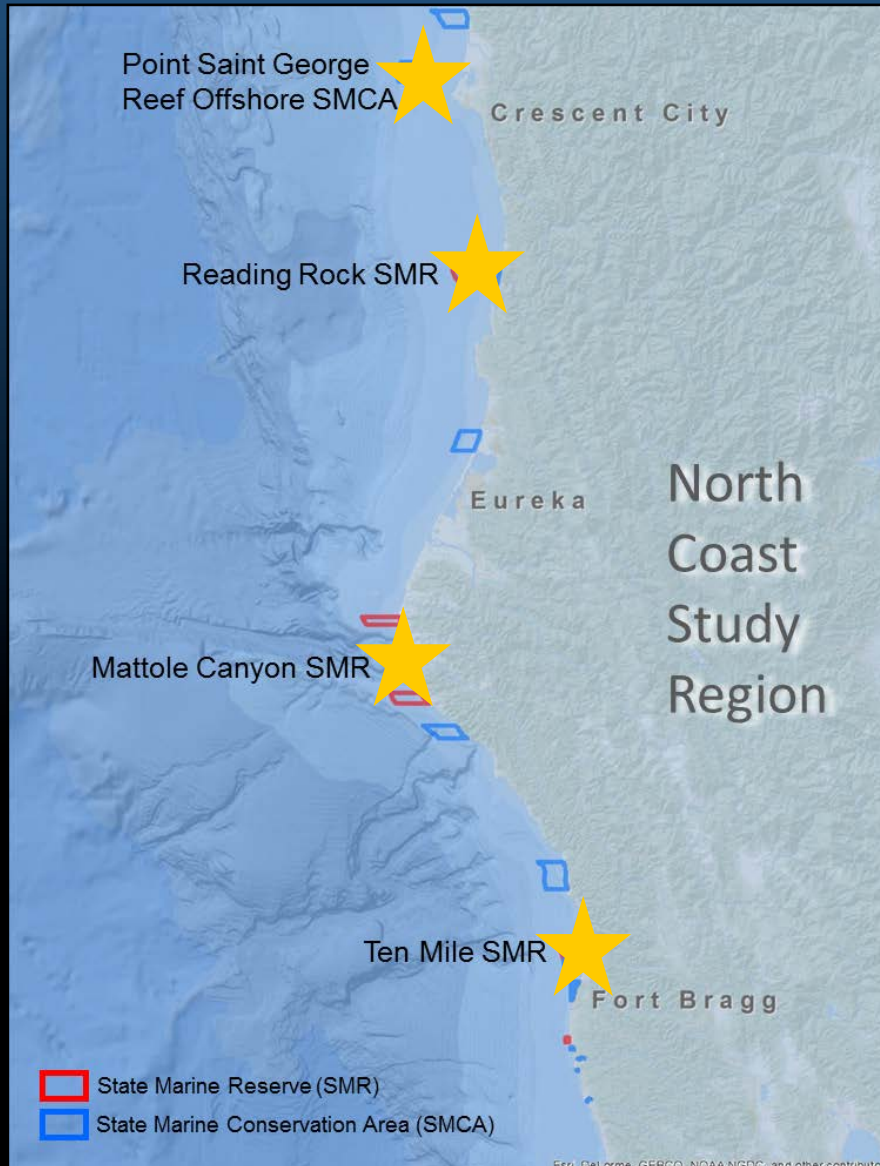


North Coast Mid-depth and Deep Subtidal Ecosystems



Study Locations



Mid-depth rock



