

# SAN DIEGO OCEANS FOUNDATION

## REEF-Selected Species (Southern California)

Program Partner:



**Level 1** (All new REEF members)

**Level 2** (Beginning Surveyor)

80% on Most Common Fishes Quiz (20 species)

2 REEF surveys

**Level 3** (Advanced Surveyor)

80% on Most Common Fishes Quiz (50 species)

25 REEF surveys

**Level 4** (Expert Surveyor)

90% on Most Common Fishes Quiz (60 species)

35 REEF surveys

**Level 5** (Expert Surveyor)

95% on Most Common Fishes Quiz (100 species)

50 REEF surveys

# REEF-Selected Fish Species (Southern California)

## DAMSELFISH

005 Blacksmith  
006 Garibaldi

## FLATFISH

021 California Halibut  
022 C-O Sole  
026 Speckled Sanddab  
369 Unidentified Flatfish

## GOBY

107 Blackeye Goby  
108 Blue-banded Goby  
112 Zebra Goby

## GREENLING

029 Kelp Greenling  
030 Lingcod  
032 Painted Greenling

## KELPFISH / BLENNY

232 Crevice Kelpfish  
010 Giant Kelpfish  
011 Island Kelpfish  
328 Spotted Kelpfish  
333 Striped Kelpfish  
\* 016 Sarcastic Fringehead

## ROCKFISH

045 Black Rockfish  
046 Black & Yellow Rockfish  
044 Blue Rockfish  
047 Bocaccio  
048 Brown Rockfish  
051 China Rockfish  
052 Copper Rockfish  
053 Gopher Rockfish  
054 Grass Rockfish  
055 Kelp Rockfish  
056 Olive Rockfish  
062 Treefish  
063 Vermilion Rockfish  
353 Juvenile (YOY) Rockfish

- Unidentified

## RONQUIL

379 Bluebanded Ronquil  
111 Stripefin Ronquil

## SCULPIN

069 Cabezon  
071 Coralline Sculpin  
076 Red Irish Lord  
304 Scalyhead Sculpin  
079 Snubnose Sculpin  
081 Unidentified Sculpin

## SEA BASS

001 Barred Sand Bass  
003 Kelp Bass

## SEA CHUB

035 Halfmoon  
036 Opaleye

## SHARK

086 Horn Shark  
087 Leopard Shark

## SILVERSIDE

097 Jacksmelt  
337 Topsmelt

## SURFPERCH

114 Black Surfperch  
116 Kelp Surfperch  
117 Pile Perch  
118 Rainbow Seaperch  
120 Rubberlip Seaperch  
122 Shiner Surfperch  
123 Striped Seaperch  
124 Walleye Surfperch  
125 White Surfperch

## WRASSE

127 California Sheephead  
129 Rock Wrasse  
128 Señorita

## OTHER

082 Bat Ray  
070 California Scorpionfish  
096 Jack Mackerel  
\* 092 Shovelnose Guitarfish  
099 Ocean Whitefish  
130 Unidentified Pipefish  
285 Pygmy Poacher  
039 Sargo  
138 Tubesnout  
\* 007 California Moray

\* Not on original species list

# REEF-Selected Invertebrate Species (Southern California)

## ARTHROPODS

- 400 Brown Rock Crab
- 151 Coonstripe Shrimp
- 401 Masking/Sheep Crab
- 155 Northern Kelp Crab
- 402 Red Rock Shrimp
- 403 CA Spiny Lobster

## BRYOZOANS

- 404 Fluted Bryozoan
- 158 Lacy Bryozoan
- 405 N. Staghorn Bryozoan
- 406 S. Staghorn Bryozoan

## CNIDARIANS

- 161 Strawberry Anemone
- 162 Tube-dwelling Anemone
- 163 White-spotted Anemone
- 407 Brown Gorgonian
- 408 CA Golden Gorgonian
- 410 Red Gorgonian
- 166 Orange Cup Coral
- 409 Purple Hydrocoral

## ECHINODERMS

- 169 CA Sea Cucumber
- 411 Warty Sea Cucumber
- 412 Bat Star
- 413 Giant Spined Star
- 171 Leather Star
- 414 Spiny Brittle Star
- 173 Sunflower Star
- 415 Crowned Urchin
- 416 Purple Urchin
- 176 Red Sea Urchin
- 417 White Urchin
- 174 Eccentric Sand Dollar

## MOLLUSKS

- 429 Green Abalone
- 430 Pink Abalone
- 431 Red Abalone
- 432 Unidentified Abalone
- 178 Opalescent Nudibranch
- 418 Red Sea Hare
- 419 San Diego Dorid
- 420 Sea Lemon
- 421 Spanish Shawl
- 422 Red Octopus
- 423 Two-spot Octopus
- 424 Chestnut Cowry
- 425 Giant Keyhole Limpet
- 426 Kellet's Whelk
- 183 Lewis' Moon snail
- 427 Red Turban Snail
- 428 Wavy Turban Snail
- 185 Gumboot Chiton
- 187 Rock Scallop

## SPONGES

- 433 Cobalt Sponge
- 434 Orange Puffball
- 435 Red Volcano Sponge

## TUNICATES

- 194 Club Tunicate (exotic)
- 436 Light-Bulb Tunicate
- 437 Stalked Tunicate

## WORMS

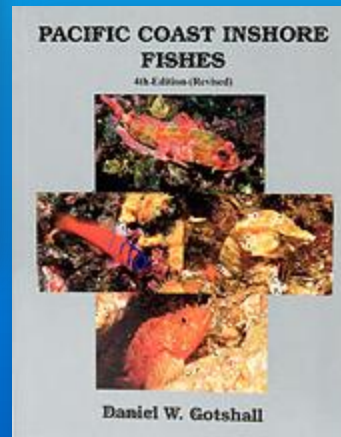
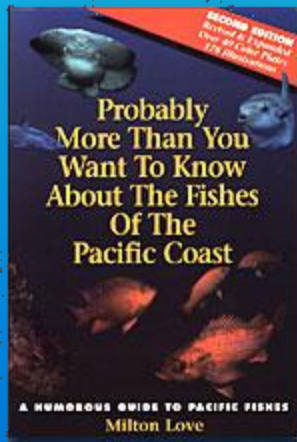
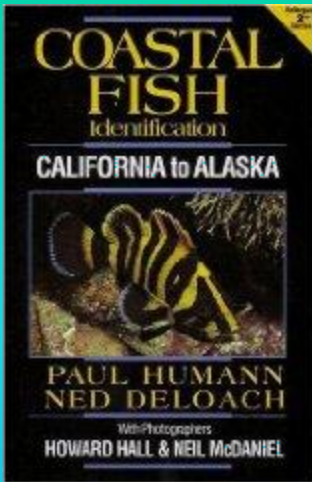
- 438 Christmas Tree Worm
- 439 Colonial Sand-tube Worm
- 440 Feather Duster Worm

## ALGAE

- 441 Asian Kelp Wakame (exotic)
- 442 Bull Kelp
- 443 Giant Kelp
- 444 Northern Sea Palm
- 446 Southern Sea Palm
- 445 Oarweed

# Additional References

- Coastal Fish Identification, California to Alaska  
- Paul Humann
- Probably More Than You Want to Know About the Fishes of the Pacific Coast  
- Milton Love
- Pacific Inshore Fishes  
- Daniel Gotshall



One last review!



