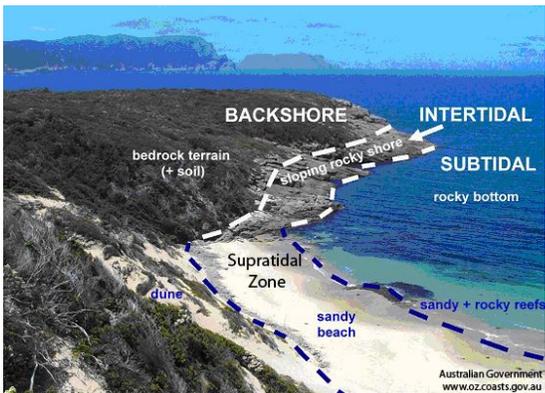


## MARINE ENVIRONMENTS

# LIFE ZONES

### LIFE ZONES



### LIFE ZONES

**Supratidal:** an area of the upper beach that gets a fine mist of salt spray from the crashing waves. Contains beach plants, grasses, shrubs, and trees.

**Intertidal:** the turbulent area between high tide and low tide. This is where clams, mussels, sea worms, and seaweeds live. The long line of seaweed called the strandline (or rackline) marks the high tide on beaches.

**Subtidal:** the area below the intertidal zone. This zone includes the surf zone, an area of turbulence. Fish, crabs, sea stars, and sea urchins live in the area.

**Neritic:** lies above the continental shelf, the shallow part of the seafloor that surrounds the continents.

**Oceanic zone-** extends beyond the neritic zone and includes most of the open sea. Together the neritic and the oceanic zones make up the largest marine life zone (the Pelagic zone).  
Photic zone- closest to the surface  
Aphotic zone- no light penetrates

**Benthic zone-** includes the entire ocean floor, from the intertidal zone to the ocean basin. Organisms living here exhibit unique adaptations to conditions on the ocean floor.

LIFE ZONES

SUPRATIDAL



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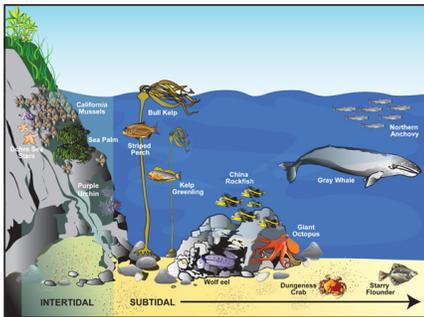
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TEXT

SUBTIDAL



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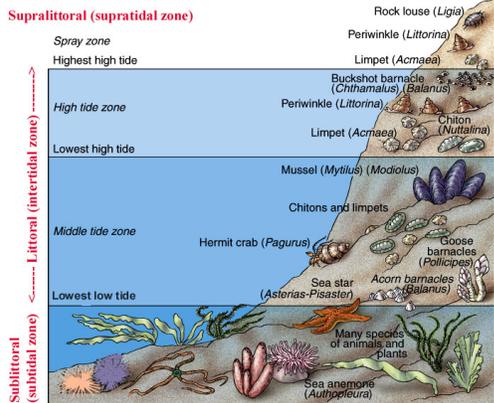
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TEXT



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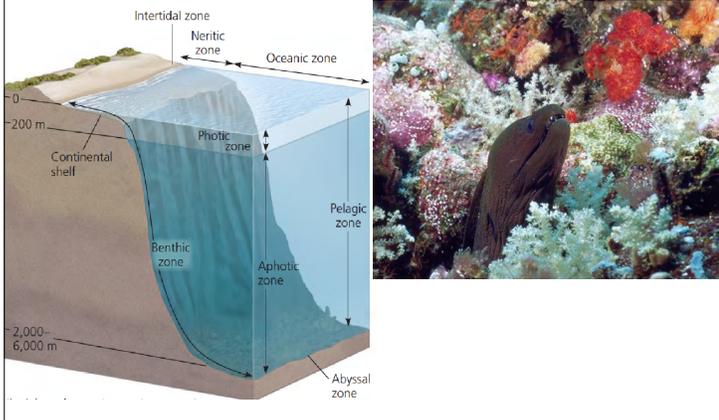
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## NERITIC



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## COASTAL ENVIRONMENTS

### SANDY BEACHES

Very unstable, sands constantly shift and move. This is a harsh, unstable environment. The *surf zone* is constantly moving up and down with the tide, and attracts a large number of fish and diving birds. Creatures burrow in the sand for protection. Millions of microorganisms live in the sand. Crabs and small fish live in the surf zone. Sandy beaches are older than Rocky beaches, and are created by weathering and erosion.

### ROCKY BEACHES

Rocky beaches provide a more stable environment. Rocky beaches contain coves, crevices, and tunnels in which marine organisms can hide. Low tide exposes creatures and puts them at risk of drying out. Shellfish close their shells to keep from drying out and will open up once the tide comes in. In summer they act as nesting/breeding grounds for many marine birds. Rock pools provide safe areas for animals that suffer from exposure to the air and drying sun.

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