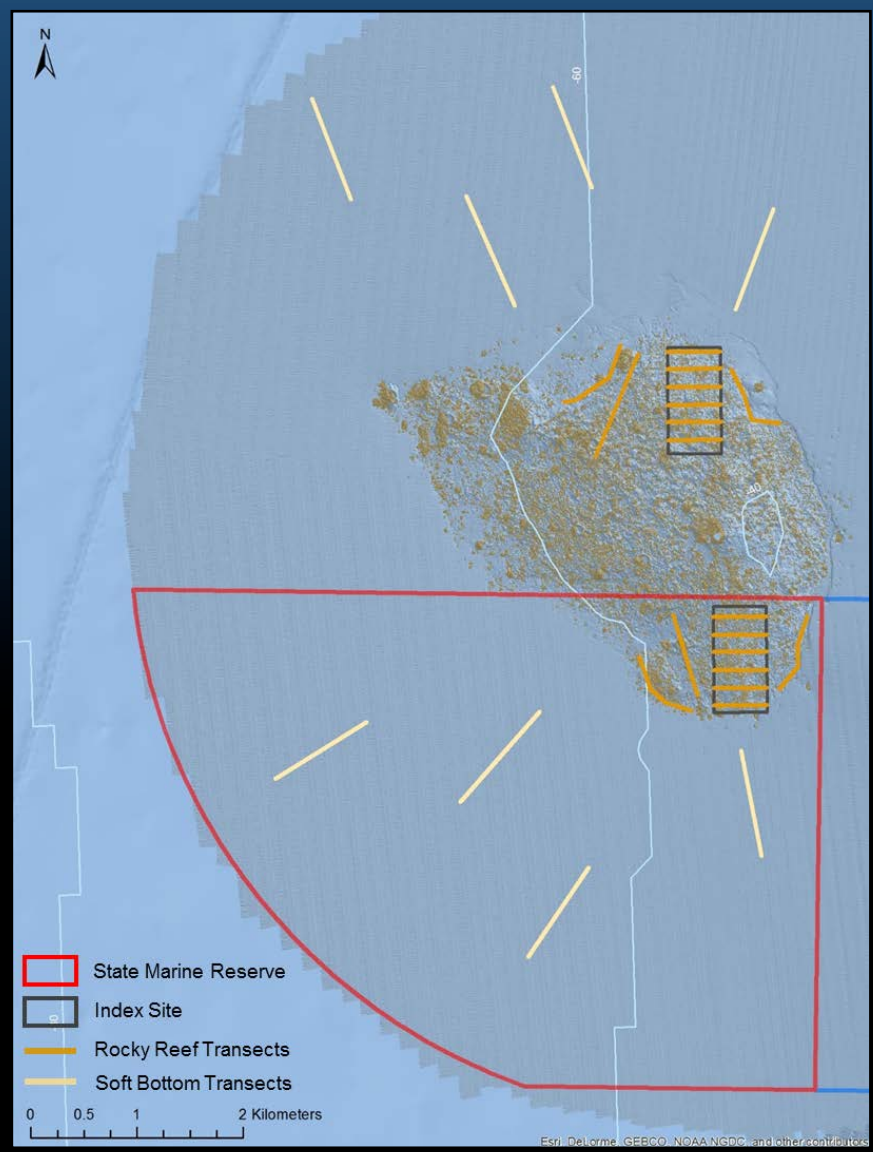
Soft-bottom

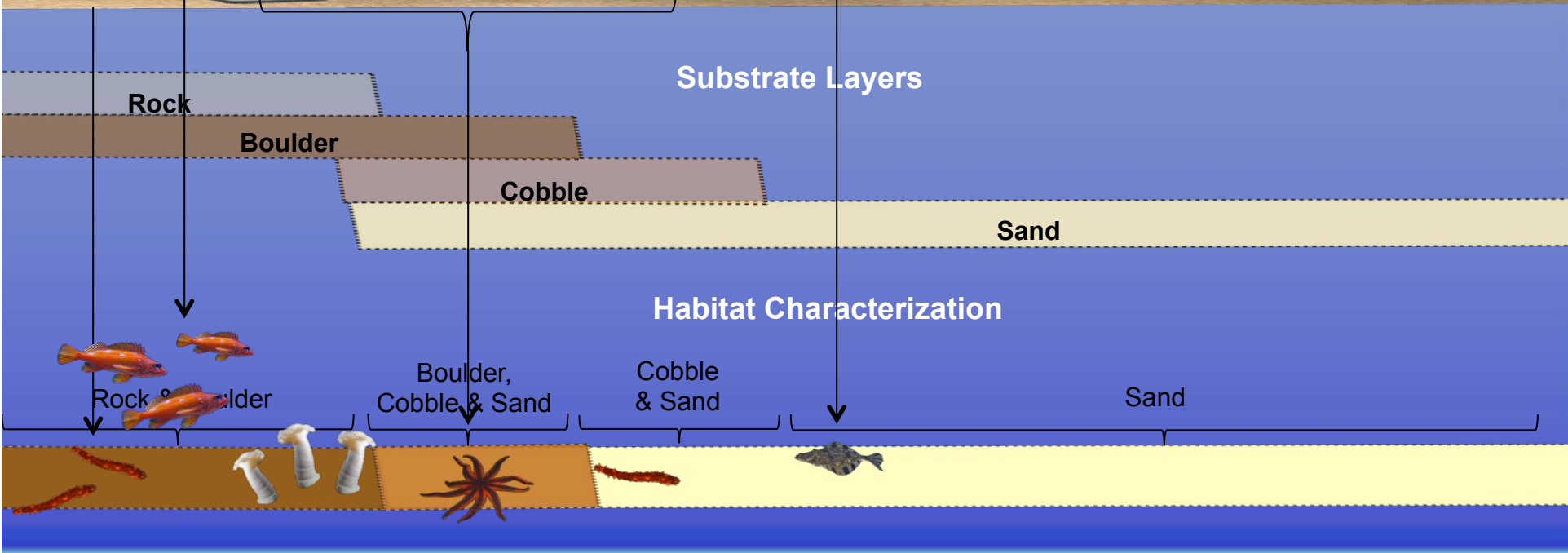
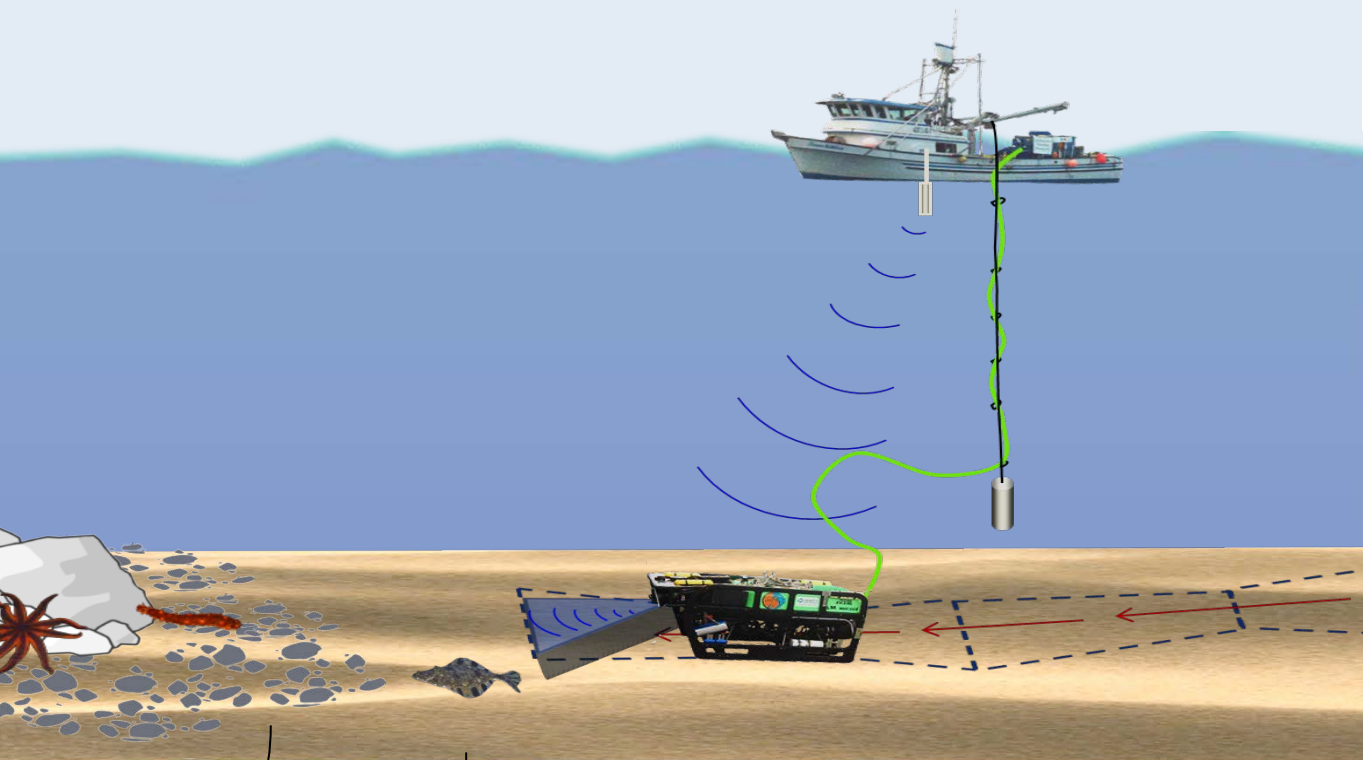


