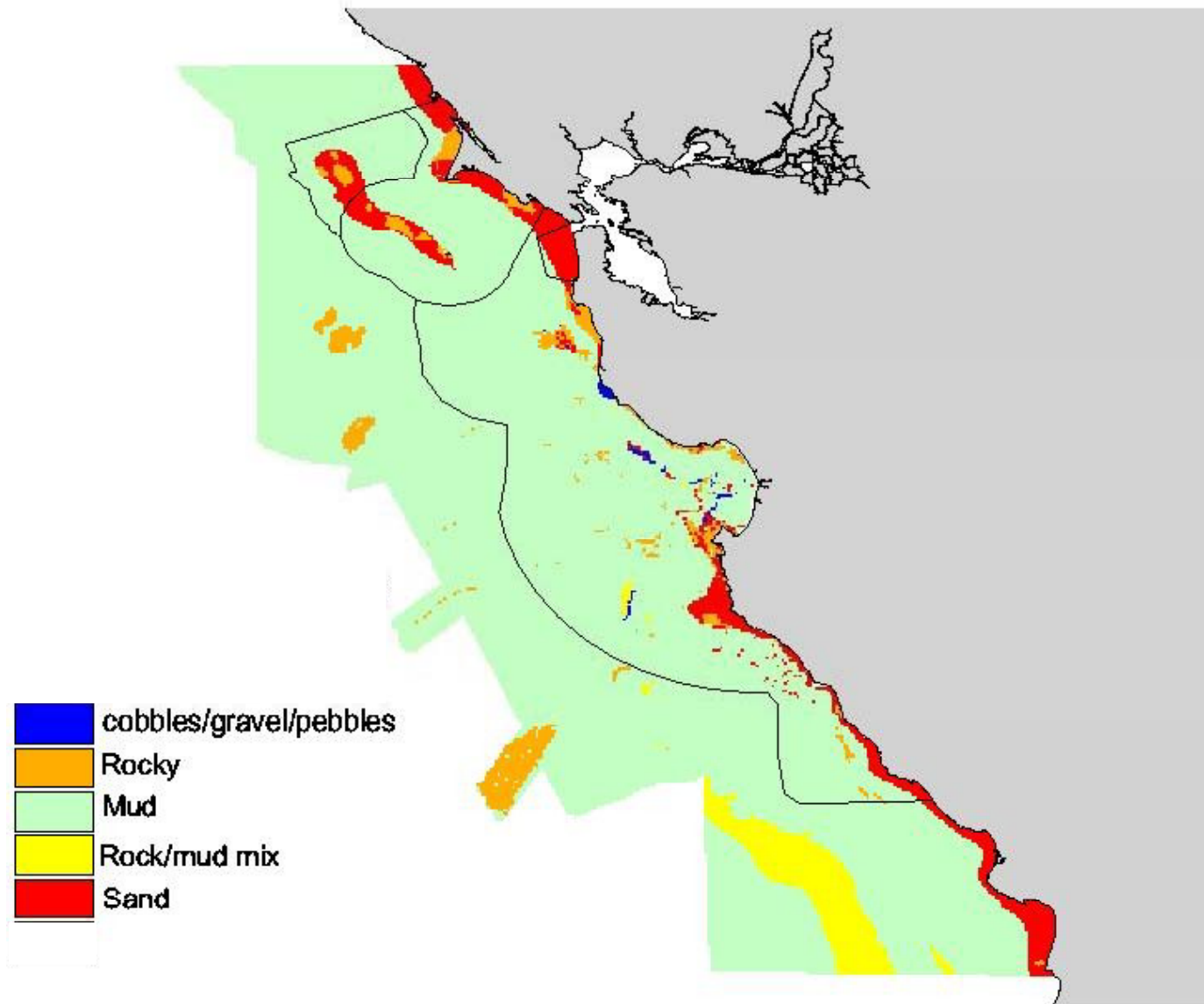
Stripetail Rockfish



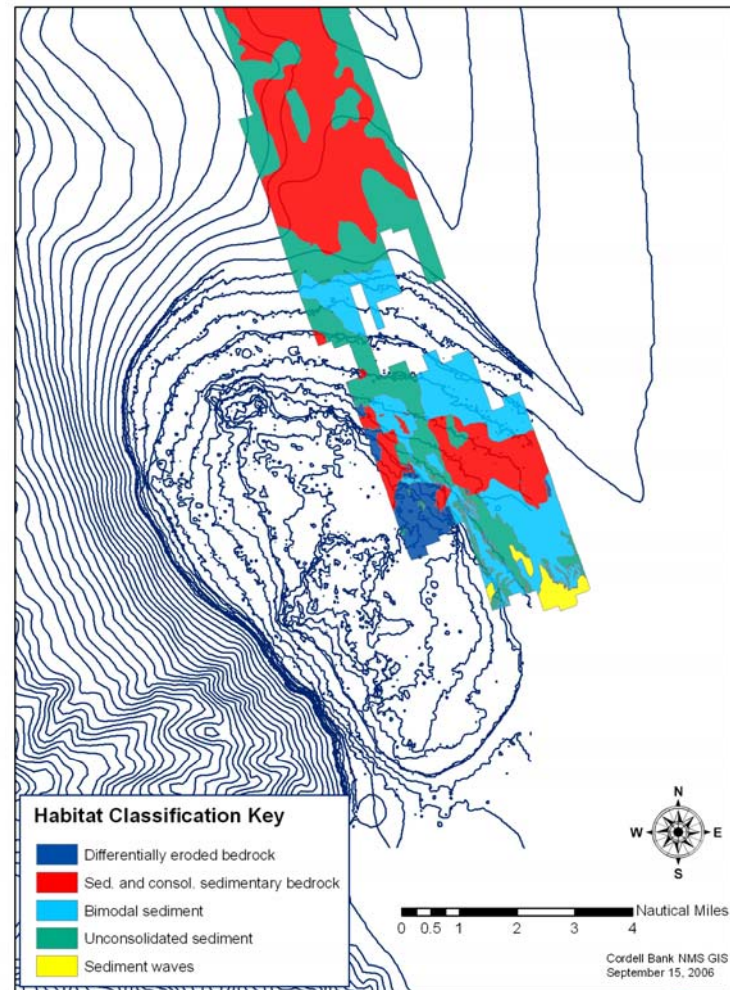
Slender Sole



