



ONAPA NEWS

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Mentor wetland preservation gets \$500K

By Jeffery L. Frischkorn

A pair of connecting Lake County-based natural areas has yielded a seamless synergy of wetlands preservation. Joining forces for a number of years now are the Cleveland Museum of Natural History, the Ohio Department of Natural Resources and the City of Mentor.

The first entry is the actual owner of the 801-acre Mentor Marsh state Nature Preserve. The Marsh was designated as a National Natural Landmark in 1966, and occupies an ancient, abandoned channel of the Grand River. In 1977 the Marsh was also the first site to be dedicated as an Ohio state nature preserve. Presently, the Marsh is managed by the ODNR Division of Natural Areas and Preserves.

Long afflicted by the intrusion of salt brine from various local activities, the Marsh suffered greatly from such salt-tolerant vegetation as phragmites which overrun and muscle out native wetland plant species. In turn, this greatly reduced Marsh use by wildlife but also posed a frequent serious wildfire threat. Beginning in 2004 the Natural History Museum launched an on-going and intense effort to restore the Marsh's natural integrity. It achieves this task by controlling phragmites, chiefly via helicopter and with a ground-based treatment, the non-profit organization (ONAPA) says in its web site about the Marsh.

Ohio has long been a contributor to the Marsh's well-being – a point that saw additional aid last June 26. That is when the Ohio EPA Director Anne M. Vogel rolled into town to announce that the DeWine Administration's H2Ohio program will provide \$500,000 to support the Museum's Mentor Marsh Coastal Restoration Project. The grant



Photo by Jeffery Frischkorn

Great Blue Heron

will be used to monitor and remove invasive species and to also grow native plants that will improve the overall health and quality of the wetland.

“The restoration of Mentor Marsh aligns perfectly with our water quality initiatives through H2Ohio,” said Governor DeWine in a prepared statement. “Wetlands remove nutrients and other contaminants from the water and lessen the severity of algal blooms, so by continuing to restore this property, we’re contributing to a cleaner Lake Erie.”

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Mentor Marsh

This is where the City of Mentor comes into the picture. Mentor maintains a 230-acre site that lies at the western end of Mentor Marsh State Nature Preserve. This city-owned unit is called the Mentor Lagoons Preserve and includes not only 1.5 miles of completely undeveloped Lake Erie beach property, but also an exceptionally popular and well-maintained paddle sports vessel launch. From this launch, canoeists and kayakers can enter the Mentor Marsh State Nature Preserve via Marsh Creek, also sometimes called Hopkins Creek. The city also seasonally rents canoes and kayaks for visitors to use.

Likewise, the Mentor Lagoons Preserve has three miles of trails that loop around the park’s highlands, skirts the Marsh and beach and with one portion paralleling the adjacent Mentor Lagoons recreational boating component. Recently opened at the trailhead is an ADA-accessible, 442-foot boardwalk and observation deck along the western edge of the Marsh, “providing an ideal vantage point to view the flora and fauna that thrive here,” the City of Mentor says of its project.

The cost of the first two phases was \$466,806, which was partially offset by two grants received through the ODNR’s Coastal Management Assistance Grants program. Mentor notes that this is a federally funded program funneled from through the National Oceanic and Atmospheric Administration. The project was further assisted by a \$25,000 grant from the Lake County Visitor’s Bureau, better known as Remarkable Lake County, formally called the Lake County Visitor’s Bureau.

Still on tap is the construction of an 80-foot-tall observation tower, to be located immediately adjacent to the observation deck. This tower will provide a commanding view of much of the Marsh and its inhabitants, of which are numerous American bald eagles along with herons, waterfowl, shorebirds, aquatic mammals and even an occasional sandhill crane. In fact, 260 species of birds have been recorded within the joint preserve arena. Not surprisingly, the Mentor property is



Photo by Jeffery Frischkorn

Entrance to the city of Mentor's boardwalk and observation deck at Mentor Lagoons Preserve

frequented almost daily by birders and outdoor photographers. It is estimated also that this final tower phase will cost \$1.1 million. Mentor has been granted \$450,000 in funding through the 2023-2024 State of Ohio Biennial Budget, with construction intended for late this year. “I wish more communities would replicate what’s being done at the Mentor Marsh State Nature Preserve with the cooperation of the City of Mentor and its adjacent preserve,” said Guy Denny, retired chief of the Ohio Division of Natural Areas and Preserves and president of ONAPA, Ohio Natural Areas and Preserve Association. “It’s a remarkable opportunity to provide public access, wildlife viewing and preservation all at once and all in the same place. I can’t wait to see the new boardwalk and observation deck myself.”