Deep - Canyon



Transect Selection





Survey Totals:

60 dives

106 km (19 ha) of sea floor

97 hours of video

>16,500 HD photos

Fish

- 66 species + 26 groupings
- 101,666 observations

Macro-invertebrates

- 70 species + 29 groupings
- 124,064 observations



Characterize for each MPA and Reference Area:

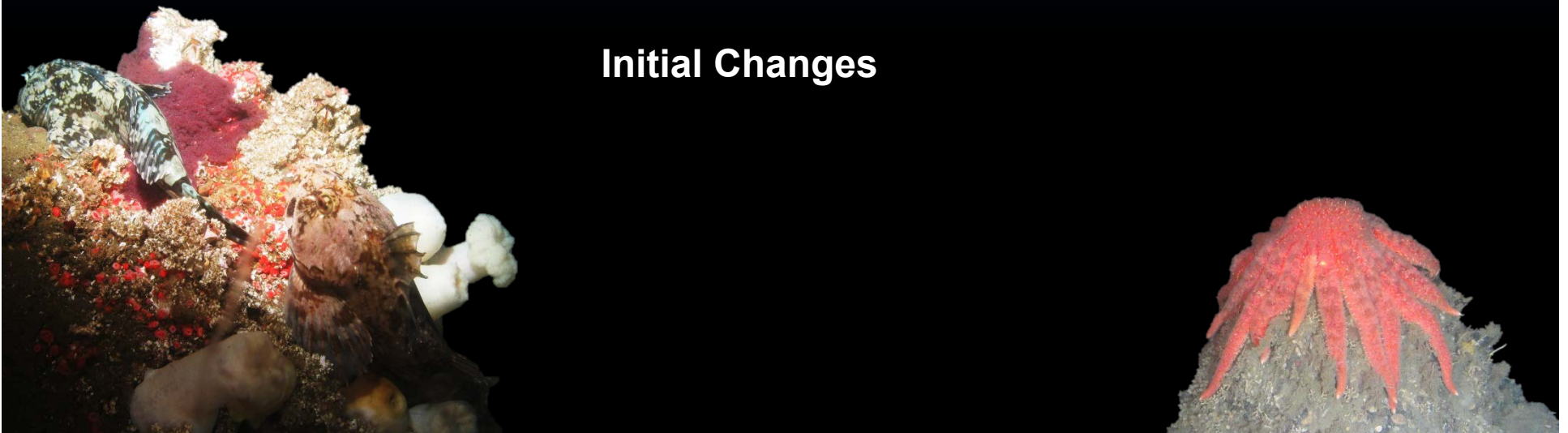
