

Habitat works

The newsletter about restoring, managing and protecting wildlife habitat.
Fall 2015



This Monarch Caterpillar was found eating Milkweed in a meadow CWH restored near Church Hill, Maryland. While the caterpillars enjoy Milkweed, adult Monarchs need many other species of flowers to provide food throughout their life. CWH encourages landowners not to mow meadows until at least the first killing frost to help provide migrating Monarch Butterflies with sources of nectar.



Habitat Works is published by Chesapeake Wildlife Heritage, a 501(c)(3) nonprofit conservation organization dedicated to restoring, managing, and protecting wildlife habitat and establishing a more sustainable agriculture, through direct action, education and research, in partnership with public and private landowners. We welcome your comments and contributions.

CWH Helps Monarch Butterflies

by Andi Pupke

Monarch Butterflies have suffered a 90% loss in their population in the past twenty years. This drastic decline is mainly due to habitat loss through intensive land management and development. CWH is working with landowners throughout the Chesapeake Bay region to create and reestablish critical habitat for Monarchs.

Since our founding, CWH has restored over 1,800 acres of shallow-water wetlands and 6,000 acres of native meadows—not to mention numerous backyard habitat projects such as butterfly gardens. All of this habitat benefits Monarchs by providing sources of food and places for egg laying.

There are many ways to help Monarch Butterflies, ranging from large wetlands or meadows to a small butterfly garden. Planting Common Milkweed, (*Asclepias syriaca*) is one simple way to help. Milkweed is the host plant for Monarch caterpillars. The female Monarch lays her eggs on the leaf of the Milkweed. Once the caterpillar hatches, it begins to eat the plant until it reaches the size that it can form a chrysalis and become an adult butterfly.

After establishing habitat, one of the worst mistakes landowners make is the timing of their vegetation management.

Fall mowing or other disturbances in the meadow can be a big problem for wildlife, especially Monarchs.

Summer generations of Monarchs are still breeding in early to mid-September in the mid-shore area. This means that monarch caterpillars are still feeding on Milkweed and adult Monarchs are still feeding on the flowering plants in the meadow. Late blooming flowers like asters, golden rods and Eupatorium can be a critical nectar source to migrating monarchs.

It is best for Monarchs and many other wild critters to only mow after the killing frost (but preferably not until February or March) and then only mow portions of the meadow each year. This mowing schedule will allow for some cover to remain standing throughout the winter and save some of the insect eggs that may be waiting for spring in the meadow. As a rule we suggest waiting to mow until after Thanksgiving on wet ground, February/ March on dryer land; and then only mow a patchwork area within a meadow.

By providing a little habitat for Monarchs in your own yard or farm, you can help these beautiful creatures complete a miraculous journey. If you would like to establish a milkweed patch, create a meadow or restore a wetland to help Monarchs, please contact us.

(see more about Monarchs on page 2)



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CWH Helps Conduct Research to Learn More about Monarch Migration

by Andi Pupke

On a quest to gather data on the migration patterns of Monarchs, Chesapeake Wildlife Heritage has been tagging migrating Monarchs since 1999. This work is part of a larger study conducted by the University of Kansas.

One of the Monarchs tagged by CWH at our Barnstable Hill Farm in Chester, Maryland one fall was recovered the following spring in the El Rosario Monarch Butterfly Sanctuary near Angangueo, Mexico—a 1,960 mile flight from Chester. Other Monarchs tagged by CWH in Queen Anne's County have been found to have made similar journeys.

By providing habitat and delaying mowing until the winter, you can help more Monarchs make this incredible journey.



CWH tags Monarch Butterflies to help researchers better understand their migration habits. Thousands of acres of habitat that benefit Monarchs have been restored by CWH. This photo was taken at one of CWH's Monarch workshops held in September 2015.