To access Mentor’s Lagoons Preserve, from the west take State Route 2 or I-90 to State Route 615 (Center Street). Turn left and continue north until the road ends at Lake Shore Boulevard. Turn right and then immediately left at Harbor Drive. At the stop sign, turn right and follow the road to the trailhead. Parking is available and just to the left is a kiosk where paddle sports vessels are available for rent. Its address is 8365 Harbor Drive, Mentor.

Jeffery L Frischkorn is an ONAPA member. His story appeared in the July 21, 2023 issue of Ohio Outdoor News. www.outdoornews.com/ohio.

Mary W. Christensen 1947–2024

ONAPA recently lost a dear friend and member of our family. It is with great sadness to report the passing of Mary W. Christensen, one of our founding board members. After a lengthy illness, Mary passed peacefully on January 16, 2024, at the age of 76.

Mary earned her Doctor of Law Degree and worked in the legal profession in Columbus until she retired after coming down with optical shingles. Mary

loved nature which is what motivated her to help establish ONAPA in 2013.

In 2018, dealing with health issues, she moved from the board of ONAPA to become an advisor to the organization. She and her husband Jon A. Christensen purchased a small farm in Morrow County which they turned into their own beautiful nature preserve. In addition to the fine woods already on the property, the former agricultural fields were converted into tallgrass prairie, wetlands and ponds supporting a diversity of plants and wildlife. Mary is remembered as an exceptionally kind and loving person.

She will be greatly missed.

Frontiersman Christopher Gist early Ohio explorer

By Guy Denny

Most people have never heard of Christopher Gist, but he was an accomplished frontiersman who made a reputation for himself many years before Daniel Boone, Simon Kenton, and other such more notable frontiersmen appeared on the scene.

In the early 1700s, little was known of the land west of the Allegheny Mountains except that it was Indian Territory but claimed by France. In 1748, a group of wealthy Virginians (land speculators), who called themselves the Ohio Company of Virginia, ignored France's claims and petitioned the British Crown for a huge portion of what the French called New France. In 1749, the British Crown granted the Ohio Company five hundred thousand acres in the Ohio Valley between the Monongahela and Kanawha rivers. The following year, the Ohio Company hired Christopher Gist to explore the lands in question to determine the best areas to establish settlements. Gist, who at that time lived in North Carolina, was an educated man who had served as an officer in the Maryland militia — a talented surveyor and experienced frontiersman. His mission was to explore parts of western Pennsylvania, West Virginia, Kentucky, and Ohio, and to keep a journal detailing natural features of the land he explored. He was also to establish and maintain a friendly relationship with the Indians he encountered, especially those tribes who rebelled against the French who dominated the fur trade.

In December of 1750, Gist and his party of men crossed into the Ohio country from what is now Beaver, Pennsylvania. From there they traveled southwest to the confluence of the Scioto and Ohio rivers to a large Shawnee village known as Lower Shawnee Town. By the time they arrived, it was the end of January.

On February 12, Gist and his men set out from Lower Shawnee Town to eventually meet up with a band of pro-British Miami Indians who had revolted against the French and moved their village from their homeland in northeast Indiana to the west bank of the Great Miami River where they established the village of Pickawillany (also known as Twigtwee Town) near what is now Piqua, Ohio in Miami County. From Lower Shawnee Town (also known as Shannoah), Gist's party followed the Pickawillany trail northwest to Pickawillany. He described the land along the way in his journal which is the earliest written record of the prairies and prairie fens in what are now portions of Greene, Clark, Champaign, Montgomery, and Miami counties.

On February, 17, 1751 Gist entered the following in his journal:

All the way from Shannoah Town [Lower Shawnee Town] to this place (except the first 20 M which is broken) is rich fine and Level Land, well Timbered with large Walnut, Ash, Sugar Trees, Cherry Trees &c, it is well watered with a great Number of little Streams or Rivulets, and full of beautiful natural Meadows, covered with wild Rye, Blue Grass and Clover, and abounds with Turkeys Deer, and Elks and most Sorts of Game particularly Buffaloes, thirty or forty of which are frequently seen feeding in one Meadow.

