CHESAPEAKE WILDLIFE HERITAGE

Habitat works

The newsletter about designing, building, and managing wildlife habitats to achieve improved wildlife populations and a healthy Chesapeake Bay.

Fall 2025

Once an agricultural field, this restored non-tidal wetland increases habitat for wildlife and improves water quality of the Bay.

A Wetland Success Story - CWH & Pickering Creek

By Nancy Wright

Chesapeake Wildlife Heritage (CWH) designs, restores, and manages wetlands in the Chesapeake Bay region. One Talbot County project you may not be aware of is our restoration of approximately 85 acres of freshwater wetlands at Pickering Creek, north of Easton, Maryland, over the last decade. Pickering Creek is a beautiful 450-acre wildlife sanctuary and environmental education center open and free to the public.

"CWH was invaluable in helping us design and build our freshwater wetlands and establish our meadows," said Pickering Creek Executive Director, Mark Scallion. "In fact, they will be coming soon to spot spray sweet gums in our meadows and spray phragmites."

(continued on page 2)

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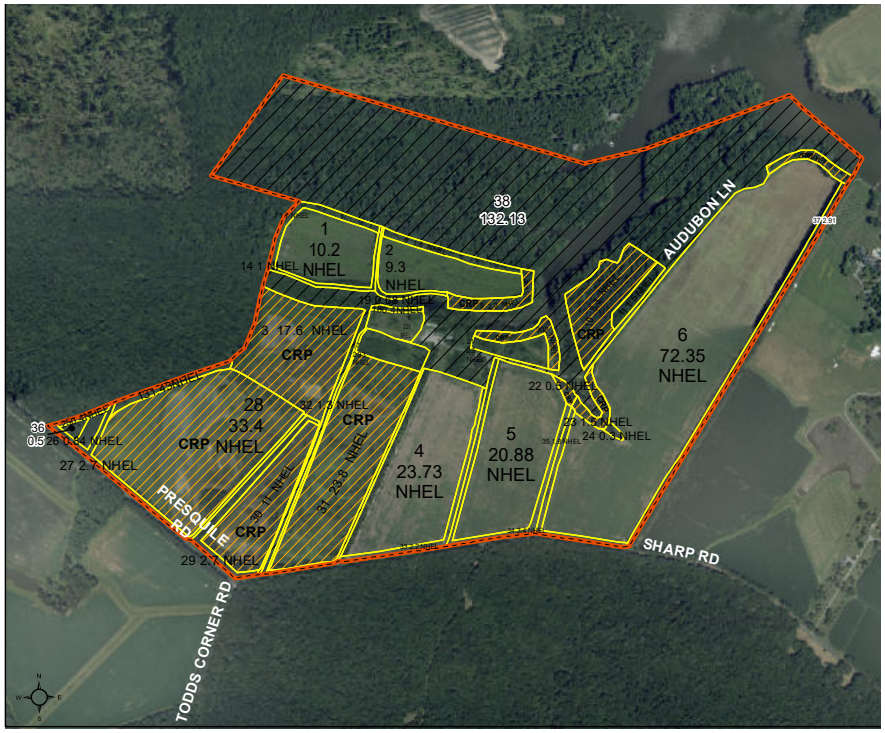


Approximately 85 acres of wetland and 20 acres of old field habitat were restored for woodcocks and other early successional species.

How was this project funded?

CWH used the U.S. Department of Agriculture's Conservation Reserve Enhancement Program (CREP) program, along with additional funding from several other partners (Biophilia Foundation, Maryland Department of Natural Resources, National Fish and Wildlife Foundation, and The Waterfowl Festival) to implement the Pickering Creek wetland restoration.

Today, CREP opportunities for landowners may be in jeopardy. The administration may reduce funding to the conservation program, which combines federal and state resources to restore wildlife habitat and improve water quality.The initiative has stringent requirements and faces limitations and statutory acreage caps.CREP/CRP has enrolled over 31 million acres of private land for conservation efforts in the past, which includes significant contributions to wildlife habitat and has proven to be a lifeline for a diversity of wildlife species.

