# Conservator



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#### ACKNOWLEDGEMENTS

Preserving the values of Watch Hill and Little Narragansett Bay would not be possible without the dedication of those who educate the public about the vital stewarding of Napatree Point Conservation Area and about maintaining the historic and community character of Watch Hill.

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Cover photo credit: Hoary Bat by MerlinTuttle.org



## VIEWS FROM BAY STREET

The smell of the air has changed. Have you noticed? As all things green begin to senesce, the critters pack up for winter, and the roads of Westerly quiet, I have a moment to reflect.

Each year I am increasingly in awe of the people who dedicate their valuable time and energy to this organization. Some volunteer on the board of directors, on a committee, or as a Napatree Point Conservation Area science advisor. These people give countless hours, no, days of their time, energy, and lifelong expertise guiding The Watch Hill Conservancy down the path of success.

Some are paid. They are employees or contractors and their energy, enthusiasm, and imagination inspire me every single day. Or they may be among the lengthy list of partners who help us on-the-ground to get things done. There are people who I have never met but who donate regularly to our mission. There are also the people who may not be able to do any of the above, but they show up. They show up to Lanphear *LIVE*!, they attend an educational event on Napatree, or they respond to an email blast with a "Bravo!" We need them too.

If your family and friends are anything like mine, this time of year is for gathering and giving thanks. It is important to acknowledge the mark we make on each other's lives. When we join around the dinner table, we each bring something to share. It may be a dish, it may be a story, it may be a warm hug and a smile. All of these are components of a shared meal and nourishing in their own way. I have realized that the success



of a small, nonprofit organization depends on the variety of guests you invite to the table and the unique contributions to the mission.

The Watch Hill Conservancy offers community programming at no cost to those who attend, it looks out for our important ecological and historical areas, and it acts as a voice for those who may not be able to speak up on their own about important issues. Our team brings the utmost dedication to these initiatives. This fall I ask you to think about what you would like to bring to the table. You are personally invited to join us in the effort.

We have plenty to look forward to the next time we gather as friends at a Lanphear *LIVE*!, on Napatree Point, or maybe even at the Celebration of Summer. Until then, please enjoy reading about how the Conservancy gets things done, and please know how incredibly thankful I am to every single person who, in their own way, brings value to the Conservancy.

These people give countless hours, no, days of their time, energy, and lifelong expertise guiding The Watch Hill Conservancy down the path of success.



ocelyn

Jocelyn Lahey, Executive Director



## FALL MIGRATIONS

The thousands of people visiting the beautiful, historic neighborhoods of Watch Hill have shifted into fall and winter gear, heads down and noses to the grindstone. Kids who used to fish off the breakwater using their crab rigs, as they have for generations, have all returned to school. The last ice cream cone has been served and the hard-working carousel horses have been wrangled into the corral for the season. Napatree

### ...there are more migrations that take place here than the human sort.

has largely fallen silent but for the few hardy visitors and the Napatree managers and scientists who still walk the sands continuing their stewardship work. It seems as if Napatree itself is taking a deep breath and exhaling slowly after providing a summer of pleasure for so many.

Of course, there are more migrations that take place here than the human sort. Creatures of the skies: the bats, the birds, and the bugs follow deep-rooted instincts that lead them away from the falling temperatures toward warmer climes. Lucky for us, The Watch Hill Conservancy has scientists who know what adventures the creatures undertake after they've left their beautiful summer homes. Enjoy reading about the migration of species that make the Napatree Point Conservation Area the jewel that it is.

