

Rocky Shore Plants

Cyanobacteria *Calothrix* spp.

Habitat: On rocks in the upper intertidal.

Characteristics: This is a colonial bacterium that forms a black, slick surface on mud and rocks. The colony produces a gelatinous outer layer to prevent drying out during low tide. Like plants, cyanobacteria photosynthesize, and *Calothrix* (formerly known as blue-green algae) has long been classified as a primitive plant species. However, recent studies have shown that it is really a photosynthesizing bacterium. Size of colony varies.

Maidenhair Algae *Enteromorpha intestinalis*

Habitat: Intertidal zone and upper tidepools.

Characteristics: This long, thin, tubular green alga grows from a small holdfast. Its unbranched blades are hollow, which can be seen when air bubbles are trapped in the blades. Maidenhair Algae can tolerate wide changes in temperature and salinity. It is found in tidepools from the open coast to estuaries. Up to 30 cm long.

Sea Lettuce *Ulva lactuca*

Habitat: Middle and lower zones and in lower tidepools.

Characteristics: This rubbery, sheet-like green alga is two cell layers thick and attaches to rocks with an inconspicuous perennial holdfast. It is an annual species that can tolerate considerable temperature fluctuations. Sea Lettuce is edible. Up to 60 cm long.

Knotted Wrack *Ascophyllum nodosum*

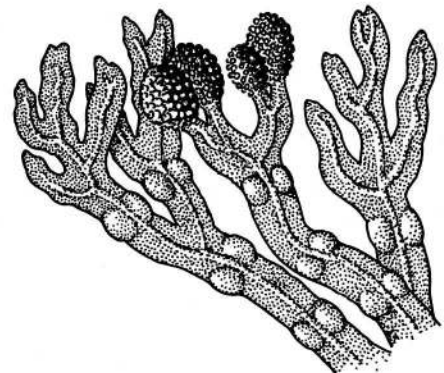
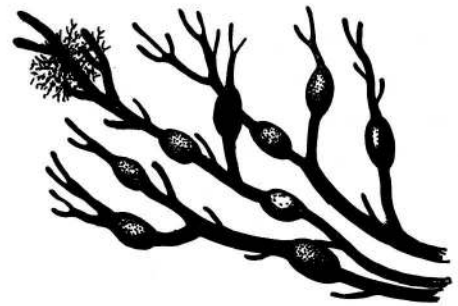
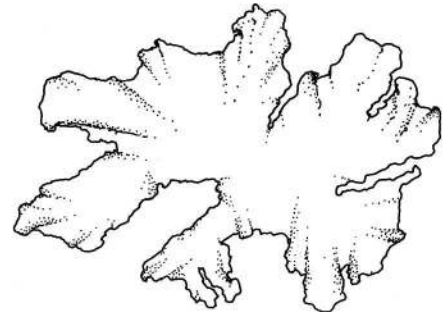
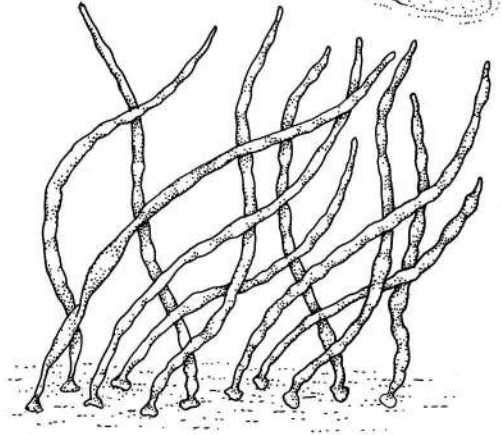
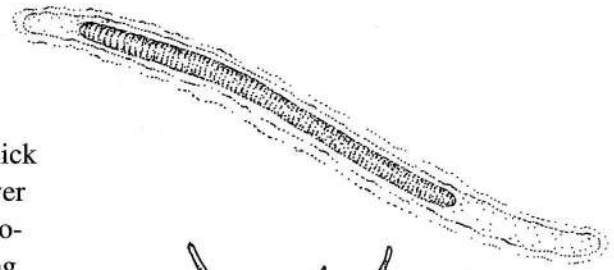
Habitat: Sheltered areas in middle zone.

Characteristics: A perennial brown alga with a small holdfast for attaching to rocks, Knotted Wrack has short-branched blades with egg-shaped air bladders and no midrib. It is a true intertidal species and cannot be continuously submerged. Its blades often have a bushy red algae called Pincushion Weed (*Polysiphonia lanosa*) growing on them. 10 to 200 cm long.

Rockweed *Fucus* spp.

Habitat: Exposed or sheltered areas in middle zone.

