

National Marine Sanctuaries
National Oceanic and Atmospheric Administration

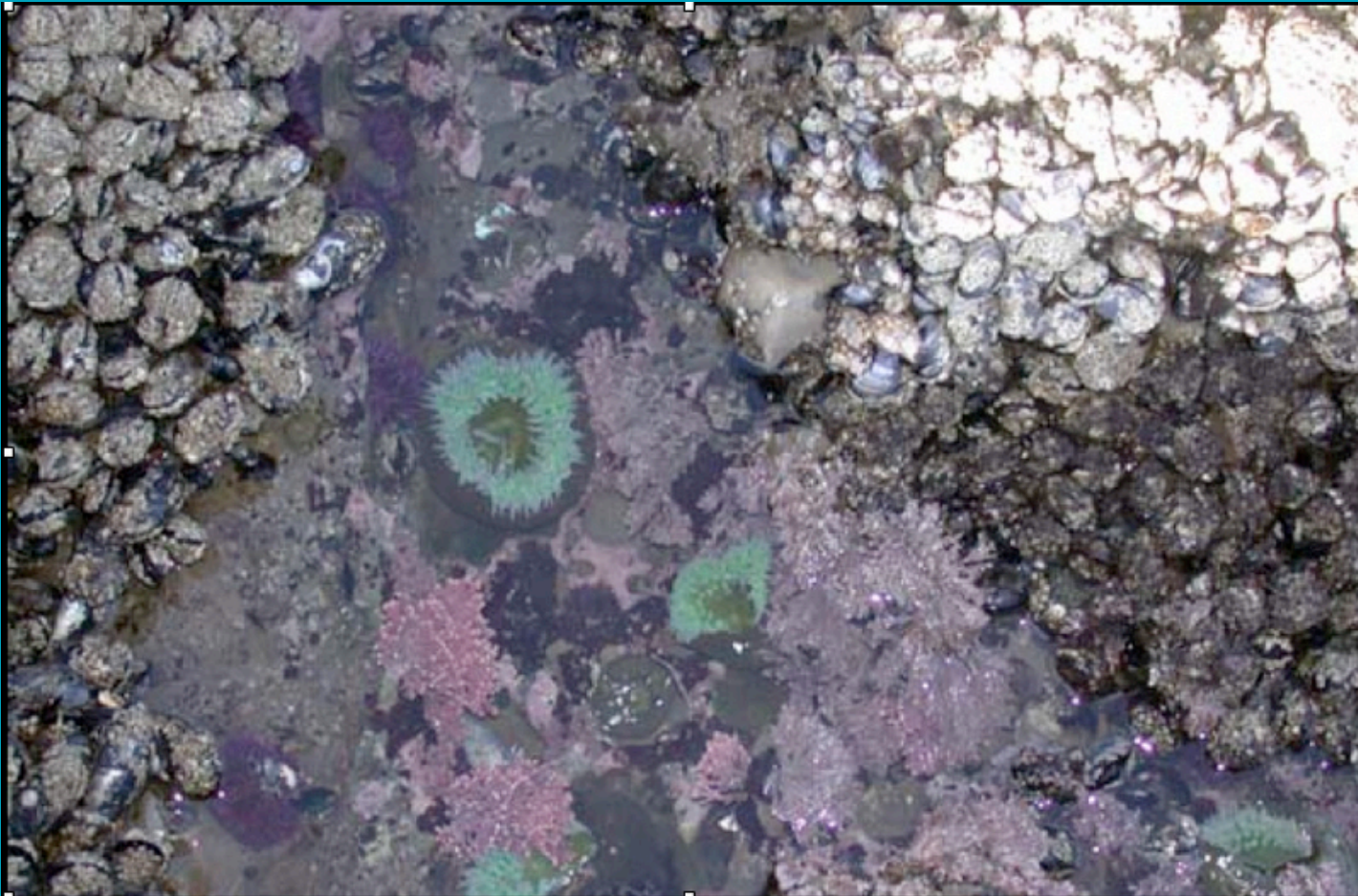


NATIONAL MARINE
SANCTUARIES

National Marine Sanctuaries



How and Why we Monitor the Rocky Intertidal Habitat?