NOAA Habitat Map



Commercial Sidescan



CSUMB Seafloor Mapping Lab



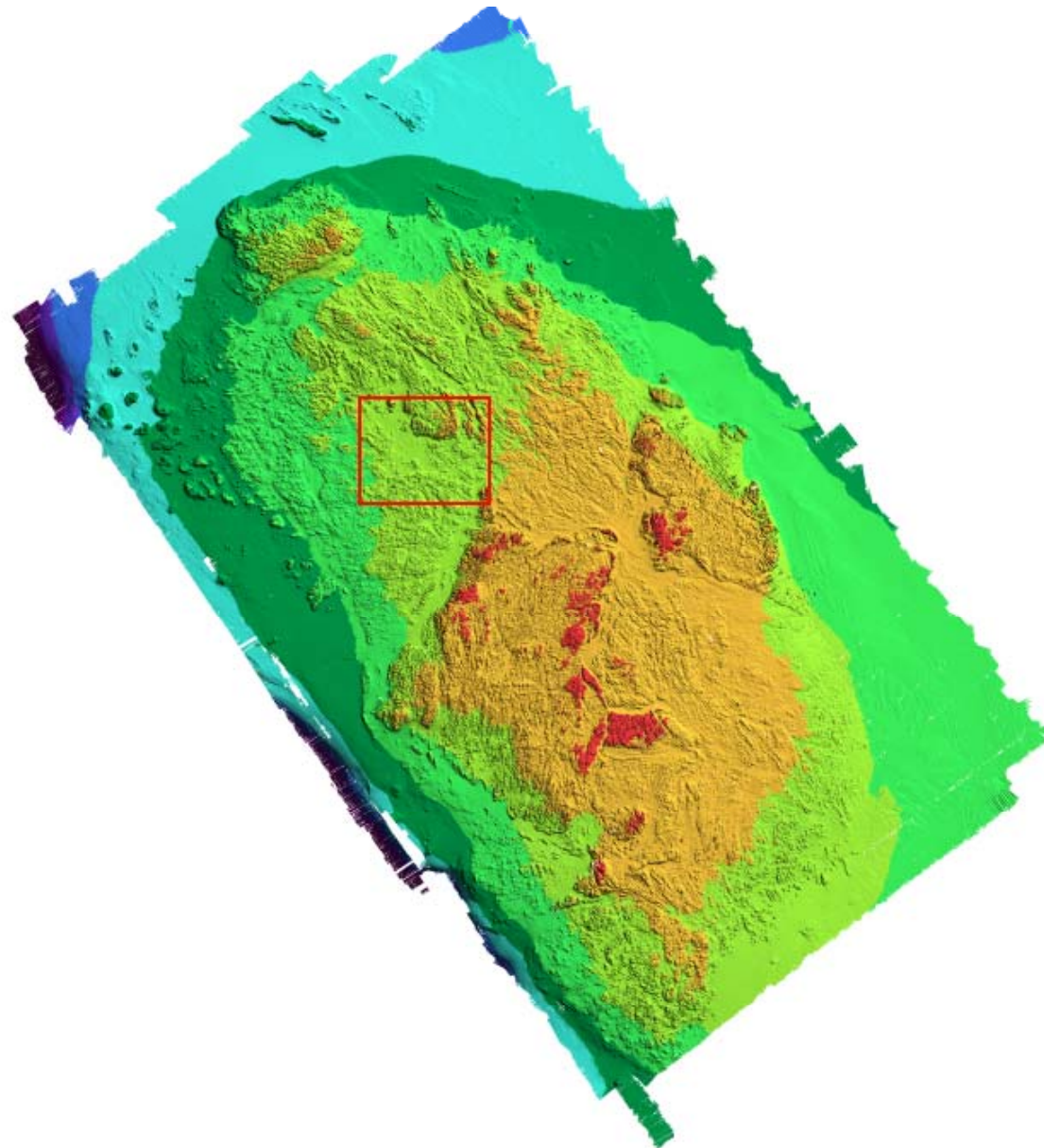
Field Team

- Kendra Wong