Wavy Turban Snail



Masking/Sheep Crab



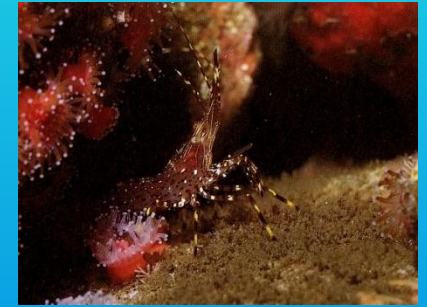
Northern Staghorn



Feather Duster Worm



Tube-Dwelling Anemone



Coonstripe Shrimp



Lacy Bryozoan



Spiny Brittle Star



Sea Lemon



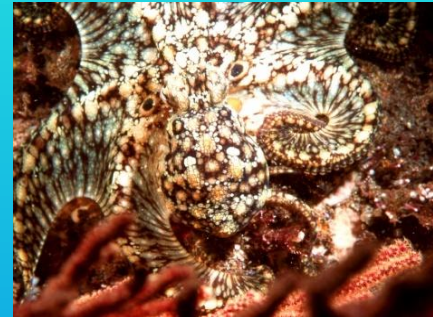
Strawberry  
Anemone



Brown  
Gorgonian



Oarweed



Two-Spot  
Octopus



Northern  
Kelp Crab



White Urchin



Orange Cup Coral



Northern  
Sea Palm



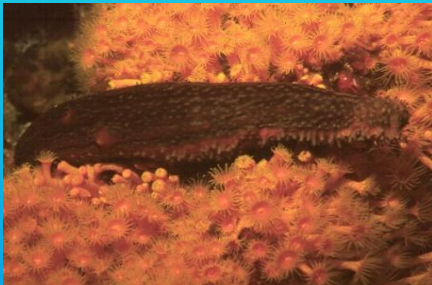
Purple Hydrocoral



Bat Star



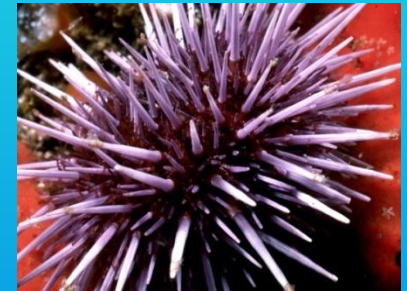
Red Octopus



Warty Sea Cucumber



Stalked Tunicate



Purple Urchin



Giant Spined  
Sea Star



Crowned Urchin



Southern Staghorn



CA Sea Cucumber



Opalescent Nudibranch



Red Sea Hare



Pink Abalone



Lewis' Moonsnail



Leather Star



Sunflower Star



Spanish Shawl



Eccentric Sand Dollar



Brown Rock  
Crab



Green  
Abalone



Fluted  
Bryozoan



Rock Scallop



Southern  
Sea Palm



Red Rock  
Shrimp



Chestnut Cowry



Colonial Sand-Tube Worm



Gumboot Chiton



Giant Keyhole Limpet



Red Turban Snail



Red Volcano Sponge



Red Abalone



San Diego Dorid



Bull Kelp



Giant Kelp



Elk Kelp



CA  
Spiny Lobster



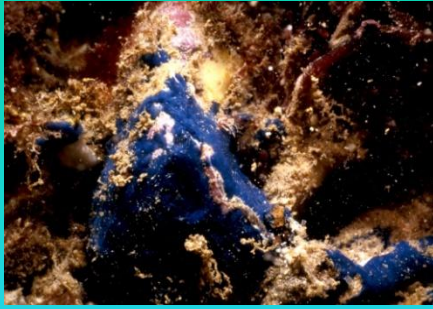
Red Urchin



Unidentified  
Abalone



Asian Kelp  
Wakame



Cobalt Sponge



Light Bulb Tunicate



CA Golden Gorgonian



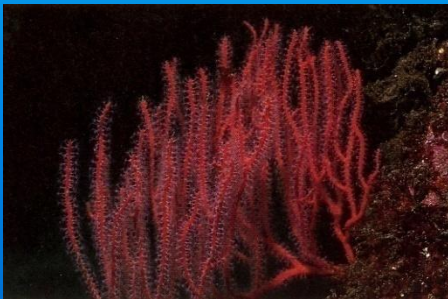
Kellet's Whelk



Christmas Tree Worm



Orange Puffball



Red Gorgonian



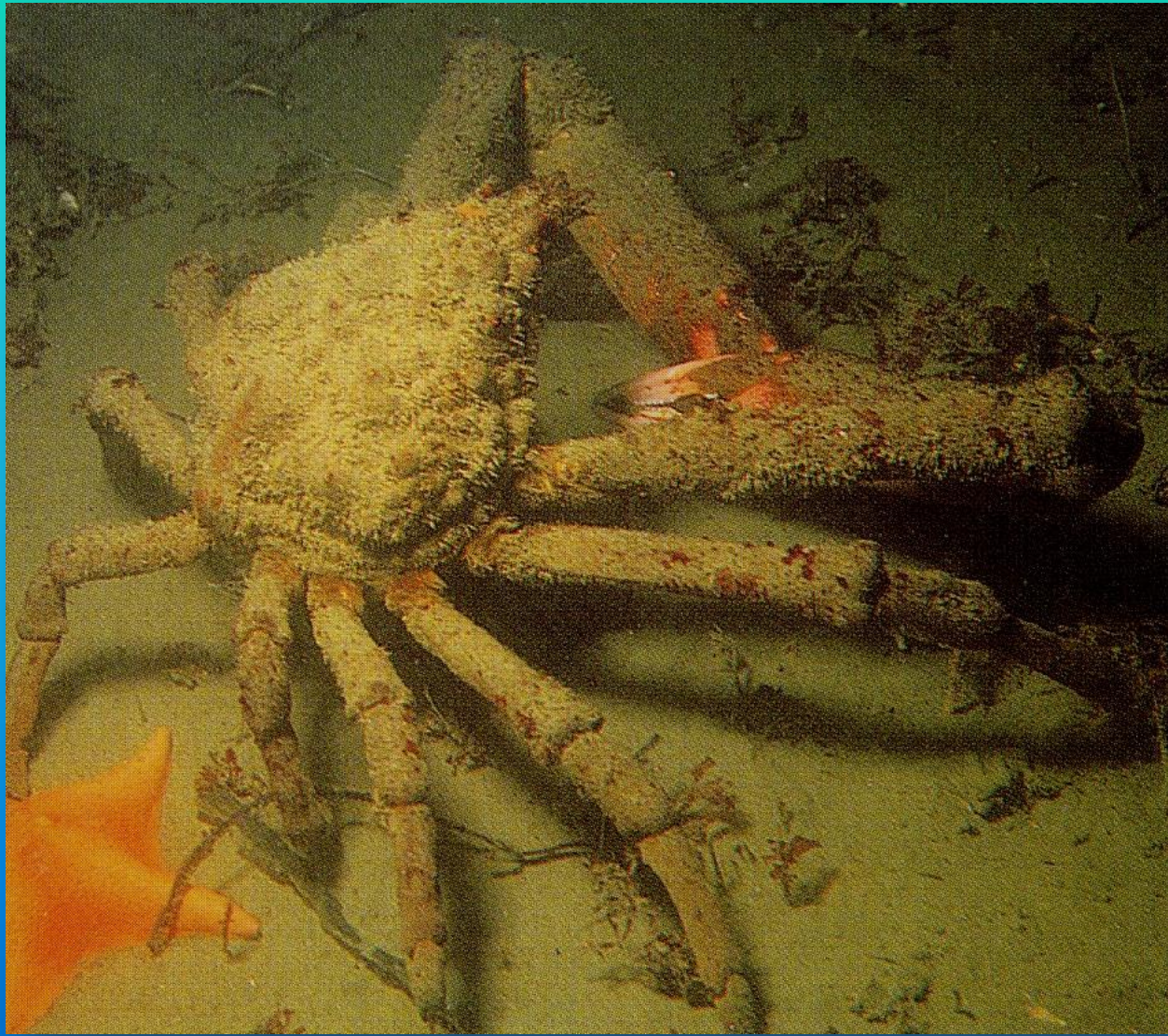
Club Tunicate



White Spotted Anemone

Questions?

Test time!