Pickering Creek is an example of what CWH can accomplish using a great government program! Their marshes and meadows, with elevated viewing platforms, have become a birding and pollinator hotspot for chickadees, herons, ducks, geese, owls, swans, eagles, kingfishers, swallows, woodpeckers, bees, and butterflies.

This makes them an official and important bird area. There are seven different hiking trails for the community to explore and a canoe/kayak launch.Pickering Creek conducts outdoor educational conservation programs about wetlands, habitats, and native plants, as well as hosts summer camps for students in grades K-7.

Plan your visit to see what we do at pickeringcreek.org. •

ASK ANDI

By Andi Pupke, Education & Outreach Director

Q: An Opossum is living around my backyard. Will it injure or spread diseases to my pets?

A: The short answer is no. However, many dogs enjoy hunting opossums, and if given the chance, they may harm or even kill it.

Virginia opossum, *Didelphis virginiana*, may look fierce if you approach one, but they are one of the least aggressive animals around. A bite from one is very rare.They are shy and secretive, mostly active at night. About the size of a house cat with shorter legs and large ears, they have a long, pointed muzzle and a long, prehensile tail. They have white hair and black under fur, which gives them a grizzled appearance. Their name is derived from a term for a white animal in the Algonquian language.

Opossums are omnivores, eating a wide variety of foods. Their diet includes insects, small mammals, eggs, fruits, vegetables, nuts, seeds, and carrion. They get into human garbage and pet food if allowed access.

They are truly a fascinating critter, as North America's only marsupial! Opossums carry their newborn young in a pouch until they outgrow it, and then they ride on their mother's back while she searches for food. **They do not carry rabies because their body temperature is too low for the virus to survive.**

They are immune to rattlesnake venom! While they may ingest a few ticks while grooming, most studies show that they are not voracious tick consumers.

They are very clean animals and groom themselves like cats, in addition to keeping a tidy den. When approached by a predator, they will show their teeth and produce a clicking noise by forcing their teeth together and then growl, hiss, and drool. If this display does not turn the predator away, they will pass out from extreme anxiety and produce a smell like a corpse.This is considered playing opossum. •

An Opossum takes shelter from the rain inside a cavity of an old oak tree.

Here are things we can do to help protect opossums:

- They eat a great number of insects and grubs, so do not use insecticides on your property.
- Opossums are primarily nocturnal, so watch out for them when you are driving at night.
- Keep lids on your garbage cans and pet food containers.

Using Agriculture Drone Technology Boosts Our Productivity

by Ned Gerber

Chesapeake Wildlife Heritage has been using agricultural drones for several seasons to perform efficient land management tasks. We have found them to be precise and cost-effective tools that have earned a permanent spot in our diverse menu of options for wildland manipulation.

Phragmites control on a large salt marsh (like the one at our Barnsable Hill refuge) is a challenging and expensive undertaking, even under favorable conditions. We employed a rubber-tracked gator with good results for years, but it easily became mired in numerous soft spots. Helicopter spraying is expensive, hard to schedule, extremely noisy, and requires a good landing zone to operate safely.

Using the ag drone, we can cover about 1 acre of phragmites with glyphosate per trip with no fear of getting stuck. The drone also leaves no soil compaction or disturbance on the wetland. The landing zone is minuscule. The noise is negligible.

Phrag spray season can be brutally hot and humid, and the drone operator minimizes his exposure to

the elements, insects, and herbicide. The drones have also been very effective in controlling sweet gums and other invasives in large wetlands and meadows in August and September.

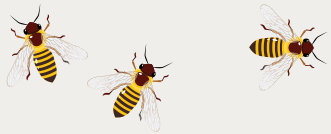
Overseeding is another task where the ag drones are very useful. We often broadcast clover into a standing crop in August/September to establish a cover crop or clover meadow for the following growing season. Seeding rates vary depending on the species used, but in one trip, the drone can cover 4-15 acres. Similarly, when we frost seed clover in the spring (February/March), the drone proves extremely beneficial as there is no need to worry about traveling across wet, muddy ground. We have spread clover into CREP (Conservation Reserve Enhancement Program) buffers and wetland meadows in March (to meet USDA's Farm Service Agency mid-contract requirement) with success and have not had to worry about rutting up the land with ground equipment.

