



# Friends of Mashpee National Wildlife Refuge

## Summer Newsletter 2022

### ***Girl Scouts of Ohio's Heartland Council Trip to Cape Cod***

Back in February of 2022, a group of Girl Scouts from Girl Scouts of Ohio's Heartland Council contacted the Friends of Mashpee National Wildlife Refuge (FMNWR) about a trip they



were planning this summer to Cape Cod. They sought opportunities to explore our local ecosystems outside of the typical tourist activities. The Friends arranged for them to participate in a program at MNWR Partner, the Waquoit Bay National Estuarine Research Reserve (WBNERR).



Emilie Brush of AmeriCorps planned and managed the morning activities, along with WBNERR naturalist Hannah Newcombe. The morning included viewing and learning about ospreys, seining for fish and other creatures while learning about the importance of estuaries, and a nature walk by Waquoit Bay. It was a picture-perfect morning, and the girls and their chaperones all had a memorable experience. And we're always happy to share our Refuge with visitors from near and far!



# Mashpee Wampanoag Tribe Preserving Our Homelands (POH) Camp

On July 20th, the US Fish and Wildlife and partners had the opportunity to participate and lead activities for the Mashpee Wampanoag's "Preserving Our Homelands 2022 Tribal Youth Summer Camp." Staff from the Eastern MA NWR Complex were joined by several partners including Friends of Mashpee National Wildlife Refuge, Massachusetts Department of Conservation and Recreation-Bureau of Forest Fire Control and MassWildlife.



After the opening ceremony, the participants and camp attendees started the day by planting native wetland and upland species in a rain garden next to the Mashpee Wampanoag Tribal Government Center. Some of these species include Red-Osier Dogwood, Prickly Pear, and Buttonbush. When all the planting was done, the participants spread native wildflower and grass seeds in the empty areas, and the Forest Fire Control crew watered the rain garden.



In the afternoon activities included archery and a seed ball making project. Seed balls, which consist of seeds rolled within a ball of organic materials, can be used to replant areas where natural flora has been destroyed. The wildflower seed mixture used for the activity included wildflowers native to the northeast, such as White Yarrow, New England Aster, and Cornflower. These seeds will grow into plants that give local pollinators food, shelter, and a place to lay their eggs. In return, the pollinators will help these plants reproduce!

*[POH article contributed by: Hermary Gonzales, Visitor Services Intern/USFWS]*

Postnote: The summer drought and heat was a challenge to give the new plants the head-start they needed, but thanks to efforts by the Friends and Wampanoag Natural Resources Department, we were able to set up irrigation and the 400+ plants in the new "rain garden" are thriving! Thanks again to all who participated and made the day a success and especially to MaryKay Fox of FMNWR for her extensive research, procurement and early care of the plants.

**Before:**



**One month later:**



# Osprey Cam Update!

A lot has happened since the installation of the osprey nest cam. First, let's rewind a bit! The camera installation was completed by Comcast in March at the Waquoit Bay National Estuarine Research Reserve (WBNERR). The nesting pair returned shortly thereafter on March 21<sup>st</sup>. In April, a total of four eggs were laid over the course of about a week (the final egg on Earth Day, April 22<sup>nd</sup>).



In April, we held an online naming contest, and the adult pair were dubbed Rachel and Carson, after the famed environmentalist (see article below for more about Rachel Carson).

The first egg hatched on May 23<sup>rd</sup> with some help from Rachel moving parts of the shell aside. She sat on the chick most of the day keeping it warm along with the other eggs. The second chick emerged the following day, and the third followed a few days later. Rachel has had her hands full feeding the chicks when they are hungry and Carson has done an excellent job hunting for them. The chicks grow amazingly fast!

Each day the chicks continue to grow more and more and are shedding their baby



feathers. Unfortunately, the fourth egg never hatched and has since been pushed to the side of the nest. We are unsure why it never hatched but are thankful the other three did. Osprey on average lay three eggs, so Rachel and Carson were right on track.

Fast forward to July, the chicks have fully lost their baby feathers and are now starting to look like young adult osprey. To tell the difference between the juveniles and the adults, the juveniles are just slightly smaller and have amber colored eyes, versus the intense yellow of adults. The feathers of the juveniles are also tipped in white.

In July, Carson and sometimes Rachel, have continued to be the providers of meals for the offspring. The chicks, however, have learned to pick the fish apart on their own.

The first chick fledged (flew off the nest) on July 20 and the others followed as expected within a few days. These monumental milestones occurred right on schedule, about 8 weeks after hatching. Their first actual flights were preceded by a lot of practice – first spreading and stretching their wings, then wild wing-flapping while jumping up. The final lift off was quite a sight! All of this was captured on the live cam and recordings are available on our “Season One” highlights!

We've also observed some other interesting phenomena. There is a second active osprey nest in a chimney on the Visitor Center building of the Waquoit Bay Reserve, about 100 yards away from the camera nest. There may be some relationship between the birds in the two nests. In June, the camera nest had a female visitor, which was well tolerated by the adults, who almost seemed eager to "show off" the young hatchings. Then in July, a fourth juvenile, most likely a fledging from the chimney nest, occupied the camera nest for nearly two days. A variety of theories have been suggested – it's possible the chicks in the two nests are all cousins or some other extended family members.



Now, in late August, we have mostly an empty nest, with occasional visits from Rachel, Carson or one of the juveniles. We miss seeing them every day, but know that they are busy preparing their skills for their September migration.

Looking ahead, the entire osprey family will fly south, separately, to spend the winter in the Southern hemisphere. The young will spend the following year developing more and using the survival skills that Rachel and Carson taught them. In two years, the young will make their way back North and build their own nests. Scientists have found that offspring will build their own nest within a 3 mile radius of their parent's nest. Rachel and Carson should also return to the same nest after their migration. We look forward to welcoming them back next March! We'll keep a close eye for their return.