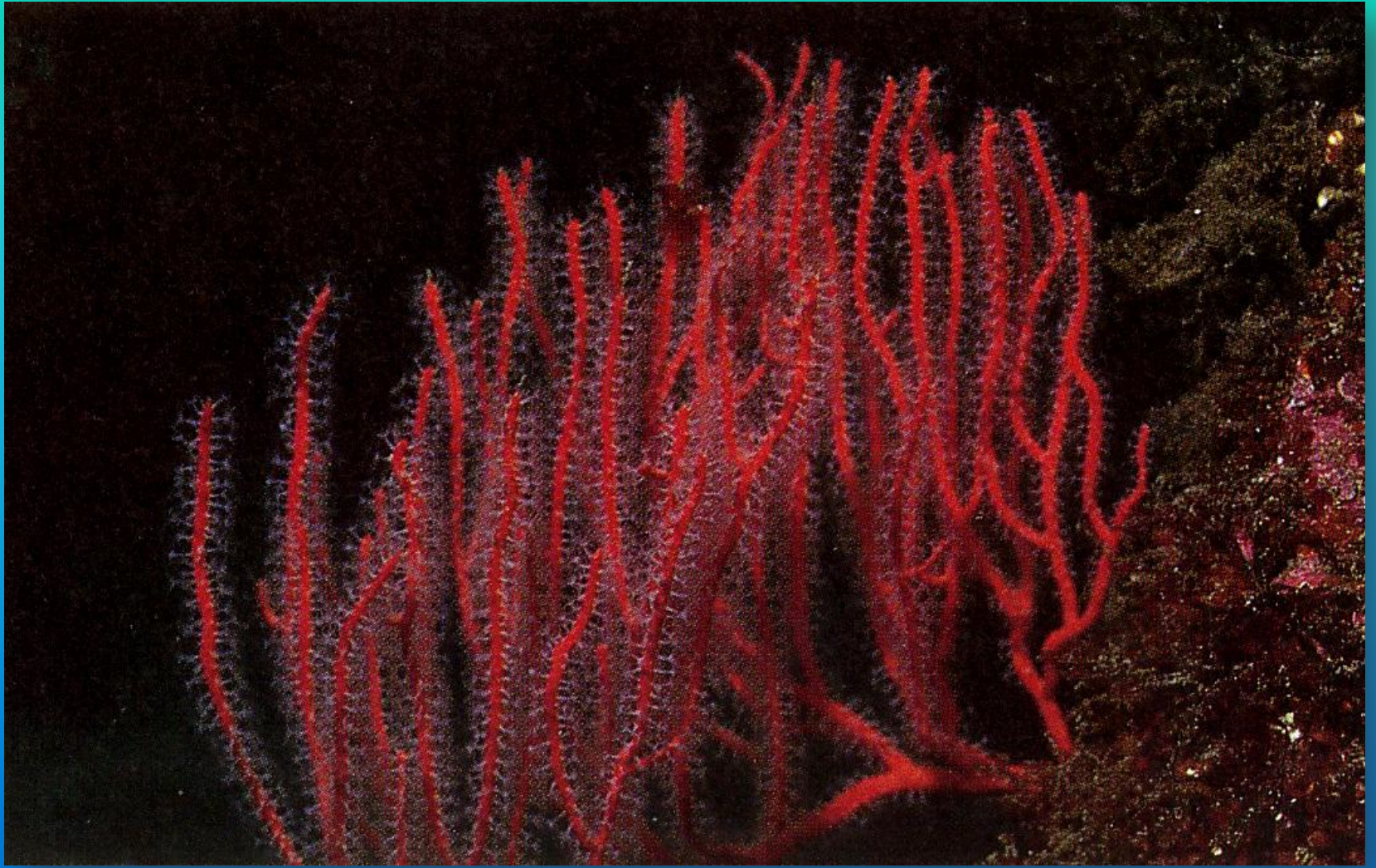






















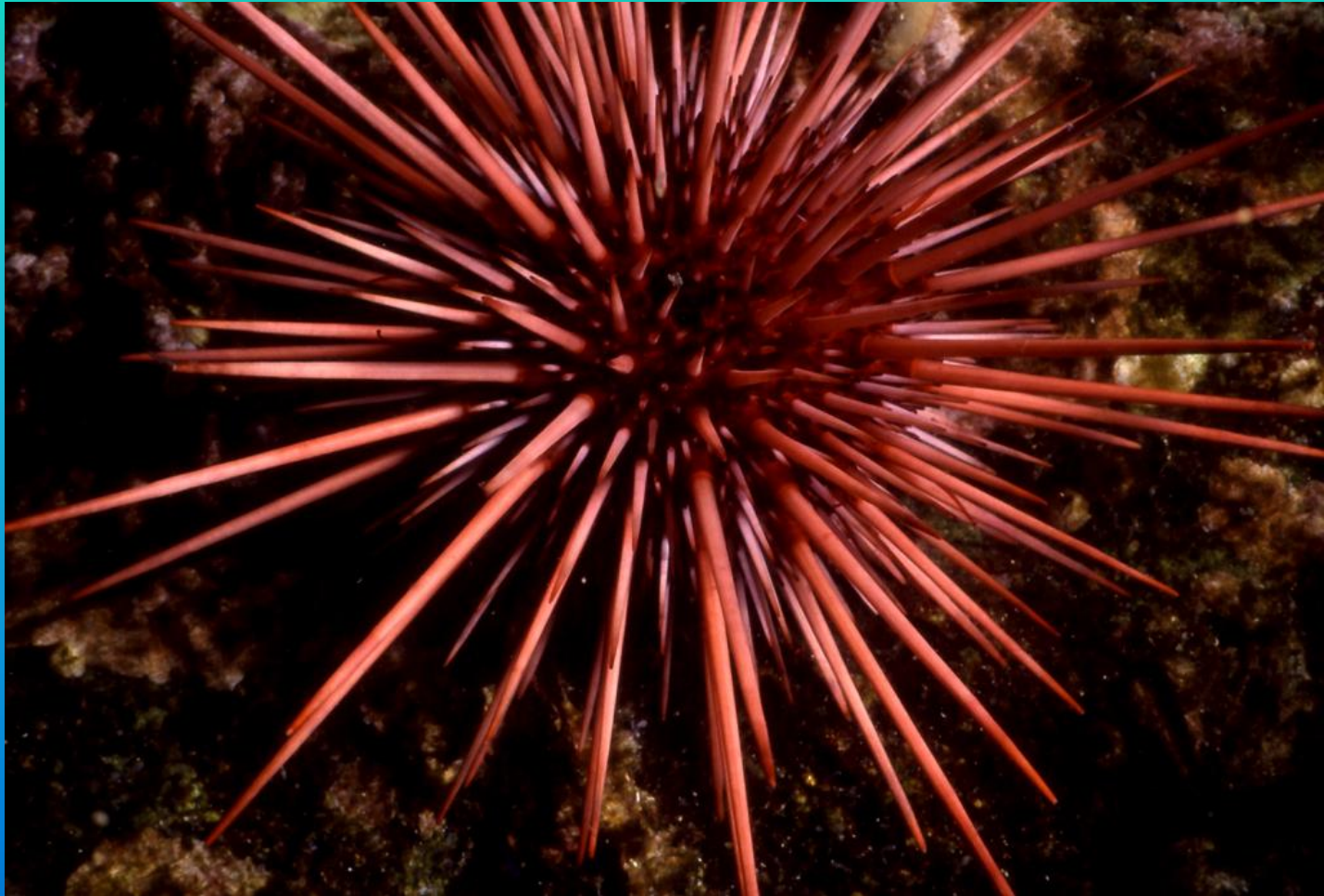








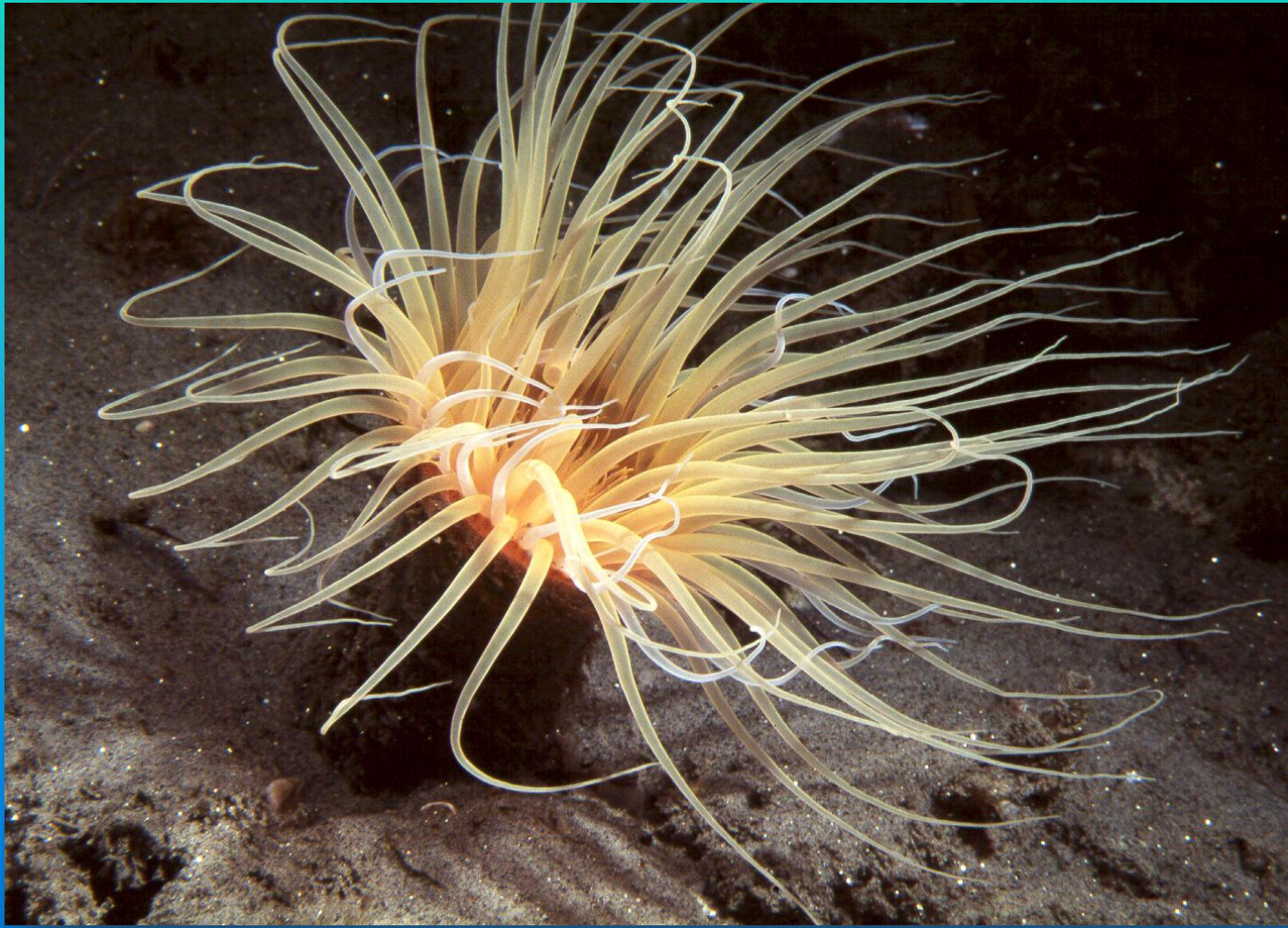


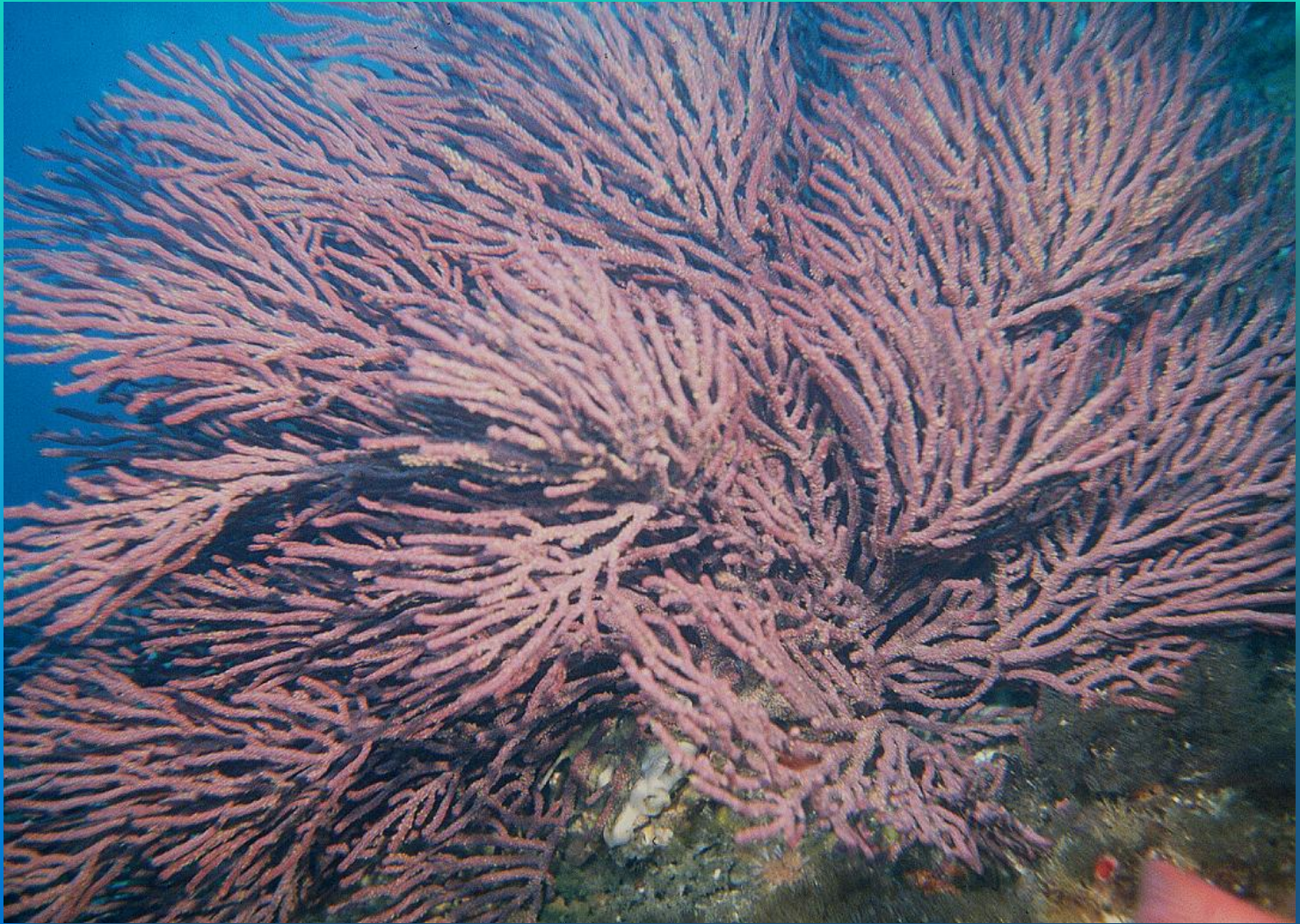






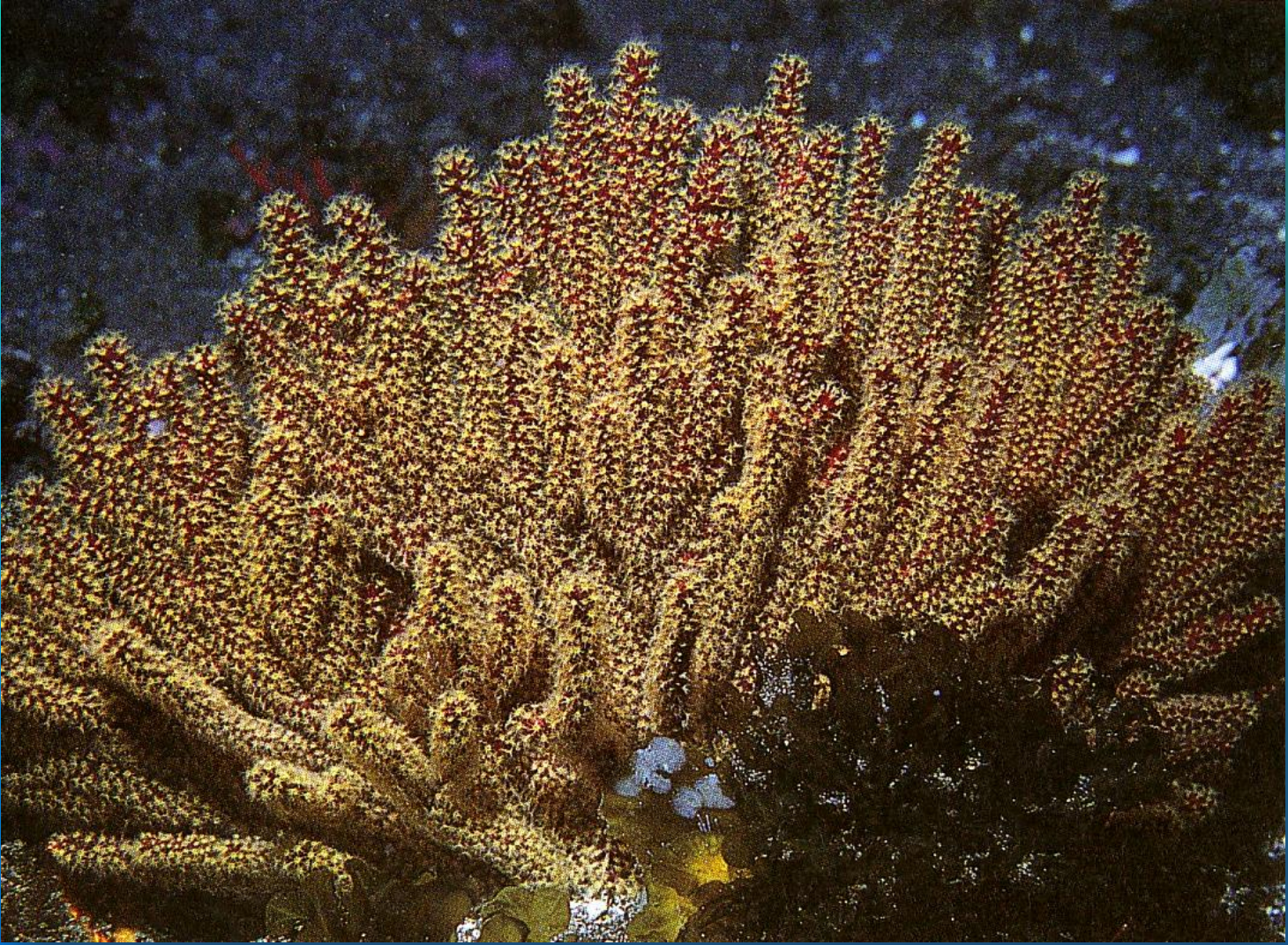






















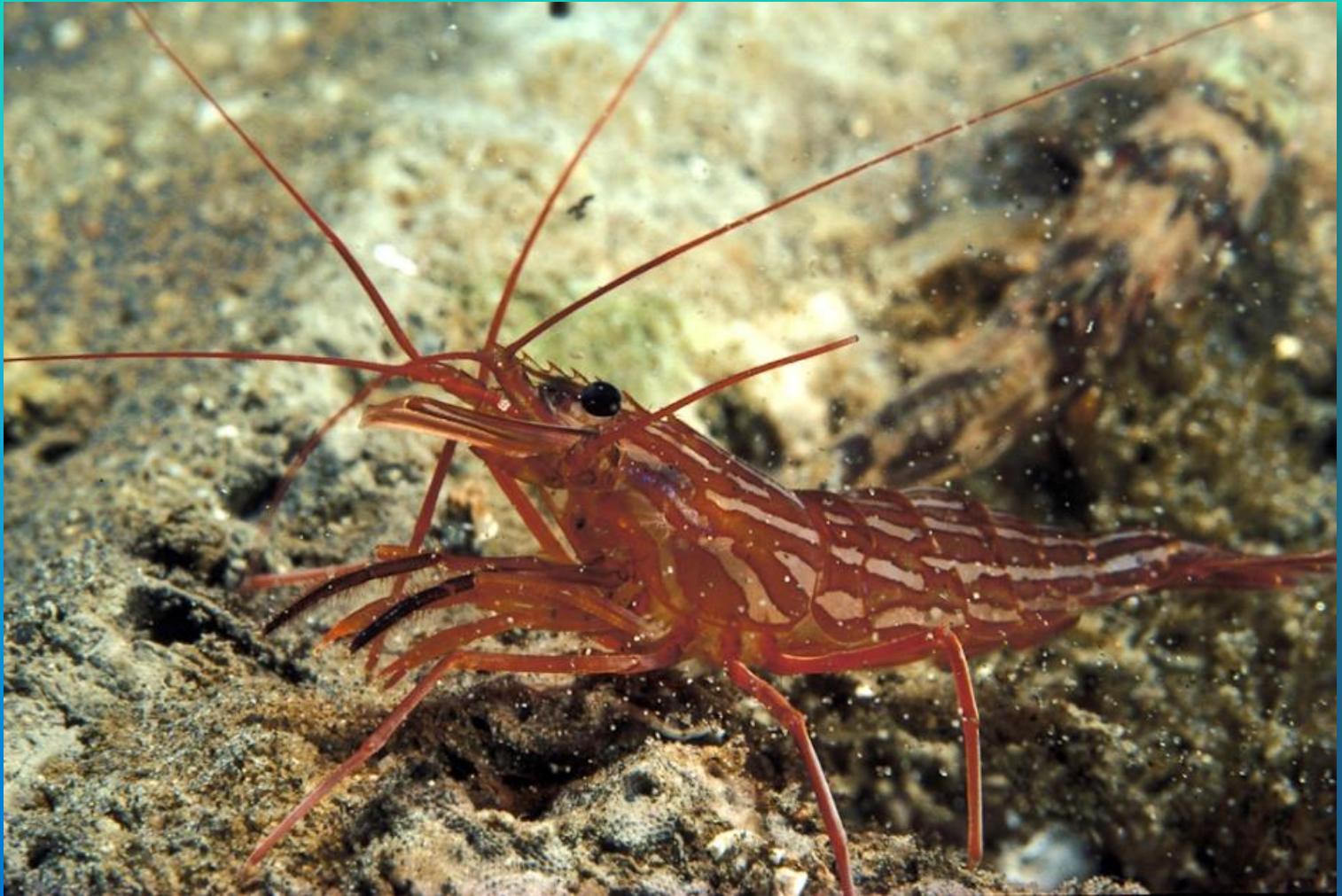














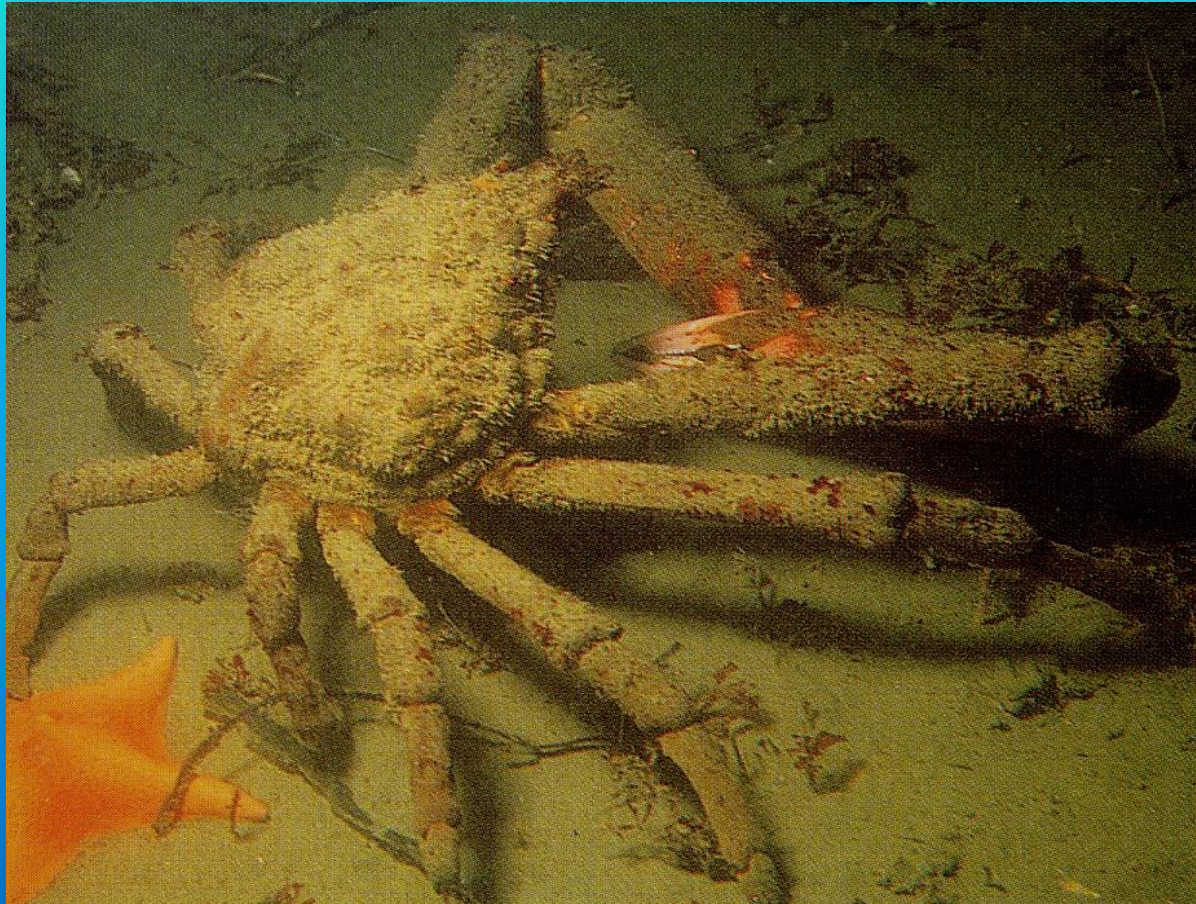


# Time to Grade your Test!

- Please trade papers with your neighbor -

# Masking/Sheep Crab

*Loxoryhnchus crispatus/Loxorhynchus grandis*