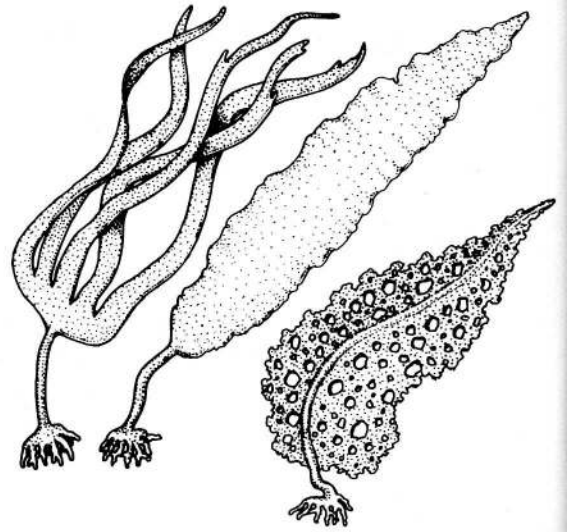
Characteristics: This perennial brown alga has a small holdfast for attaching to rocks. Its flat blades have a conspicuous midrib, air bladders, and Y-shaped tips. Rockweed and Knotted Wrack are the dominant large algal species in the middle zone, and serve as shelter to animals and other plants. 10 to 100 cm long.



Kelps *Laminaria* spp. and *Agarum cribrorum*

Habitat: Subtidal zone and in lower tidepools.

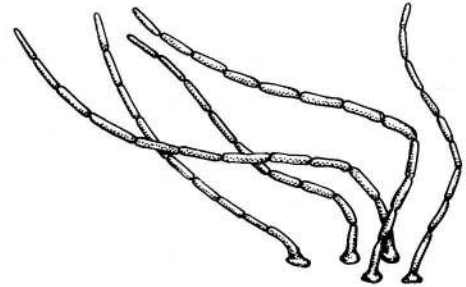
Characteristics: These brown leathery algae have large blades, heavy stalks, and finger-like holdfasts. The wide blade of the Horsetail Kelp, *Laminaria digitata*, is divided into straplike strands that offer less resistance to wave action than other kelps, allowing it to grow on more exposed shores. Sugar Kelp, *Laminaria saccharina*, has a ruffled, unbranched blade with no midrib and is found on more sheltered shores. Shotgun Kelp, *Agarum cribrorum*, has an obvious midrib and is peppered with holes. It grows in deeper water than the other kelps, but is often found washed up on our shores. Kelps are found year 'round and grow a great deal during the winter. Up to 3 m long.



Sausage Weed *Scytosiphon lomentaria*

Habitat: Exposed areas in intertidal zone and in tidepools.

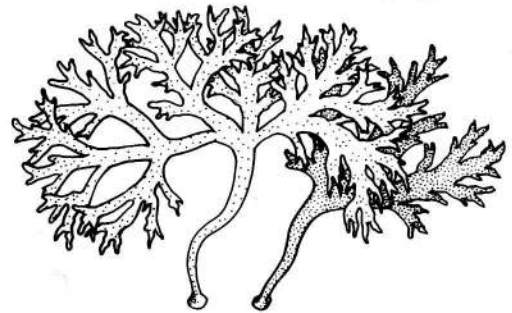
Characteristics: This brown, hollow, unbranched alga is twisted in fairly regular intervals and resembles chains of sausages. It is usually found in clumps and attaches to rocks with a small holdfast. Sausage Weed appears in the spring and is gone by mid-summer. Up to 60 cm long.



Irish Moss *Chondrus crispus*

Habitat: Lower and subtidal zones.

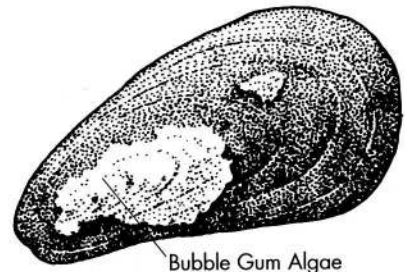
Characteristics: This deep-red alga has a small holdfast and flat, branched blades with tips that are an iridescent blue when under water. A short, turf-like alga, Irish Moss dominates space in the lower zones. Irish Moss has large amounts of carrageenin, which is a gelatin used in many processed foods. Up to 15 cm long.



Bubble Gum Algae *Lithothamnium* and *Phymatolithon* spp.

Habitat: Lower intertidal tidepools and subtidal zone.

Characteristics: This alga grows in an irregular stony crust that is dark pink to white in color. Because it incorporates calcium carbonate in its tissue, the white skeletons of Bubble Gum Algae often remain attached to rocks or shells after the plant has died. Size varies.



Coralline Algae *Corallina officinalis*

Habitat: Lower intertidal tidepools and subtidal zone.

Characteristics: Another heavily calcified alga, Coralline Algae is red, pink, or purple in color and often found attached to periwinkle shells. It uses calcium carbonate from seawater to form its "skeleton" of hard jointed segments. Coral Weed is flexible when alive, and white and brittle when dead. Up to 40 mm long.