## NIGHT FLYERS: MIGRATORY BATS ON NAPATREE

### BY DR. PETER AUGUST

Winter is a tough time in New England if you are a bat and eat flying insects. The seven species of bats that occur in Rhode Island have solved this problem in one of two ways. Some species migrate to the southern United States in the fall and return to Rhode Island in the spring. Others stay in New England and hibernate through winter. Our most common migratory bats are called tree bats because they tend to roost in trees over the summer. They are the red bat (*Lasiurus borealis*), the hoary bat (Lasiurus cinereus), and the silver-haired bat (Lasionycteris noctivagans). Our most common yearround resident hibernating species now is the big brown bat. New England populations of little brown bats, historically our most common species, have been decimated by white-nosed syndrome, a fungus that spreads rapidly through colonies of hibernating bats in caves and mines. Big brown bats hibernate in smaller colonies, frequently in attics and walls of buildings, and are not as prone to fungal infection.

In 2016, we began systematic acoustic surveying of bats on Napatree to determine which species were present, their relative abundance, and the time of year they were found. We use a Pettersson D500X bat detector to record the echolocation calls of any bats flying within 40 m of a microphone set above the shrub canopy on the western end of Napatree. The system is deployed in the early spring and run through the fall. The echolocation and feeding calls of any bats flying in the detection zone are recorded by the instrument, downloaded to a computer and analyzed with software that measures the acoustic properties of each vocalization. Since bat species have acoustically unique calls, the software can statistically determine which species made a call. It is important to note that with this system, species can be identified by their calls, but individuals cannot; 10 bat call recordings could be 10 different individual bats flying by the microphone or one bat passing it 10 times.

Of the 18,637 bats recorded over four years of sampling on Napatree, 63% have been big brown bats, 19% have been silver-haired bats, 10% have been red bats, and 8% have been hoary bats. Bats appear on Napatree in the spring and early summer but in low numbers. Activity increases in late



Photo Credit: Eastern Red Bat by MerlinTuttle.org

summer and fall. It is not uncommon to have well over 500 bat passes recorded in a single night!

Big brown bat activity peaks in August. At this time, newborn bats have weaned, and adults and young are feeding and commuting from their summer roosts to where they hibernate. Silver-haired bats and hoary bats are most active in August and September. Red bats are the last to leave Napatree and are most active September to November. The surge of activity by the tree bats in the late summer and through the fall likely represents their migration to the southeastern United States where insects are available year-round. It is possible that they navigate south by following the coastline, as do many species of migratory birds. The air space above the Napatree Point Conservation Area is filled with migratory birds and insects by day, and now we know it is a busy thoroughfare for migrating bats at night.

## GLOBETROTTERS: MIGRATORY BIRDS ON NAPATREE by dr. peter paton



Photo Credit: White-rumped Sandpiper by Dr. Peter Paton

Napatree has an international reputation as a destination resort, which holds true for both birds and people. Over the past few decades, numerous birders have spent countless hours documenting avian use of Napatree. In particular, Chris Raithel, Rey Larsen, and Joe Zbyrowski kept detailed records and more recently other birders have recorded their sightings on eBird. What their records reveal are some interesting patterns that document the importance of Napatree as a stopover site for migratory birds.

According to records in eBird, there have been 253 species of birds recorded at Napatree and the vast majority (roughly 90%) are migrants. This includes raptors, songbirds, and shorebirds among other species. Just as the guests at the Ocean House are constantly changing, so are the birds that occur at Napatree. As one example, 17 species of raptors (hawks, falcons, eagles, and owls) have been recorded at Napatree. Most raptors quickly pass over Napatree on their journey to southern destinations during fall migration. Occasionally raptors will hunt for avian or mammalian prey in the dunes during their travels. Other species tend to avoid crossing large water barriers (e.g., Sharp-shinned and Cooper's hawks), and will skirt north of Napatree to travel along the Connecticut



Photo Credit: Ruddy Turnstone by Dr. Peter Paton

coastline rather than attempt the water crossing at the west end of peninsula. Joe Zbyrowski monitored hawk migration at Napatree for decades, and those records will soon be available on The Watch Hill Conservancy website.