# Red Octopus

*Octopus rubescens*



# Rock Scallop

*Crassadoma gigantea*

Former scientific name: *Hinnites giganteas*



# Coonstripe Shrimp

*Pandalus gurneyi/Pandalus danae*



# Southern Sea Palm

*Eisenia arborea*



# Northern Kelp Crab

*Pugettia producta*



# California Sea Cucumber

*Parastichopus californicus*



# Red Gorgonian

*Lophogorgia chilensis*



# Wavy Turban Snail

*Megastoma undosum*



# Spanish Shawl

*Flabellina iodinea*



# Warty Sea Cucumber

*Parastichopus parvimensis*



# Bat Star

*Asterina miniata*



# Red Volcano Sponge

*Acarus eruthacus*



# Giant Spined Star

*Pisaster giganteus*



# Giant Keyhole Limpet

*Cypraea spadicea*



# Purple Urchin

*Strongylocentrotus purpuratus*



# Stalked Tunicate

*Styela montereyensis*



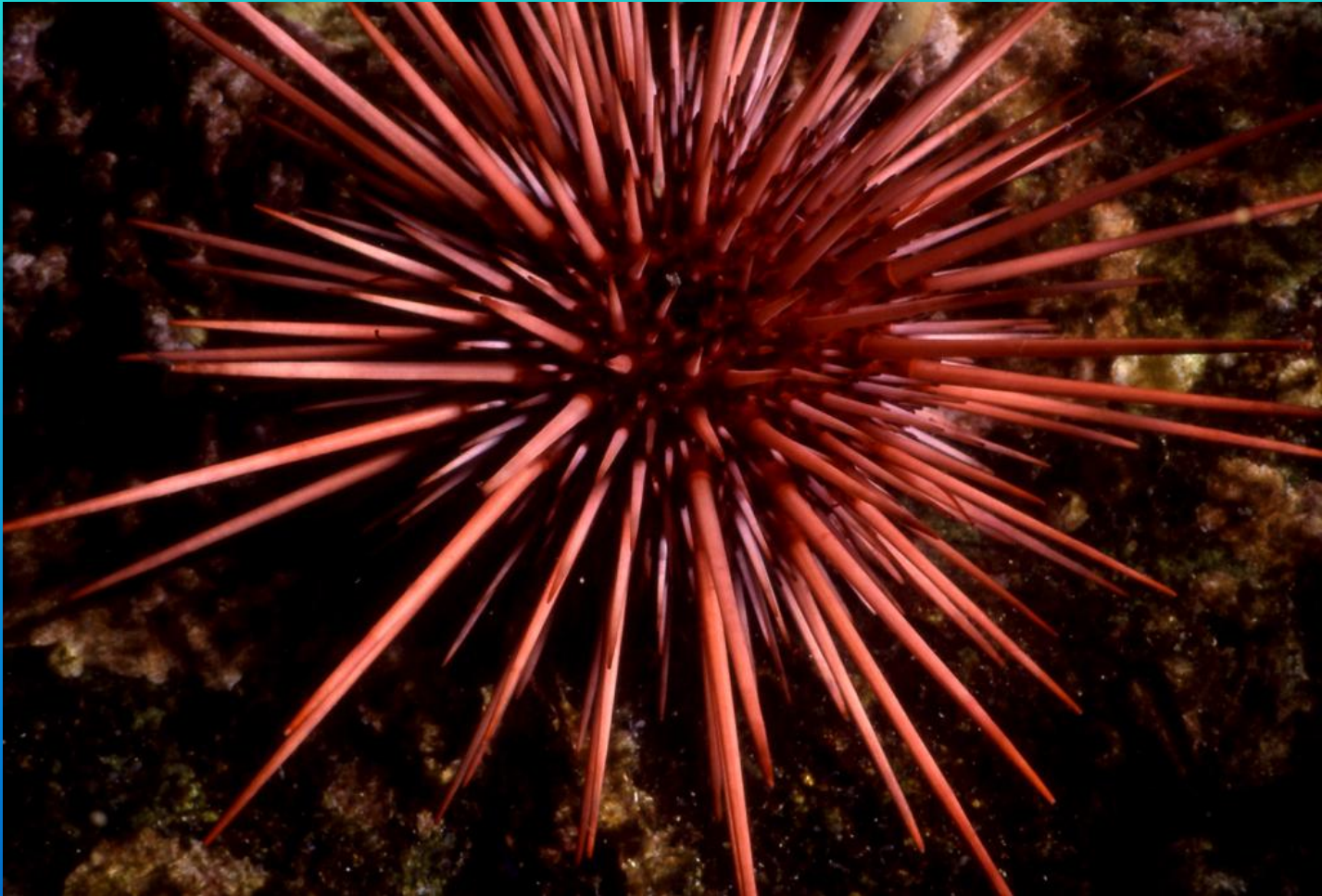
# Purple Hydrocoral

*Stylaster californicus*



# Red Sea Urchin

*Strongylocentrotus franciscanus*



# Strawberry Anemone

*Corynactis californica*



