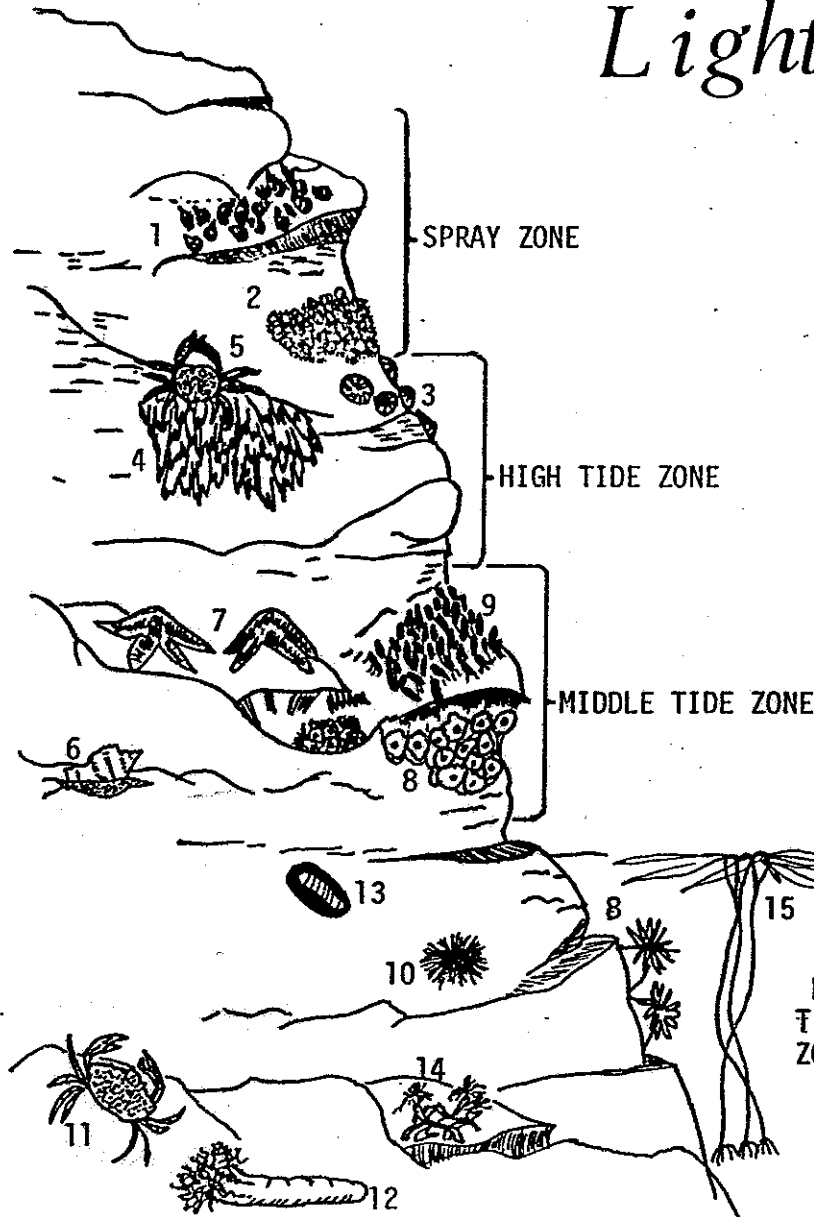


SEASHORE LIFE of Lighthouse Park



SPRAY ZONE

- (1) Periwinkles
- (2) Barnacles

HIGH TIDE ZONE

- (3) Limpets
- (4) Rockweed
- (5) Purple Shore Crab
- Blennies
- Clingfish

MIDDLE TIDE ZONE

- (6) Wrinkled Whelk
- (7) Purple Stars
- (8) Sea Anemones
- (9) Blue Mussels
- Clam Worms

TIDE POOLS

- (10) Green Sea Urchins
- Sculpins
- Hermit Crabs
- Sea Lettuce

LOW TIDE ZONE

- (11) Red Rock Crab
- (12) Sea Cucumber
- (13) Mossy Chiton
- (14) Calcareous Tube Worms
- (15) Bull Kelp

Because the changing tides cover and uncover the shores of Lighthouse Park twice daily, different animals live at different heights on the beach. Those who tolerate long dry periods can live higher on the shore than those who must be nearly always under water. Rocky beaches are usually divided into four zones. Animals typically found in each, and those found in tidepools, are noted above.

Lifestyles

F

The SPRAY ZONE

The uppermost part of the beach is only flooded by storm waves and ocean spray. Usually completely dry, animals who live here must tolerate the extreme cold of winter and the heat of summer, as well as the differences in salt content of sea water and rain water.

The HIGH TIDE ZONE

This area is covered only by high tides, which these organisms depend on to bring them food. However, these animals are more often dry than wet, and must tolerate many of the stresses of the spray zone.

