

Natural Communities

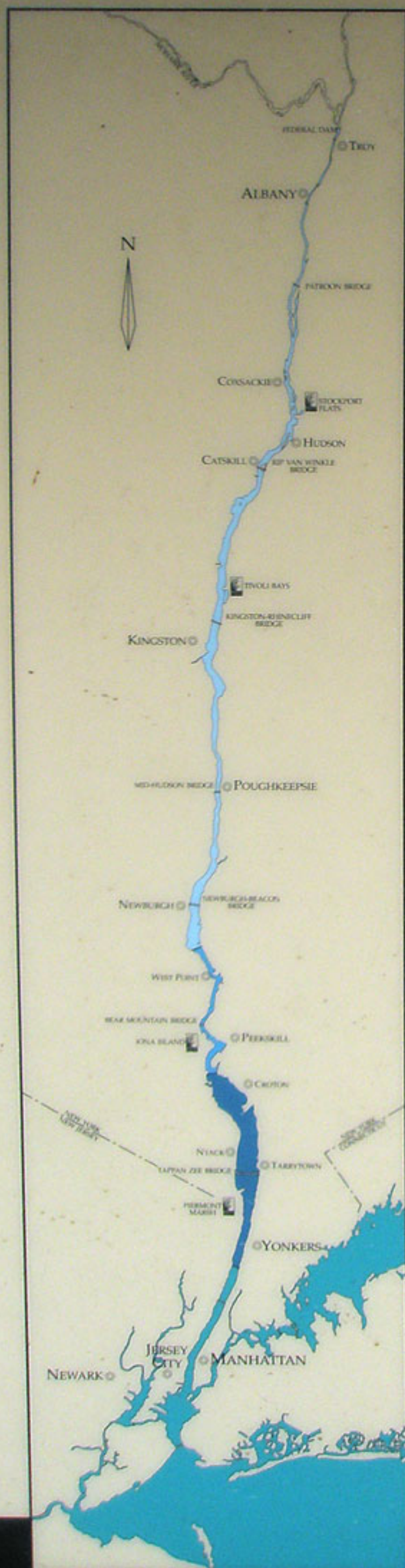
Illustrated by Wayne Trilman

Amazing worlds of estuarine
life inhabit Hudson River
tidal wetlands.



Northern Bald Eagle Dragonfly Great Blue Heron with Youngling Clam Oyster Northern Diamondback Terrapin Pickerel
 Marsh Wren Green Heron Striped Bass Mummichog Rock Bass Waterfowl Mudpuppy

The Hudson River Estuary



For the 152 miles below the Federal Dam at Troy, the Hudson River is an estuary, a tidal river that rises and falls with twice-daily tides. Salt water from the Atlantic Ocean meets and mixes here with fresh water draining from the 13,390 square mile Hudson River watershed.

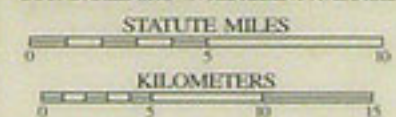
Estuaries are among the richest, most productive, and most intensively used ecosystems on earth. Estuarine plants and animals depend on the presence of healthy habitats, good water quality, and little or no human disturbance. You have an important role in preserving the quality of life in the Hudson River Estuary!

HUDSON RIVER ESTUARY

SALINITY GRADIENT*

- TIDAL FRESH WATER
- SLIGHTLY BRACKISH WATER
- BRACKISH WATER
- SALT WATER

*BOUNDARIES SHOWN REPRESENT AVERAGES



The saltiness of water at any one place in the estuary varies with the season and the amount of freshwater flow in the river. North of Poughkeepsie, the river is nearly always fresh. This map shows the average salinity in summer, when freshwater flow is usually low. During high flows in the spring, fresh water may extend nearly all the way to Manhattan. The ecology of Hudson River habitats depends in large part on the duration of tidal flooding and the salt content or salinity of the flooding waters.



The Hudson River National Estuarine Research Reserve (HRNERR) is a network of four coastal sites: Piermont Marsh, Iona Island, Tivoli Bays and Stockport Flats. The HRNERR is part of the National Estuarine Research Reserve System. This system of federally-designated, state-managed programs includes over twenty Reserves protected and managed as field laboratories for estuarine research and education.

This kiosk was made possible through funding from the Hudson River Improvement Fund, the Sanctuaries & Reserves Division of the Office of Ocean & Coastal Resource Management, National Oceanic & Atmospheric Administration, and the New York State Department of Environmental Conservation.

Stockport Flats



Stockport Flats has five miles of shoreline featuring tidal freshwater marshes, intertidal flats, subtidal shallows, and dredge spoil islands washed by four-foot tides. It includes the Stockport Marshes, the Hudson River Islands State Park, and Nutton Hook.



Osprey carrying fish.

Shad spawn in nearby water in May, attracting ospreys during spring migration. Bald eagles are common in the warm months.

What to See and Do

Hike the Trails – Nutton Hook's 0.6 mile trail links the historic remains of the R.&M. Scott ice house and the ferry landing, which was active until the 1930s. The western path rises 50 feet and offers views of the Hudson River and Catskill Mountains; the eastern path follows the Federal Footpath, a historic trail used by workers to travel between the ferry landing and the ice house along the edge of a freshwater wetland.



