

Marine Habitats



CHESAPEAKE BAY HABITATS

Habitat = a place where organisms naturally grow

Specific plants and animals interact and depend on each other

Flora and Fauna that require similar circumstances

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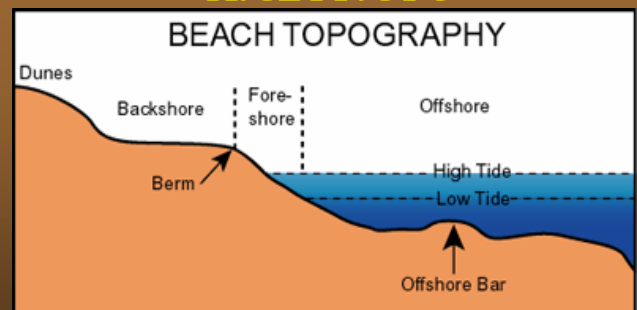
HABITATS NAVIGATION SLIDE

- ▶ Definition
- ▶ Intertidal Flats
- ▶ Ocean Beach
- ▶ Dunes
- ▶ Salt Marsh
- ▶ Estuaries
- ▶ Maritime Forest
- Rocks Piers and Jetties
- Rocky Intertidal Zone
- Tidal Pool
- Coral Reef
- Sea Weed
- Open Ocean
- Deep Sea
- Hydrothermal Vents

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HABITATS



Offshore bars help protect beaches from erosion.

The Foreshore rises from the water toward the crest of the next feature: a berm.



INTERTIDAL FLATS

Land which emerges (is above water) and submerges (is below water) as the tides affect it.

Home to numerous burrowing organisms, and to birds that eat them.

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OCEAN BEACH

Found in Virginia Beach where the Atlantic Ocean touches the shore.

Prone to erosion from waves and wind.

Numerous burrowing organisms.

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INTERTIDAL FLATS



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OCEAN BEACH



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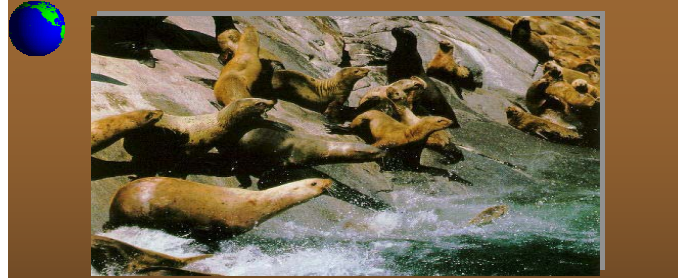
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Beaches are full of life - the very grains of sand are host to diatoms, bacteria and other microscopic creatures.

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Aquatic mammals, such as sea lions, seals and sea otters, are found along rockier coasts.

Crabs, clams, periwinkles, shrimp, corals, starfish and sea urchins are common on nearly all beaches.

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Some turtles, fish, and birds, such as terns, gulls, sandpipers, pelicans and loons, make the beach their home.

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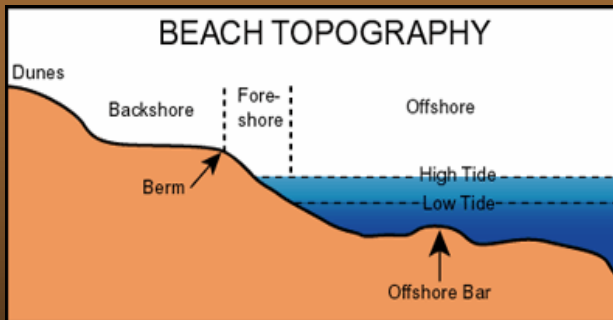
DUNES

Shifting piles of sand by the beach.
Plants anchor here that preserve the dunes.
Burrowing organisms are plentiful

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HABITATS - DUNES



On low-lying shores, dunes form behind beaches.

Dunes look like rolling hills of sand and are blown into place by the wind.



