



Clapper Rail: a resident of our salt marsh weaves in and out of cordgrass foraging for crabs



This sanctuary's welcoming committee includes a Willet

Brunswick Wildlife Home is the Salt Marsh (Part II)

Last week I left you standing in the muck of the intertidal zone, the region between low and high tides where smooth cordgrass anchors the marsh. I promised more about salt marsh birds and other inhabitants, the salt marsh food web, and plans for restoring and protecting our estuaries and fish populations.

Beyond the waders and beach-nesting birds mentioned last week, there are year-round residents and numerous species that overwinter in our area, all dependent on the salt marsh. Given the season, I am featuring two common salt marsh residents.

Our first “poster bird” for today is the Clapper Rail, which inhabits our grassy, salt water and brackish marshes. Often it forages for crabs and other invertebrates along the edges and may be seen weaving in and out of spartina, more readily seen at high tide.

The Clapper Rail is a game bird, commonly called a “Marsh Hen” by hunters and old timers. When the water is low, it forages through the interior spartina and is frequently heard but not seen.

A “marsh hen tide” is well known for bringing rails closer to the hunter. This occurs twice a month on the extreme high tides (called spring tides) associated with new and full moons.

Our other poster bird is the Willet. It is a large shorebird common on beaches and in salt marsh habitat along our coast. Willets nest in and near salt marshes.

The Willet's flight reveals broad black-and-white wing stripes, a white rump, and a gray tail. Its non-breeding plumage from September through March is a smooth drab gray; however, in its breeding plumage, it has a densely spotted and barred plumage as in the photo. In winter, the willet is still easily recognizable since the wing pattern is just as bold and they are just as noisy.

A food web is an integrated web of individual food chains. It shows how the lives of many animals are connected, sometimes by multiple paths. A single food chain follows a path as animals prey on each other to survive. It provides a perfect backdrop for looking at other inhabitants.

At the bottom of our food web illustration is spartina. It is a keystone species that supports the ecosystem...its roots hold soil (minimizing impact of storm surges and floods), while providing footing for oysters and mussels and home for snails and fiddler crabs. Most importantly, Spartina leaves die each autumn and dead leaves are broken down by bacteria and fungi to become detritus, the base of the food web.

Periwinkles are marine snails that inhabit the intertidal region. Periwinkles climb up and down the blades of spartina with the rising and falling tides. Periwinkles are feeding on bits of algae on the blades of grass.

Next in line are Carolina Diamondback Terrapins. They are well adapted for eating hard-shelled prey including aquatic snails, crabs, and small bivalves. Often they are heard instead of seen as their strong jaws chomp down on Periwinkles.

Nesting terrapins are vulnerable to predation by raccoons. Eggs and hatchlings are preyed upon by a wide variety of animals including crabs, crows, gulls, muskrats, raccoons, skunks, and mink.

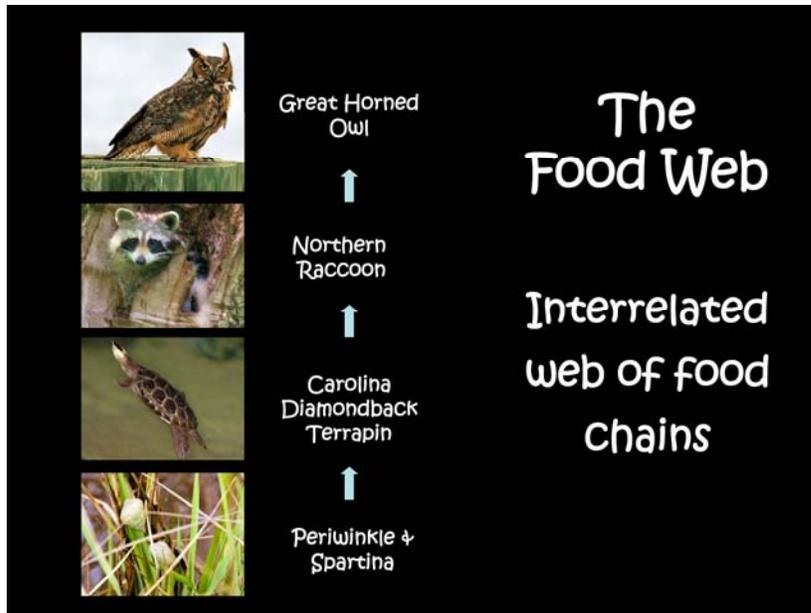
Raccoons are omnivorous and will eat almost anything. Raccoons eat other vertebrates but generally stick to invertebrates. Raccoons in turn are preyed upon by Great Horned Owls...who occupy the top of the food web along with other species such as Ospreys, Bald Eagles, and humans.

A number of threats to estuary water quality exist: development, failing septic tanks, stormwater pollutants from upriver, overwhelming sediment, sewage spills, chemicals, pesticides, and pet waste.

Stormwater management is essential in improving water quality. Stormwater is not treated by sewage treatment plants. It therefore contains a wide variety of agents that may cause algae blooms and resultant fish kills, poor water quality, and habitat destruction in our shellfish beds.

Are you part of the problem? The answer is probably "yes" to some extent. There are a number of websites you can research to learn best practices for individuals to take to improve stormwater quality.

Stormwater quality improvement requires reducing the amount of runoff and/or the amount of pollutants. We can all take action to modify our behaviors and landscaping practices to protect our estuaries.



A portion of one of the food chains that make up a salt marsh food web