

# Birding in the Delaware Bay

## **Bombay Hook National Wildlife Refuge**

Bombay Hook National Wildlife Refuge protects one of the largest remaining expanses of tidal salt marsh in the mid-Atlantic region. The refuge, located along the coast of Delaware, is mostly marsh, but also includes freshwater impoundments and upland habitats that are managed for other wildlife.



Bombay Hook was established in 1937 as a link in the chain of refuges extending from Canada to the Gulf of Mexico. It is primarily a refuge and breeding ground for migrating birds and other wildlife. The value and importance of Bombay Hook for migratory bird protection and conservation has increased through the years, primarily due to the management of the refuge and the loss of high quality habitat along the Atlantic Flyway.

Bombay Hook is a Ramsar Wetland of International Importance. Portions are also designated a research natural area. The refuge, a nationally recognized birding spot attracting birders from across the country, is designated a Globally Important Bird Area. The Refuge, as well as the entire State of Delaware, is part of the New England/Mid Atlantic Coast Bird Conservation Region Implementation Plan (BCR 30).

## **The Allee House**

The Allee House at Bombay Hook National Wildlife Refuge stands today, as it did in the eighteenth century, overlooking the fields and marshes of Kent County. It is one of the most handsome and best preserved examples of an early brick farmhouse in Delaware.

According to tradition, the Allee House was built about 1753 by Abraham Allee, the son of John Allee, a Huguenot refugee from Artois, France. John Allee arrived in Hackensack, New Jersey, in the 1680's and in 1706 he obtained from John Albertson and John Manford of New York a 600 acre tract in Delaware called "Woodstock Bower". By 1712 John Allee had bought two tracts adjacent to his original purchase; in his will, probated March 16, 1718, he left a large estate to his children. His son Abraham received the eastern half of the "home plantation" at Bombay Hook. Abraham Allee served as a member of the Assembly in 1726, was appointed a Justice of the Peace in 1738, and was Chief Ranger for the county in 1749. He purchased tracts called "Hillyard's Adventure", "Barren Hope", and "Galway" and added them to his inherited estate.

The first restoration and the furnishing of the Allee House were completed in 1966, in 1971 it was placed on the National Register of Historic Places as an important example of the vernacular architecture of eighteenth century Delaware. The Allee House is again in need of restoring. Over the past 40 years, the house's walls and support beams have become damaged and weakened by water. The house is not open to the public at this time. The house is a part of the U.S. Fish and Wildlife Service and is located on Route 9 between Leipsic and Smyrna.

<https://www.fws.gov/refuge/bombay-hook/about-us>



## **Management and Conservation**

### **Impoundment Management**

The refuge has four managed freshwater impoundments – Raymond, Shearness, Bear Swamp, and Finis – and each one is a little unique. Although water level management varies some from year to year and with the weather, there is a typical pattern. Water levels are drawn down in the spring to provide mudflats for migrating shorebirds. This permits the germination and growth of lush vegetation, and wading birds feed on fish in the pools that form. The impoundments are then flooded in the fall to give dabbling ducks access to the seeds of the wetland plants. In the spring the cycle begins again.

### **Early Successional Habitat Management**

Throughout the refuge there are 1,000 acres of open fields. As the refuge plans for future habitat management priorities, these fields are maintained through mowing and control of invasive species, and are used by migratory geese in the fall and winter and by sparrows and other songbirds in the summer.

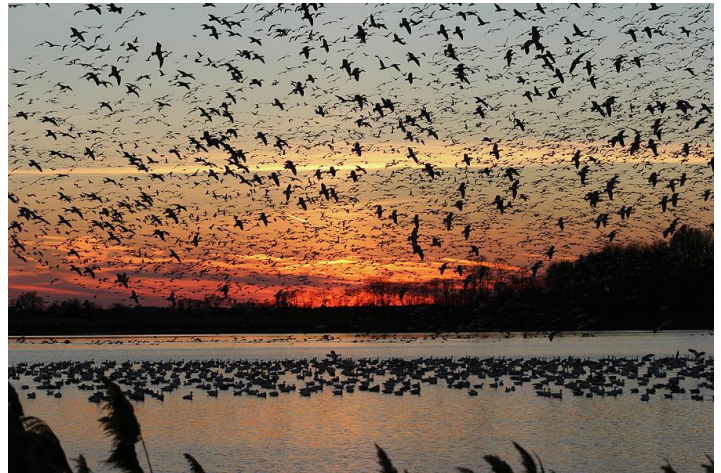
### **Salt Marsh Monitoring**

Although the refuge's expansive salt marshes are not actively "managed," the refuge staff conduct routine research and monitoring activities throughout the marsh to track the integrity of the habitat and status of its wildlife. Numerous factors have contributed to the loss of interior marsh, which the refuge may address in the future through restoration.

