

# Salt Marsh Invertebrate Species

The salt marsh invertebrates are organized in taxonomic **Phyla**:

**Mollusca** - invertebrates with a soft unsegmented body which is usually enclosed in a shell

**Arthropoda** - organisms with a hard, jointed, exoskeleton and paired, jointed legs

**Porifera** - sponge like invertebrates which have a body of porous cells

**Rhynchocoela** - often vividly colored marine worms, most of which burrow in the mud or sand along seacoasts.

**Annelida** - worms or wormlike animals with an elongated, cylindrical, segmented body

## PHYLUM MOLLUSCA CLASS GASTROPODA

### Red Gilled Nudibranch (sea slugs or nudibranches)



**Size:** up to 32mm in length.

**Characteristics:** Sea slugs have

spiky projections of skin that align all sides of the animal. Each projection has a red core and are white tipped with stinging cells.

**Zone:** Commonly found in the lower intertidal to subtidal zone.

### Periwinkles



**Size:** 26mm in height.

**Characteristics:** The common periwinkle has a thick brownish

grey shell. Feed on blue-green algae they scrape off rocks with their tongue-like radula.

**Zone:** Upper intertidal zone to shallow subtidal zones.

### Mud Snails



**Size:** 19-25mm in height.

**Characteristics:** Their shell has five whorls and is black-brown in

colour. Feed mostly on dead animal remains. The female lays eggs on the leaves of Eel grass plants.

The young hatch and become larvae called veligers.

**Zone:** Tidal sand and mud flats.

### Marsh Snails



**Size:** Grow to 16mm.

**Characteristics:** They lay eggs in the salt water and the larvae live in the ocean for two weeks before they

crawl out to live on the cord grass and mud above the intertidal zone. Feed on algae and detritus.

**Zone:** Intertidal zone.

### Eelgrass Slugs



**Size:** 5-25mm in length.

**Characteristics:** Usually green in colour; feed by sucking cell contents from intertidal algae. Branches of their stomach

contain live chloroplasts, from algae, which convert sunlight, water and carbon dioxide into energy the slug uses.

**Zone:** Intertidal zone.

### Common Northern Moon Snails



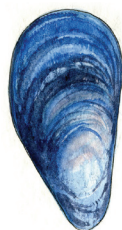
**Size:** 3.8 - 12.7 cm in height.

**Characteristics:** Carnivores that secrete a substance that softens the shell of other

shelled sea organisms and burrowing holes with their radula to eat the meat inside.

**Zone:** low intertidal and subtidal zones; under the water and often under the sand.

## CLASS BIVALVIA Blue Mussels



**Size:** Grow to 2-20 cm.

**Characteristics:** Filter-feeders; sucks sea water in and removes the food with gills and then expels the water.

**Zone:** Lower region of intertidal zone and subtidally along rocky shores.

### Soft Shell Clams



**Size:** up to 15cm.

**Characteristics:** White shelled clams have elliptical thin brittle shells with a characteristic leathery tube that

encases their retractable siphons. Soft shell clams (filter feeders) use their two siphons to strain out microscopic plant and animal particles from the water column.

**Zone:** Found on marshes, mud flats, and beaches in intertidal and subtidal locations. Soft shell clams are buried in sand and gravel where there is a reduction in salinity due to freshwater runoff.

## PHYLUM: PORIFERA

### Dead Man's Finger Sponges



**Size:** up to 200mm height.

**Characteristics:** Finger-like branches of orange sponge-like material that develop from a slender base and attach on hard surfaces. Their canal-like body filters plankton and

detritus out of the water that comes in through their pores. **Zone:** Grow over rocks, stones and pilings located in all marine environments.

### Breadcrumb Sponges



**Size:** grow up to 10mm thick and 1000mm across on rocks and other hard surfaces.

**Characteristics:**

They appear yellow, green or orange-brown in colour with tiny algae on their surface. Sponges do not have organs and siphon water through pores filtering out their food.

**Zone:** Live at low tide line so the algae on their surface can photosynthesize.

## PHYLUM ARTHROPODA Green Crabs



**Size:** Adult crab grows to 60mm in width; 40mm in length.

**Characteristics:** Non-native species with a carapace (back shell)

that is slightly square in shape and olive-green in colour. Visible yellowish spots located on abdomen with 5 small spines on front edge of shell. They are predators and scavengers eating shellfish, worms, shrimp, algae and salt marsh cord grass (living).