To keep up with Rachel, Carson and the growing chicks, you can watch our live cam found on the Friends of Mashpee National Wildlife Refuge website. Also, keep up with our highlight clips on any important video footage that is caught.

## ***So who was Rachel Carson anyway?***

Rachel Carson was a writer, scientist and ecologist, perhaps best known for her 1962 book *Silent Spring*, which inspired the modern environmental movement. Her background and research in marine biology brought her to Cape Cod, where a statue of Carson sits in Waterfront Park in Woods Hole. She challenged how humans, in government, industry, and as individuals, were misusing dangerous pesticides and chemicals leading to near-catastrophic harm to the environment. Carson wrote several books, many scientific articles, and pamphlets on conservation,



advocating for responsible treatment of the natural world. Despite significant criticism and pushback during her time, she had the courage to stand firm

Rachel Carson died in 1964, before she was able to see the impact of her crusade. Her legacy, however, ultimately led to the ban of DDT and other chemicals which brought the osprey to near extinction. Today, thanks to Rachel Carson, ospreys, and many other species, have made a monumental comeback on Cape Cod and across the world. Her lasting impact will continue to inspire generations to come in their appreciation of the natural world and the importance of its protection. We were proud to name the osprey pair that can be viewed on our webcam, Rachel and Carson, after this amazing woman who had such great influence on environmental advocacy.

## ***Creature Feature***

### ***Atlantic Sand Fiddler (“Fiddler Crab”)***

The Atlantic sand fiddler is one of many species belonging to the family Ocypodidae. The species is what we commonly find in the mud flats and shorelines of Cape Cod and other areas in Eastern Massachusetts.

Atlantic sand fiddlers are mostly white to yellowish white. Male fiddlers are brighter in color, with a purple grey or blue shell carapace with irregular markings of brown or black. They also bear one greatly enlarged pincer, either on the right or left side. This giant pincer is used for combat or mating rituals. You can easily see how their oversized claw resembles a fiddle. Female fiddler crabs have equal-sized claws and are generally more subdued in coloration. Sand fiddlers are only about 1 to 2 inches wide. The pincer claw on the males can be much larger than the body, measuring about 4 cm long.



These little creatures are found in strongly brackish to saltwater habitats all along the eastern seaboard. They like to live in the low marsh, which have sediments that are covered by water during high tides. Each crab lives in their own hole or burrow that it dug by itself. The burrow can be closed with a mud cap for security. During low tide, the fiddlers abandon its dwelling to search for food, but never stray very far unless it is to court a female or scare away an intruder. They keep a keen eye out for threats and quickly return to their burrows as needed. They are also colonial and can be found traveling together, sometimes in the thousands, when feeding. The aeration that their burrows provide to the sediment play an important role in salt marsh ecology, keeping the marshes clean.

Breeding occurs every two weeks for most of the summer. Reproduction occurs in burrows similar to the ones fiddlers live in, but larger and better-maintained. Two crabs mate and then after an incubation period, the female Sand fiddler will return to the surface and release her eggs, up to a quarter million, into the water where they will continue their development and hatch after several months. Eventually, new adult crabs will return to land to live out their lives in the marshes.

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*Thanks to Emilie Brush, AmeriCorps Cape Cod Year 23 member,  
for her contributions to this edition.*

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**SAVE-THE-DATE!**

National Estuaries Day Celebration - Sunday, September 18



*Celebrate  
Osprey & Estuaries*

**National Estuaries Day**

Sunday, September 18th  
12:00pm - 3:00pm

Join us at the Waquoit Bay Reserve for a fun family event. Something for everyone including games, coastal crafts, live music, osprey lecture, and refreshments.



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***2022 Friends of Mashpee NWR Board of Directors:***

Glenn Davis, President  
Nancy Church, Clerk  
Thomas Fudala

MaryKay Fox, Treasurer  
Joan and Neil Barkin  
Katelyn Cadoret



# Friends of Mashpee National Wildlife Refuge

## Membership Form

YES! I want to support the **Mashpee National Wildlife Refuge** - enclosed are my dues as checked below.

Name: \_\_\_\_\_

Phone: (H) \_\_\_\_\_ (C) \_\_\_\_\_

Street: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Email: \_\_\_\_\_

Date: \_\_\_\_\_

Enclose payment for the membership - please make checks payable to: **FMNWR**  
Mail to: **FMNWR, P.O. Box 1283, Mashpee, MA 02649**

### Thank you!

- |   |  |
|---|--|
| <input type="checkbox"/> Junior (18 and under) - \$10 | <input type="checkbox"/> Refuge Sponsor - \$500    |
| <input type="checkbox"/> Individual - \$25            | <input type="checkbox"/> Lifetime Gift - \$1000    |
| <input type="checkbox"/> Family - \$50                | <input type="checkbox"/> Corporate Gift - \$ _____ |
| <input type="checkbox"/> Conservation Friend - \$100  | <input type="checkbox"/> Other - \$ _____          |
| <input type="checkbox"/> Wildlife Sponsor - \$200     |  |

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## Volunteer Form

I would be interested in the following opportunities listed below:

- Webpage
- Fundraising and Events
- Stewardship Projects
- Newsletter
- Native Pollinator Gardens
- Education Talks/Walks, Events at Schools
- Other \_\_\_\_\_

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The Friends meet monthly on the first Tuesday at 5pm on Zoom. Please join us and get involved with Refuge projects, Friends group, pollinators, and community events! If interested, email us at [info@friendsofmashpeenationalwildliferefuge.org](mailto:info@friendsofmashpeenationalwildliferefuge.org) for a Zoom invite.