

# Characterizing and Protecting Benthic Habitat in Greater Farallones National Marine Sanctuary

#### Karen Reyna and Jan Roletto

Peter Etnoyer and Guy Cochrane

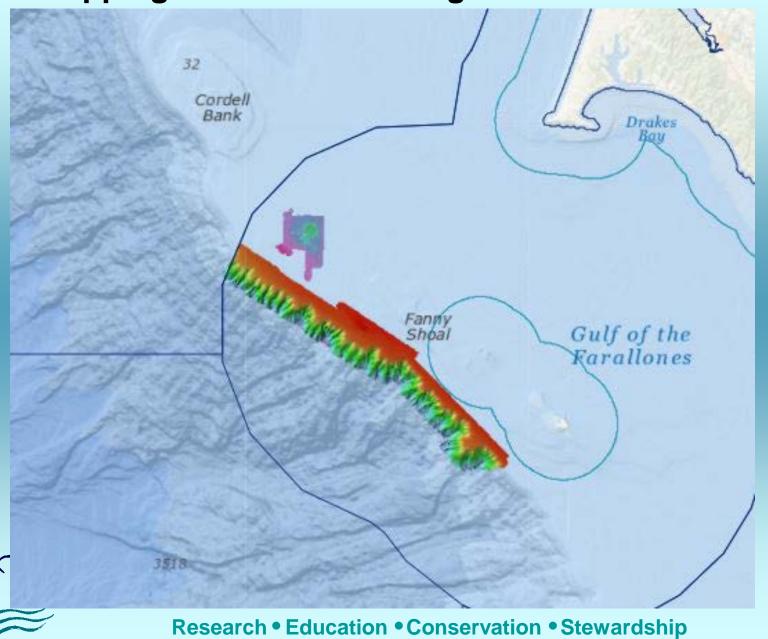
A partnership between National Centers for Coastal Ocean Science, Greater Farallones National Marine Sanctuary, United States Geological Survey





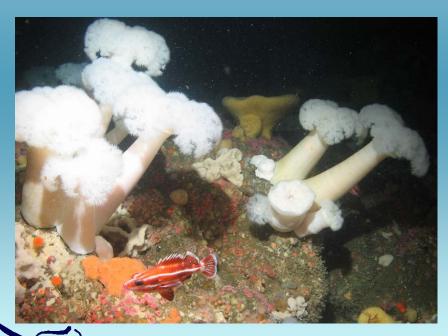
Cordell Bank National Marine Sanctuary-juvenile rockfish densely school around strawberry anemones, yellow hydroids, red algae, sponge encrusted Cordell Bank rocky reef

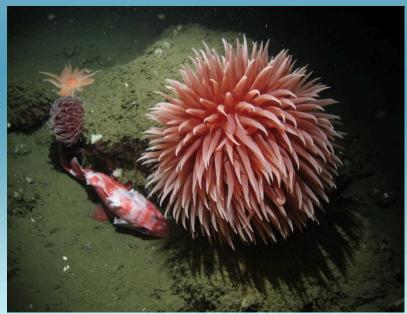
# **Mapping and Characterizing Areas of Interest**



### **Essential Fish Habitat (EFH) & Pacific Council Responsibility**

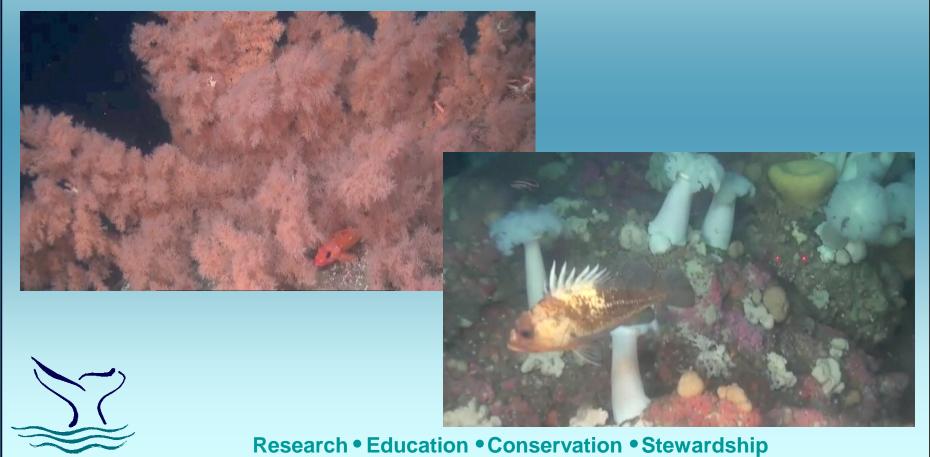
 The Council is responsible for minimizing adverse effects on EFH to the extent practicable and decided to review EFH protections and accept proposals for changes.

