

EARTH DAY

BOSTON HARBOR

Boston harbor is a lowland estuarine basin. An estuary is a semi-enclosed coastal body of water with free and open connections to the sea, where the salt water from the sea is diluted by the fresh water from the land. Boston harbor has several different habitats in close proximity to one another; rocky shores grade into beaches or mud flats and back again in just a matter of meters. Estuarine regions have the highest biomass productivity on the planet and 90% of all the fish in the ocean owe part or all of their existence to estuarine environments.

No two beaches are alike they differ in color, slope, shape and in the size and type of particles which form them.

Coastal area similar to Boston harbor.

Slope determines beach type

4°-7° = gravel beach

1°-3° = sandy beach

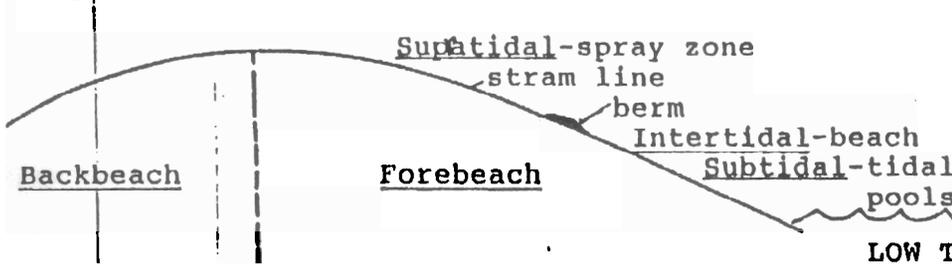
less than 1° = mud, silt, clay

Sediment size:

2mm or larger = gravel

.65-2mm = sand

less than .65mm = mud, silt, clay



BEACH - in constant change.

Forebeach = part of the shoreline that slopes away from land towards the sea.

Backbeach = part of the shoreline that slopes away from the sea.

Supratidal = high point of forebeach dry, only inundated (underwater) if storm waves

Intertidal = mid-forebeach surf zone with burrowing organisms i.e. clam.

Subtidal = lowest part of the forebeach, tidal pools and rocky deposits (barnacles)

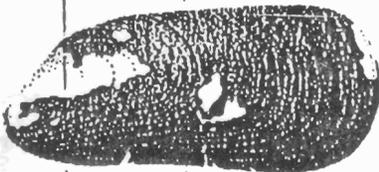
Berm = bump on the beach face, from sediment carried by energy waves, each tidal surge leaves a successive berm.

Stram line = is made up of material carried over berm (flotsam, jetsam) line represent the extreme limit of energy expended by tidal range.

Flotsam = material that is organic and inorganic which is moved by the tidal flow and dumped in the stram line, (ocean sediment, shells, seaweed).

Jetsam = is the unnatural material found in stram line (Styrofoam, tin cans).

Horse mussel:



edible bivalve
deeper water

Soft shelled clam:



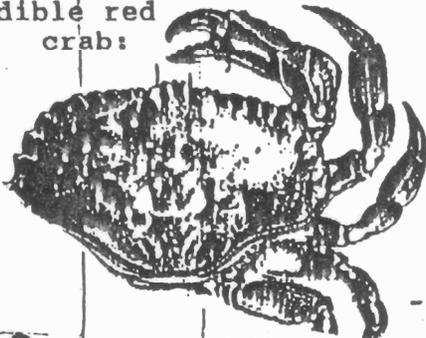
intertidal sessile grazer
highly susceptible to pollution

Ribbed mussel:

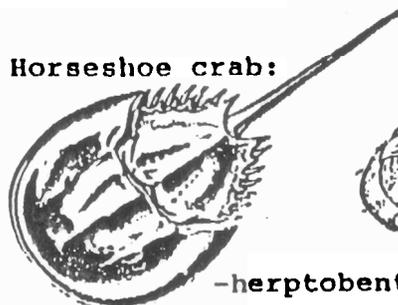


bivalve, shallow
water non edible.
Green crab:

edible red
crab:

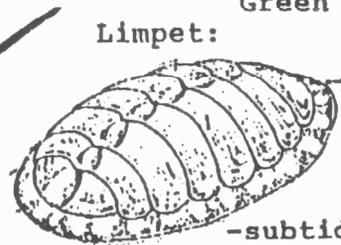


Horseshoe crab:



-intertidal

Limpet:



-subtidal

non edible-
intertidal