- Mary Young
- Saori Zurita
- Kate Thomas

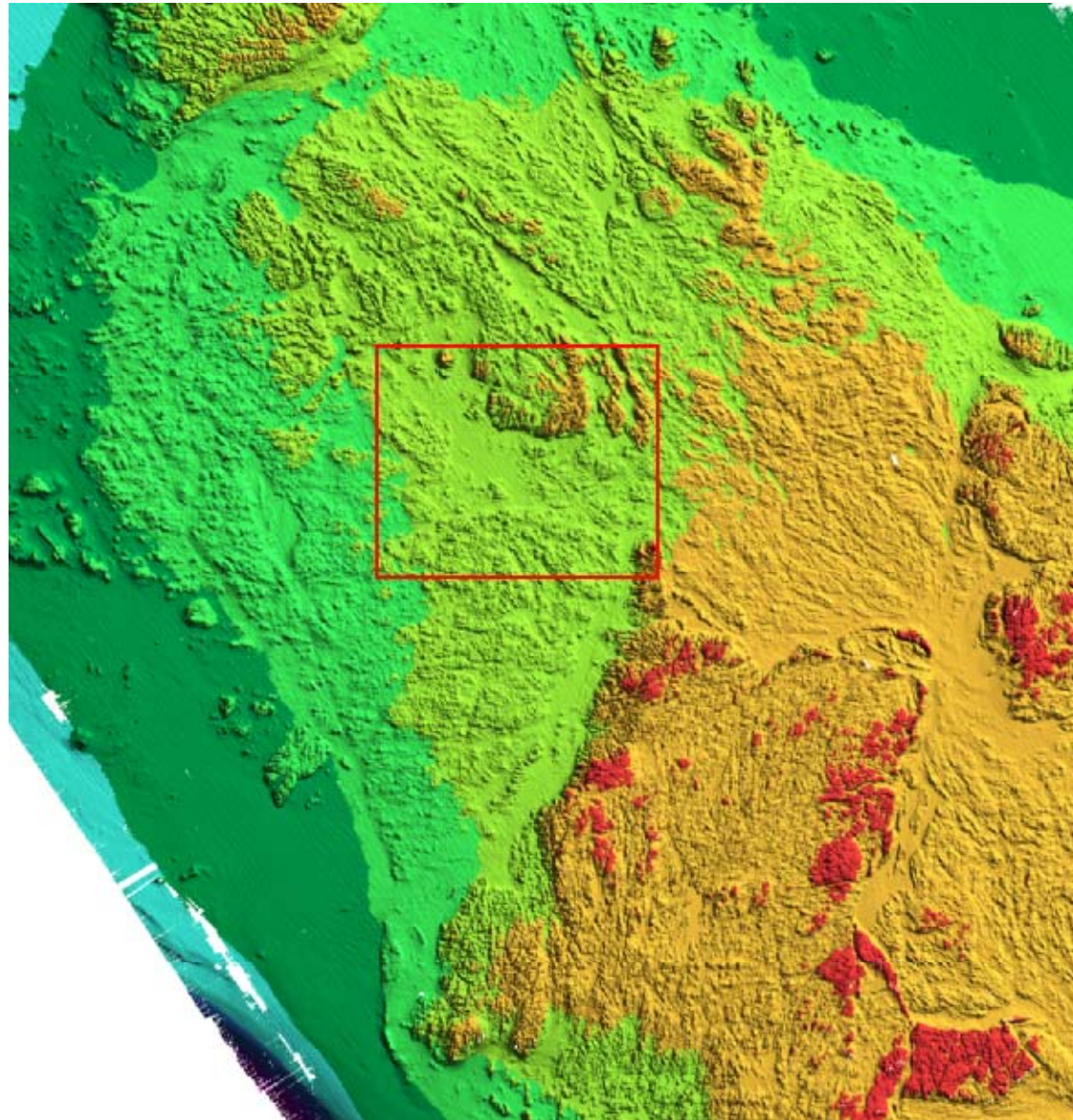


R/V VenTresca

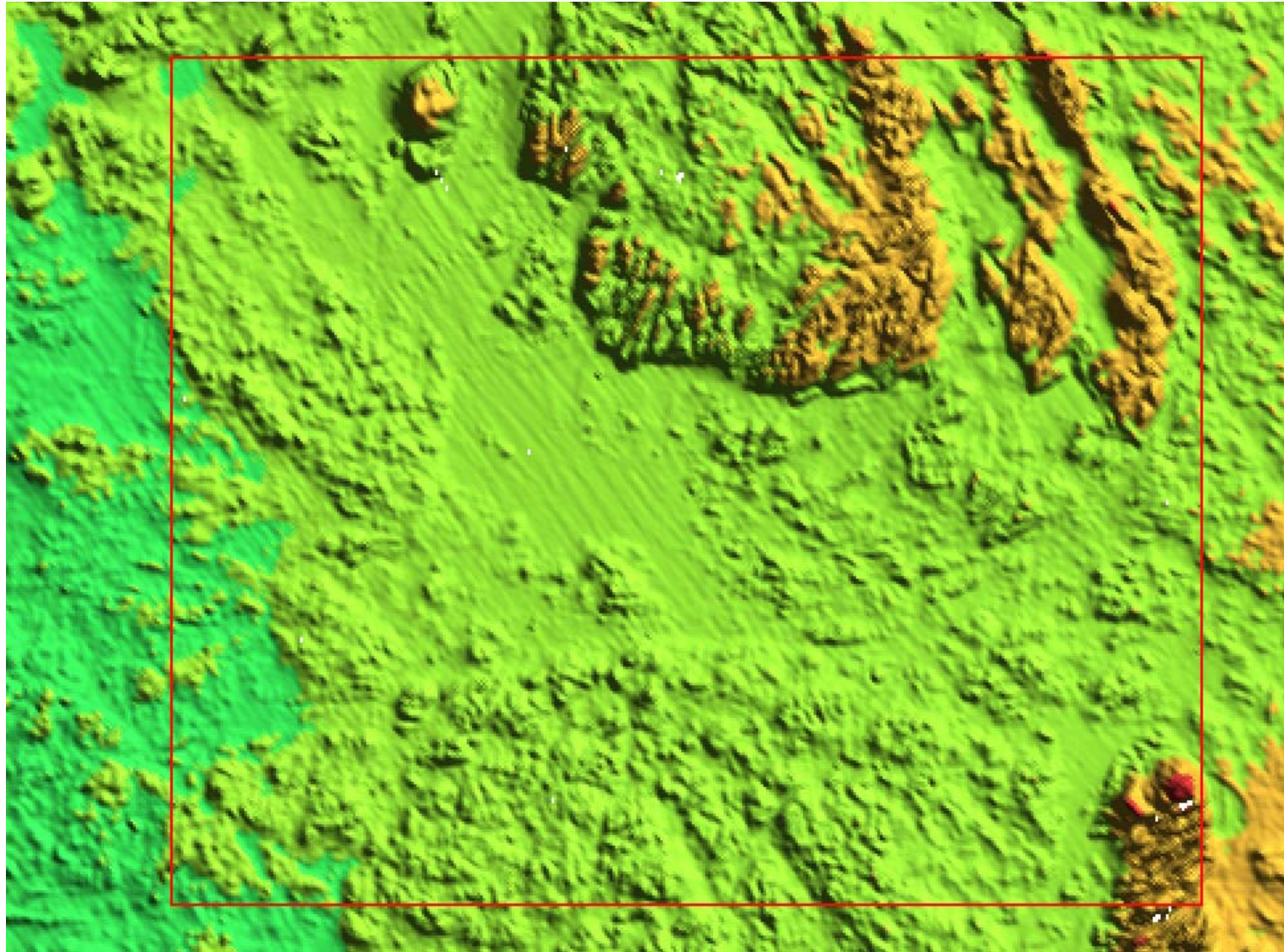