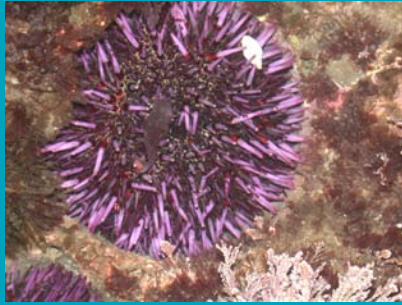




transect →

quadrat →



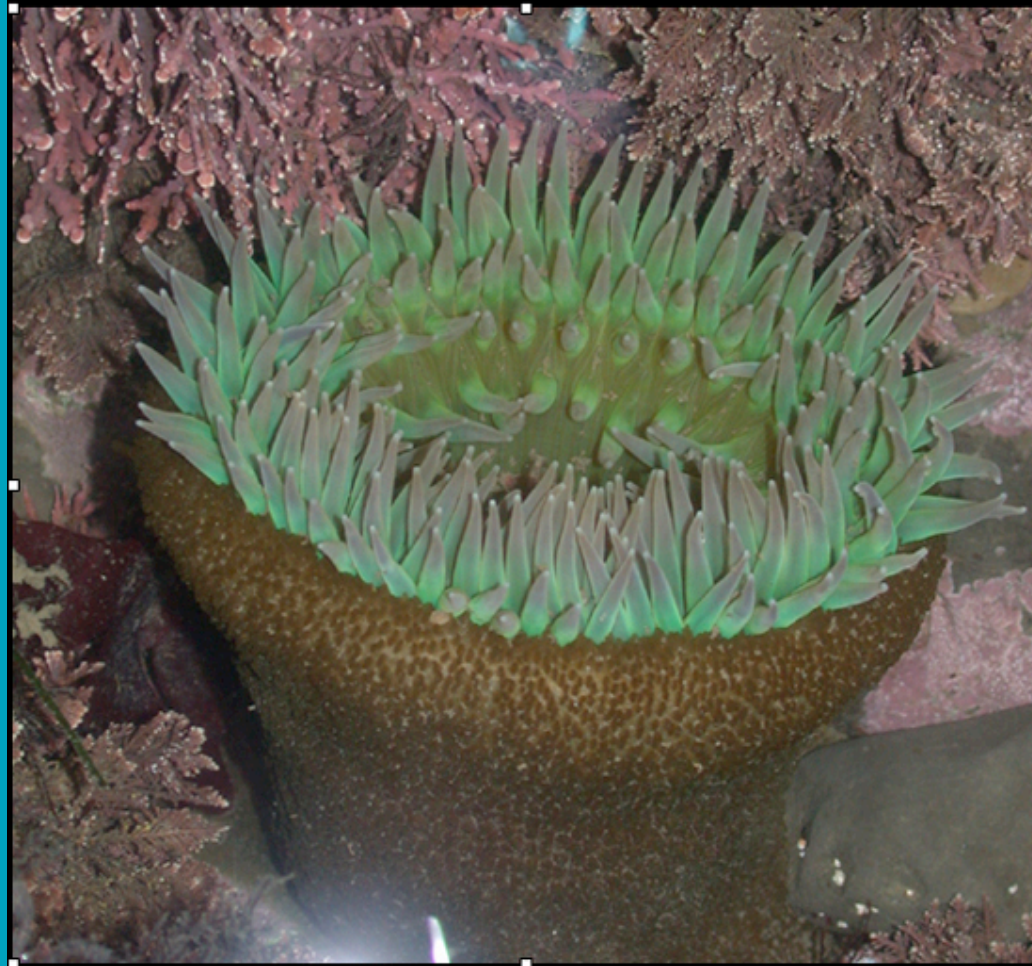


How to identify the animals

- Sea Anemones
- Mollusks
 - Chitons
 - Snails
 - Limpets
 - Mussels
- Barnacles
- Sea Stars



Anthopleura xanthogrammica
giant green anemone



Anthopleura elegantissima
aggregating anemone



Chitons

Mopalia spp./*Nuttallina californica*/
Lepiochitona spp.



Snails



Turban Snails
Tegula spp.