### **Trapping Occurs on this Refuge.**

Trapping is a wildlife management tool used on some national wildlife refuges. Trapping occurs on this refuge. Trapping may be used to protect endangered and threatened species or migratory birds or to control certain wildlife populations. The U.S. Fish and Wildlife Service also views trapping as a legitimate recreational and economic activity when there are harvestable surpluses of fur-bearing mammals. Outside of Alaska, refuges that permit trapping as a recreational use may require trappers to obtain a refuge Special Use Permit. Signs are posted on refuges where trapping occurs.

<https://www.fws.gov/refuge/bombay-hook/what-we-do>



## Seasons of Wildlife

The world of nature is one of continuous change. Winter gives way to the warm breezes of spring. Eagles hatch, and in a few short months young eagles test their wings over the saltmarsh. Leaves turn from green to gold and softly drop to the forest floor as migrating waterfowl once again wing south ahead of the first snows of winter. This calendar, highlighting many of the changes the natural community goes through at Bombay Hook, has been prepared to help you plan future visits to the refuge.

<https://www.fws.gov/refuge/bombay-hook/species>

|           |                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| January   | Red tailed, marsh and rough-legged hawks are commonly observed.<br>Bald eagles begin working on their nests.<br>Whitetail deer herds are seen in the fields at dusk.                                                                                                                                                                       |
| February  | Bald eagle eggs are laid and incubation begins.<br>Large flocks of Pintail ducks arrive with the first mild weather of the month.                                                                                                                                                                                                          |
| March     | The spring waterfowl migration peaks Ducks, snow geese and Canada geese are abundant.<br>Woodchucks and turtles emerge from hibernation.<br>Woodcock courtship flights occur.<br>Alders and red Maples flower.<br>Deer ticks emerge.                                                                                                       |
| April     | Bald eagle eggs hatch.<br>Early spring songbird migration begins.<br>Purple Martins return.<br>Spring peeper chorus and wood frog chorus is in full voice.<br>Spring wildflowers in bloom.                                                                                                                                                 |
| May       | Peak concentrations of shorebirds.<br>Horseshoe crabs move onto the bay shore and begin laying eggs.<br>Bullfrogs and green frogs join in the swamp chorus.<br>Warbler migration peaks. Snapping turtles lay eggs.<br>Tulip trees and spring wildflowers are in full bloom.<br>Duck broods appear.<br>First whitetail deer fawns are seen. |
| June      | Diamond back terrapins lay eggs on dikes.<br>Baby eagles leave the nest.<br>Water lilies bloom.<br>Black necked stilts begin nesting in impoundments.                                                                                                                                                                                      |
| July      | Many duck broods are present in Bear Swamp Pool.<br>The first shorebirds arrive late in the month on their southward migration flight.<br>Large concentrations of wading birds, including herons, egrets and ibis are present.<br>Whitetail deer bucks with antlers in velvet.                                                             |
| August    | Increased numbers of shorebirds.<br>Green-winged and blue-winged teal begin to arrive.<br>Cardinal flowers, rose mallow and meadow beauties are in bloom.                                                                                                                                                                                  |
| September | Late migrating shorebirds and songbirds are present.<br>Duck numbers increase.<br>First Canada geese arrive.<br>Tickseed sunflower, goldenrod and Joe-Pye-weed in flower.                                                                                                                                                                  |
| October   | Best month for Avocets.<br>Large numbers of Canada and Snow geese arrive.<br>Duck numbers increase as pintail, mallard and black ducks begin their fall migration.<br>Bur marigolds bloom in freshwater pools.                                                                                                                             |
| November  | Peak of fall waterfowl migration. Common species include Canada geese, snow geese, (blue and white phases), gadwall, mallard, black duck, pintail, American widgeon, wood duck, northern shoveler, blue-winged and green-winged teal, scaup, bufflehead, ruddy duck, red-breasted and hooded merganser.                                    |
| December  | Eagles often seen perched on leafless branches.<br>High populations of wintering birds, especially waterfowl, throughout the month unless a hard freeze pushes them further south.                                                                                                                                                         |

## DuPont Nature Center

DNREC's DuPont Nature Center is located in the beautiful Mispillion Harbor, part of the Milford Neck Nature Preserve, where the Mispillion River and Cedar Creek meet and flow out into the Delaware Bay. It is a science-based educational and interpretive facility with interactive exhibits designed to connect people with the Delaware Bay's natural history and ecology.