Nutton Hook ice house remains.

The 1.75 miles of trails on **Gay's Point** are accessible by boat and take visitors through locust and cottonwood trees to a marsh overlook and panoramic views of the Hudson.

Boat the Marshes – A boat launch at Stockport Creek provides access for car-top and trailered boats. The Ferry Road launch is restricted to car-top boats.

Picnic – Picnic areas are provided at the mouth of Stockport Creek and near the dock on Gay's Point.

Camp – Hudson River Islands State Park is accessible only by water. Its facilities include a dock, fire rings, picnic tables, primitive toilets, and campsites. For day use/camping information, call the Park Office (518-732-0187).

Enjoy Wildlife – Birdwatch throughout the year. Fish, hunt, or trap in season with valid NYS license on NYSDEC land. Hudson River Islands State Park (518-732-0187) also requires a regional hunting permit and prohibits trapping.

Map provided by NYS Office of Parks, Recreation, and Historic Preservation. Other images provided by NYS Department of Environmental Conservation.

Guidelines

- High speed trains are dangerous. Trespassing on railroad tracks, bridges, or rights-of-ways is prohibited.
- Off road vehicles, removing plants, historic, or prehistoric artifacts, and fires (except in rings at Hudson River Islands State Park) are not permitted.
- Extent of boat access is dependent on daily tides.

- Please contact the Reserve for information about group use or special access permits (hrnerr@gw.dec.state.ny.us).
- Life in the marsh is fragile. Please minimize disturbance.
- Please carry out what you carry in.



Snapping turtle.



NYS Department of Environmental Conservation
Hudson River National Estuarine Research Reserve



New York State Office of Parks,
Recreation, and Historic Preservation



National Oceanic & Atmospheric Administration
Office of Ocean & Coastal Resource Management

Natural Ice's Rise and Fall

The Prosperity and Decline of the R. & W. Scott Ice Co. On the Upper Hudson River



Those Who Walked on Water

Men eagerly awaited the ice harvest and worked hard for an average of \$1.75 an hour. A good crew could pole 43 cakes each minute down the channels and up the elevator leading into the ice house at Nutton Hook. These hard working, hard living men boosted the winter economy in the region.

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Huguenot Foundation and the Columbia County Historical Society.

In the 19th century, the ice industry grew from a small-scale, family operation into a huge industry and just as quickly became obsolete. Its rise on the Hudson is linked to the Hudson River's importance as an artery of commerce between country and city. New Yorkers demanded ice to cool their drinks in the summer, keep their vegetables and meats fresh, and preserve their milk and butter. The river connected ice fields upstate to the burgeoning ice market in the city. Natural river ice quickly became as essential in summer as coal in winter.

A Bright Future

By the 1880s, the ice industry was booming. Encouraged by the industry's success, Robert and William Scott built a huge ice house in 1885. It measured 200 by 300 feet and was 40 feet high. This house could hold 52,880 tons of ice.

The Death of an American Industry

The growth years of the industry, however, were almost at an end. After a period of great prosperity and success, the natural ice industry was replaced by artificially produced ice and refrigerators.

The ice house at Nutton Hook was finally sold to the Knaust brothers to grow mushrooms. It burnt down in 1934 after only half a century of business.

Ice House Power House

Four exterior brick walls and a chimney are all that is left of the mighty ice house powerhouse. The powerhouse ran the elevators that brought ice sheets from the river to the storage house. It is an exceptionally ornamented structure with fancy brick work and a frame mansard roof.

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Huguenot Foundation and the Columbia County Historical Society.



Harvesters of Winter Cold

Ice Men Braved the Dangers of the River to Bring in the Ice Harvest



In the dead of winter, when the Hudson River began to freeze, men eagerly awaited the call to harvest ice. As the ice industry grew, workers from nearby cities, farmers, and fishermen depended upon ice harvesting to supplement their

incomes during the hard winter months. In its heyday, the R. & W. Scott Ice Co. employed 100 workers.

Hard Labor

Ice harvesting attracted hard working, hard drinking men who endured back breaking physical labor at freezing temperatures. It was dangerous and

unpredictable work, subject to fickle winter weather.

The Risks and Dangers

Accidents and injuries occurred frequently. Large pieces of ice sometimes crushed men's legs and arms. Machinery injured many. Men occasionally fell into the icy waters and had to be dragged out by their crew.

The risk and danger involved in the ice industry forged a close-knit fraternity among the icemen. Tales of daring stunts and impressive shows of strength and endurance circulated rapidly and earned men heroic reputations. Older men taunted and teased new recruits and crews often played tricks on each other.

A Whirlwind Harvest

Each year, the ice harvest ended as quickly as it began. After days of difficult work, ice men were left "somewhat at sea, having worked themselves out of a job."

Natural Capital

After the ice was separated into sheets, a channel was cut to connect the ice field to the ice house and the first sheet of ice was sent toward the ice house. The sheet was towed by a team of horses or by ice-cutters using long poles called hooks to an elevator leading into the house. Once inside, the ice was stacked between layers of sawdust until summer when it would be transported down river and sold in the cities.

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