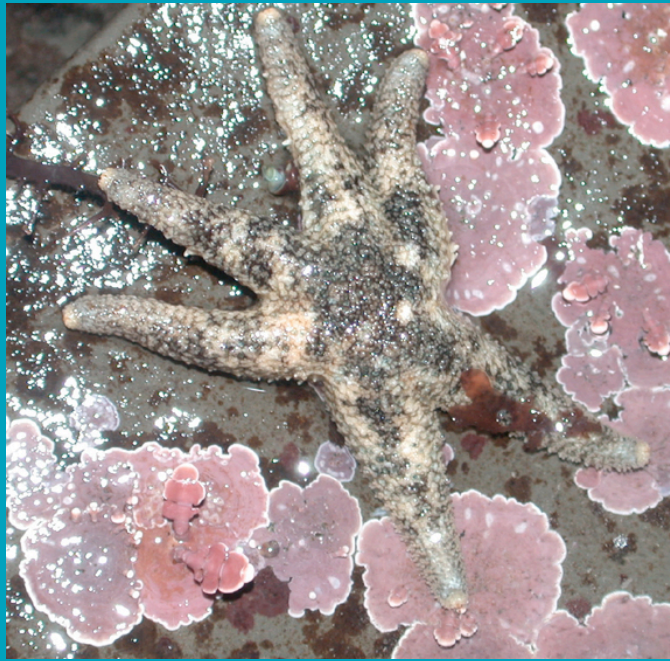
Whelks

Acanthinucella spp/*Nucella* spp.



Check for hermit crabs! ==>
how to deal with this on photos?

Pisaster ochraceus
ochre sea star



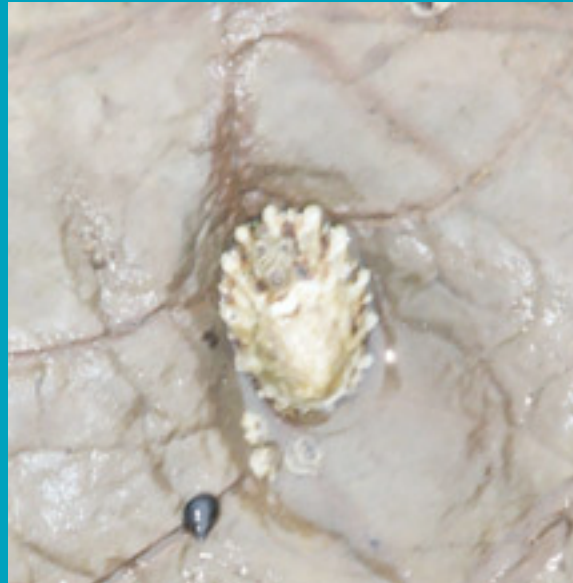
Asterina miniata
bat star



Aleptasterias hexactis
six-armed star



Limpets



Lottia spp./*Macclintockia* spp.

Sea Mussel - *Mytilus californianus*



Barnacles

Balanus and *Chthamalus* spp.



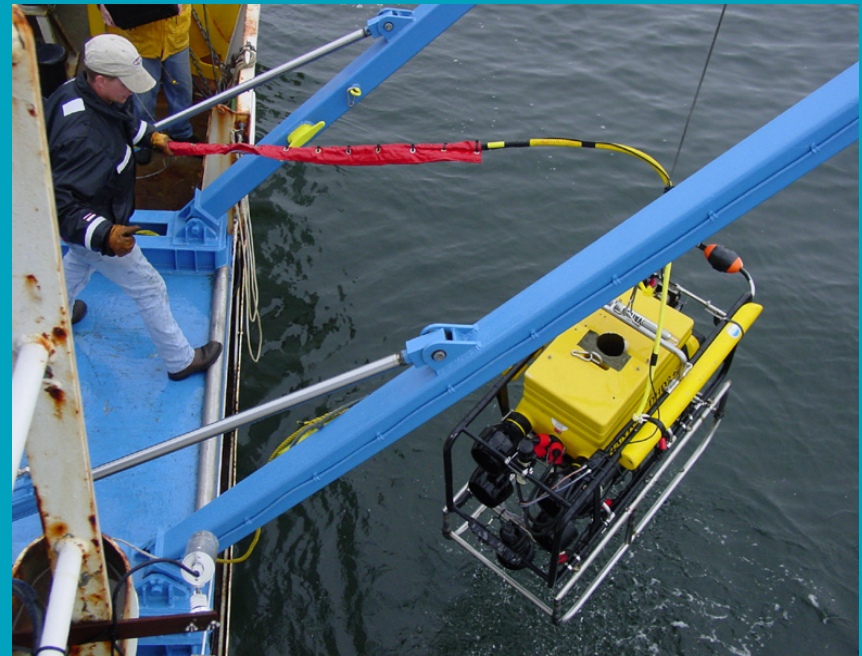
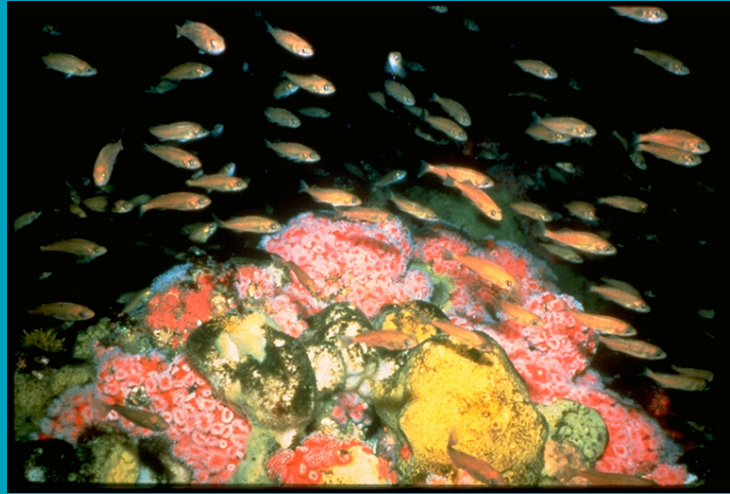
How will intertidal life change over time?