Fish

- Abundance
- Analysis of site pairs
- Size
- Depth distribution

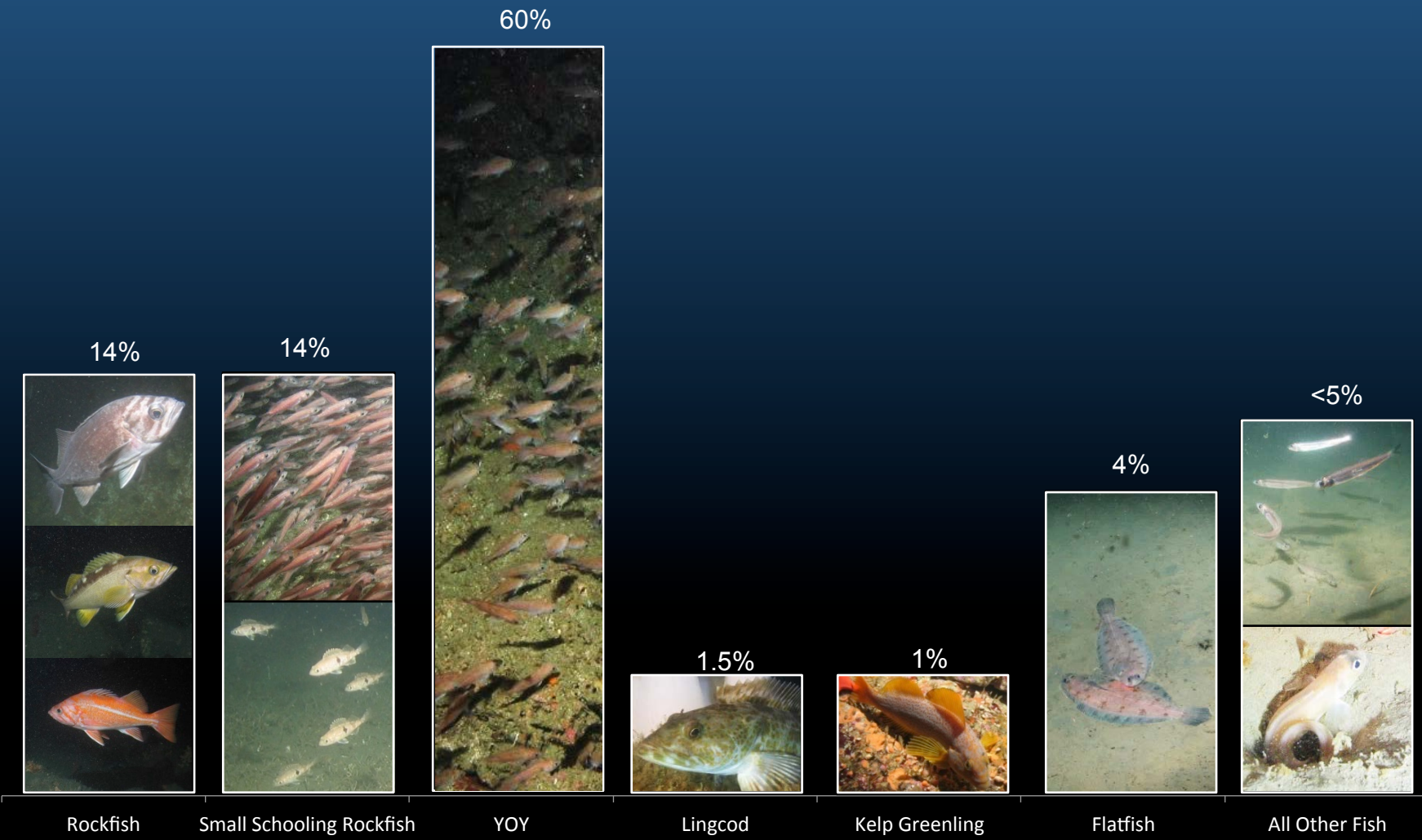
Macro-invertebrates

- Abundance

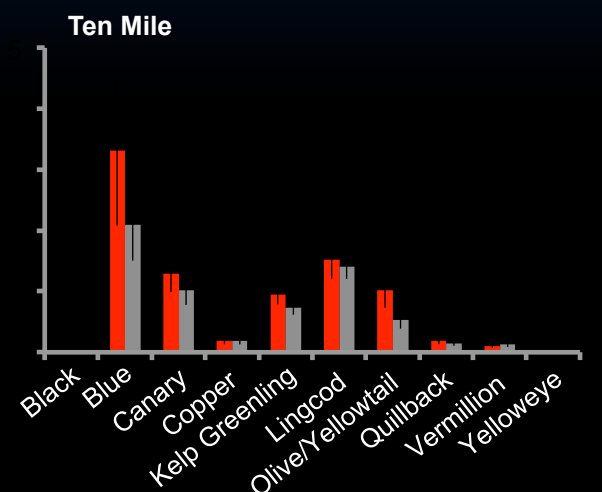
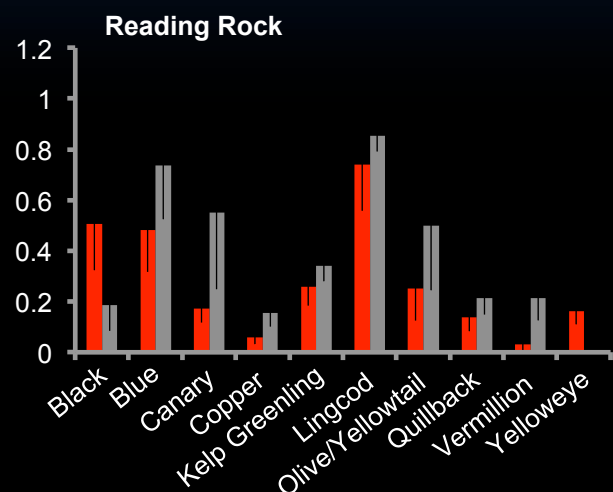
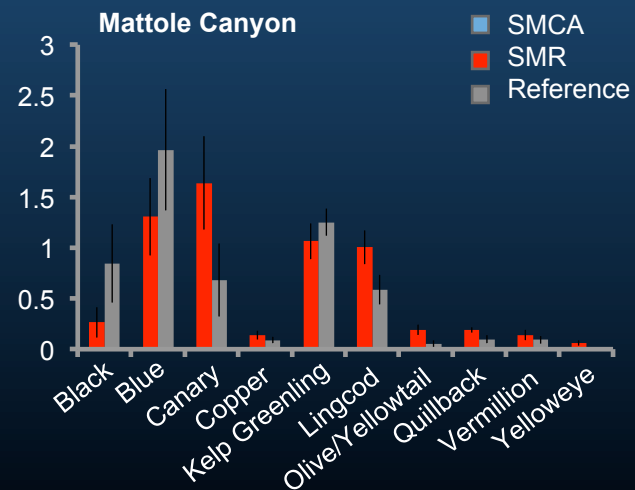
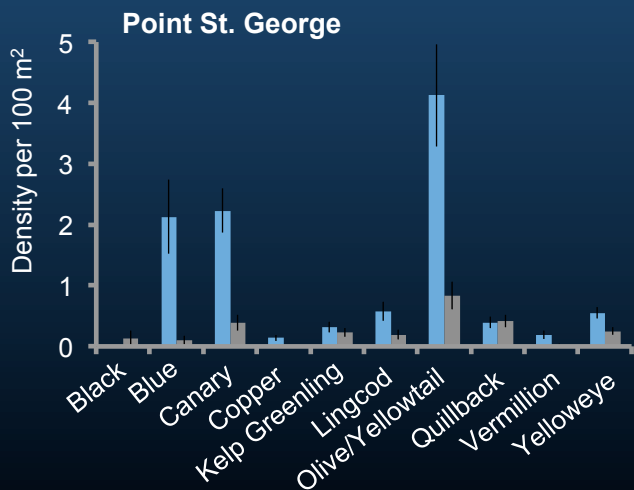
Initial Changes