The surrounding estuary habitat includes more than 130 species of birds, fish, shellfish, and other animals.



The Nature Center hosts the Mispillion Harbor Camera, focused on the intersection of the Mispillion River and Delaware Bay, and the Mispillion Harbor Osprey Camera, focused on an osprey platform.

<https://dnrec.delaware.gov/fish-wildlife/education-outreach/dupont-nature-center/>

## Slaughter Beach

Slaughter Beach was founded in 1681 and incorporated in 1931. How Slaughter Beach got its name has been debated over the years. Early maps show a small creek named Slaughter Creek, which flowed through the marsh from the Cedar Creek south and emptied into the Delaware Bay just north of Prime Hook Beach. Just to the southwest of the town is an area called "Slaughter Neck". Neck was/is a term used to describe upland areas between two key boundary areas. Another theory is the first postmaster for this locality had the last name of Slaughter.

The naming of Slaughter Beach has two more colorful stories. In the spring and early summer horseshoe crabs come ashore to spawn. Wave action flips the crabs over where they are left to die in the hot sun, thus the "Slaughter of the Crabs." The most colorful story has to be of Indians attacking early settlers in the area. Upon hearing the news, the leader of the settlers arranged a meeting on the beach with the Indian Chief so the settlers "God" could "speak" to the Indians and make peace. The leader had the Indians gather around their "God", a cannon, and fired the cannon killing all the Indians – thus the "Slaughter of the Indians."



Like the naming of Slaughter Beach, the town has gone through many changes. Slaughter Beach in the early years was primarily a resort for Milford area residents during the summer months. In its hey-day, Slaughter Beach had a dance hall, hotels and a boardwalk. With the advance of the automobile and road systems, more and more people started traveling to the Rehoboth area and Slaughter Beach turned into a sleepy little seasonal fishing village. Present day Slaughter Beach has a full time population of 198 people with a much higher summertime population. Slaughter Beach also has become much more of a year-round community for part time residents looking to escape for brief periods from the "real world."

<https://slaughterbeach.delaware.gov/history/>

## Broadkill Beach

UNCHANGED BY TIME AND TIDES: BROADKILL BEACH RETAINS THE QUIET CHARMS OF AN EARLIER ERA

By Michael Morgan

Photographs courtesy of the Milton Historical Society

From the April 2022 issue

‘Barefoot Thursday’ was duly celebrated on Broadkill Beach last Thursday,” the Smyrna Times reported in 1859. “Everyone present on that occasion was obliged to take off his boots and go barefoot. Great country that Sussex! — and great people live ‘thar.’”

Broadkill Beach (or, as it was often called in the 19th century, Broadkilln Beach), with its wide view of Delaware Bay, is washed by that waterway’s gentle waves splashing on replenished sand. Situated on a sliver of shoreline northwest of Lewes, hemmed in by Primehook Beach to the northwest and Beach Plum Island Nature Preserve to the southeast, Broadkill is isolated from crowds, commercial outlets and traffic.



Birds glide past and ships chug by the boardwalk-less beach, where each spring horseshoe crabs stop to mate. Broadkill Beach boasts a single commercial establishment, affectionally known as “The Store.” So, for some, this enclave is primitive; for others, it is merely slow; but to residents and those who frequently visit, it is paradise.

### THE BEST DAY OF THE WEEK

Early maps show a series of islands along this stretch of Delaware Bay, with the Broadkill River — the suffix “kill” is Dutch for “creek” — following a serpentine route from Milton between two of these small islands and emptying into the bay. Shifting sands closed the openings between the islands to create a long land spit and forcing the river to turn abruptly to the southeast, where it joined the mouth of Lewes Creek (now known as the Lewes-and-Rehoboth Canal) and the Delaware Bay. The former course of the Broadkill is now known as Deep Hole Creek. These changes aside, devotees of the area adjusted so they could enjoy their favorite stretch of sand.