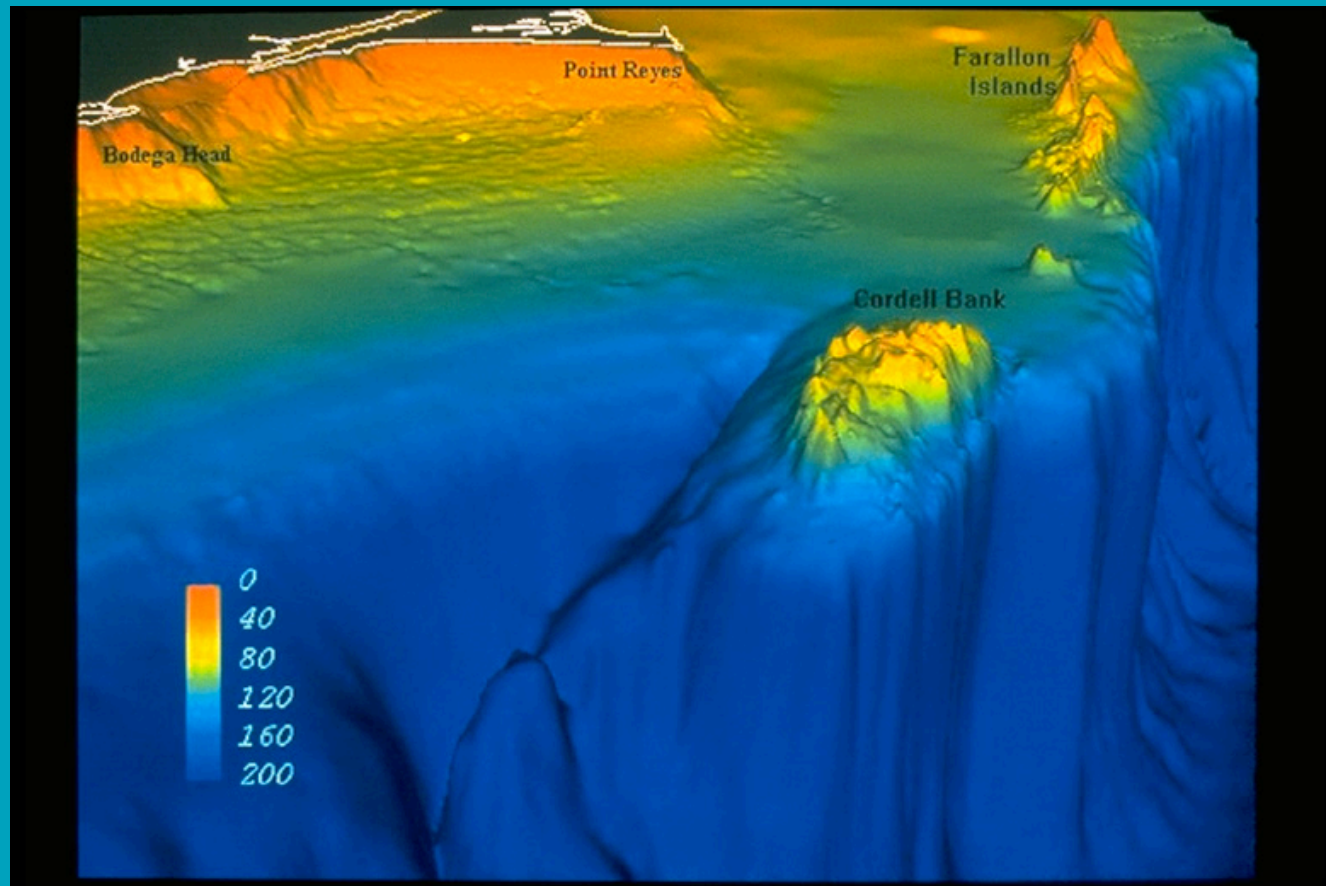
Tourism impacts rocky intertidal zones everywhere!