Fish Totals

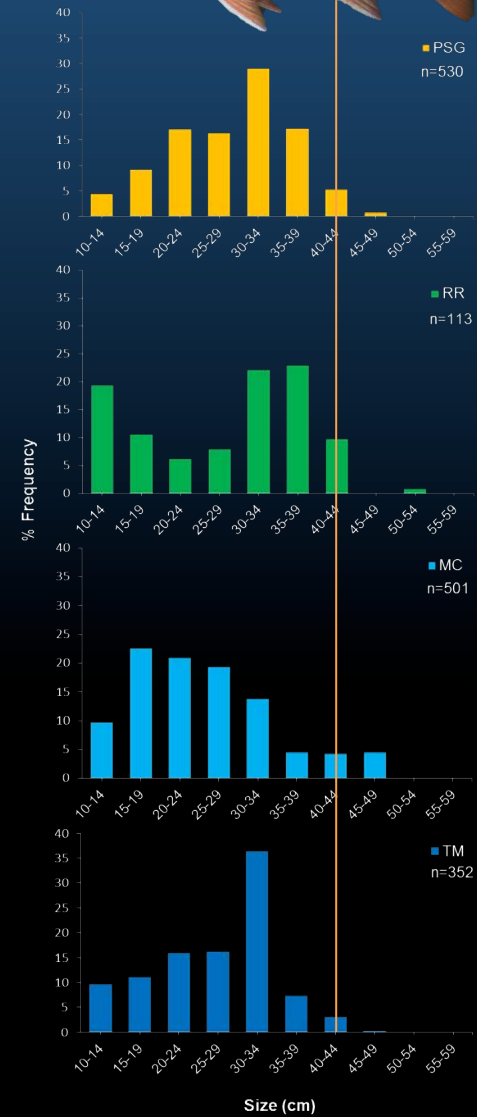
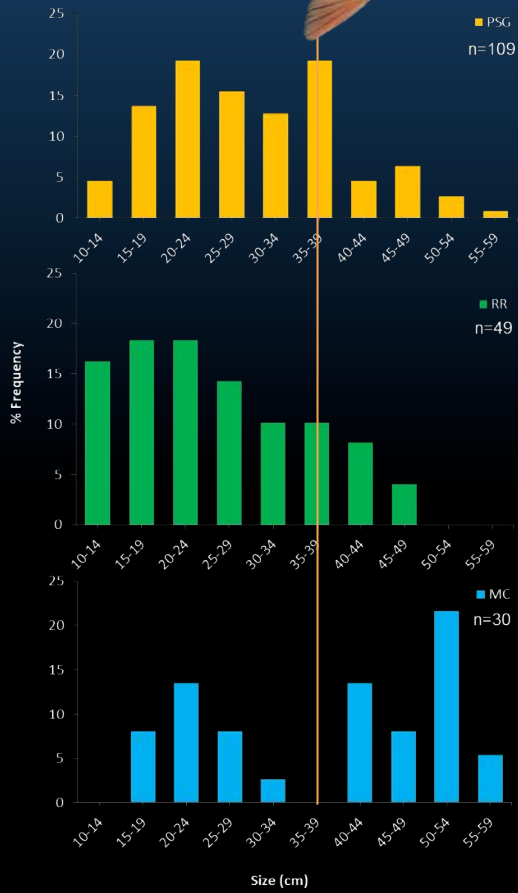


Analysis of Site Pairs (Rocky Reef):