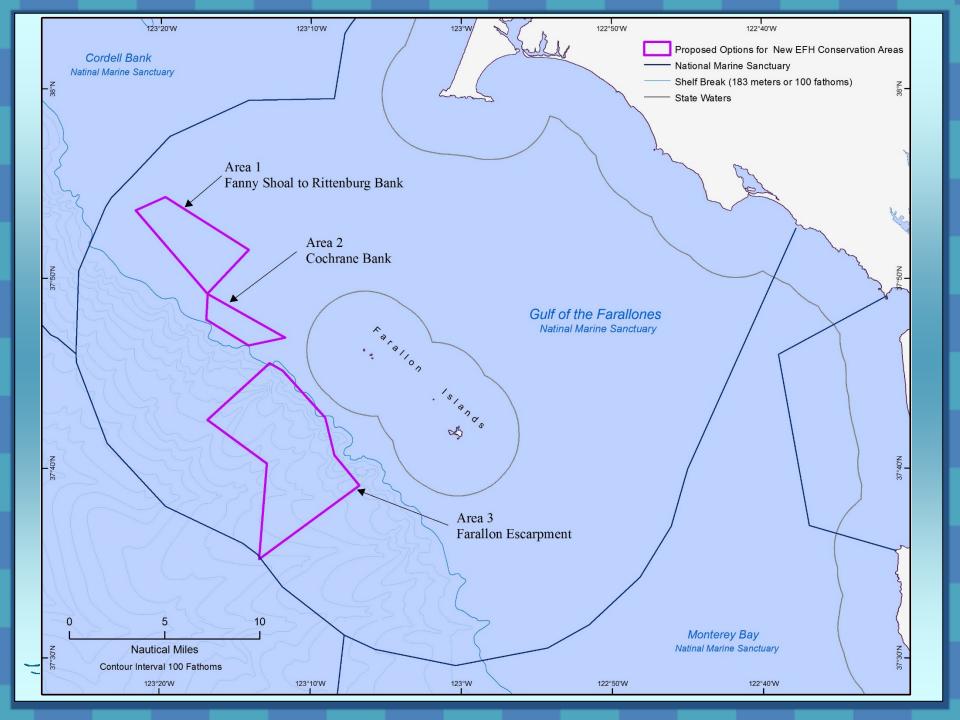




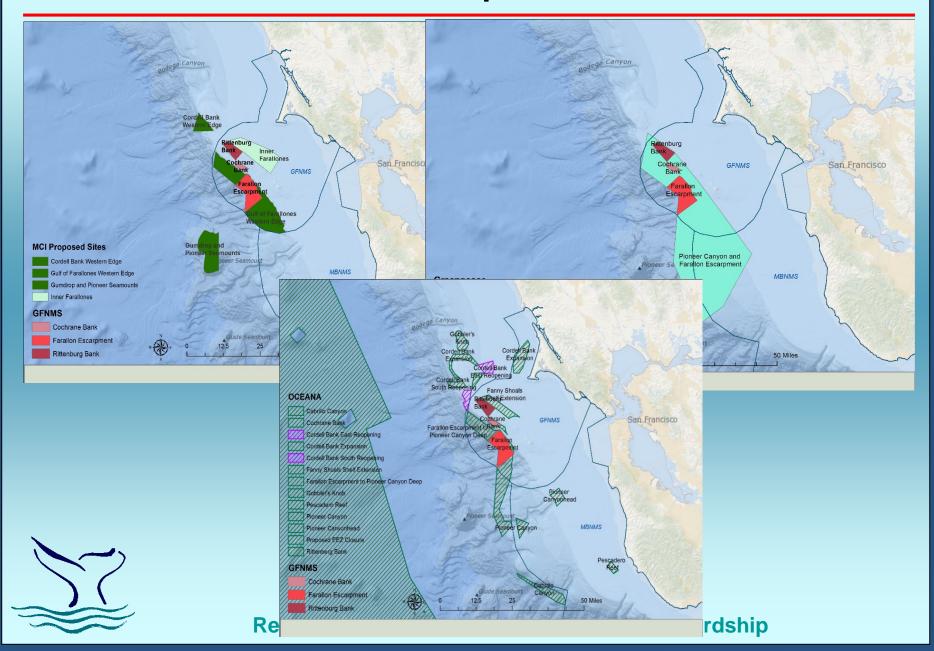
# **2013 Proposed Actions**

 The sanctuary identified areas based on the 2011 and 2012 surveys of the Farallon Escarpment, Rittenburg Bank and Cochrane Bank and requested EFH Conservation Areas (no trawl areas).