Rocky Intertidal vs. Subtidal Habitat



Cordell Bank- Subtidal habitat



Subtidal Species: Cordell Bank



Orange Cup Coral: *Balanopyllia elegans*

Subtidal Species: Cordell Bank



Hydrocoral: *Stylaster californicus*

Subtidal Species: Cordell Bank



Strawberry Anemones: *Corynactis californica*

Subtidal Species: Cordell Bank



Sponge

Subtidal Species: Cordell Bank



Bare rock

Subtidal Species: Cordell Bank



Crinoids: *Florometra serratissima*

Subtidal Species: Cordell Bank

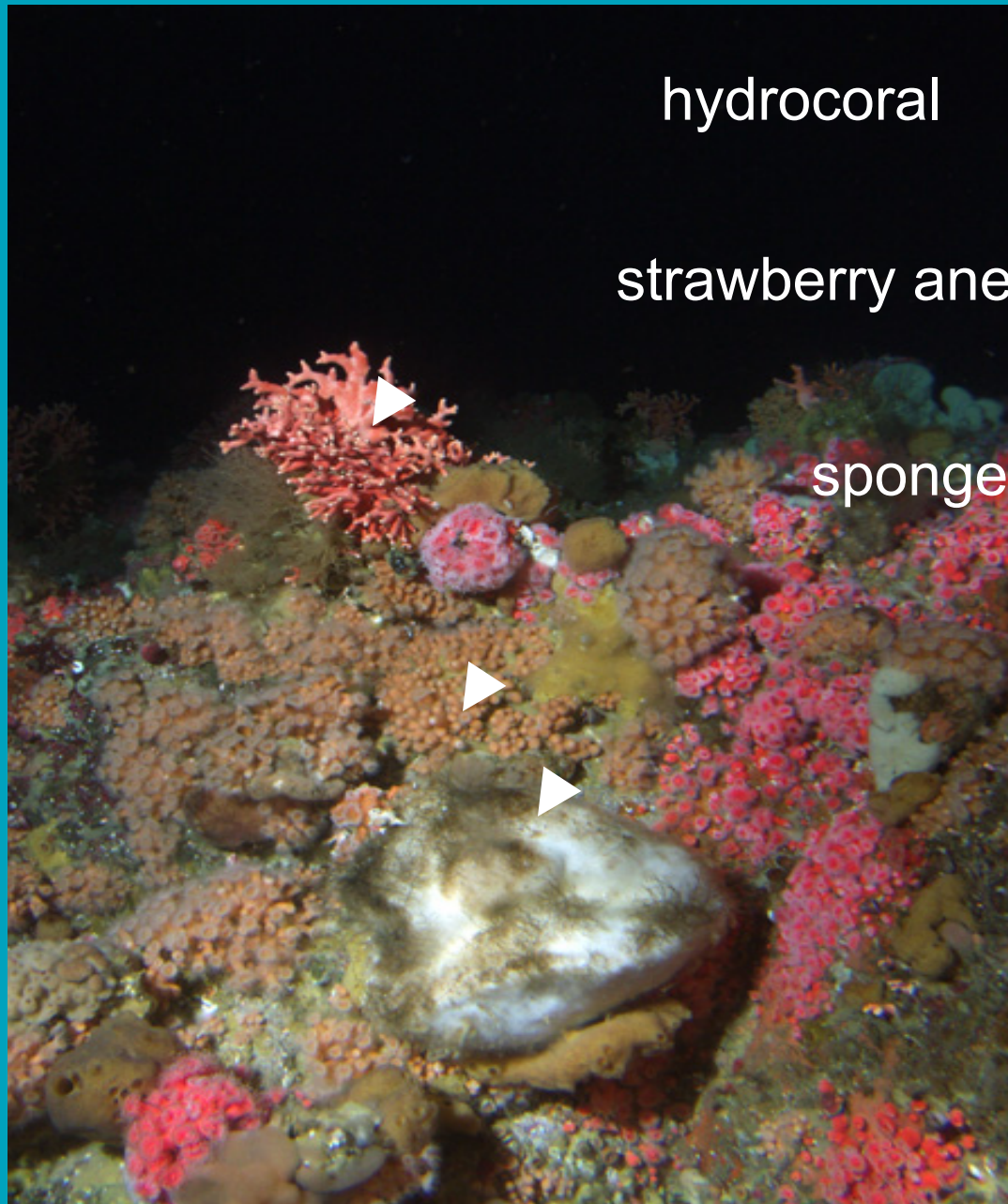


sea star

hydrocoral

strawberry anemones

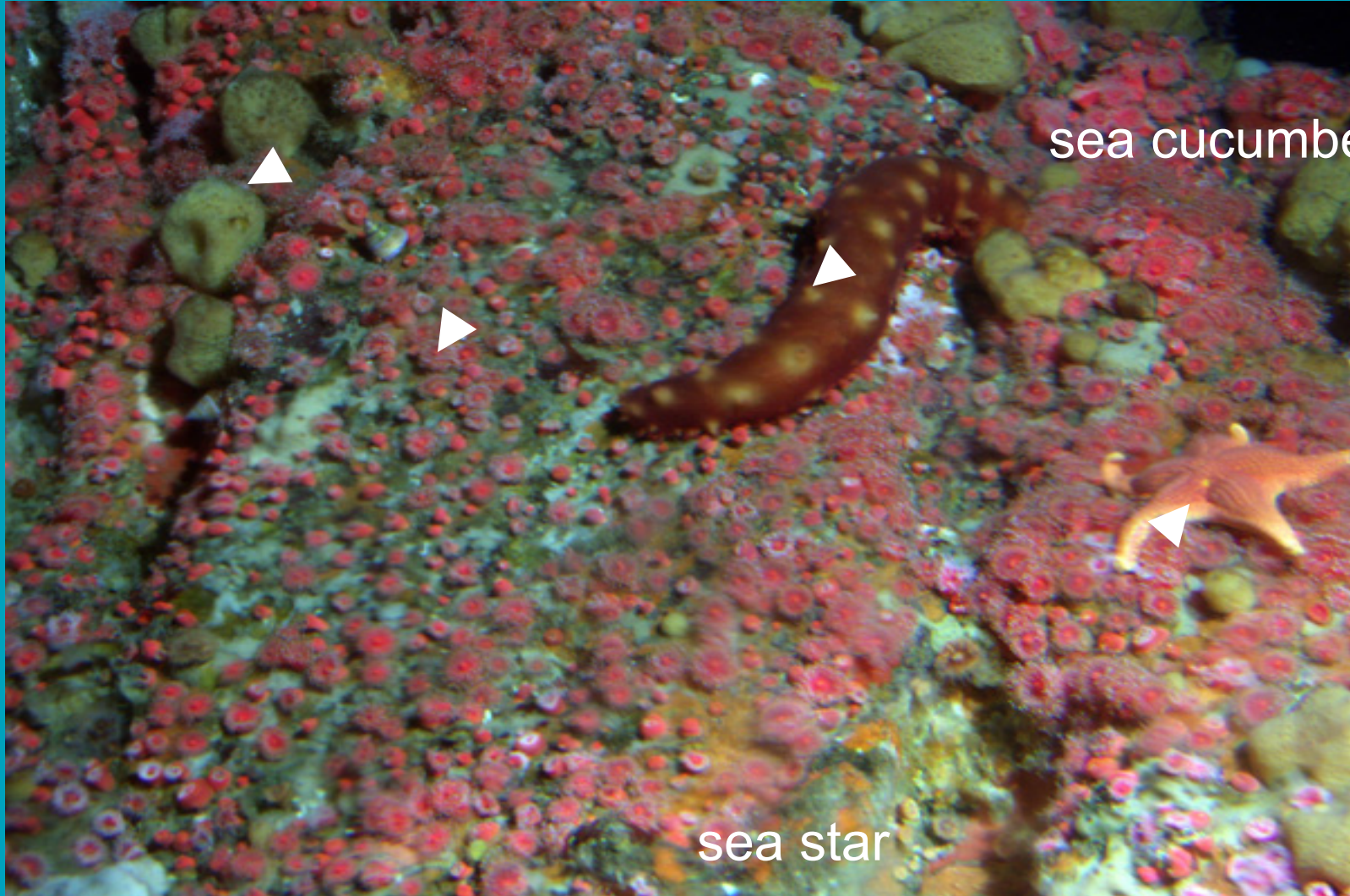
sponge



sponge

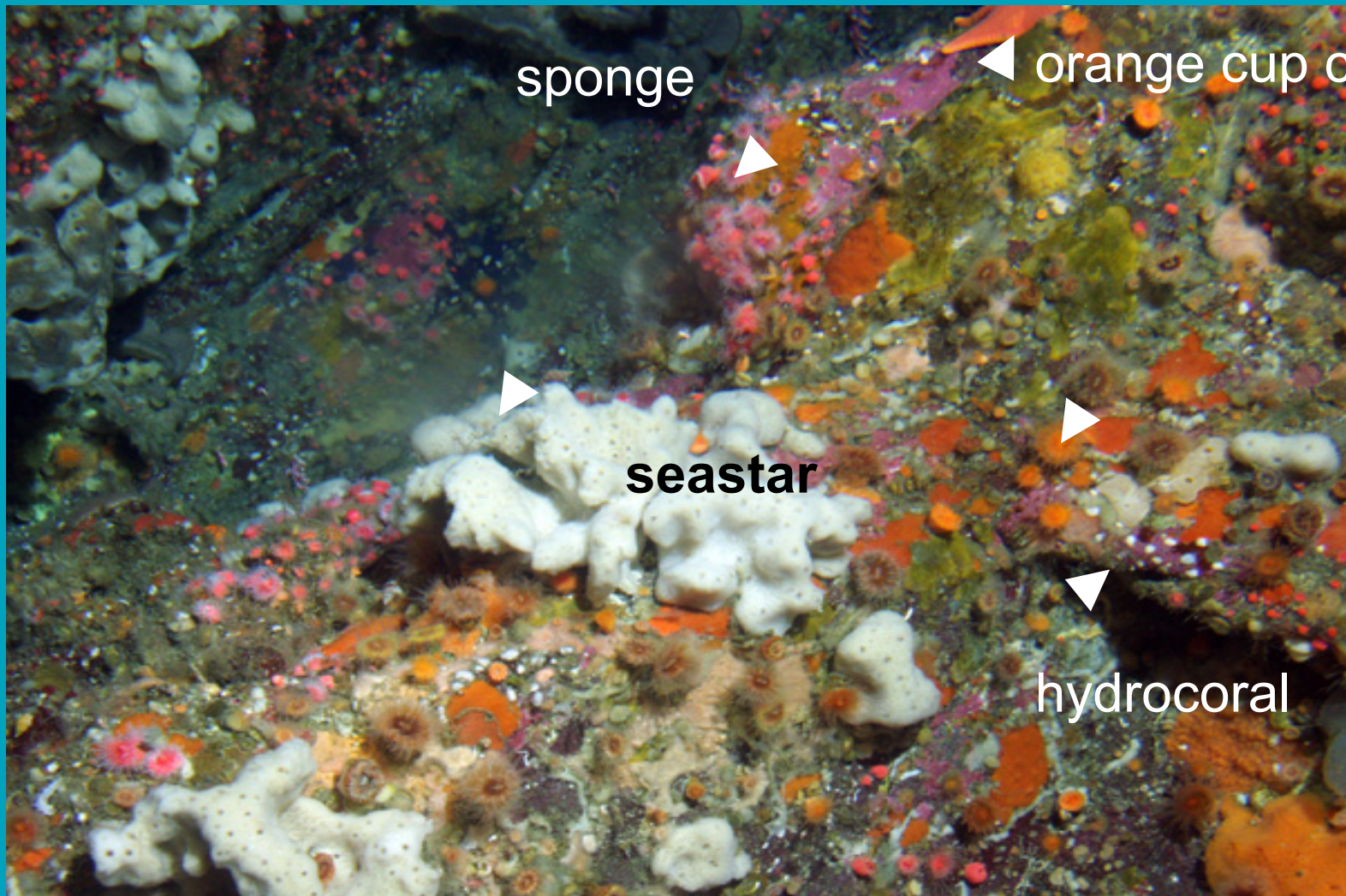