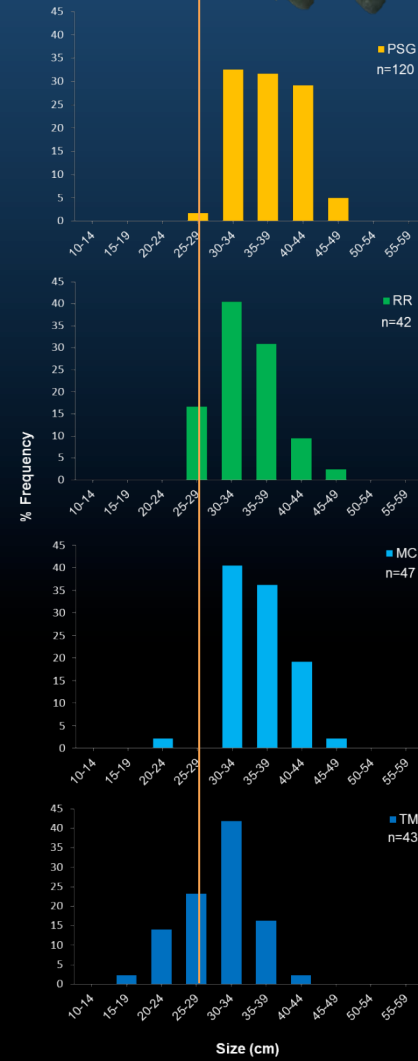
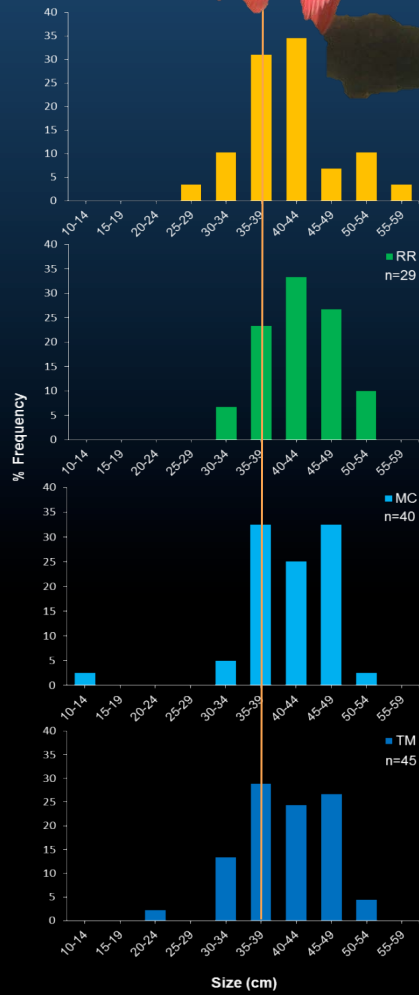


■ SMCA
■ SMR
■ Reference

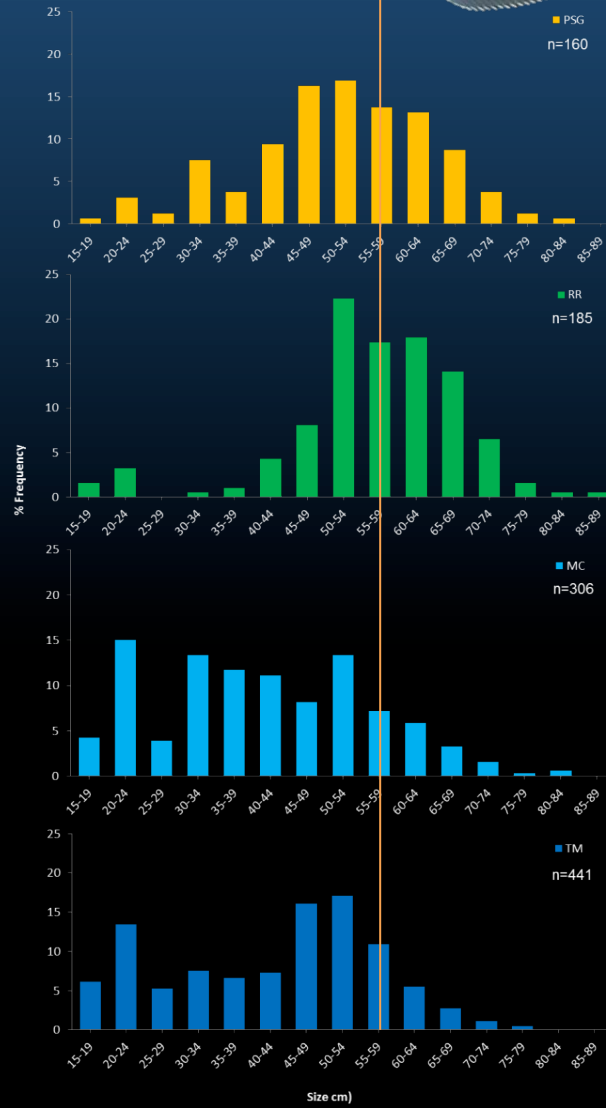
Fish Size Distribution:



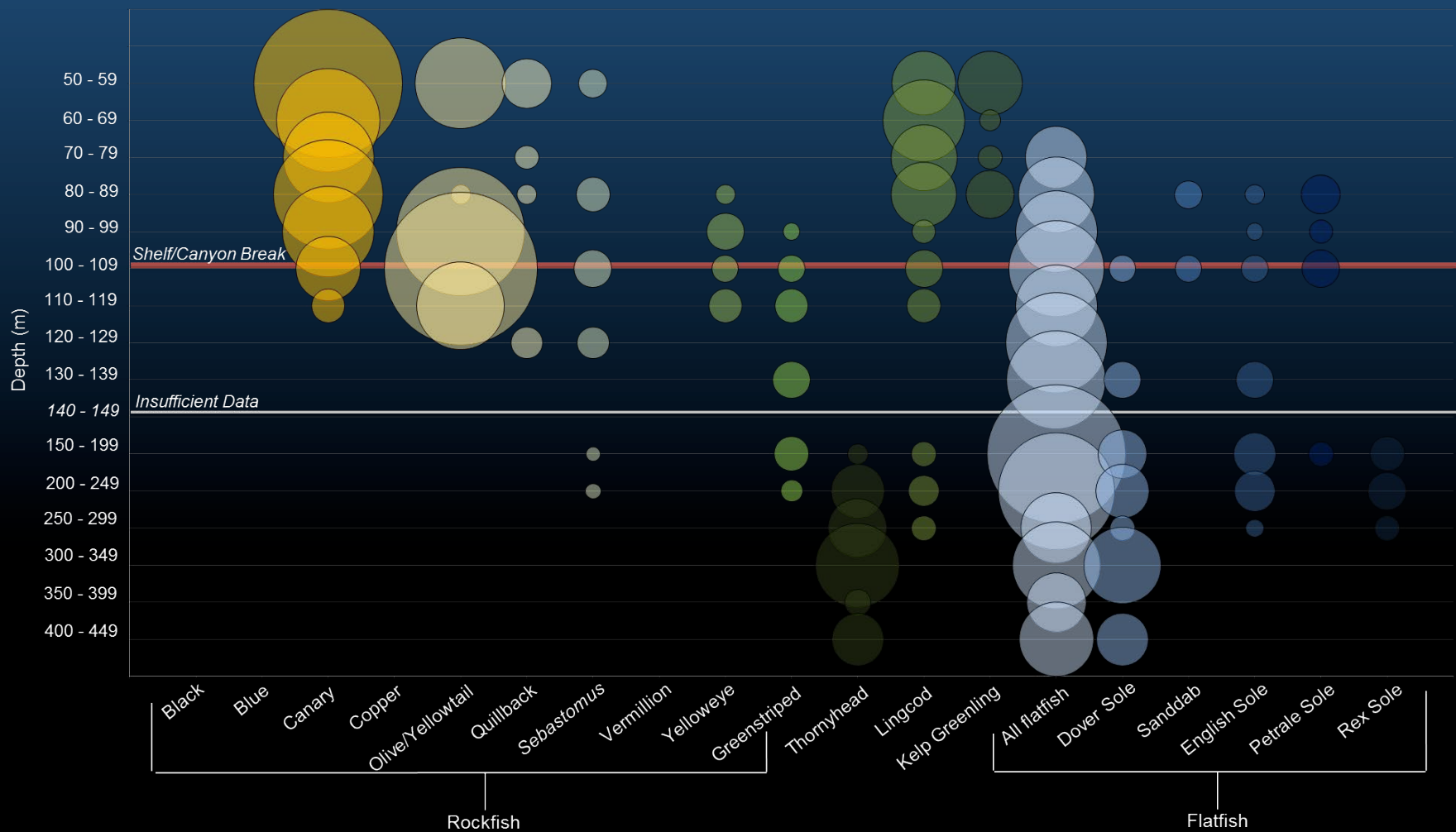
Fish Size Distribution:



Fish Size Distribution:

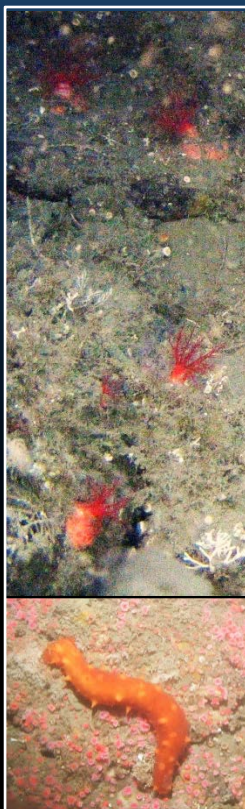


Fish Depth Distribution



Macro-invertebrates

40%



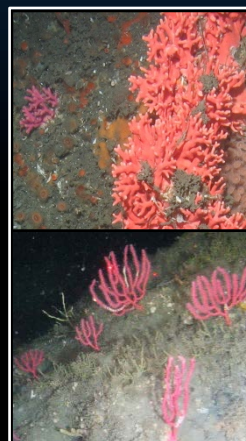
slipper sea cucumber & California sea cucumbers

27%



white plumed anemones

10%



California hydrocoral & short red gorgonians

8%



Sea stars

3%



sea pens & sea whips

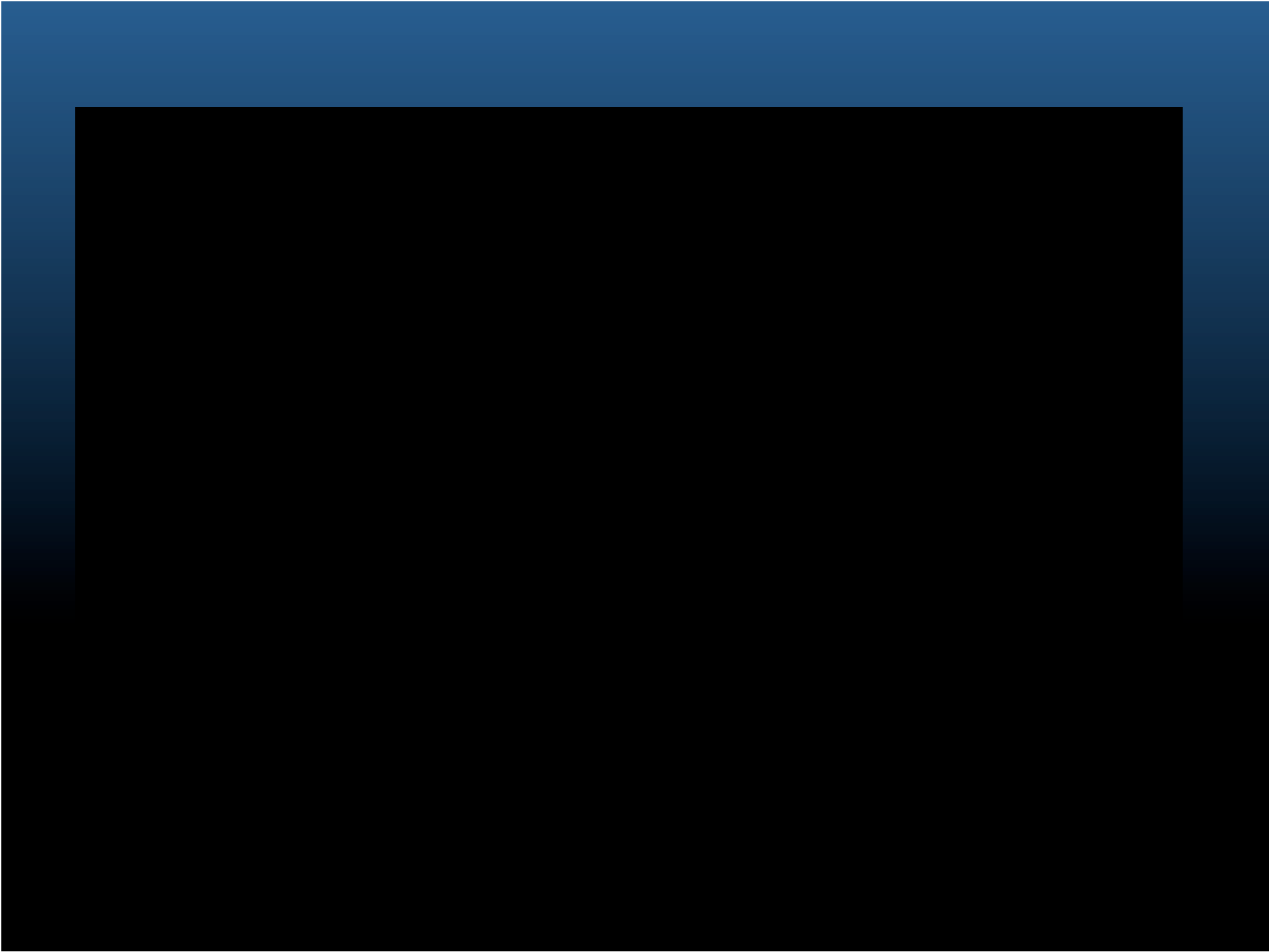
Initial Changes:

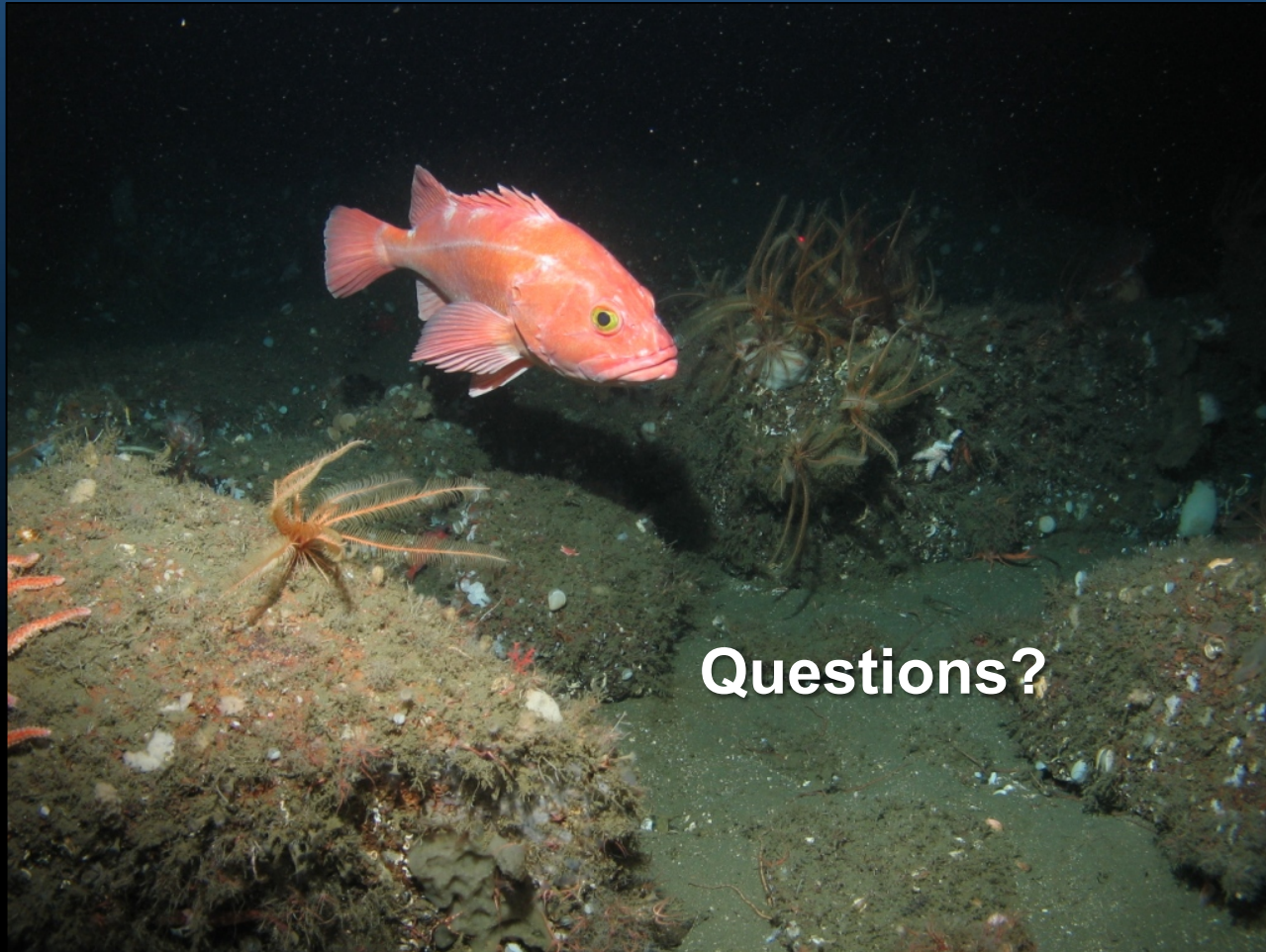
Healthy:



Wasting:







Questions?

