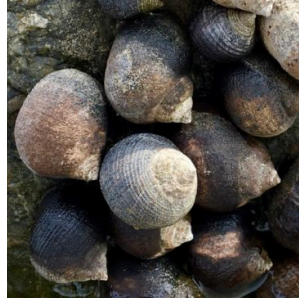


Animals of the Atlantic Intertidal Zone

Molluscs (Soft-bodied animals)



Dog Whelk
Nucella lapillus



Common periwinkle
Littorina littorea



Blue mussel
Mytilus edulis



Tortoise-shell Limpet
Testudinalia testudinalis

Echinoderms (Spiny-skinned animals)



Common Seastar
Asterias rubens



Green sea urchin
Strongylocentrotus droebachiensis

Arthropods (Animals with an Outer Skeleton)



Green shore crab
Carcinus maenas



Acorn barnacle
Semibalanus balanoides



Tidepool Scud
Gammarus spp.



Hermit crab
Pagarus spp.

Other



Sandworm
Lineus ruber



Lacy bryozoan
Membranipora membranacea

Fish



Rock gunnel
Pholis gunnellus

Seaweeds of the Atlantic Intertidal Zone

Green Algae



Sea lettuce
Ulva spp.



Spaghetti seaweed
Chaetomorpha spp.



Filamentous green algae
Cladophora spp.



Feltly fingers
Codium fragile

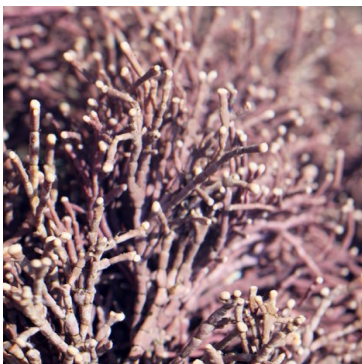
Red Algae



Dulse
Palmaria palmata



Red encrusting algae
Hildebrandia rubra



Branching coralline algae
Lithothrix spp.



Irish Moss
Chondrus crispus



Coralline crust
Clathromorphum spp.

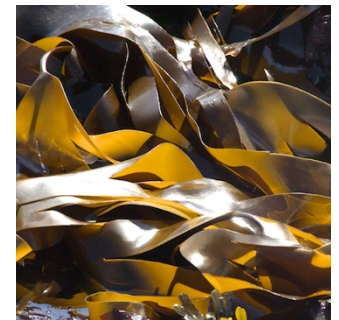


Purple laver (nori)
Porphyra spp.

Brown Algae



Rockweed
Fucus vesiculosa



Oarweed (kelp)
Laminaria spp.



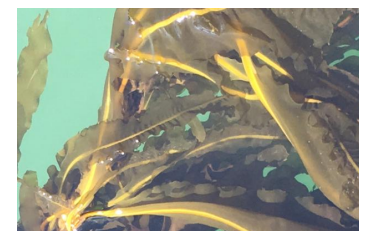
Knotted Wrack
Ascophyllum nodosum



Mermaid's Hair
Chorda filum



Sea cauliflower
Colpomenia peregrina



Sugar kelp
Saccharina spp.



Sponges and Seaweeds



Finger Sponge- (*Haliciona oculata*)

This sponge species has flattened or rounded finger-shaped branches. It is yellow or greyish-brown in colour, sometimes tinted with purple. It can reach 45 cm in length and often is found washed ashore. It filter feeds through its porous exterior



Knotted Wrack-
(*Ascophylum nodosum*)

This brown seaweed has long, narrow fronds with little air sacs air bladders that help the fronds float when submerged. It has the largest biomass of any east coast seaweed



Spiral Wrack-
(*Fucus spiralis*)

This brown seaweed has fronds that are spiralled and forked on the end. It attaches to rocks and wharf pilings and serves as a shelter for many small intertidal creatures



Kelp-
(*Laminaria sp.*)

Brown seaweed with long blades, similar to ribbons. The holdfast is shaped like a claw and anchors the stalk to rocks and the sea floor. Can reach over 2 metres in length!



Dulse-
(*Palmaria palmata*)

Red seaweed with large blades that are thick and opaque. Harvested by hand in the maritimes, it is sun dried and eaten like chips or as seafood seasoning.



