

Food webs - intertidal rocky shores

Instructions

Field Activity

1. Find an area that your teacher determines is safe to walk through.
2. Record any animals and plants observed in this location in the table as a group.
3. Refer to the field guide to help with species identification.

Questions

1. Use the information provided in the field guide to determine what animals eat the plants, and identify any other animals you can observe in the area. Record this in the table.
2. Predict which species are producers or consumers.

Back in the classroom activity

1. Construct a food web using all the plants and animals recorded in the field. Try to draw representative pictures of each animal or plant in the food web.
2. What types of corals did you observe in your field study? How do they fit into the food web of the intertidal zone?
3. Suggest what may happen if one of the first order consumers is removed from the system?



CoralWatch

COMMON FLORA AND FAUNA – INTERTIDAL COASTAL REGIONS



Caulerpa taxifolia (Killer algae)

ALGAE grows on mud and sand flats. Requires large amounts of sunlight to produce its food.



Halophila ovalis (Dugong grass)

SEAGRASS grows in shallow water near the low tide mark. Needs sunlight to produce food.



Avicennia marina (Grey mangrove)

MANGROVE PLANTS are trees that grow on mud and sand flats. Roots poke through the sand into the air.



Pink sandy sponge

SPONGES may grow in the open or underneath rocks. They are filter feeders, commonly found in dirty waters.



Stichodactyla haddoni (Haddon's anemone)

ANEMONES bury their foot into muddy sand and use their sticky oral disc to catch food. Anemones also have symbiotic algae that live within their bodies that use sunlight to generate food.



Phyllodoce novaehollandia (Green paddle worm)

WORMS can live in the sand or mud and move about the intertidal zone at low tide. They can feed on small shrimp and crabs, other worms, and also scavenge on dead animals that are in the vicinity.



Tapas dorsatus (Tapestry Venus Clam)

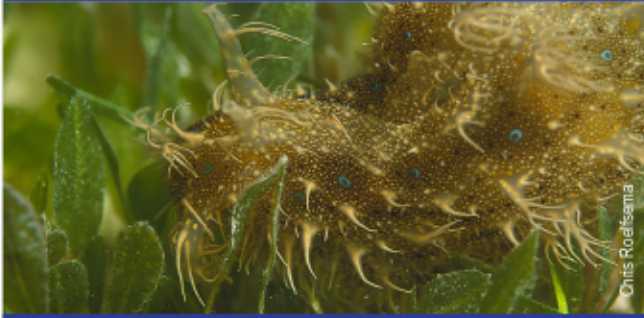
BIVALVES are shells with two parts protecting the soft body of the animal inside. Bivalves filter food (phytoplankton & zooplankton) from the water. Many were important foods for local indigenous people for thousands of years.



Pyrazus ebeninus (Hercules club mud whelk)

GASTROPODS are sea snails and slugs. They live on rocks and in seagrass beds. They often eat seagrasses and algae in the marine environment.

COMMON FLORA AND FAUNA – INTERTIDAL COASTAL REGIONS



Aplysia sowerbyi (Sowerby's sea hare)

SEA SLUGS live in and around seagrasses and rocky shores. They feed on sponges, green and red algae. Some can be up to 15cm long.



Hymenocera elegansi (Harlequin shrimp)

SHRIMP live in seagrass areas and around rocky areas. They feed on algae. Some shrimp make a loud clicking noise. These are called pistol shrimps.



Superfamily *Paguroidea* (Hermit crab)

CRABS eat many things including shrimp, gastropods, molluscs and even dead fish. Hermit crabs live inside shells made by other animals.



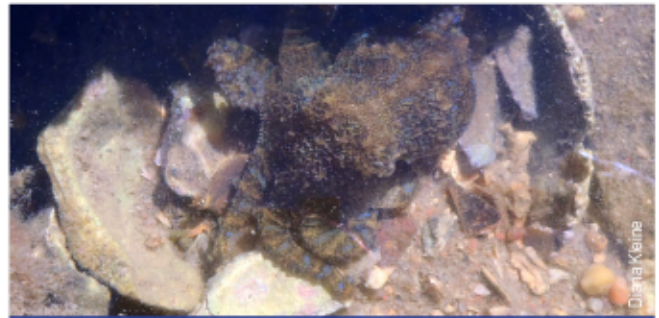
Class *Holothuroidea* (Sea cucumber)

SEA CUCUMBERS bury in sand and inhabit rocky shores. They feed on detritus and algae. When disturbed some species can eject masses of sticky white tendrils.



Acropora sp. (Hard coral)

CORALS can be found in rocky shores. They can have a stony skeleton or may be soft. Corals have symbiotic algae that live within their bodies that use sunlight to generate food, corals also filter food from the water.



Haplochlæna fasciata (Blue-lined octopus)

OCTOPUS feed on crabs, crustaceans and small fish. No octopus should be touched as it may be a Blue-lined octopus. These have a highly venomous bite which can cause paralysis and death.



Plotosus lineatus (Striped eel catfish)

FISH move through the intertidal zone at high tide. They eat shrimp, crabs, octopus, worms and many other things.



Rhynchobatus australiae (Guitarfish)

SHARKS and **RAYS** move through the intertidal zone at high tide. They eat fish, bivalves crabs and shrimp. You may also see Shovelnose rays in the shallow water.

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Food web field activity results table

Group member names:

Location:

Date:

Time:

Record No	Observed organism	Possibly food for?	Possibly feeds on?	Producer or Consumer
1				
2				
3				
4				
5				
6				
7				
8				
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