**Zone:** Found in tidal pools, under rocks and rockweed during low tide.

### Rock Crabs



**Size:** Varies considerably; mature male: 50mm-140mm.  
**Characteristics:** Reddish brown in colour, with nine ridges on the outside of the eye and oval-shaped back shell.

**Zone:** Benthic; inhabit sandy, muddy and rocky substrates.

### Acadian Hermit Crabs



**Size:** Adult size of 3cm in length; 2 cm in width.

**Characteristics:** Brownish body with reddish-orange

appendages; inhabits abandoned shells for protection of soft abdomen. Claws are different sizes and are used for scraping algae, catching food and fighting with other hermit crabs.

**Zone:** Found in rocky tide pools and water as deep as 485m in southern areas.

### Rock Barnacles



**Size:** Grow up to sizes of 25mm.

**Characteristics:** Hard, sessile, cone-shaped, white animals found in colonies growing on rocks or other hard surfaces.

**Zone:** Found in inter-tidal areas.

### Copepods



**Size:** Very small (<1mm).

**Characteristics:** A single eye located in middle of its head. Feed on small food items (bacteria, diatoms or other unicellular forms).

**Zone:** Found throughout all water masses of the oceans and lakes.

### Amphipods



**Size:** Very small; adult amphipods range from 5 mm to 20 mm in length.

**Characteristics:** Possess flattened sides with several pairs of legs; colour varies from white, brown and gray. Resemble a large flea or a little shrimp.

**Zone:** Require moist habitats on muddy substrates.

### Skeleton Shrimp



**Size:** 20-50mm in length.

**Characteristics:** Usually transparent, but can be yellow, brown or tan in colour. Free front legs (folded), resembling a praying mantis's.

**Zone:** Found on seaweeds, hydroids or sponges from the lowest part of the intertidal zone into the subtidal zone.

### Baltic Isopods



**Size:** 20-30mm in length.

**Characteristics:** Light green, mottled with reddish, brown, or tan colour variations.

**Zone:** Found near rocks and shells at the bottom of the sea and among shallow banks of algae.

### PHYLUM BRYOZOA Leafy Bryozoa



**Size:** Colonies range from millimeters to meters; individual zooids are tiny (<1mm).

**Characteristics:**

Bryozoans are tiny, colonial, encrusting animals with leafy sections that flex in the waves.

Often mistaken for plants.

**Zone:** Marine areas that have a high tidal current.

### PHYLUM NERMETEA Milky Ribbonworms



**Size:** Can extend to a length of 1.0-1.3m.

**Characteristics:** Pale-white, long and flat with no

eyes and an extensible proboscis used to catch prey and direct food into the slit-like mouth found on its belly. Carnivorous; eats other worms, small fish and clams.

**Zone:** Found in sandy mud or under stones near the low water mark in bays and estuaries.

### PHYLUM ANNELIDA Clam Worms



**Size:** 200mm in length.

**Characteristics:** Segmented worms; reddish-brown in colour; four pairs of tentacles, one pair of lobes (palps) and one pair of antennae. Omnivores; catch prey by shooting a short extension out of its mouth called a proboscis that has two claws.

**Zone:** Sandflats, mudflats, algae mats and shellfish beds.

### Bloodworms



**Size:** Grow up to 370 mm in length.

**Characteristics:** Purplish-red in colour; long proboscis with four black, hooked

fangs used to grasp objects and sting them.

**Zone:** Found in mudflats and estuaries from the high water mark of the intertidal zone to great ocean depths.

### Lugworms



**Size:** up to 200mm in length.

**Characteristics:** Segmented; cylindrical body; may be pink, brown, grey or black in colour. Construct funnel-shaped holes

in the sand and bring sea water in by contracting their body.

**Zone:** Inhabit muddy substrates where there is a lack of oxygen.

### Tubeworms



**Size:** 2-3 mm in length.

**Characteristics:** White, snail-like spiral shells (tubes) attached to kelp and rocks. Tentacles are located at the head region and used for filter-feeding.

**Zone:** Lower intertidal zone in mud of coasts and estuaries.

### Mudworms



**Size:** Grow up to 20cm in length; 6mm in width.

**Characteristics:** Small, segmented, tube-building worms. Identified by two long, coiled organs (palps) extending from the head section and used to sense/collect food. Grow in large colonies and have a high tolerance for pollutants.

**Zone:** Intertidal and subtidal zone; rocky shores, mud, oyster beds and sand.