In the 19th century, Milton-area residents came to Broadkill Beach when it was known as a “farmers’ beach” because many of those it attracted worked in nearby fields. It was a time when people went to the beach fully clothed, with men in suits and ties and ladies with ankle-length dresses. To go without shoes was considered daring, but on “Barefoot Thursday” in August, visitors did just that. On that day, according to the Delaware Ledger, whoever “appeared shod was chased, caught and rolled upon the sand until the shoes were removed. The skylarking and frolicking was always good natured and there was no anger nor fighting. A little old peach and apple [liquor] from the Sussex distilleries aided the merriment.”

Visitors to the area never missed a chance for a little merriment, and long ago they also celebrated “Big Thursday” in August to mark the end of a months-long ban on oyster harvesting. In the 19th century, oysters were a ubiquitous part of the American diet, As Harpers New Monthly Magazine noted in 1859, “Oysters [were] pickled, stewed, baked, roasted, fired, and scalloped; oysters made into soups, patties, and puddings; oysters with condiments and without condiments; oysters for breakfast, dinner, and supper; oysters without sting or limit, fresh as the fresh air, and almost as abundant.” There were no oysters better than those from Delaware waters, and like low-flying clouds, the sails of oyster boats covered the bay as harvesters sought the succulent bivalve.

However, the insatiable demand for this product and the efficiency of local watermen led to the depletion of the area's oyster beds. As a result, in 1852 the state legislature prohibited oystering from May 1 through Aug. 10. During the first year that the restrictions went into effect, Aug. 10 fell on the second Thursday of the month, and on that day, the crews of the oyster boats and their families celebrated the opening of the dredging season. The celebration quickly became an annual event known as "Big Thursday," with visitors descending on Broadkill Beach to take part. According to the Delaware Gazette and State Journal, "On such occasions hundreds of the 'rustics' from miles inland have met in the vicinity of the mouth of the Broadkill river and indulged in bathing, boating, dancing and occasionally some drunkenness."

In the late 19th century, these two August celebrations help make Broadkill Beach a viable rival to other seaside resorts, but the popularity of the beaches at Lewes and Rehoboth skyrocketed with the arrival of rail service. Residents of the Milton area, however, remained steadfastly loyal to Broadkill, and many would not even consider going to Rehoboth. For them, Broadkill was "the beach."

But the serenity that attracted them was threatened when the merchants of Baltimore lobbied Congress to build a ship canal across the Delmarva Peninsula. One of the favored routes was to link the upper reaches of the Choptank River in Maryland to the Broadkill River near Milton and then plow straight through Broadkill Beach to the bay. The proposal spurred one congressional study after another, and it finally died a quiet bureaucratic death.

#### BEACHGOERS AND BOOTLEGGERS

While Congress dithered over this plan, residents of Milton and nearby areas continued to take their carriages to the west side of Deep Hole Creek, where a small rowboat carried them to the beach side for a nickel per person. A small power launch was also used for this ferry service, though in 1910 a footbridge was built across Deep Hole Creek. The span — 600 feet long and 4 feet wide — not only allowed access to the beach from the mainland, but it also gave Broadkill Beach a unique architectural feature not found at any other Delaware seaside resort.

In the years before World War I, beachgoers spent their days enjoying the gentle bay waves, fishing for trout, dipping for crabs and raking for oysters and clams. The latter pursuit included unusual methods: In 1916, Broadkill Neck resident John Wilkins had a collie that would dig out these mollusks. Wilkins claimed that the dog could dig up from one to three bushels of oysters a day.

In the early years of the 20th century, horseless carriages began to bumble along southern Delaware roads and, by the 1920s, vacationers began to drive their cars to Sussex County beaches. The vast majority bypassed Broadkill Beach in favor of the ocean resorts, but with the start of Prohibition, bootleggers discovered the virtues of a quiet resort with few visitors. During the last week of November 1930, a 60-foot vessel, driven by a 400-horsepower engine and loaded with choice liquor for the holiday season, steamed past Cape Henlopen. As the rumrunner approached Broadkill Beach, the boat hit a sandbar. Fearing that the Coast Guard would appear at any moment, the bootleggers threw overboard much of their illicit cargo. Lightened, the boat floated free, the bootleggers went ashore, unloaded their remaining contraband, and fled. When a Coast Guard patrol boat did arrive, the crew retrieved between 140 and 175 cases of alcohol from the bay.

#### FOUR-WHEELED PROGRESS

Although bootleggers may have found the lack of visitors to their liking, the inability of vacationers to drive directly into Broadkill Beach stymied the resort's growth. In the 1930s, the footbridge was replaced by one for motor vehicles, and access into the resort was finally unhindered. Fortunately for those who enjoyed the area's quiet nature, Broadkill remained largely unchanged: a small bathing and fishing resort with a line of frame beach cottages strung along the treeless dunes overlooking Delaware Bay. A single street and a single store still served the community. Following a tradition that was decades old, farmers sometimes came to the beach at night with seines to fish, drink and sing until dawn.