One of the largest migratory movements of birds at Napatree is a spectacle that few have observed. At least 23 species of warblers have been recorded at Napatree, most of which use Napatree briefly before heading to their exotic winter destinations in the Caribbean or South America. Chris Raithel for years documented the songbird flight patterns at the western end of Napatree. He listened for their flight calls at the crack of dawn. The western end of Napatree provides shrubs where some songbirds can refuel during fall migration, but most individuals probably stop only briefly at Napatree before reorienting and heading to the woodlands of Connecticut where they can gather the food resources to continue their journey.

What draws most birders to Napatree are the concentrations of shorebirds on the mudflats and shorelines of the lagoon during spring and fall migration. Napatree provides key resources for shorebirds to refuel on their long-distance migrations. In the spring, many of the shorebirds that stop at Napatree are headed to the tundra of northern Canada where they nest in June. This includes the colorful Ruddy Turnstone, which is the only shorebird that is more abundant in the spring than fall.

Most species of shorebirds tend to be much more abundant during fall migration in coastal southern New England. In the fall, these same species refuel at Napatree by feeding on aquatic invertebrates before continuing their migration to the neotropics. We know based on the telemetry tower at Napatree that some individual White-rumped and Semipalmated Sandpipers have flown straight for about 1,000 miles from James Bay, Canada, to Napatree, which shows why refueling sites are so critical to long-distance migrants. Napatree provides an important resource for migratory birds that needs to be cherished for future generations of birds and people.

## A DELICATE DEPARTURE: BUGS AND INSECTS TAKE FLIGHT

BY DR. DAVID GREGG

Whales and wildebeests, storks and salmon: migrations with big animals, globe-spanning distances, and precision navigation have astonished audiences since the nature documentary was invented. Animals migrate when the availability of food and water, safe breeding sites, and moderate temperatures aren't all in the same place at the same time. A number of insects migrate in order to access food and breeding sites during the northern winter, and a number of these insects can be seen on Napatree Point.

Monarch butterflies (*Danaus plexipus*) are the best-known example. Butterflies born here of northward flying parents make the southward migration in the fall. Recent research shows that most Mexico-wintering butterflies come from the central U.S. Monarchs that mature along the east coast, including those from New England that congregate on Napatree, make up only a small percentage. Ours have a harder migration than midwestern individuals and some also probably get diverted by peninsular Florida. Napatree's goldenrod (*Solidago*) and saltbush (*Baccharis halimifolia*) are valuable nectar sources for south-bound monarchs.

The common buckeye *(Junonia coenia)* is another migratory butterfly found on Napatree. In spring, buckeyes move north from Florida, breeding new generations as they come. They reach Rhode Island in mid-summer and breed a new generation here. In fall, they gather on coastal dunes and grasslands and fly south to complete the cycle. The cloudless sulphur butterfly *(Phoebis sennae)*, a medium-large butterfly that is the same striking, yellow-green color of tennis balls, also expands northward all summer to stage a retreat come fall. Once quite a rarity, these strong, direct flyers can be seen now most falls along Napatree, a climate winner.

Dragonflies are another migratory insect found on Napatree in the fall, particularly the black saddlebags, the wandering glider, and most conspicuously, the green darner. Green

Photo Credit: Hoverfly by Dr. David Gregg

darners *(Anax junius)* breed in wetlands along the Gulf of Mexico in winter, and newly emerged adults fly north to our area in the spring and lay eggs in ponds and wetlands here. Some nymphs over-winter here but others emerge and, congregating along the shore, begin an autumn flight south to restart the cycle.

On Napatree you can also find the wandering glider dragonfly *(Pantala flavescens)*, the world's farthest traveling insect. Individuals reared in Rhode Island could easily reach South America, 3,000 miles away, where they breed a new generation to make the return trip. In August 2021, tropical storm Henri blew a huge cloud of migrating wandering gliders off the ocean onto Block Island. They are found on six continents and travel over oceans so readily, they are believed to constitute a single, global gene pool.