Former CWH Board Member, Bob Reynolds, Leaves a Wild Legacy

Bob Reynolds always loved wildlife. Whether watching penguins in the Galapagos Islands or photographing terrapins while on his belly in his yard, Bob was fascinated by the natural world. That love and fascination will live on thanks to Bob's generous bequest to CWH's Endowment Fund.

When Bob was a Board member for CWH he was instrumental in establishing CWH's endowment. After his death in 2014, he left a legacy to CWH in his will. The funds from that bequest have been placed in the CWH Endowment Fund to help ensure wildlife will always have an advocate.

CWH's Executive Director, Ned Gerber, said, "Bob was always very generous with his time. He was a dedicated Board member whose opinions and advice were always sought. His legacy will allow CWH to continue to do more good work for wildlife in the years to come. CWH sends our most heartfelt gratitude to his widow, Phoebe, and their children."



Barred Owl Photo Courtesy of Larry Hitchens

Ask Andi:

Questions and answers about wildlife by Andi Pupke,
Education and Outreach Director

Q: Will Barred Owls use a man-made nesting box?

A: Barred Owls (*Strix varia*) may use man-made nesting boxes in our area. But then again, they may not! While there are some records of Barred Owls using nesting boxes in the Mid-Shore region, there is greater success with manmade boxes farther south (the Carolinas and south).

They have fairly large home territories that can overlap up to one square mile with other Barred Owls, but their breeding territory is smaller. They will move out of a territory when a Great Horned Owl is nearby.

Barred Owls typically nest in tree cavities and prefer mature, very dense woods or heavily wooded swamps. These “Hoot Owls” will use an abandoned nest of a Red-shouldered Hawk or a Crow. They will even nest close to a Red-shouldered Hawk without conflict.

So bottom line—if you have a large, densely-wooded area that is the best place to mount your nesting box. Barred Owls normally nest 20-30 feet above the ground.

A Big THANK YOU to Sarah Mara

Each morning that Sarah Mara arrives at CWH’s office at the old Railway Station in Easton, our staff is delighted to see her and is grateful for the time she dedicates to supporting CWH. Sarah volunteers in the office with all manner of projects that helps CWH field staff work for wildlife and the Chesapeake Bay. While she spent her summer in her beloved Thousand Islands, she returned this fall and has been busy a few mornings each week.

Thank you Sarah for all of your work!

CWH Restores More Wetlands at Audubon Center

Chesapeake Wildlife Heritage recently completed another wetland restoration at Pickering Creek Audubon Center near Easton, Maryland. CWH has partnered with Pickering to restore 90 acres of wetlands in the past decade. The wetlands provide outstanding habitat for a whole host of birds, including ducks and shorebirds. Pickering has become a prime birding spot on the Mid-Shore since the restorations began. The 15-acre wetland restoration is the third completed through this partnership. CWH also created a 20-acre warm-season grass meadow as part of the project. Funding for the Pickering project was provided by

the Chesapeake Bay Trust and USDA's Conservation Reserve Enhancement Program (CREP).

The new PCAC wetland was designed with a portion to be managed for shorebirds and other wildlife that like mudflats (barn swallows, butterflies, etc.).

A common problem in shallow wetland restoration is that after a year or two all of the shallow areas become completely vegetated leaving very little, if any, available mudflats. At PCAC we created an area

which will allow for easy equipment access to perform mudflat maintenance.

A series of three- to five-foot-tall berms were also built around some of the wetland edges. These are designed to be planted with grasses and shrubs to help screen wildlife from the many human visitors to the wetlands each season. Many students have already participated in establishing the plant portions of these natural screens to the new wetland.

Below are a pair of photos, a before and an after, of the wetland project. The before photo shows the old ag field with sorghum stubble still present. The after photo shows the same field post restoration.

CWH restored a 15-acre wetland at Pickering Creek Audubon Center. This pair of before-and-after photos shows the difference in the landscape—a difference that benefits wildlife and water quality.