strawberry anemones

sea cucumber



sea star

strawberry anemone

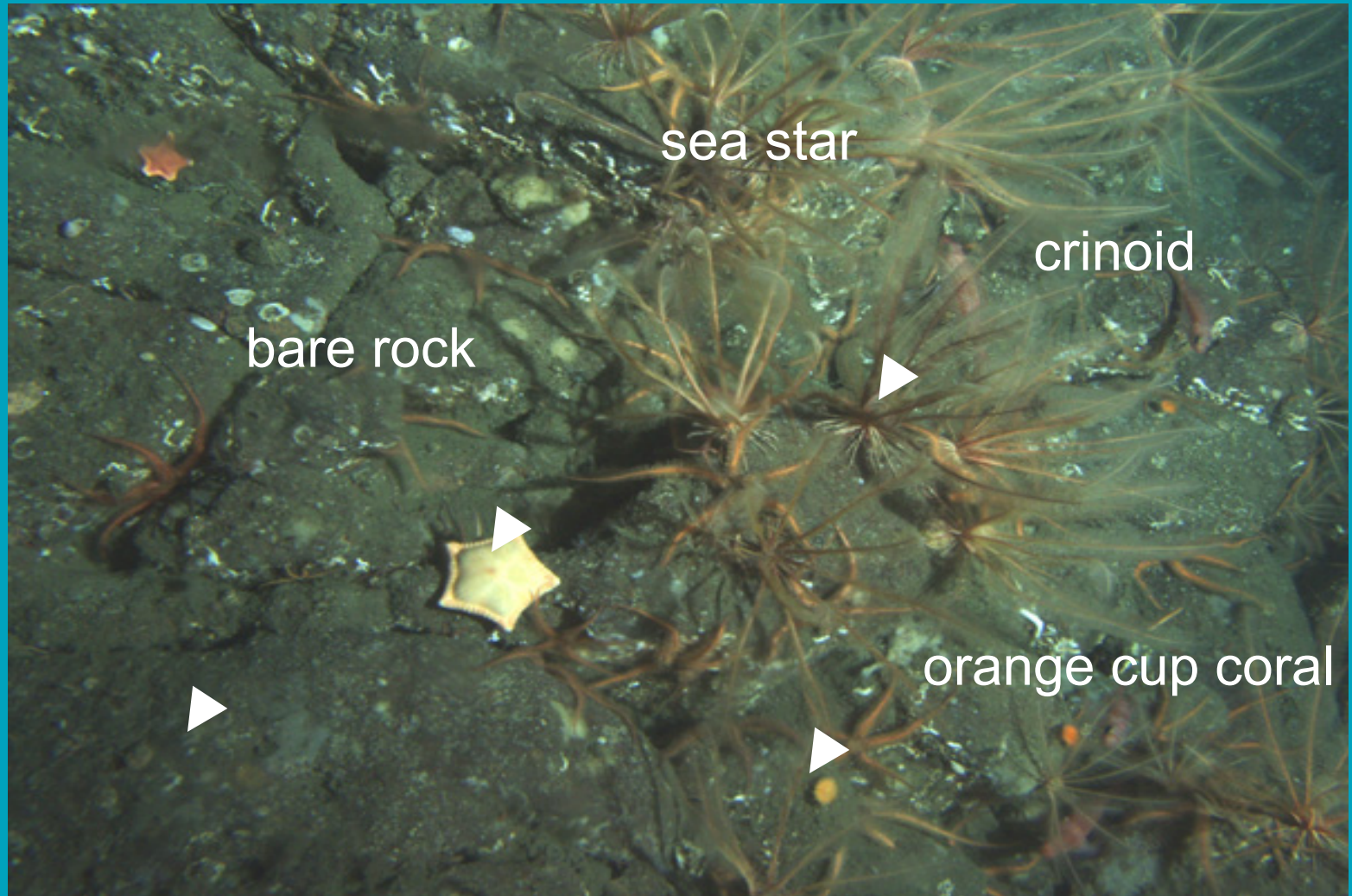


sponge

orange cup coral

seastar

hydrocoral



sea star

crinoid

bare rock

orange cup coral