This comes from the weathering of volcanic rock.

Other beaches are made of cobbles, or small stones. Waves and currents cause these stones to churn and pound over each other.

Some islands in the Pacific Ocean have **BLACK SAND** beaches.

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DUNE HABITAT



Most of the shores along the US's East Coast and Florida's Gulf Coast are white.

The white sand comes from granite, which has been broken down, or weathered, into quartz and feldspar.

SALT MARSH

Known as Wetlands

Nutrient rich

Nursery grounds

Plentiful plant life

Brackish water

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SALT MARSH



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ESTUARIES



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ESTUARIES

- Valuable source of nutrients.
- Buffer from storms and floods.
- Wide variety of species of plants and animals.
- Pollution is damaging our estuaries.

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MARITIME FOREST

- Conifer and deciduous trees with plentiful scrubs and flowers.
- Abundant animal life,
- Back Bay Refuge and First Landing State Park are our local examples.
- Often close to or a part of an old Dune area.

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MARITIME FORREST



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ROCKS PIERS AND JETTIES



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ROCKS PIERS AND JETTIES

- Areas where animals and plants attach with strong suction ability.
- Food is abundant in the splashing surf.
- Dangerous pounding from the waves.

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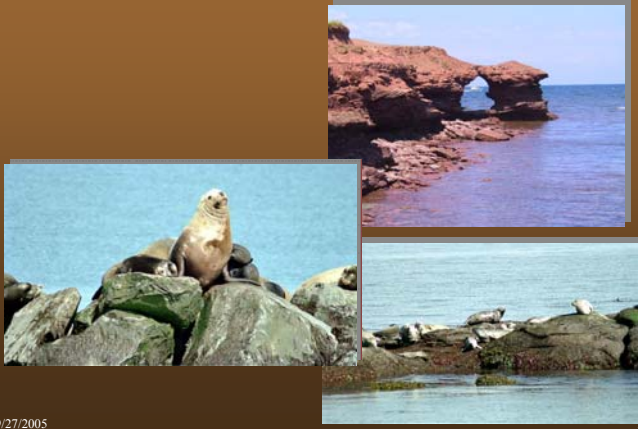
ROCKY INTERTIDAL ZONE

- Organisms within the intertidal zone.
- Wave shock and battering.
- Supply of abundant food.
- Numerous niches for survival
- Motile
- Sessile
- Dessication

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ROCKY INTERTIDAL



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TIDAL POOL



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TIDAL POOL

That area between the high tide and low tide which collects sea water and provides a rich environment for many marine life forms.

The inhabitants of tidal pools provide food for a large variety of other animals.

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CORAL REEF

What Are Coral Reefs?*

The coral community is really a system that includes a collection of biological communities, representing one of the most diverse ecosystems in the world. For this reason, coral reefs often are referred to as the "rainforests of the oceans."

Corals themselves are tiny animals which belong to the group cnidaria (the "c" is silent). Other cnidarians include hydras, jellyfish, and sea anemones.

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CORAL REEF



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CORAL REEF



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CORAL REEFS

Corals are sessile animals, meaning they are not mobile but stay fixed in one place.

Corals live in colonies consisting of many individuals, each of which is called polyp.

They secrete a hard calcium carbonate skeleton, which serves as a uniform base or substrate for the colony.

It is these hard skeletal structures that build up coral reefs over time.

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SEAWEED

Kelp Forest
Light and nutrient rich
Sea urchins
Sea otters



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OPEN OCEAN



Less than 1 % of life is below 3,000 m
Deep Scattering Layer migrate with daylight. Some have large, sensitive eyes.
Food less abundant. Specialized species.

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HYDROTHERMAL VENTS

Black smoker
350-650 degrees F
At 3,000 m.
Chemosynthesis



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DEEP SEA

Cold, dark, saline,
high pressure
Adaptations of a
limited number of
species



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THE END

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