

Aquatic Life

Up & Down the Shore

Some of the main plants & animals likely to be found in the different zones		
MHWS Mean* high-water level during a spring tide	lichens,	Splash Zone Wet only by salty sea spray or by an extremely high tide
MHWN Mean high-water level during a neap tide	lichens, Channelled Wrack, Spiral Wrack, barnacles	Upper Shore Spends quite a lot of time out of water.
MLWN Mean low-water level during a neap tide	limpets, barnacles, Bladder Wrack,	Middle Shore Uncovered by water for half the day
MLWS Mean low-water level during a spring tide	red seaweeds, mussels, barnacles, Serrated Wrack,	Lower Shore Covered by water for most of the day.
	kelps,	Subtidal Zone Uncovered by water only during an extremely low tide

*mean = average

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The Intertidal Zone

The intertidal zone, which is the area of most interest to the seashorer, is between the low tide mark and the high tide mark and this can be divided into the *upper*, *middle* and *lower* shore.



The *upper shore* spends quite a lot of time out of the water. It is covered by the tide for such a short period each day that conditions are, for much of the time, like those on dry land.

The *middle shore* is covered by water for longer than the upper shore and so conditions are not as dry.

The *lower shore* spends most of the day covered by water, rarely drying out or exposing the animals and plants.

The conditions in these areas influence the types of animals and plants found there. Each has learned to adapt to living in a particular area.

All shores are affected by the rise and fall of the tide. As the tide moves up and down each day, different areas are covered by water for different lengths of time. Each shore can be divided into three main areas, called zones - the splash zone, the intertidal zone and the subtidal zone.

The Splash Zone

The splash zone is the area above the high tide mark. It is rarely, if ever, covered with water, being wet only by salty sea spray or by an extremely high tide. Lichens and land plants are all that survive there, as marine animals and plants need a more definite water-supply.



The Subtidal Zone

The subtidal zone is the area below low tide; it is continuously covered by water, except during extremely low tides. The animals and plants that cannot survive out of water for any period of time, except for very short spells, make their homes



Patterns on the Shore

On some shores, animals and plants form a visible pattern of bands at different levels. For example, at the top of a rocky shore, on the splash zone, there may be a band of coloured lichens. Lower down, there may be bands of different brown seaweeds or a band of barnacles. Each band provides the best conditions for the survival of a particular plant or animal; such survivors are often the main species to be found there. This pattern of bands is called **zonation**. Banding, or zonation, is not always very obvious. On steeper rocky shores the bands are quite narrow, while on more gently-sloping ones, the bands are much wider. While zonation also applies to sandy, muddy and shingle shores, it is not easy to see, as most animals live underneath the surface.

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