One of the nicest aspects of ag drone use is the ability for the landowner or manager to stand with the drone operator, see what the drone sees live via camera, and make decisions in real-time as to what to seed/spray. This kind of instant flexibility is simply not possible when hiring a helicopter or plane. While the drone will not replace airplanes or helicopters for large seeding or herbicide work, consider it for smaller seeding jobs and careful spot spraying on your property. •

CWH's Fight Against Neonics

Neonicotinoids (neonics for short) are a class of highly toxic insecticides usually applied to seed coatings or NSTs. (Neonicotinoid Seed Treatments). They are not well regulated due to a loophole in the Federal Insecticide, Fungicide, and Rodenticide Act, which exempts seed coatings. In almost all U.S. farming, neonic seeds are used. The USDA (2025) reports that:

- Almost all the corn and sunflowers you see planted in Maryland are grown with neonicotinoid-treated seed.
- Many of the soybean acres planted use neonic-treated seeds as well.



A 2020 Cornell University Neonicotinoid Assessment found a lack of economic justification. Here's an excerpt below from the study:

> *Treated seeds are commonly used as a preventative measure rather than in response to site-specific risk from pests. While seed treatments benefit farmers where there is a high early-season pest pressure, these benefits are limited to a small proportion of fields. Specifically, 87-93% of field trials find no increase (or a decrease) in corn yield compared to chemical alternatives or untreated controls when neonicotinoid-treated seeds are used in corn fields within the state, region, or North America. Even when compared to plots using no insecticides, 89% of field trials find no increase (or a decrease) in soybean yield compared to chemical alternatives or untreated controls when neonicotinoid-treated seeds are used in soybean fields within the state, region, or North America. Nevertheless, neonicotinoid-treated seeds are used by nearly all conventional field corn farmers, and likely, the majority of soybean farmers.*

Chesapeake Wildlife Heritage is farming with the health of pollinators in mind. We do not use neonics!

We are committed to educating the community about neonics because the insecticides are absorbed into plants and are a threat to the pollinators that collect pollen. They are also responsible for soil contamination, bird and fish sub-lethal impacts, and runoff into sensitive wetlands, impacting aquatic invertebrates. They are highly water soluble and readily taken up by flowering plants in field buffer strips, where they are then ingested by insects through pollen and nectar consumption. Research at Purdue University shows that treated seeds may lose up to 95% of the pesticide to the environment. Also see the Xerces Society research report on bee toxicity.

Avoid using insecticides on your property. Choose a native plant nursery that carries non-neonic plants. •