Multibeam Bathymetry



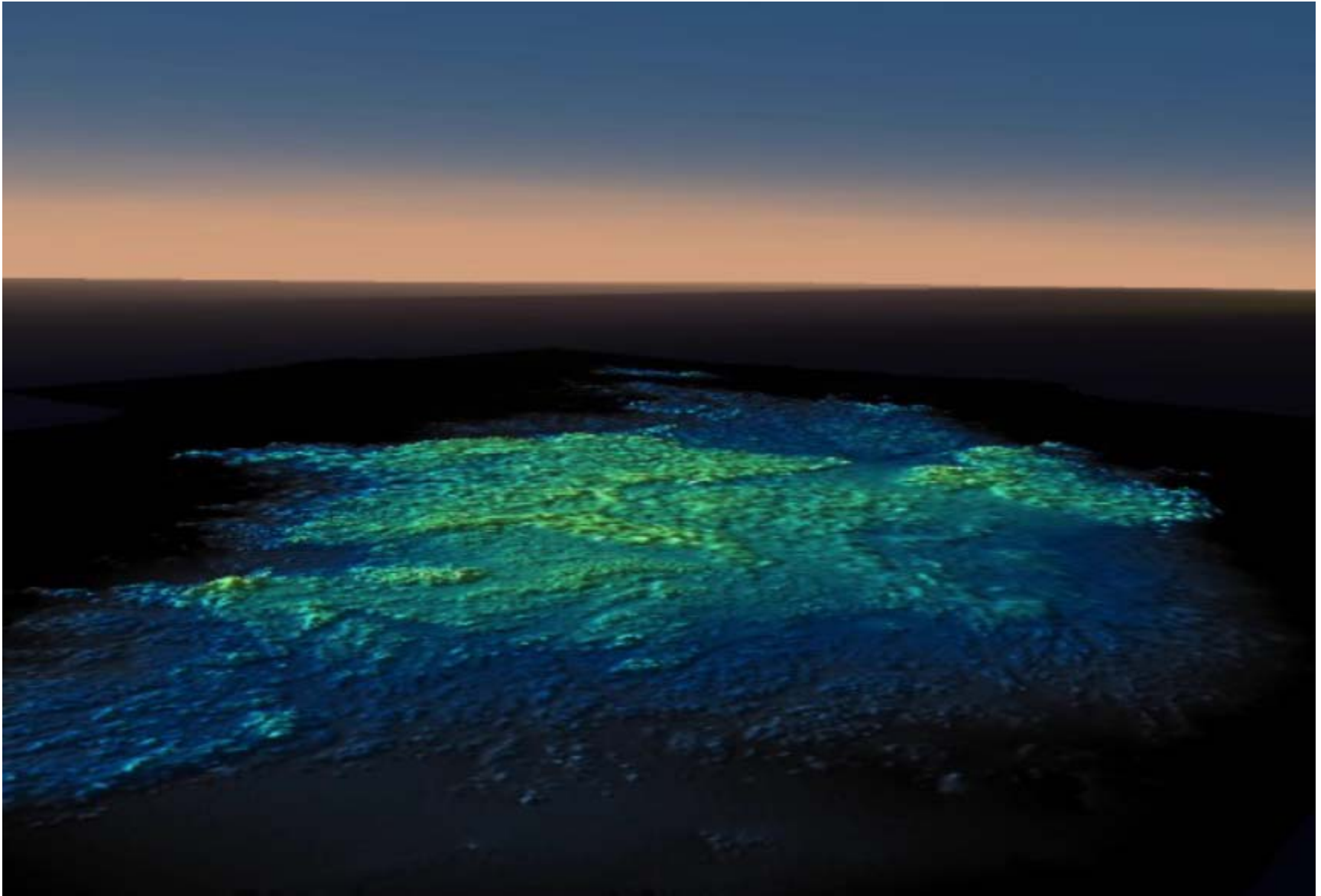
Multibeam Bathymetry



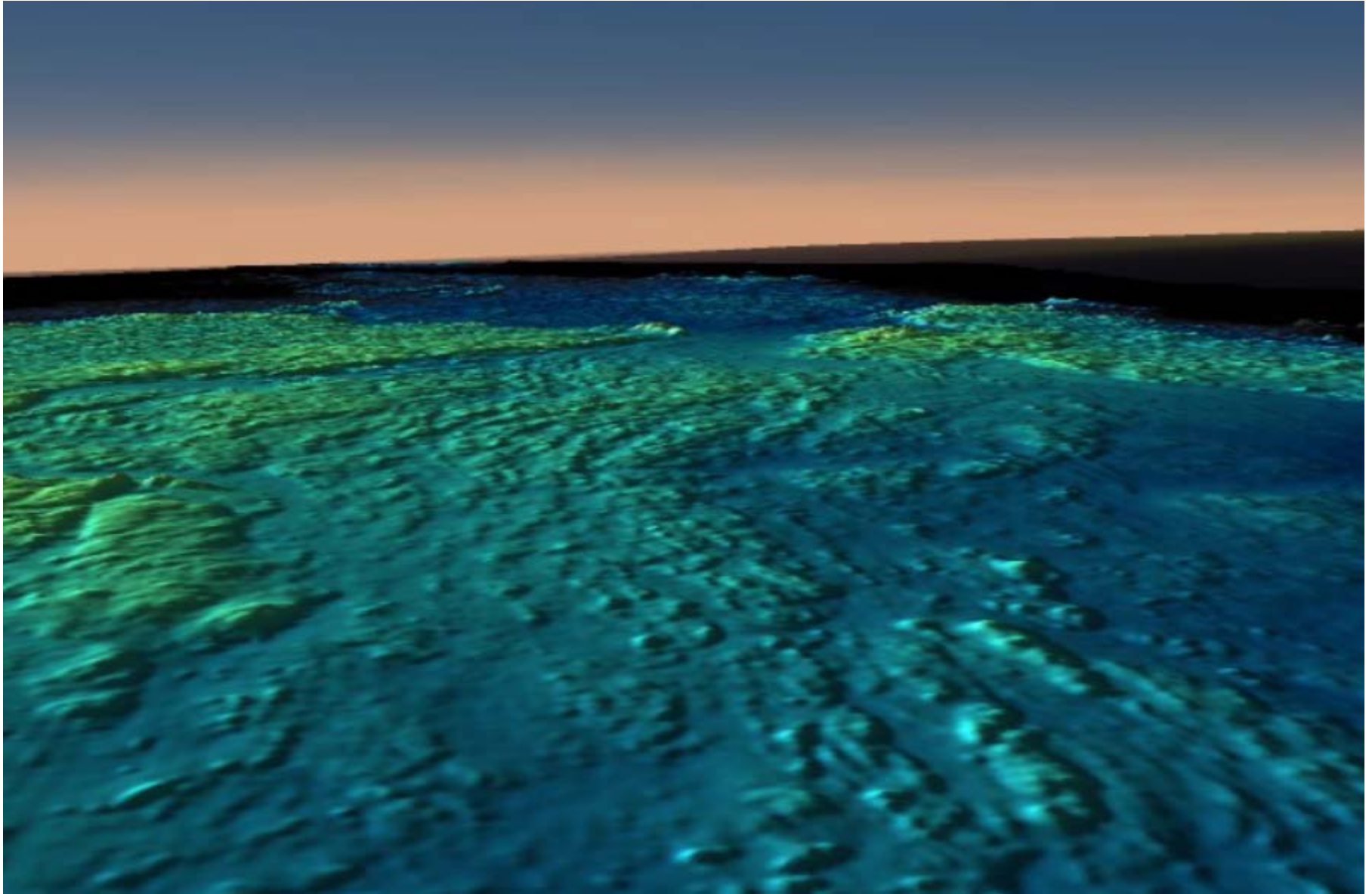