Some flies, including blow flies, are known to migrate, but the best known is the drone hoverfly *(Eristalis tenax)*. Native to Europe, this fly has become the most widely distributed of the hoverflies (the Syrphidae). The larvae are aquatic and develop in stagnant water. Adults feed on pollen and are important pollinators as well as being food for other organisms. In the fall, drone hoverflies congregate on late flowers like goldenrod and swarms can sometimes be seen moving southwest along the coast.

As a strategy for maintaining year-round access to resources in an environment with seasons, migrations must have evolved many times, not just among vertebrates as diverse as mammals and fish, but even among insects. It's easy to see why: in seasonal environments, staying put without any survival strategy (such as migration or hibernation) pretty much guarantees your genes won't make it into the next generation. Migrating between two or more habitats with seasonally abundant resources, your genes multiply rapidly. If you see green darners zipping around Napatree in the fall, you'll know they're on their way south for warmer climes.

### CONSTANT VIGILANCE: PROTECTING WATCH HILL'S COMMUNITY CHARACTER

BY DEBORAH LAMM, CHAIRMAN



Photo Credit: Richard C. Youngken

The Watch Hill Conservancy has been protecting the character of Watch Hill since its incorporation as a nonprofit organization in 1999.

When you arrive to Watch Hill, whether for a quick visit or a longer stay, you know you have landed somewhere special. There's our own Bay Street headquarters, a beautifully restored 19th century former livery stable; the regal Ocean House perched high on a hill, seemingly keeping watch on the area; the Flying Horse merry-go-round, with its legacy of thousands of happy riders; and so much more. These are only a few of the historically valuable landmarks in the district. The National Register of Historic Places, as designated by the United States Secretary of the Interior and the National Park Service, lists more than 180 structures considered to be significantly contributing to Watch Hill's unique community character.

The American Planning Associate describes community character this way: "...(*it*) is not a static concept; rather, it evolves and develops over time, reflecting the spectrum of social values within and around the community. In this way, the community character of a city, county, town, or neighborhood can be seen as a story or narrative of a place. Planners and community members can come together to reveal and burnish this narrative through: an articulation of the historic, cultural, economic, and cultural context of the community; a commitment to the reinforcement and enhancement of the community's identity; and the implementation of policies, regulations, and incentives that support and enhance this evolving identity." (1)

In fact, every proposed change to the "...type and intensity of land use, housing, public services, aesthetic quality, and ... balance between residential and commercial use" (2) can affect community character, and most will.

The Watch Hill Conservancy has been protecting the character of Watch Hill since its incorporation as a nonprofit organization in 1999. As noted in the Conservancy's mission statement, community character is not only the built environment of an area, but also its economic, social, and environmental values as well. The Conservancy is dedicated to preserving our community's character to celebrate its history and safeguard its future. This is how we do it:

VIGILANCE. Threats to community character and opportunities to protect it are always occurring. Conservancy leadership and staff carefully follow local governing body agendas to track issues and actions that may enhance or detract from community character. We also monitor state-level forums and legislative policies that might impact the area. We strive to understand future threats and impacts to the community, such as exploring ways to protect property at high risk of flooding due to storm surge and sea level rise. KNOWLEDGE. This work requires the best possible information. The Conservancy collaborates with scientists, attorneys, historians, architects, and community partners. We spend time and money to obtain detailed title searches; stay current with local regulations like building code and zoning ordinances; understand environmental threats to residences, businesses, and open space; and embrace history as an aid to guide preservation of our built environment.

VOICE. When opportunities to strengthen and protect community character arise, or when threats to our community emerge, the Conservancy is an active and vocal participant in meetings where the issues are debated and decided.