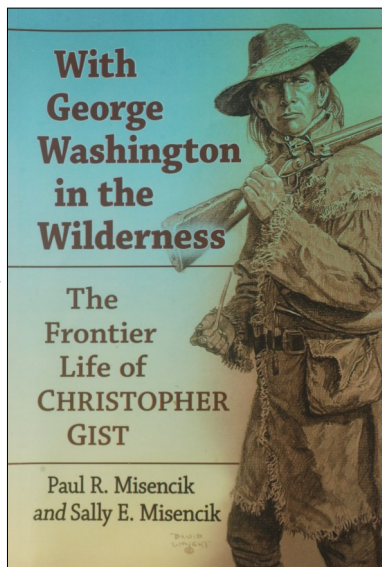
Judging from this journal entry, Gist, who had been a surveyor, was knowledgeable about trees that surveyors often used as “witness trees,” but he didn't identify other native vegetation. However, it was February when most prairie wildflowers were not evident; only the dried, tawny-colored, tall prairie grasses would have stood out at this time of year. Gist referred to these openings as “natural meadows” instead of prairies since the term “prairie” was the French word for these natural

meadows. To everyone else, they were simply grassy meadows. Nevertheless, Gist's journal entry gives us a good perspective of what these prairie openings were like in 1751 with their abundance of Bison, Elk and other wild game.

During the mid-1700s, American Bison (*Bison bison*) and Elk (*Cervus canadensis*) were widely distributed across Ohio as Gist's journal entries verify. Christopher Gist could not possibly have imagined the changes to come within less than 100 years. The last Bison in Ohio was killed in 1803. Elk were extirpated from central Ohio by the early 1800s. They still occurred in Ashtabula County until the 1830s, but were extirpated soon after.

In 1830, Congress passed the Indian Removal Act under the direction of President Andrew Jackson. This gave the federal government the authority to forcibly remove all Native Americans to lands west of the Mississippi River. After this act was passed, most Indian Nations surrendered their homelands in Ohio and moved west. In 1843, the Wyandots were the last forced to leave Ohio for a reservation in Kansas. The world was rapidly changing with the final loss of the Ohio wilderness so much of a part of Christopher Gist's life.

To learn more about Christopher Gist, read *With George Washington in the Wilderness: The Frontier Life of Christopher Gist* written by Paul R. Misencik and Sally E. Misencik and published by McFarland & Company, Inc. Learn about the prairies of southwestern Ohio in *Discovery and Renewal on Huffman Prairie: Where Aviation Took Place*, written by David Nolin and published by The Kent State University Press.



ONAPA schedules 11 Field Trips this year

Eleven field trips are scheduled this year, starting **May 3**. Most trips require pre-registration, but others do not: please check the listing carefully. For the trips requiring pre-registration: email guy.denny7@gmail.com.

Details including where and when to meet will be provided when you register. We recommend you dress for the weather, bring water and a bag lunch or snack on all field trips.

Friday, May 3, 10 am: The World of Lichens. ONAPA Advisor, naturalist, and professional nature photographer, Ian Adams will be the leader of this outstanding event to be held at Secrest Arboretum within the Ohio Agricultural Research and Development Center, located just south of Wooster in Wayne County. There will be a PowerPoint presentation followed by a field trip around the arboretum grounds to view lichens. **Registration REQUIRED.**

Wednesday, May 15, 8 am and 10 am: Jason Larson, naturalist and expert birder will be leading this birding field trip to view spring migrants in and around Magee Marsh Wildlife Area in Ottawa County. Meet at the east end of the parking lot at the exit of the birding trail at 8 am for early participants; then again at 10 am for late comers. **No limit on the number of participants, but participants should REGISTER.**

Thursday, June 20, 10 am: Tour of the Ohio History Connection's Cedar Bog State Nature Preserve. Guy Denny, President of ONAPA and author of *Peatlands of Ohio and the Southern Great Lakes Region* will lead this tour along the boardwalk through this outstanding fen ecosystem. **Registration REQUIRED --- participation limited to 15.**

