

## From Bounty to Barren

### Confronting the Decline of Manhasset Bay's Shellfishing Heritage

By Alexis Perrotta

Two men bend intently over the receding tide. One holds what could be a garden trowel, or perhaps a tin can. The other grips a handled tool that hides just out of focus. A basket rests between them, ready to gather the plentiful clams they'll pull from the sand.



The photo was taken in 1890 just north of Long Island's Manhasset Bay in what would later become Sands Point. It's a romantic image capturing a moment of deep-rooted, long-lost local culture; a memory of a time and a coastal ecosystem that has been polluted and neglected into submission over generations.



### A shellfishing legacy lost

Once referred to as the “shellfish garden of New York City,” Manhasset Bay (situated less than a mile down the road from my home in western Long Island) has been [closed to shellfishing since the early 1970s](#).

On the shores of the bay, you can still find locals eager to share stories of childhood summers spent digging clams at low tide, but concerns over bay health and the shellfish therein were observed and codified as far back as 1925 when a [typhoid outbreak led to the closure of 2,500 acres](#) of Manhasset Bay oyster beds (essentially the entirety of the bay). For well over a century, Long Island's residential and industrial activity has depleted and befouled one of our most iconic natural resources. How did we get here?

## The clear and present danger of nonpoint source pollution

As a result of unfettered development and recreational activity, [a 2018 report](#) categorized Manhasset Bay and its tidal tributaries as an “Impaired” site with regards to primary and secondary contact recreation (activity where full-body immersion is likely, and activity where full immersion is unlikely, respectively), as well as shellfish consumption. This is in no small part due to [nonpoint source pollution](#); when nitrogen and other pollutants from septic tanks, roads, and lawn fertilizers are washed into our coastal ecosystems as a result of runoff, especially after heavy rainfall. In Manhasset Bay, [faulty or outdated septic systems and cesspools contribute nearly 40 percent of nitrogen](#) while other harmful nutrients and fertilizer runoff account for about 13 percent. The unbalanced accumulation of certain pollutants (like nitrogen and phosphorus) can result in red, brown, blue-green, or rust tides as well as harmful algal blooms (HABs).

While a single adult oyster can filter 50 gallons of water a day, the filtration power of shellfish alone isn't enough to combat HABs. Caused by a variety of contributing factors, HAB growth can be accelerated or “fed” by the nutrients that end up in the water as a result of nonpoint source pollution and runoff. The algal colony in an HAB will effectively consume all of the oxygen in a body of water *and* block sunlight from reaching plant life below, making it impossible for marine life to survive. The most extreme HABs result in the official designation of aquatic dead zones. And even with its impressive filtration capabilities, if an adult oyster doesn't find our beloved bay to be a hospitable ecosystem, you may start to wonder about the health and safety of the water in general.

Indeed, the issues in Manhasset Bay have persisted for over a century. However, thanks to innovations in marine management, the [modern application of indigenous conservation practices](#), and an enthusiasm for local environmental stewardship, they're far from insurmountable.

## **The promise of coastal restoration**

Founded by professors at Stony Brook University's School of Marine and Atmospheric Sciences (SoMAS) and launched in 2012, the [Shinnecock Bay Restoration Program](#) initiated the creation of hard clam sanctuaries and oyster reefs, re-seeding eelgrass, and studying the potential benefits of macroalgae, all in response to the deteriorating conditions of the Shinnecock Bay.

A decade into the program, results include a staggering 1,700 percent increase in the landings and densities of hard clams within the estuary, as well as the successful stemming of harmful brown tides. These outcomes mark a restoration of the Shinnecock Bay to its former 20th-century glory, especially in terms of shellfishing opportunities. Indeed, the program has become a model for the world and has even been named a [global Hope Spot](#) for its novel and successful restoration efforts.

According to [Mike Doall, co-author and associate director of Shellfish Restoration and Aquaculture within \(SoMAS\)](#), the project has been a success in terms of marine conservation as well as its impact on the local economy.

“Not only has the health of the ecosystem recovered, but it has helped resurrect a once thriving hard clam fishery, benefitting the livelihoods of baymen, and restoring an important aspect of Long Island's maritime history.”

Another promising local effort to protect Long Island's coastal ecosystems and remove harmful nutrients from the water is the indigenous-founded initiative, Shinnecock Kelp Farmers (SKP). Founded in 2019 by six women (all enrolled members of the Shinnecock Indian Nation), [SKP farms sugar kelp](#) in order to mitigate the impacts of climate change, absorb HAB-feeding nutrients, and protect coastline. This revival of the traditional Shinnecock practice of kelp cultivation has proven to be a successful reimagining and high-impact modern application of an ancient indigenous practice.

## **A keystone species for local ecosystems and economies**

As recently as 50 years ago, more than half the clams eaten in the U.S. were harvested from the waters in and around Long Island. However, over the past quarter-century, the region's [\\$6 billion clamming industry has seen a drastic decline, with harvests plummeting by 93%](#).

There is no doubt that commercial shellfishing represents a critical, storied, and fragile part of the island's economy, and local baymen aren't the only ones who would reap the

benefits of a resurgence of clams and oysters; afterall, a rising tide lifts all boats (I couldn't resist). If we're able to successfully bring healthy shellfish back to Manhasset Bay, neighboring communities would enjoy cascading economic impacts including an increase in tourism opportunities, job creation, and generation of income for unrelated local businesses. There is also the very real public health and [economic value of improved water quality](#).

## **A call to action**

The decline of Manhasset Bay's shellfishing heritage is not just a loss of culture and history, but also a warning sign of the broader environmental challenges facing our coastal ecosystems. And while the restoration efforts in Shinnecock Bay offer a blueprint for revitalizing these crucial habitats, any similar efforts must be part of a comprehensive strategy that addresses the root causes of the degradation of our shellfish populations and includes grassroots organizing, involvement of local government, and utilization of indigenous knowledge.

The road to recovery for Long Island's Manhasset Bay will be a long one, but there are a number of individuals and organizations who are already working to lay the necessary groundwork. For local residents interested in advocating for our coastal ecosystem and learning how to adjust individual behaviors that negatively impact the bay, the inter-municipal [Manhasset Bay Protection Committee](#) offers resources, research, volunteer opportunities, and public outreach programming. And thanks in part to the efforts of Town of North Hempstead District 6 Councilmember Mariann Dalimonte as well as the particular interest in shellfish restoration from former Governor Cuomo, Manhasset Bay is officially home to a [spat-on-shell oyster restoration pilot program](#).

By continuing to invest in shellfish restoration projects and implement policies to combat pollution (especially from residential sources), we can preserve our maritime history and ensure a sustainable future for generations to come.

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