Encrusting pink algae-
(*Lithothamnium sp.*)

Calcareous red algae covers rocks and shells like a hard, mineral crust. Grows very slowly and is resistant to grazing from urchins and limpets



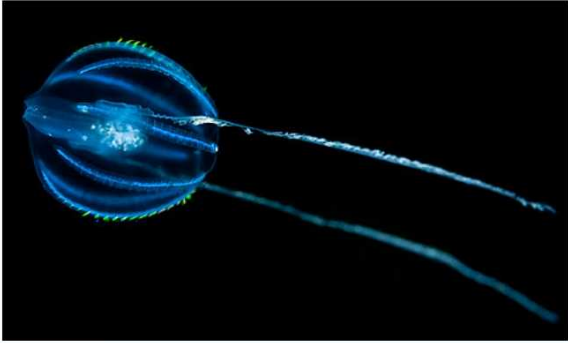
Irish moss-
(*Chondrus crispus*)

Red seaweed with frilled fronds, it attaches itself to rock using a basal disc. Used for food and medical purposes.



Cnidarians and Ctenophores

Sea Gooseberry (*Pleurobrachia pileus*)



These ctenophores (also known as comb-jellies) have small, transparent, egg-shaped body with 2 long tentacles and 8 iridescent comb plates. They use their sticky tentacles to catch and feed on zooplankton. Their tentacles do not sting and they can be found in large numbers off of wharves. Their combs contain cilia that give off light, known as bioluminescence. Sea Gooseberries typically live for 4-6 months.

Moon Jelly (*Aurelia aurita*)



These cnidarians are translucent with short, frill-like tentacles. In the centre of its medusa are four gonads in the shape of a flower that are usually white or pink in colour. Moon jellies are common in the summer months and are only slightly venomous. It feeds on plankton via the sticky tentacles.

Lion's Mane Jellyfish (*Cyanea capillata*)



This jelly is the largest known species of jellyfish and can grow to be over 2 metres wide! However, a majority of the ones we see are much smaller. They have long, stinging tentacles that help them to feed on jellyfish and other plankton. Lion's Manes are common in the summer and can vary in shade from red-purple

Sea Raspberry (*Gersemia rubiformis*)



This soft coral grows in colonies and is red or pink in colour. Since its body is soft, it cannot grow a calcium skeleton that's necessary for reef building. Sea Raspberries can settle on sandy, rocky and hard parts of other ocean animals.

Northern Red Anemone (*Tealia felina*)



This anemone attaches itself to rocks using a sticky disc on its underside. The tentacles are like short fingers with rounded ends and it can completely retract when disturbed. The anemone feeds by extending its tentacles and stings to capture small fish or invertebrates that pass by.

Barnacles

Northern Rock Barnacle/Acorn Barnacle (*Balanus balanoides*)



Pelagic Goose Barnacle (*Lepas sp.*)



Barnacles are arthropods that settle on rocks, wharves, and even on other sea creatures such as sea turtles, whales and molluscs. They often group together and compete for space on suitable substrate. They feed by opening their moveable carapace tops and extending and opening fan-like structures (which are actually their legs and called cirre) to catch drifting plankton. Inside the carapace, the animal lies on its stomach and has photoreceptors to sense light as an indicator of when to close its carapace.

Molluscs



Blue Mussel (*Mytilus edulis*)

Blue Mussels attach to hard surfaces via thread-like structures called byssal threads. The shells are purple, blue and sometimes brown in colour. Blue mussels are semi-sessile and can re-attach themselves to reposition in the water. They have commercial value in aquaculture as food.



Deep Sea Scallop (*Placopecten magellanicus*)

Deep Sea Scallops are bivalves that have photoreceptor 'eyes' along the end of the mantle. They often occur in aggregations called beds and they can swim by opening and closing its valves to propel itself through the water column.



Eastern Oyster (*Crassostrea virginica*)

A common delicacy in Atlantic Canada, the Eastern Oyster is a bivalve that has a rough fold on its top valve with a relatively flat bottom valve. One oyster can filter 50 gallons of water in 24 hours! These molluscs can produce small 'pearls' around foreign particles but these are not the typical pearl-oysters that are used in jewelry.

Molluscs



Red Chiton (*Tonicella rubra*)

This small mollusc has 8 plates of armour that forms its shell and helps it to create strong holds on rocks. Chitons are herbivores that move around via their large foot under their shell and if it feels threatened, it can clamp down extremely tightly, making it difficult for predators to dislodge.



