Salt Marshes: Nature's Nurseries

A salt marsh serves many important roles in the Sound's ecosystem — nursery, filter, sponge, and nutrient source

Mosquito ditches crisscross the marsh; they were originally hand-dug to combat diseases carried by mosquitoes, which breed in pools of standing water





- Salt marshes have distinct zones of vegetation determined by elevation
- Tall saltmarsh cordgrass grows along the water's edge in the low marsh, which is regularly flooded by the tides; this grass tolerates changing water level, salt concentration, and temperature



The high marsh is flooded only during storms or unusually high tides; saltmeadow cordgrass and spikegrass (inset) dominate this part of the marsh





Salt pannes are small, "desert-like" depressions in the marsh, where soil salinity can reach levels that are almost twice that of full-strength sea water

Glasswort, a succulent plant, grows in the salt pannes and along the edges of the saltmarsh, looking like a field of tiny, spineless cacti; some species turn reddish in the fall



Sea lavender, with its delicate purple flowers and wiry stems, grows in salt pannes and the low marsh



Ribbed mussels grow along the edges of tidal creeks in salt marshes, providing food for terrestrial mammals and other organisms





Fiddler crabs burrow into the sand, mud and peat at edges of saltmarshes; male crabs have one greatly enlarged right or left pincer for combat and mating rituals; the claws of females are about equal in size The longwrist hermit crab, carrying an empty snail shell on its back for protection, moves about in the shallows of the marsh and tidal flats

As it outgrows its shell, it needs to find a new, larger one



Green crabs inhabit the Sound's marshes, rocky areas and tidal flats; voracious eaters of bivalve shellfish, they also eat seaweed and worms and other crabs







Tidal creeks and mosquito ditches winding through the salt marsh shelter small fish from most larger predators, while blue crabs forage for prey in these creeks



Striped killifish and other minnows rely on camouflage coloration and swimming in schools to confuse their predators

Atlantic silversides, named for the silvery metallic stripe along their bodies, are an important source of food for predators like striped bass and bluefish





The uplands are a transition zone from marsh to forest, and are home to many shrubs and broad-leaved plants

Common reed or *Phragmites* often grows in dense stands at the upland edge of disturbed marshes; the thick stems can reach 15 feet tall



Sumac is a shrub that grows in the upland zone, providing food and shelter for birds





Two sparrow species of special concern, the seaside sparrow (left) and the saltmarsh sharp-tailed sparrow (right), rely on larger patches of salt marsh in Long Island Sound as key habitat; they build their nests in the marsh grasses



Great egrets (left) and snowy egrets (right) are commonly found wading in the shallows of salt marshes and tidal channels to spear fish; most are colonial nesters



Photos: Great Egret, Ardea alba (left) and Snowy Egret, Egretta thula; courtesy of Thomas Morris



Photos: (left) Great Blue Heron, *Ardea Herodias*; (center) Green heron, *Butorides virescens*, and (right) Glossy Ibis, *Plegadis falcinellus*; courtesy of Thomas Morris



The great blue heron (left) and green heron (center) feed on fish while the glossy ibis (right) feeds on aquatic invertebrates



Clapper rails live in salt marshes; they use the marsh vegetation as refuges, especially at high tide; these birds feed on fiddler and other crabs, fish and plant matter



Diamondback terrapins live in the Sound's salt marshes and tidal creeks, eating a mixture of fish, snails, crabs and worms; once hunted for their meat, they are now protected in both Connecticut and New York