Before the restoration at Pickering Creek—ag field with sorghum stubble

Judge Burka, Longtime CWH Board Member, Passes Away

Judge Alfred Burka was a great champion for wildlife and the Chesapeake Bay. He sat on the CWH Board for more than two decades. More importantly, he was a thoughtful steward of his beloved Jacobus Creek Farm in Kent County, Maryland, working with CWH to improve water quality and increase wildlife habitat on the farm. Judge Burka passed away on December 31, 2014 at the age of 86.

A Washington, D.C. native, he graduated from Georgetown University and Georgetown Law School. Soon after graduation, he left his law career to serve in the Korean War. He was awarded the Bronze Star during his combat duty. In 1967 President Lyndon B. Johnson appointed Judge Burka as a Federal Judge in the Superior Court for the District of Columbia.

CWH's Chairman of the Board, Larry Albright said, "Judge Burka was a committed conservationist. Judge did not just talk about conservation—he did it on his own farm. His sage counsel at CWH will be missed; as will his sterling sense of humor."



Judge Burka provided habitat for wildlife, including a very rare nesting pair of Hooded Mergansers, at his Jacobus Creek Farm in Kent County, Maryland. *Photo courtesy of David Judd*



Same field at Pickering Creek after the wetland restoration

Agriculture is Biggest Polluter of Mid-Shore Rivers According to USGS

by Chris Pupke



CWH helps reduce nutrient pollution by loaning our nutriplacer to Crop Production Services in Centreville, Maryland. CPS uses the nutriplacer to carefully inject fertilizers below the surface of the ground—a technique that can significantly reduce fertilizer run-off into local ditches, streams, creeks and rivers.

By far the biggest source of nutrient pollution fouling the rivers in the Mid-Shore Region of Maryland (Chester, Corsica, Wye, Tred Avon and Choptank rivers) is agriculture. This is the conclusion of a major study by the U.S. Geological Survey released in May 2015.

Nutrient pollution is one of the prime causes of the degraded health of the waters of the Chesapeake Bay and its tributaries. Excess nutrients (nitrogen and phosphorus) create dead zones in the waters of the Chesapeake—causing great damage to wildlife in the Bay.

Agriculture is responsible for more than 80% of the nutrient pollution in the Choptank River. It contributes 87% of the nitrogen load and 95% of the phosphorus load in the Chester River. These rates are among the highest in the Nation the study noted.

Nutrient use grew significantly in the second half of the 20th Century. The USGS study notes that in 1950 less than 10,000,000 kilograms of nitrogen per year were applied in fertilizer while in 1980 that figured had exploded to 60,000,000 kilograms per year on the Delmarva

Peninsula. It is not a coincidence that this is the period of time when the Bay suffered its greatest decline.

Nutrient applications have exceeded crop needs for the past 30 years. The excessive use of fertilizer is not only creating dead zones in the Chesapeake Bay but is also costing farmers money. Fortunately, addressing agriculture-related pollution is the most cost-effective way to reduce nutrient pollution.

Chesapeake Wildlife Heritage has been working for the past three decades to address nutrient pollution from farming. By working with landowners and farmers we are helping improve water quality in the Chesapeake.

CWH has restored more than 1,800 acres of wetlands and planted 6,900 acres of riparian buffers.

The Smithsonian Environmental Research Center concluded that CWH's restored wetlands can filter as much as 70% of the nitrogen and 50% of the phosphorus pollution that enters them. According to the

Maryland Department of Agriculture, each acre of buffers will prevent 120 pounds of nitrogen and 10 pounds of phosphorus from fouling the waters of the Chesapeake Bay annually.

Furthermore, we work with farmers to plant cover crops and use other innovative techniques that reduce nutrient pollution. Our partnership with Crop Production Services in Centreville, Maryland makes CWH's nutriplacer available for area farmers to use in their farming operation. The nutriplacer is a specialized piece of farm equipment that helps farmers reduce nutrient runoff by carefully placing the fertilizer under the surface where it is less likely to run off and into the Bay.