The MIDDLE TIDE ZONE

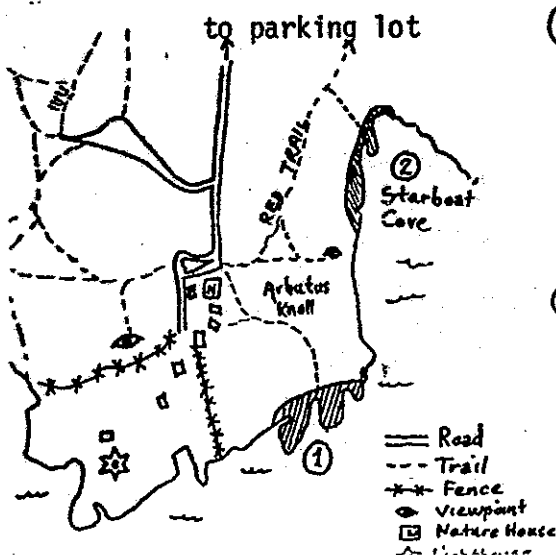
The rising and falling tides cover and uncover this zone twice daily. Because this area is so often covered with water, the problems of temperature changes, salt content changes and drying up are less severe.

Animals living in tidepools may seem to have solved most of the problems of intertidal life by being able to remain submerged. However, they must tolerate warming of the water and changes in salt content due to dilution by rainwater and concentration by evaporation. If the pool dries up, most will survive in the moisture under rocks until the next high tide.

The LOW TIDE ZONE

This area is only exposed to air during the very lowest of tides, and supports more plants and animals of a wider variety than any other zone. Many are subtidal animals who have moved up from deep water. As very low tides only occur a few times during the year, these animals are not seen often.

EXPLORING THE BEACHES



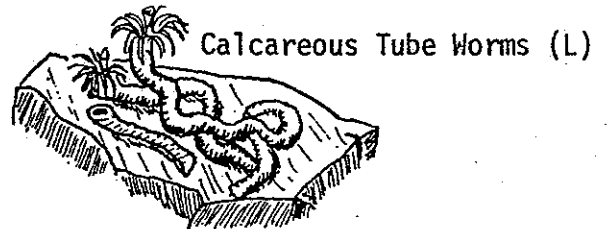
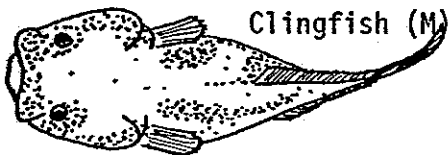
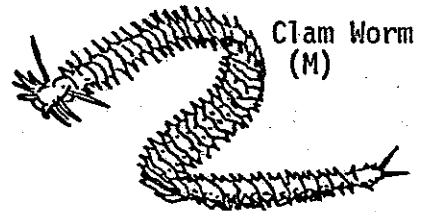
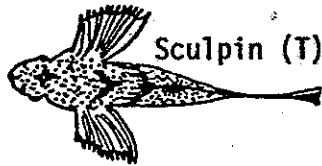
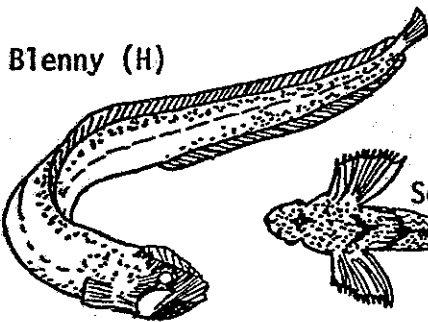
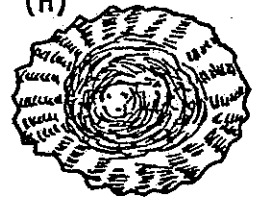
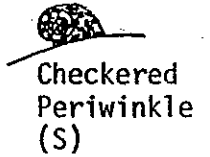
① At the start of the Red Trail (next to the Nature House) turn right and cross the rocky knoll. Just past the picnic tables, join the trail that runs between two rock outcrops. Go left and follow this narrow trail as it curves to the right and drops down to the beach.

② Follow the Red Trail from the Nature House, past several smaller trails branching to the right. Above Starboat Cove there is a small group of Arbutus trees surrounding a Douglas-fir with a small, red, plastic marker on it. The trail to the right at this tree goes directly down to the beach.