Multibeam Bathymetry



CCOWS Flythrough



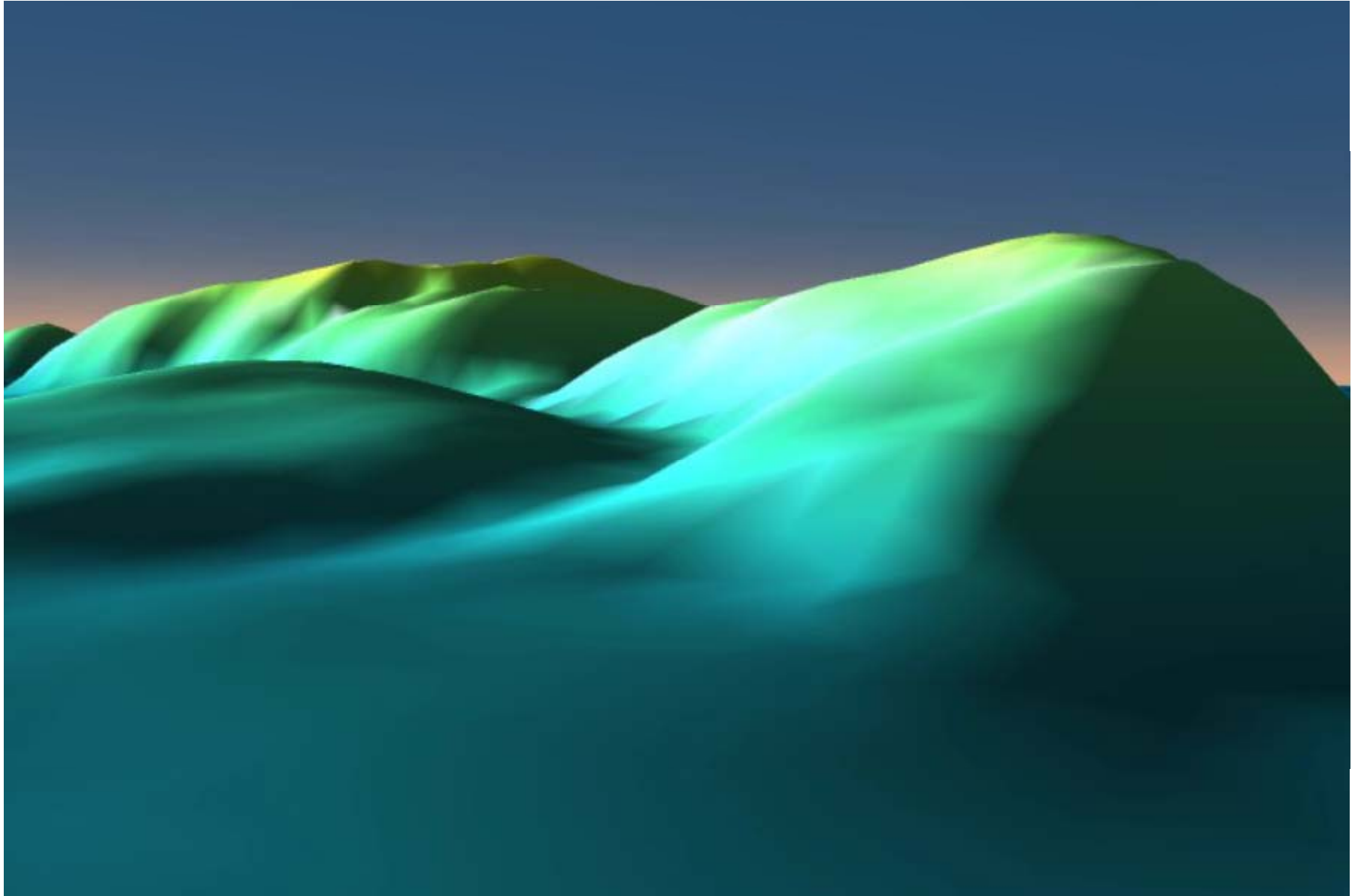
CCOWS Flythrough



CCOWS Flythrough



CCOWS Flythrough



WHY MAP CORDELL BANK?

Plan surveys

Inventory physical characteristics

Predict biota

Explain oceanographic processes

Interpret region for general public

Contributors

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