# Oarweed

*Laminaria farlowii*



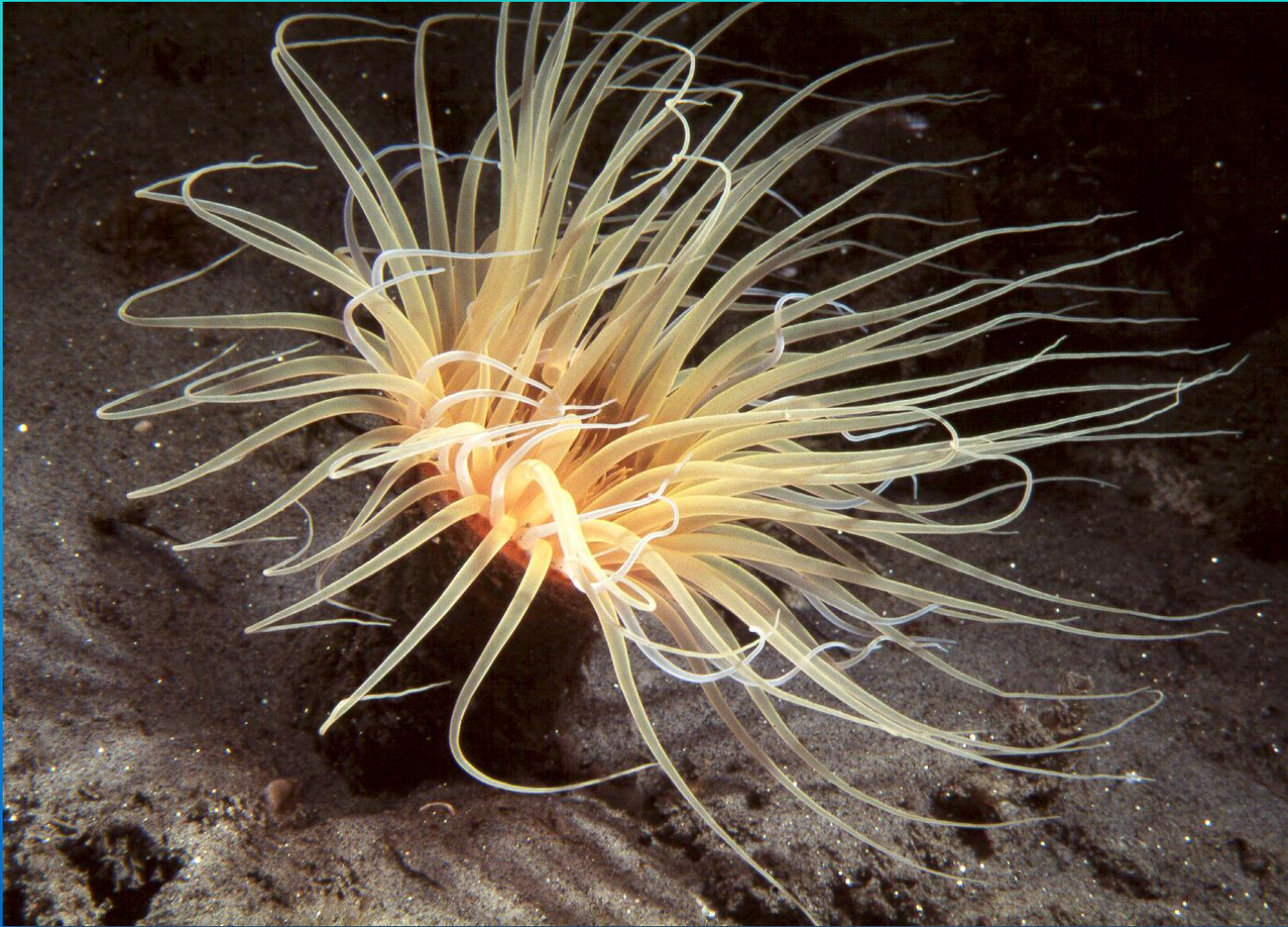
# Two Spot Octopus

*Octopus bimaculatus*



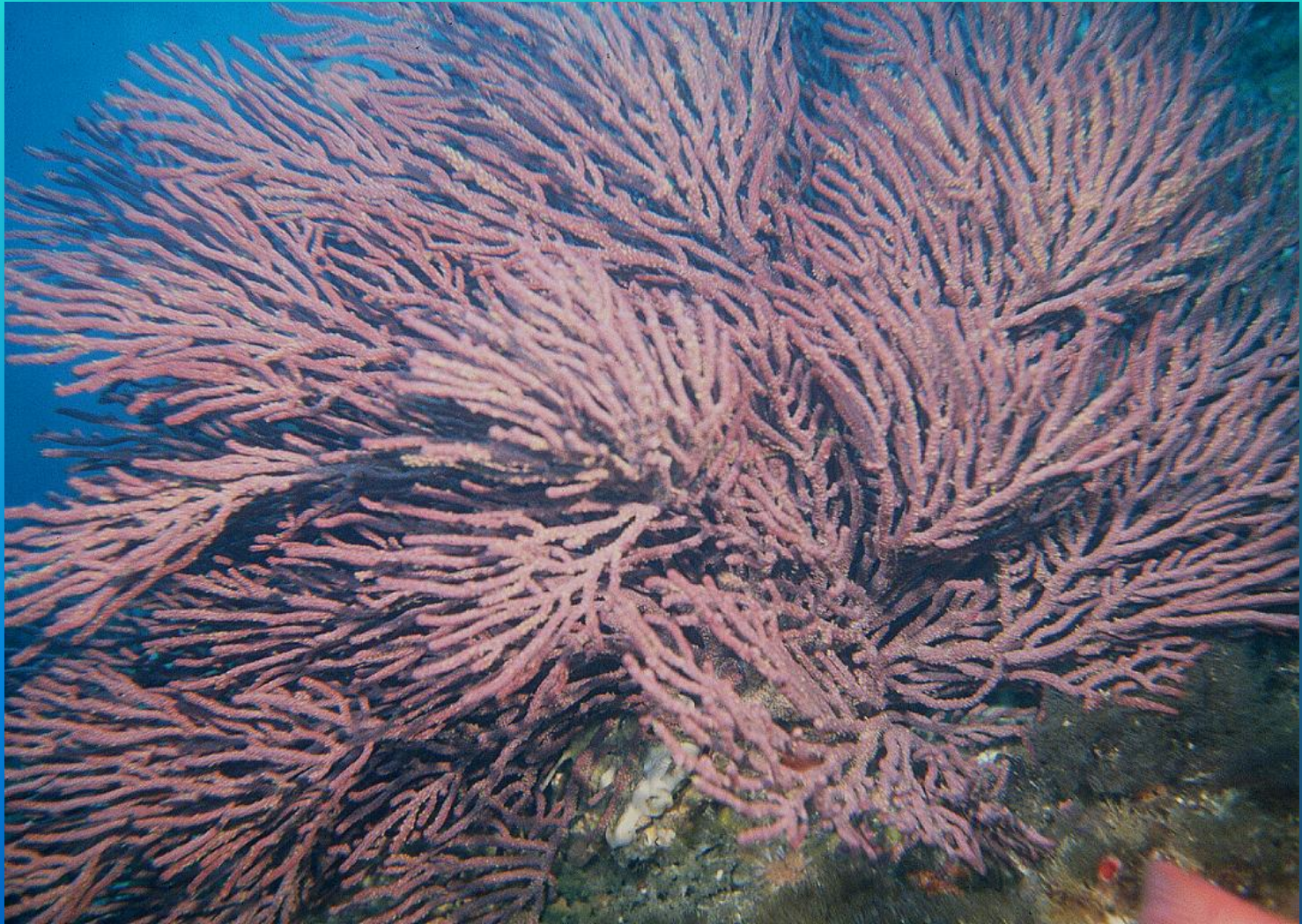
# Tube-Dwelling Anemone

*Pachycerianthus fimbriatus*



# Brown Gorgonian

*Muricea fruticosa*



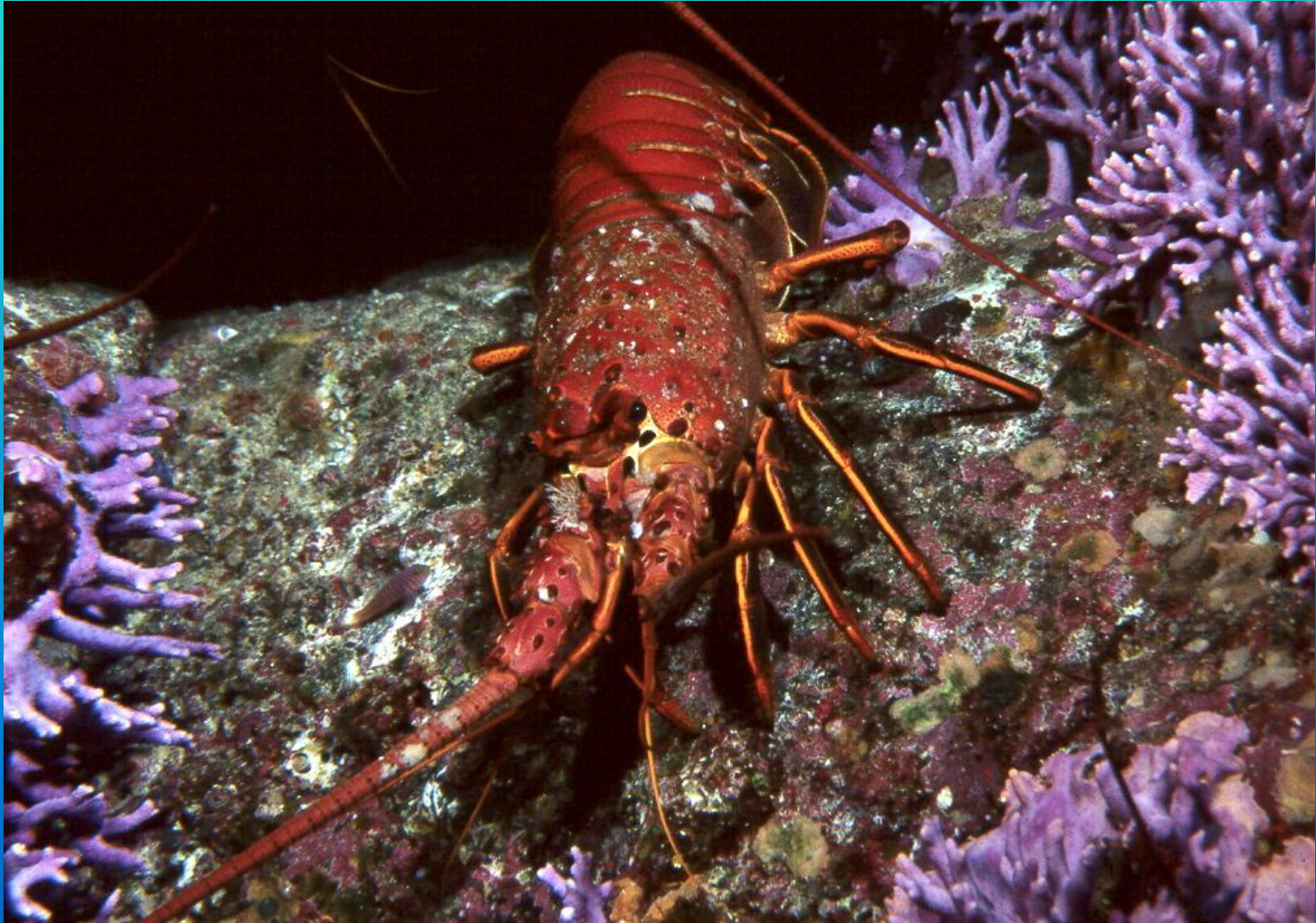
# Spiny Brittle Star

*Ophiothrix spiculata*



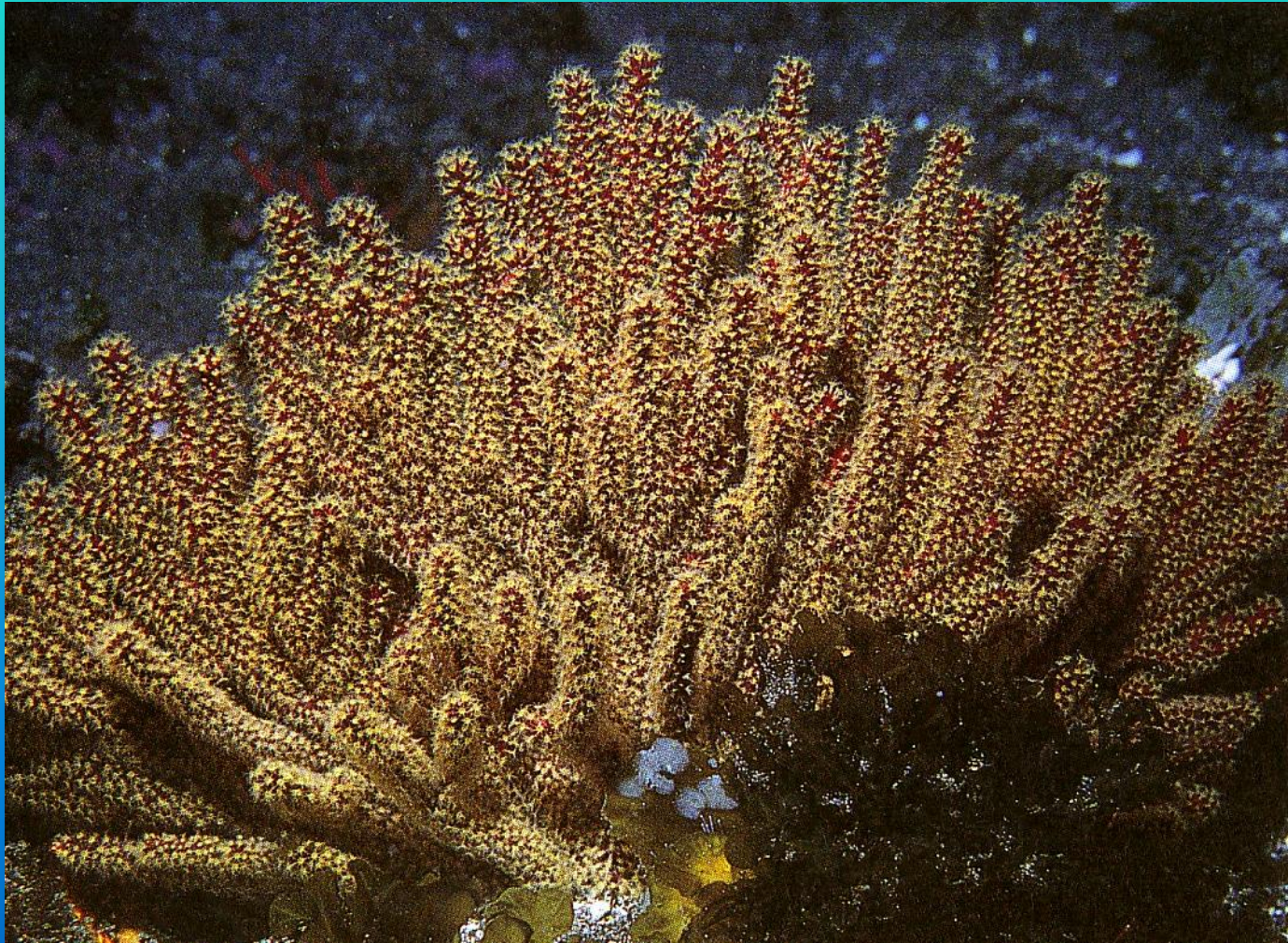
# CA Spiny Lobster

*Panulirus interruptus*



# CA Golden Gorgonian

*Muricea californica*