CWH Joins Global Motus Network to Advance Wildlife Research

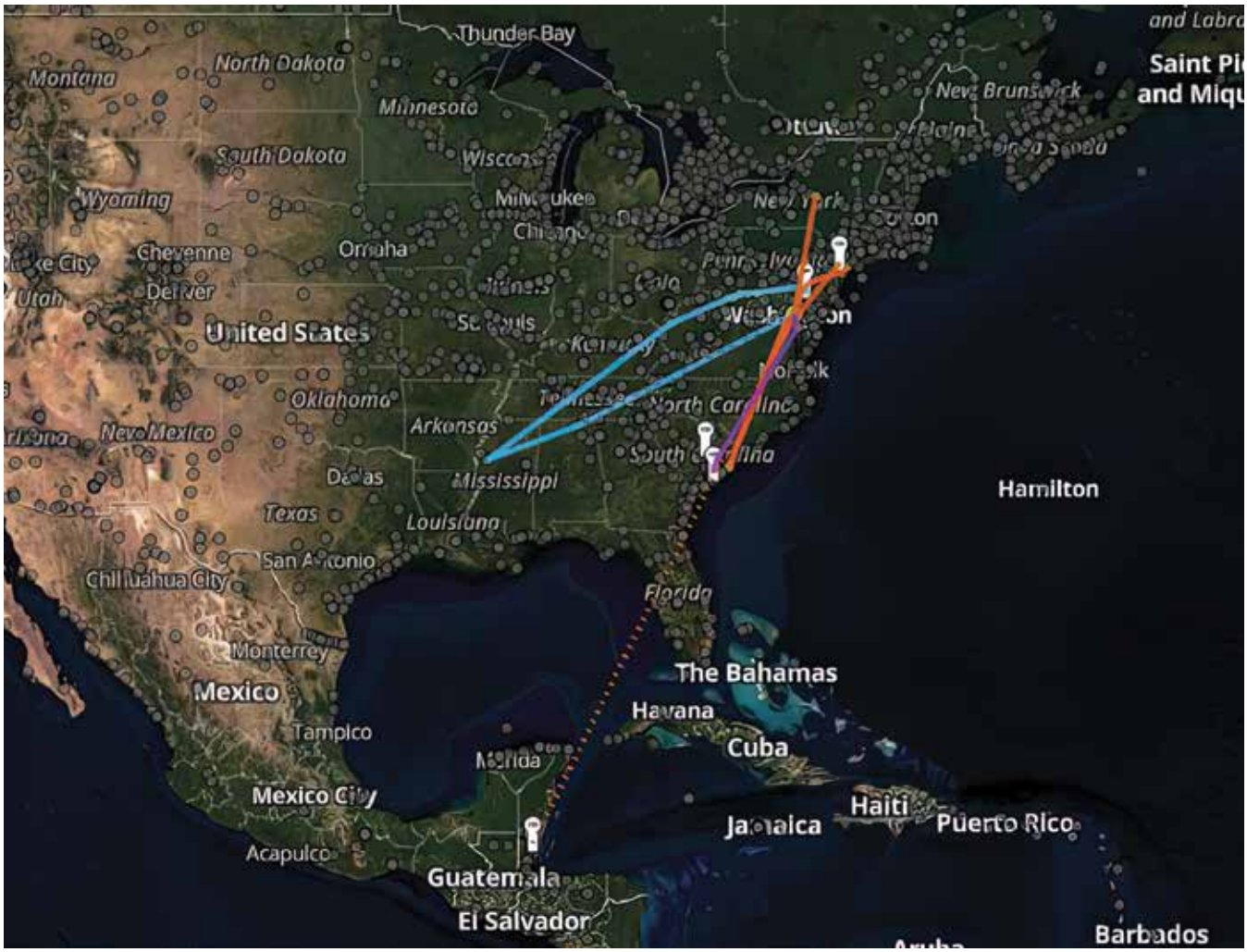
by Ned Gerber

Chesapeake Wildlife Heritage installed a Motus tower at our Barnstable Hill Farm sanctuary over the winter and began collecting data in April of 2025. Thanks to a generous donor, we are now part of an international research network supporting conservation.

Motus (which in Latin means "movement") is a project of Birds Canada that tracks migratory creatures, such as birds, dragonflies, bats, and even Monarch butterflies, through attaching small "nanotags" (which use advanced digital radiotelemetry) to migratory species.

When tagged wildlife passes within range (3–9 miles) of a Motus tower, the data is recorded at the local station and sent to a master database where it is distributed and viewed by the public. The small size of the tags (think a grain of rice) allows the movements of very small animals to be monitored cost-effectively.

Satellite tags are also fantastic tools, but are too large to place on smaller creatures like shorebirds and insects. They cost $2k–$10k, whereas a Motus tag costs about $250. Motus is helping us to learn more about migration routes and stopover areas at a time when migratory creatures face a gauntlet of threats.



Visit the Motus website (motus.org) and view the data from any station you like, and migratory maps of many birds! For example, if you go to the site and click on "stations" and then enter "Chesapeake Wildlife," you will see information about the few birds we detected this spring.

One grey catbird was tagged in Belize, passed through our farm, and ended up near the Utica, New York zoo.

Enjoy learning about migration! •

Meet our Summer Intern

We're thrilled to introduce you to **Sebastian Borland**, a rising junior at St. Mary's College of Maryland. He's studying environmental sciences, but while he's been at Chesapeake Wildlife Heritage, he has helped save ospreys, farmed the land we own, planted meadows with native plants, managed wetlands, and worked on other wildlife restoration projects. He's been invaluable to our field team. ***We're going to miss you, Sebastian. Have a great year!*** •

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