Common

Periwinkle (*Littorina littorea*)

Introduced in the mid-19th century, this periwinkle is the most common species in Atlantic Canada. Their shell contains spiral stripes and is topped with a point (unless eroded). Periwinkles graze on algae and are known to eat small invertebrates.



Northern Moon Snail (*Lunatia heros*)

This is a large sea snail with an enormous foot. The moon snail feeds on other snails and clams by drilling a hole into their shell using its radula (tongue). Their bodies are generally white with black tips and their shell is white with brown spots.



Red-gilled

Nudibranch (*Coryphella sp.*)

This tiny sea slug has numerous red tentacles (called cerata) along its body that can store stinging cells from its prey. They predominately eat small hydroids. They can grow to be up to 1.6 inches and are brightly coloured to ward off predators.



Crabs

Atlantic Rock Crab- *Cancer irroratus*



European Green Crab- *Carcinus maenas*



These are the two most common species of crab found in Atlantic Canada. The Rock Crab is native to Nova Scotia and the Green Crab is an invasive species. Native to Western Europe, the Green Crab now exists in most places around the world and commonly displaces other native crab species. Both crabs are predators and feed on bivalves and other small crustaceans. They have 8 legs and two claws; the claws are for fighting off predators and attracting mates.



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American Lobster

Homarus americanus



There are different kinds of lobster but this one is the only species found on the East Coast of Canada. They have two claws- one large claw for crushing and a smaller one with finer teeth for grabbing and cutting. Underneath their body they have several pairs of pleopods (swimmerets) that assist with navigating in the water. Lobsters can be a range of colours; there is even a very slim chance that they can be entirely blue!

Echinoderms



Green Sea Urchin- *Strongylocentrotus droebachiensis*

This sea urchin has a round calcareous shell that is covered with spines that are used for defense and locomotion and are not poisonous. They have flexible tube feet that radiate out farther than the spines and assist with moving, catching food particles and attachment to sandy bottoms.



Sand Dollar- *Echinarachnius parma*

Sand Dollars have a very flat shell that's covered in purple coloured, short spines. The spines let them move around the sea floor where they scavenge for larvae and small crustaceans. Sand Dollars have breathing pores on their body that resemble a flower. They are usually found washed up on beaches and after they have been bleached white from the sun.



Common Seastar- *Asterias sp.*

Seastars move around using their tube feet to grab onto nearby substrate. It feeds on molluscs by using its arms to open up the shell and then ejecting its stomach to digest their prey outside the body. Seastars can regenerate limbs as long as part of the central disc is intact and some will even shed an arm as a means of defense!

Skates and Rays

Family: *Rajidae*



Torpedo Ray- *Tetronarce nobiliana*



Skates and Rays are flattened fish that glide along the bottom of the seafloor and are closely related to sharks. Skates have larger, fleshier tails, while Rays have thin tails that are loaded with stinging spines. Both animals bury themselves in the sand to disguise themselves and to ambush prey. Electric Rays are able to produce a strong electric charge to stun prey.



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Atlantic Herring

Clupea harengus



Atlantic Herring congregate into large schools and feed on krill and small fish. They are very important in the food web as they are a food source for many animals and are important plankton predators. Juveniles stay near coast lines in shallower water and adults are typically found in deeper water.

Atlantic Cod

Gadus morhua



Atlantic Cod can live for 25 years and are usually a brown or green shade with spots on their sides and a barbell 'whisker' on their chin. They are a shoaling fish which means they congregate into social groups for protection and resources during migration. Cod prefer to live on the bottom of seabeds with coarse sediments.

Ocean Sunfish

Mola mola



This is one of the heaviest known bony fishes in the world- an adult can weigh up to 2,205 lb! They eat small fish and jellyfish with beak-like teeth and they have a throat lined with teeth. Ocean Sunfish are known to bask in the sun at the surface of the water. Scientists think this may be a method of thermally recharging to hunt down in the cooler waters.

Atlantic Mackerel

Scomber scombrus



This fish has small scales and a blue body with wavy black lines. Atlantic Mackerel are migratory and spend summer close to shore and then swim down south for the fall and winter in search of warmer waters. They form large schools to avoid predators and to feed on plankton. Mackerel are an important food source being low in mercury content and high in omega fatty acids.