The economic downturn that began with the 1929 stock market crash and grew into the Great Depression put a damper on the growth of Delaware's seaside resorts. The election of Franklin Roosevelt in 1932 set in motion a host of New Deal programs, including the Civilian Conservation Corps. Beginning in December 1933, at the marshes on the west side of Broadkill Beach, an army of CCC workers spent two years cutting ditches that they hoped would rob mosquitoes of their natural habitat. When the project was completed, four companies of the workers gathered near Deep Hole Creek for a ceremony to commemorate the work. With due solemnity, each worker placed a foot square of sod (weighing 35 to 60 pounds) in a circular mound that grew to 6 feet in height and 20 feet in diameter. Each year, the ceremony was repeated to refresh the mound, but the practice was eventually discontinued, and the sod monument withered away.

The Great Depression lasted until the beginning of World War II. When the war began in Europe, American military leaders began a program to improve defenses along the approaches to the mouth of Delaware Bay, and Broadkill Beach was included. To support the guns of Fort Saulsbury farther up the bay near Slaughter Beach, a spotting tower was erected on the marsh side of Broadkill Beach. Although similar in function to the concrete silo-shaped towers that line the beach from Cape Henlopen to Fenwick Island, the Broadkill tower was square and made of steel. Its presence brought the servicemen who manned it and K-9 beach patrols that protected it from saboteurs who might sneak ashore. After the war, the exposed metal of the tower did not weather well, and it was taken down. The only structure still standing as a reminder of when soldiers patrolled the beach is a concrete cable bunker, the size of a backyard shed, that held communication lines to the gun emplacements at Fort Saulsbury.

#### NEW HOMES AND STICKY BUNS

The primitive days when beach homes lacked electricity, heat and indoor bathrooms slowly slipped into the past following World War II. As always, however, beach visitors continued to check the direction of the wind. If it was coming from the marshes, aficionados of the bay's quiet waves had to be prepared for an assault by mosquitoes and biting green-head flies. If the wind was coming in off the bay, all was well.

The postwar development that quadrupled the number of houses at Broadkill Beach was briefly interrupted by the March 1962 storm that cut a temporary inlet near Alabama Avenue. (The inlet was soon filled in by shifting sands.)

In more recent years, those who appreciate the gentle waters, quiet beaches and unobstructed views of passing ships heading to and from Philadelphia have discovered Broadkill Beach, and several large mansions have been built. In the spring, horseshoe crabs continue to mate on this shore, although the main concentration of them occurs north of Slaughter Beach. Beachgoers without shoes are seen every day of the week in the warm months, and "Barefoot Thursday" is no longer celebrated. It has been replaced by "Sticky Bun Tuesday," when The Broadkill Store serves the specially baked treats.

<https://www.delawarebeachlife.com/magazine/our-content/399-unchanged-by-time-and-tides#:~:text=In%20the%2019th%20century%2C%20Milton,ladies%20with%20ankle%2Dlength%20dresses.>

#### Kitts Hummock

Designated a Horseshoe Crab Community Sanctuary in 2003, Kitts Hummock is a charming beach community located east of Delaware's capital, Dover. You can witness spawning horseshoe crabs landing on the shoreline every year, May through June. Arriving with the crabs are migrating shorebirds, including the endangered red knot. Definitely a treat for those birdwatchers among you!

In geology, a hummock is a small knoll or mound above ground, but historians haven't been able to uncover the origin of "Kitts" in the town's name. "There are legends that the original name was Kidds Hammock and that it was named for Captain Kidd. Kidd sailed between New York and the Caribbean in the late 1600s, and his ship stopped at Lewes. There are rumors that Captain Kidd buried treasure in Kitts Hummock..."

In the 1800's the town and its beach were popular weekend destinations for Dover residents. Today, it's less crowded, but just as charming! Plan your visit around the tide. During low tide, you'll have more beach to enjoy.

#### Fun Facts

Horseshoe crabs aren't crabs at all but chelicerates, most closely related to arachnids, such as spiders and scorpions. During horseshoe crab spawning, never disturb the crabs unless the animal is flipped upside down. If you see an upside-down crab, please flip it back over.

<https://delawarebayshorebyway.org/attractions/kitts-hummock/>