# **Other Proposals**



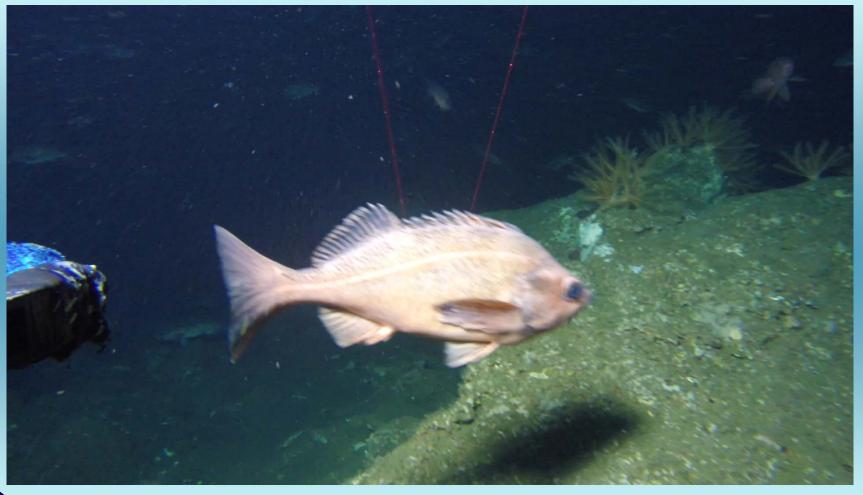
#### **Tick Tock**

- The Council "proposal" process freezes, but we continued to collect data in 2014 at "The Football" and we expanded our boundaries.
- In April 2016, a paper is published highlighting additional areas at "The Football".