# Green Abalone

*Haliotis fulgens*



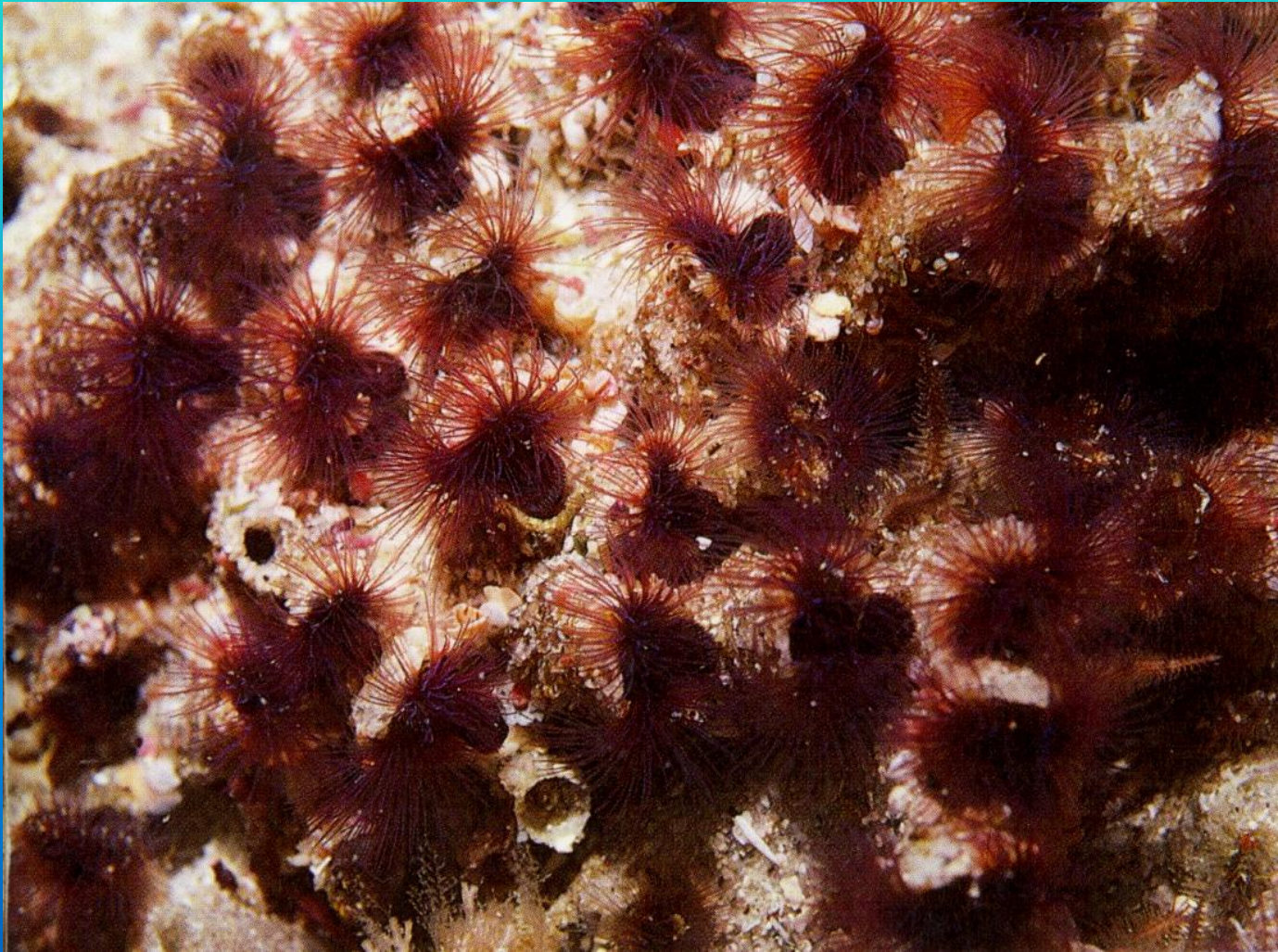
# Opalescent Nudibranch

*Hermisenda crassicornis*



# Colonial Sand-Tube Worms

*Phragmatopoma californica*



# Red Sea Hare

*Aplysia californica*



# Kellet's Whelk

*Kelletia kelletii*



# Fluted Bryozoan

*Hippodiplosia insculpta*



# San Diego Dorid

*Diaulula sandiegensis*



# Eccentric Sand Dollar

*Dendraster excentricus*



# Lewis' Moonsnail

*Euspira lewisii*



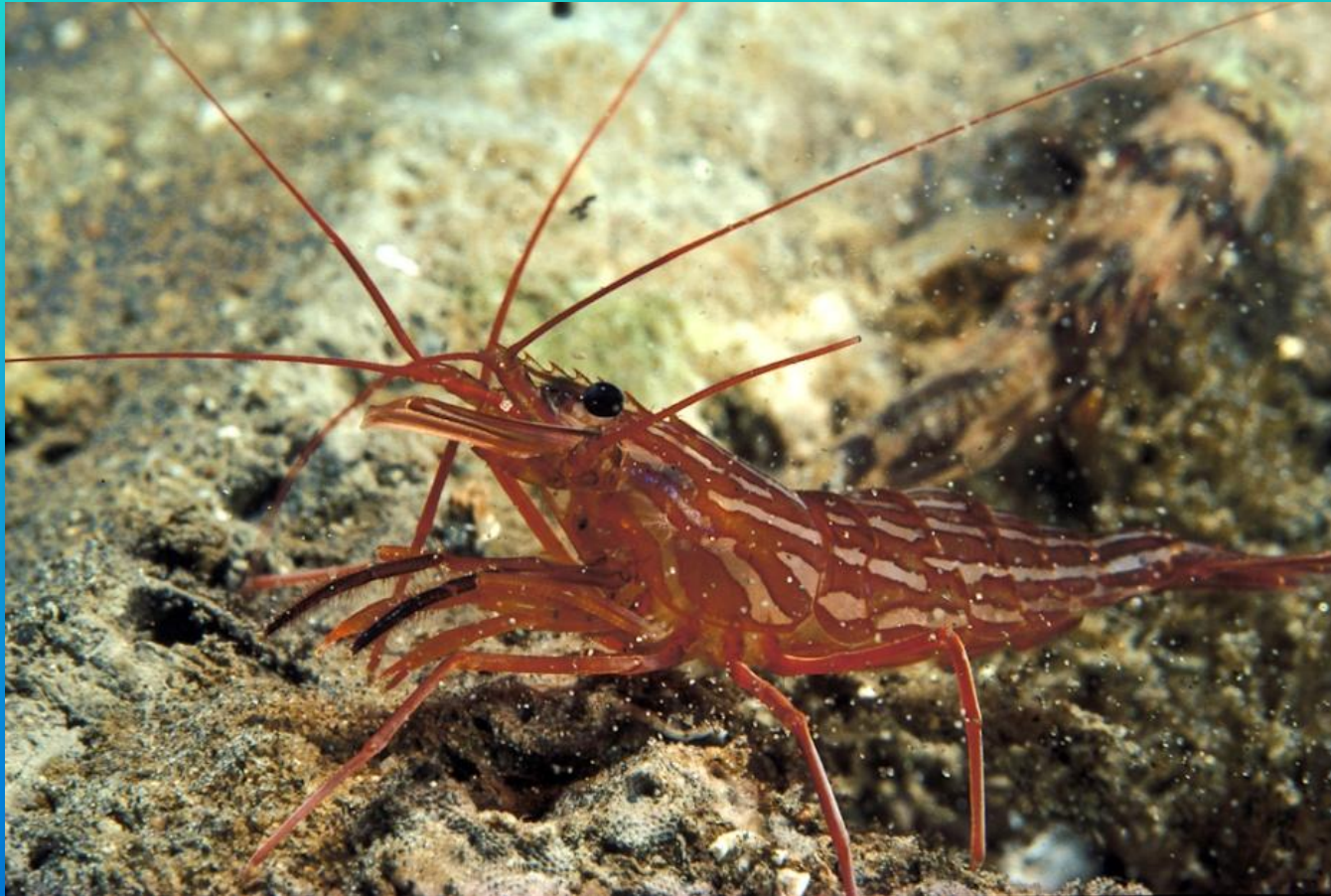
# Light Bulb Tunicate

*Clavelina huntsmani*



# Red Rock Shrimp

*Lysmata californica*



# Christmas Tree Worm

*Spirobranchus spinosus*



# Giant Kelp

*Macrocystis pyrifera*



Bonus:  
Kelp Bass  
*Paralabrax clathratus*

# Congratulations!

You've just finished Level 5 REEF ID...

If you got 95% (152/160) or higher  
on your quiz, you are officially a  
Level 5 REEF surveyor!

Now - just get out, dive, submit some  
more surveys and come back for a refresher  
anytime!!