ACTION. Years ago, the Conservancy proposed, and the Town adopted, the Shore Commercial-Watch Hill (SC-WH) zoning district, which protects the use, density and architectural features unique to Bay Street and requires a fulsome Development Plan Review for changes in the zoning district. The Conservancy, with the generous support of our members, completed the Bay Street Improvement Project, removing utility poles and undergrounding unsightly utility lines, and installing attractive historically appropriate street lighting to beautify Bay Street. The Conservancy will stand up and challenge applications for unwarranted land use approvals, permits or policies that set improper standards and bad precedent, and that will negatively impact Watch Hill's sense of place. In some cases, this has resulted in legal challenges which are arduous and expensive, but the Conservancy is committed to being a strong advocate for the community. We will not win every issue we take on, but we always do our best to make the strongest possible argument on behalf of the community.

The Conservancy will remain informed and remain vigilant to matters related to Watch Hill's community character. With its stunning vistas, natural resources, historic architecture and colorful history, Watch Hill is a unique place worthy of preservation.

#### **REFERENCES**:

(1) The American Planning Association https://www.planning.org/ publications/document/9147999

(2) New York State https://www.dec.ny.gov/permits/91813.html

## What's Ours is Yours: Informing the Community and Sharing Educational Resources

BY JOCELYN LAHEY & JANICE SASSI

We live in the information age. Each day we are peppered with news, statistics, and data relating to key issues in society, nature, history, technology, and more. There are endless resources at our hands. How does one begin to process and navigate through the wealth of information made available by experts in their fields? It helps if you have a guide.

Given the diversity of topics pertaining to the Conservancy's mission, the organization is well-postured to serve as a central purveyor of experts, programs, and resources. Making these easily accessible to all results in a betterinformed community. We have many tools to help our work.

Throughout the year, the Conservancy hosts in-person programs for any to attend, always free of charge. We spend considerable time developing these educational programs for children and adults and always make sure our presentations are of the utmost quality. Examples include the Napatree Investigators children's program, Lanphear *LIVE*!, Saturday morning nature walks, workshops teaching the use of the StormTools web platform to map sea level rise and storm surge risk along RI's coast, other special events in the Lanphear Livery and more. Whether we are sharing discoveries of Napatree's ecology and natural history, announcing



important moments in the preservation of the Watch Hill Historic District, or inviting professionals to speak about wild weather in coastal areas, shark biology, or the risks of misinformation in the media, there is a continual stream of civic events and issues we feel are important to pass along. Our face-to-face programs like those just mentioned allow us to provide a direct source of information to the community in a personal manner that builds and strengthens relationships.

Another way we work on informing the community is digitally.



Many years and many minds helped develop our online communication tools and digital resource library. The Conservancy's website has a plethora of information that ranges from Napatree species lists to online web mapping tools. You can join one of the 6,000 viewers on our YouTube channel for year-round education and entertainment. Or, if you would like to receive information directly in your inbox, you can join our nearly 1,500-person Constant Contact email list. Internet-based systems are very important to the Conservancy, and we hope you take advantage of the wealth of information we have made available to you.

Not to be forgotten is the ever-effective means of communicating information – through written materials. *The Conservator*, our annual *State of Napatree Report*, and books such as Chaplin B. Barnes' beautiful history of the area *Watch Hill Through Time* are all wonderfully prepared for your enjoyment. Also, our staff, and

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volunteer Science Advisors and their students communicate their scientific discoveries on Napatree through publications in peer-reviewed journals and presentations at professional meetings.

With so much information to share with such a variety of audiences and the diverse tools available to the Conservancy, we must be strategic in our delivery. We acknowledge the fine line between timely communication on matters of importance and becoming just another "ding" in your notifications. If you have any suggestions on how we might improve the ways we inform community, we would love to hear from you. If you want to explore the communication methods and information repositories we have presented here, please visit https:// thewatchhillconservancy.org/initiatives/informing-ourcommunity/

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## UPCOMING EVENTS



## 2023 Membership Campaign

The 2023 Membership Campaign has begun. The Watch Hill Conservancy depends on the generosity of its members and donors to support the work we do in stewarding the Napatree Point Conservation Area, preserving the unique character of Watch Hill, and informing the community.