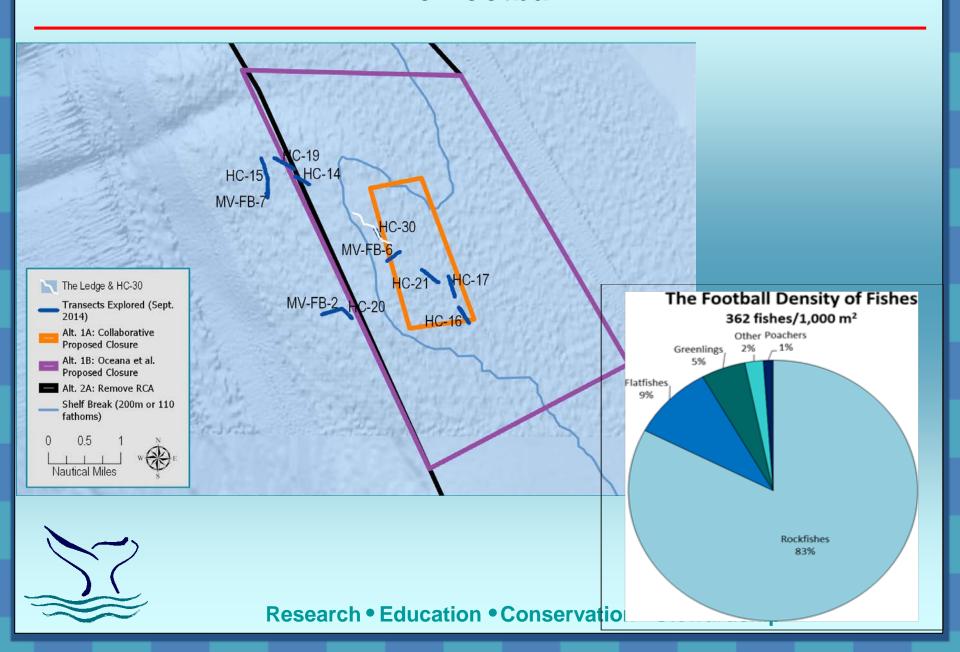


# **Story Map and Video of The Football**





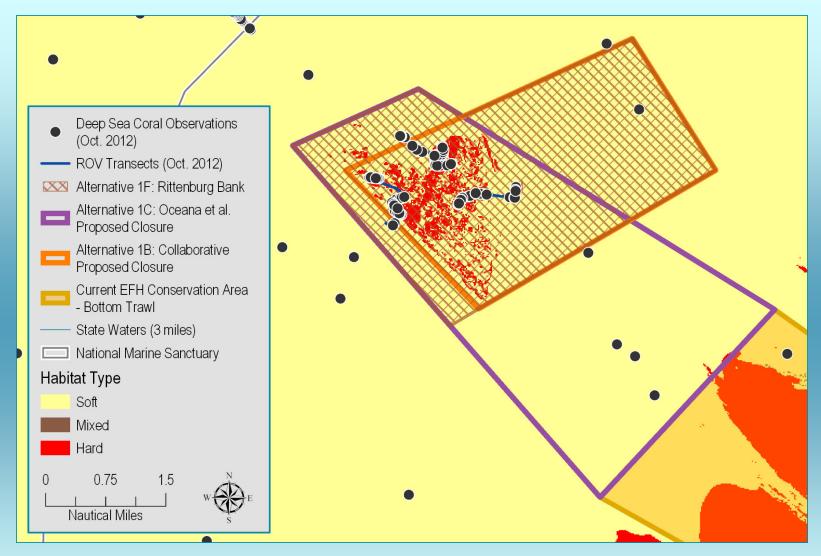
#### The Football



# 2015 New Proposal: "The Collaborative"









### **Results: EFH Discussion Tool Demonstration**



### **Rittenburg Bank**

#### **Area Protected:**

12.7 square miles

#### **Depth Range:**

~85 m to 115 m (46-63 fathoms)





 It includes an offshore high-relief bank of rocky habitat (Rittenburg Bank) and the highest densities of sponges see to date in the Santuary.



## **Cochrane Bank/West Fanny Shoal**

#### **Area Protected:**

6.2 square miles

#### **Depth Range:**

~95 to 160 m (52-87 fathoms)





 This is the deepest known rocky bank within GFNMS and the northernmost extent of Christmas Tree coral.

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### **Farallon Escarpment**

#### **Area Protected:**

126.2 square miles (~105 in sanctuary)

# **Depth Range:**

~182 to 1280 meters (100-700 fathoms)





Includes canyons, known areas of exposed bedrock on fault scarps and biogenic habitat in an area where groundfish species are known to occur.

#### **Metrics**

#### **CBNMS**

3 areas were closed totaling 19.06 sq. miles 1 area was reopened equaling 19.55 sq. miles

#### **MBNMS**

13 areas were closed totaling 186.55 sq. miles 5 areas were reopened totaling 99.10 sq. miles

#### **GFNMS**

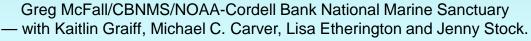
7 areas were closed totaling 177.78 sq. miles 2 areas were reopened totaling 94.61 sq. miles



# **Council Discussion and Action**

- Letter of support for the preferred alternative?
- Actions for data-poor areas?





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