The problem of farm pollution is not unique to the Eastern Shore. If we fail to address nutrient pollution from farm runoff, we will fail to restore the Chesapeake Bay.

A link to the USGS study (*Understanding Nutrients in the Chesapeake Bay Watershed and Implications for Management and Restoration of the Eastern Shore* by Scott W. Ator and Judith M. Denver) can be found on CWH's website.

CWH's Partnership with the Wildlife Foundation of Virginia Continues to Increase Wildlife Habitat at Fulfillment Farms

by Austin Jamison, CWH Blue Ridge Division

Since 2007, CWH has partnered with the Wildlife Foundation of Virginia to restore habitat for wildlife at their Fulfillment Farms. The first habitat restoration project was the creation of a 45-acre native, warm-season grass meadow that was completed with assistance from the USDA's Conservation Reserve Enhancement Program. Four years later, in 2011, CWH restored a 6-acre, shallow emergent wetland in a heavily ditched and drained floodplain field along Ballinger Creek, a tributary of the James River.

Now CWH and WFV are back at it again, restoring another 5.5 acres of shallow emergent wetlands immediately adjacent to the previous wetland project. The slope of the field had precluded restoring hydrology to the whole field with one impoundment, so only the bottom half of the field was restored in 2011. But ditching, artificial drainage, and seasonally wet soils extended

up throughout the length of the field, offering the opportunity to restore another wetland in the same field.

The process is similar to the way CWH designs and builds most wetlands. A field soil investigation confirms the presence of poorly drained and hydric soils. A topographic survey of the field is then conducted to determine potential water depths, feasibility of restoration, and eventually a design. That design is used to create a project budget and to secure the appropriate permits. Funding for the project was received from Luck Companies Foundation and the Virginia Department of Game and Inland Fisheries Migratory Waterfowl Stamp Grant Program—the main supporter of the 2011 project.

The wetland will be fitted with a water control structure to allow seasonal water-level manipulations. Drawing the water level down slowly in the spring exposes mudflat areas to shorebirds and insects and allows

for the germination of annual plant species. The plants, along with the invertebrates that feed on them, will serve as a valuable food source for waterfowl in the fall when the impoundment slowly fills back up. Having the ability to draw down the water in the summer also allows for periodic mowing, discing and spot spraying to control woody and invasive plants and keep the wetland in an emergent, herbaceous state.

Excavation began this fall and should take about two weeks. By this winter, almost 12 acres of shallow water habitat will be available for migrating waterfowl in the area.

Fulfillment Farms is open to the public on a no-fee, permitted basis. The property enjoys visitation by birdwatchers, hikers, horseback riders and hunters. For more information on the WFV or Fulfillment Farms, visit their website vawildlife.org. For more information on wetland restoration, please contact CWH.



CWH is restoring 5.5 acres of wetlands at Fulfillment Farms near Esmont, VA. The newly restored wetland is adjacent to a 6-acre wetland (above) restored by CWH in 2011.



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Donating appreciated stock is an excellent way to support CWH, the Bay and our wildlife. This type of donation is very simple and allows you to take advantage of tax laws to maximize your gift to CWH and reduce your taxes.

For example, Mrs. Smith purchased stock for \$5,000 several years ago. Today, this stock is worth \$20,000. If Mrs. Smith sells the stock, she would have a \$3,000 capital gains tax (20% of the profit from the sale of the stock). However, if she decides to donate the stock to CWH, Mrs. Smith would receive a charitable deduction for the full fair-market value of the stock (\$20,000). For someone in the 28% tax bracket this donation would provide a \$5,600 tax savings. In the end, Mrs. Smith's tax bill is \$8,600 less and CWH gets a terrific gift that will benefit wildlife.

Please call our office and talk with Chris Pupke to learn more about this easy method to support CWH!



Waterfowl coming to restored wetlands at CWH's Barnstable Hill Farm in Chester, Maryland.