The Conservancy is a 501 (c)(3) nonprofit membership organization, contributions to which are tax deductible. Join online at: thewatchhillconservancy.org/join or contact The Watch Hill Conservancy office directly at 401-315-5399. Thank you!

#### THE WATCH HILL CONSERVANCY 2022 COMMUNITY PROGRAMMING SPONSORS



### **SAVE THE DATE!** 2023 Celebration of Summer

Friday, June 30th, 2023 Misquamicut Beach Club

More information to come

401-315-5399 1 Bay Street, Westerly, RI 02891 info@thewatchhillconservancy.org

### www.thewatchhillconservancy.org

## NAPATREE Investigator



### FALL 2022

### WELCOME INVESTIGATORS!

Steve and Hugh hope that your school year is off to a great start. As always, we like to keep in touch with our all-star group of explorers known as the Napatree Investigators, so here we go!

#### INVESTIGATORS HAVE LOTS OF FUN LEARNING ABOUT THE OCEAN ENVIRONMENT, AND WE LOVE TALKING ABOUT OUR FINDS.

In this issue we're going to focus on some things that we did and saw that we have not seen in the past. There's a horseshoe crab that may not be dead, and a bunch of bivalves that ran in a race! Plus, we have a brand-new section to challenge your brain: the word scramble!





### THE GREAT LAGOON RACE

Some of the best times in our Investigator program happen by accident! This summer the gang took a walk up to the lagoon at the top of Napatree. (Remember: a lagoon is a small body of water separated from a larger body by a narrow strip of land.) The tide was going out, which means the water was flowing out of the lagoon. We mostly went to look for bivalves (animals with two shells, like clams and quahogs). We found lots of single shells left by birds who had eaten the animal inside. It didn't look like we would find much until one Investigator made an interesting discovery: some of the bivalve shells float!

It wasn't long before everyone began to pick up their own shell and test it for seaworthiness. And the next thing we knew, you all decided to have a race! The whole gang lined up in front of a narrow channel where the current flowed fastest. On a count of three, we set our shells off!

A few shells tied for the lead early on, even while others got caught in a side current that beached them. Others began to take on water and quickly sank. There was lots of cheering as the flotilla came down the current and worked its way out to open water. At the same time, though, some of you got a little confused about who piloted which shell! But it wasn't long before we had most of the shells floating out to open water. We really had a blast on our first annual Investigator shell race!







## A "MOLT-EN" HORSESHOE CRAB DISCOVERY

Take a close look at the animal remains in this picture. You probably recognize it as a small horseshoe crab, a creature that visits Napatree in spring and summer to lay their eggs. This one isn't alive. So did the animal die?



No! What you're looking at is called a molt. A molt occurs when an animal grows too big for its skin or shell. At some point they shed that shell and grow a replacement. That's what happened here: the young horseshoe crab grew too big for its shell (like you grow too big for your clothes) and broke out of it. Horseshoe crabs molt many times in the first year of its life. By the time it becomes an adult at about ten years old, it will have molted about 17 times!

So next time you find a non-living horseshoe crab on the beach, look closely: if it's very light and the shell seems thin, you may just be looking at an early phase of its life!



### WORD SCRAMBLE

Here's something to wake up your brain: a word scramble! All these words came from this issue of the Investigator. Can you figure them out?

1. LOMT
2. NEOCA
3. ONLOGA
4. VLABEIV
5. NVTSSROTGIIA
6. HHSSROOE BACR

## WHAT A SUMMER IT WAS!

Remember the first time you caught a crab on your rig? And you had to reach in and grab the crab just right? Whether you were brand new or a returning Investigator, we all had to use our skills carefully!

### A FEW BITS OF INFORMATION ABOUT THE PROGRAM:

We had 197 student contacts. We spent 274 contact hours with our Investigators.

It's all free and will be run next season! Stay tuned for details!