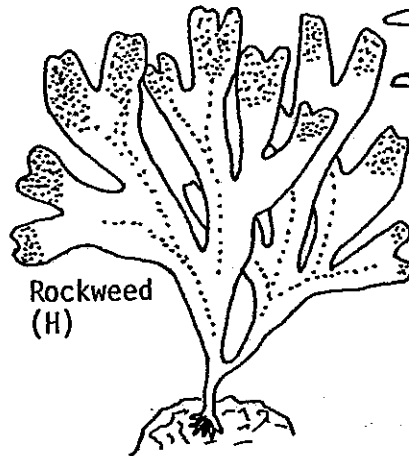
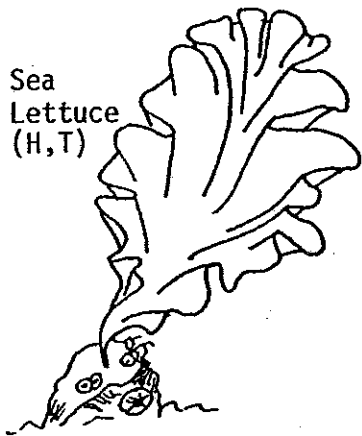
SEASHORE ANIMALS

For each of the animals shown, the habitat it is usually found in is given in parentheses according to the following code:

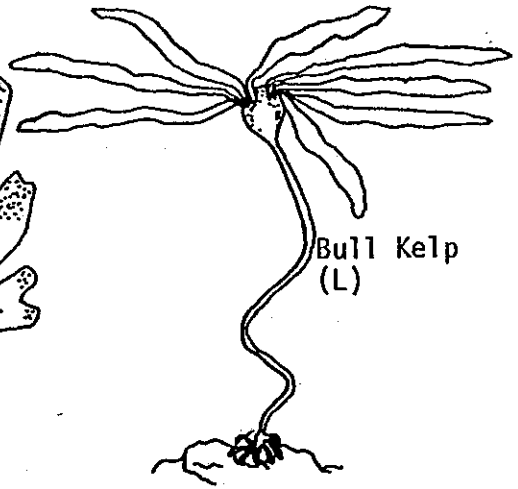
- (S) Spray Zone
- (H) High Tide Zone
- (M) Middle Tide Zone
- (T) Tide Pools
- (L) Low Tide Zone



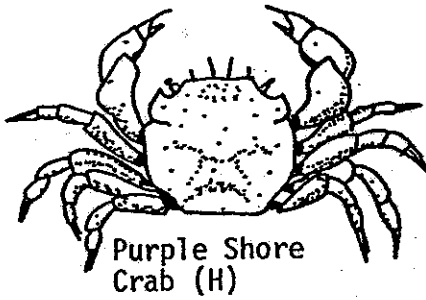
Sea Lettuce (H,T)



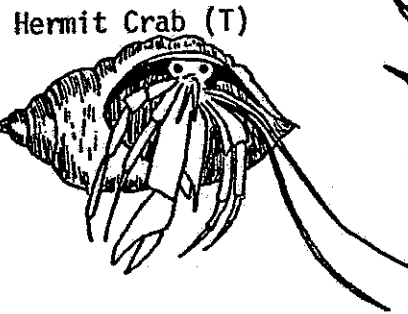
Rockweed (H)



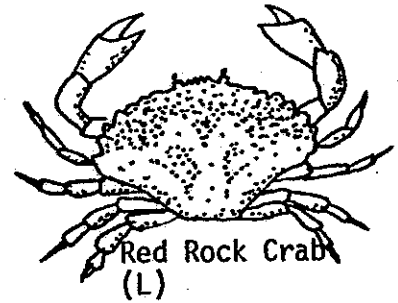
Bull Kelp (L)



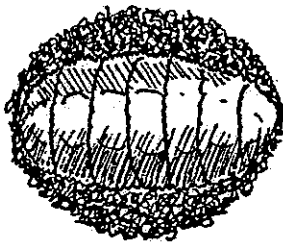
Purple Shore Crab (H)



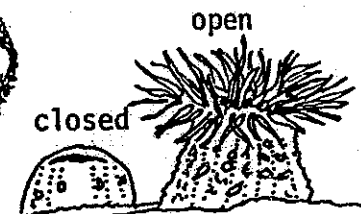
Hermit Crab (T)



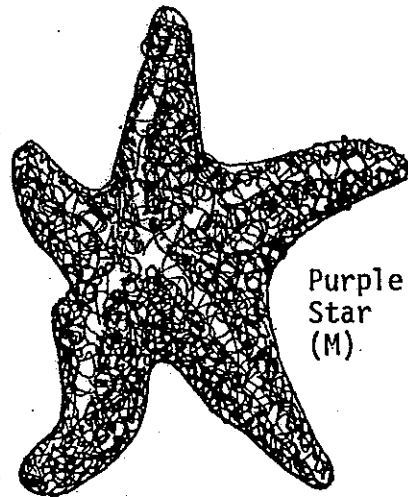
Red Rock Crab (L)



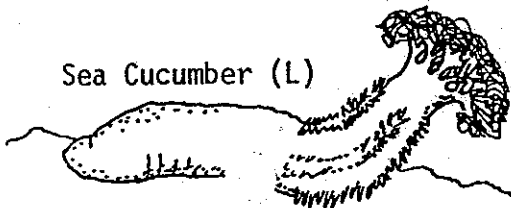
Mossy Chiton (L)



Sea Anemone (M)



Purple Star (M)



Sea Cucumber (L)