

Great Island: a place of wonderment, especially in August

By Judy Preston

Editor's Note: Though renamed the Roger Tory Peterson Natural Area Preserve in 2000, the original name Great Island is still the one preferred by many who've come to know and love it, including the author of this article. To her ears, it better connotes the straightforward declaration of uniqueness that this landscape deserves.



Great Island is a “sea of grass” not unlike the great American prairie, with the important addition of tides. Photo: Judy Preston

Great Island is located at the mouth of the Connecticut River. It's a gateway to New England's longest and largest river system.

It is also the river's largest salt marsh, hugging the eastern shoreline in the town of Old Lyme and divided by the Back River into an upper island, with Great Island making up the largest landmass to the south. Three tributaries help define the eastern boundary of this island complex: the Lieutenant River

to the north, the Duck and the Blackhall at the south.

Collectively all these rivers and associated marshes make up a strikingly intact natural system that has helped give rise to nine (soon to be 10) local, national and even international environmental designations. They underscore the remarkable fact that in the 21st century and in the one of the most densely populated coasts in the country, a large tidal river estuary has managed to flourish.

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The 10th designation, expected in early 2022, will define Great Island and the brackish tidal marsh complex and islands just to the north, including Lord Cove, as a National Estuarine Research Reserve by the National Oceanic and Atmospheric Administration (NOAA).

An August midweek afternoon is an optimal time to explore the edges and winding creeks within Great Island in a small human-powered boat. The tide will orchestrate the experience: at high tide you will glide as if on the land surface itself, past late-season flowering sea lavender and salt marsh fleabane along the banks. Stretching beyond are the dominant plants with names such as saltmarsh hay, smooth cordgrass, black needle rush and spike grass.

At low tide you will experience the magic of the very foundation of Great Island: peat. Year after year, season by season, the dense vegetation at the marsh surface incorporates into this spongy organic basement, punctuated in places by fast-moving fiddler crabs that disappear into their excavated holes upon your approach.

To describe Great Island, imagine a grassland—low-lying, interspersed with areas of taller grasses and a few hardy shrubs. As far as the eye can see it is green—electric green by mid-August as it emerges into its full splendor, and wind-swept, just like the prairie. That is part of the appeal of Great Island: big views, with a few bedrock islands emerging above the marsh, mostly along the Connecticut River side, where tough oaks and native shrubs persist.

Diverging from the prairie image, Great Island is surrounded by water, and under the influence of the moon is monthly flooded such that even its higher “fields” of grass are submerged in salt water. Setting this place apart from the marshes, islands and coves just up the river, is the stalwart capacity of the plants and animals that call this place home to survive the vagaries of the coast: wind, salt, flooding, searing heat in the summer and brutal cold in the winter with little shelter, particularly as persistent tides

variously expose and then submerge the landscape.

Stepping onto the island surface, it is possible to experience one of the features that makes the salt marsh so essential to the nearshore landscape, especially to coastal human residents: water capacity. Peat holds many times its own weight in water; if you jump you will feel the marsh below quake, absorbing your motion. Great Island and others like it along the coast can absorb and mitigate key impacts from storms.



Hundreds of menhaden—a fish that fuels many food webs in the estuary and neighboring Long Island Sound—riffle the water as they move down the Back River in August. Photo: Judy Preston

Especially in August, you may find yourself, as I did while paddling down the Back River, thinking that a breeze ahead is riffling the water. But as you draw nearer the crescent reveals hundreds of bunker fish—menhaden. There is a faint clicking as their dorsal fins break the surface. Occasionally one will depart the water entirely, returning after its airborne moment with a slap. As my boat skims above them I can see below their orderly, seamless progression—gills and mouths open. And there are so many more. Now I recognize their approach, group after group. Who would not delight in such abundance? Certainly the osprey has taken note.

I’m told that the number of artificial platforms constructed for nesting osprey

on Great Island are at capacity, and indeed the landscape looks rather like the equivalent of an osprey city. This is not to suggest that they are unwanted but rather that their abundance cannot be taken for granted.

As a child, I remember adults pointing out the occasional osprey and the hushed significance that their explanations took on. Years later I would read, and study in textbooks, the significance of the use of the pesticide DDT and its unintended impact to the state’s osprey population.

Great Island was one of the first places where this problem was recognized by local luminaries Roger Tory Peterson and Paul Spitzer, doubtless alerted by Rachel Carson’s seminal book, *Silent Spring*. Around Great Island, what had been one of the state’s highest concentrations of nesting birds was reduced to one remaining nest in the lower Connecticut River, and statewide only nine active nests remained in the 1970s.

Today’s osprey success rests on the backs of many who collectively observed and acted, including those who also advocated for limits to the amount of menhaden taken, ensuring a healthy food web.

Humans have been interacting with this landscape for a long time. Local archaeologist John Pfeiffer uncovered the ceremonial artifacts and indications of



Great Island's organic peat makes this place an essential buffer to coastal storms and notably, hurricanes.
Photo: Judy Preston

a shelter and burial pit that place First Nation Peoples in the area around Great Island, dating back more than 4,700 years. The arrival of Europeans in the early 1600s initiated a marked departure from the seasonal visits of those before them to access local food resources. Europeans made a permanent presence, bringing with them grazing livestock—unknown to the landscape or native peoples. Early on, salt hay harvested by colonists from Great Island became an essential commodity.

That Great Island and the estuary it helps define was not engineered into a coastal city—like all its peers in the state and many across the nation, is due in part to its glacial past. Shifting sand bars at the juncture with Long Island Sound early on made ship passage problematic. To this day flat-bottomed barges are the largest ships making passage up river. Historically shipbuilding upriver as far as Middletown (which included the manufacture of clipper ships in its heyday) fueled local economies. Imagine the things seen from Great Island's shores, from Dutch explorer Adrian Block's modest ship, the *Onrust*, more than 300 years ago, to fleets of trade and

fishing boats, then the era of steam, to today's recreational boats emerging from riverside marinas.

On the rocks that elevate the largest bedrock hummock on Great Island, faintly incised signatures of men who visited this place in the 1800s are still visible at low tide. What did they see and think, looking out onto the river and estuary marshes? As I sat listening to wind and river, I was reminded of John Stilgoe's phrase: "outside lies magic." The glint of a train moves across the landscape to the north, part of the busy Northeast corridor that embodies the technology and pace of a world that those early visitors could scarcely have imagined. Despite the ubiquitous sounds of planes, boats and distant sirens, that is the most amazing part of experiencing Great Island: it is still possible.

MORE INFORMATION:

Map of Great Island: <https://portal.ct.gov/DEEP/Boating/Boat-Launches/Great-Island-Boat-Launch>

Great Island State Boat Launch: <https://portal.ct.gov/DEEP/Boating/Boat-Launches/Great-Island-Boat-Launch>



A common tern flies over the Connecticut River near Great Island in July. Photo: Judy Benson



Above, Judy Preston paddles through the Great Island marshes in August. Below, smooth cordgrass is anchored in layers of peat exposed at low tide at Great Island. Bottom, two egrets hunt for food on the edges of the marsh. Photos: Judy Benson