Wednesday, June 26, 10 am: Special Tour of the Oak Openings. DNAP Assistant Botanist and outstanding naturalist Andrew Lane Gibson will lead this driving and walking tour through several sites in the Oak Openings Region of Northwestern Ohio. **Registration REQUIRED -- participation limited to 15.**

Thursday, July 11, 10am: Geology of Clifton Gorge State Nature Preserve. Timothy Snyder, retired DNAP Regional Manager, ONAPA board member, naturalist and author of *Rainbows of Rock, Tables of Stone* will lead the tour through Clifton Gorge State Nature Preserve. **Registration /REQUIRED --- participation limited to 15.**

Saturday, July 27, 10 am: Tour of Denny's Tallgrass Prairie. Several prairie experts will be on hand to guide



Photo by Tom Fishburn

Snowy Egret

small groups through the native flora of the prairie situated in Knox County at 6021, Mt. Gilead Rd. Fredericktown, Ohio. **No Registration Required.**

Saturday, August 24, 10am: Fall Shorebird Identification along Lake Erie. Jason Larson, naturalist, expert birder, and Director of the Richland County Park District and Gorman Nature Center will be leading this driving and walking tour of several of his favorite sites along Lake Erie. We will be identifying shorebirds on their southbound fall migration. **Registration REQUIRED.**

Monday, September 9, 10 am: Tour of James P. Ammon Biodiversity Reserve. Naturalist and author of *Discovery and Renewal on Huffman Prairie*, David Nolin will lead participants along the boardwalk of this outstanding fen wetland nature preserve located in Greene County. **Registration REQUIRED --- participation limited to 20.**

Saturday, September 21, 10 am: Tour of Fort Hill State Memorial. DNAP Assistant Botanist, Andrew Lane Gibson, an accomplished, well-known botanist and naturalist will lead this field trip to one of his favorite hiking sites, located in Highland County. **Registration REQUIRED --- participation limited to 20**

Wednesday, September 25, 10 am: Tour of the Ohio History Connection's Cedar Bog State Nature Preserve. ONAPA President Guy Denny and author of *Peat Deposits of Ohio and the Southern Great Lakes Region* will lead this tour along the boardwalk through this exceptional outstanding state nature preserve, perhaps the finest remaining fen in the Midwest. **Registration REQUIRED -- participation limited to 15.**

Saturday, October 5, 10 am: Annual Prairie Seed Collecting Event. Once again, Denny's Tallgrass Prairie will be open for anyone who wants to collect native Ohio prairie seeds for planting their own prairie garden. Meet at 6021 Mt. Gilead Road, Fredericktown, Ohio. **NO registration required.**

Field Trip listings and updates will be posted at ONAPA.org/Activities

Volunteers rise to the challenges of winter projects

By Jennifer Windus

Stewardship in the winter months is always challenging as we often have to cancel and reschedule projects due to the weather. It changed so much this winter between winter and spring-like weather that sometimes we cancelled due to snow and others due to rain. Despite this, we had 10 projects: OSU Marion Prairie, North Bend Bog, Castalia Quarry, Lakeside Daisy Preserve, Jackson Bog, Killbuck Marsh Wildlife Area, Greenville Falls State Scenic River Area, Brinkhaven Oak Barrens (two days), and Wolf Run Regional Park.

Some of these days were spring-like and beautiful! These projects included several partners such as OSU Marion, Cleveland Museum of Natural History, Erie County Metro Parks, Division of Wildlife, Miami County Park District, Killbuck Watershed Land Trust, and Knox County Park District.

At all these sites, we worked on cutting and treating woody species to recover and restore prairies, wetlands, alvars, and barrens. This winter included working with some new partners which is always exciting for us – OSU Marion Prairie with Bob Klips, Castalia Quarry with Erie County Metro Parks at an introduced Lakeside daisy site, and Greenville Falls State Scenic River Area with Miami County Park District. Our website has more information about the work accomplished this winter, including an article by Lydia Radcliffe about Greenville Falls.

Four more projects were scheduled in March. Watch for our upcoming projects in April-June listed at



onapa.org, with reminders in the monthly eNewsletter. We will likely be doing some prescribed burns in late March through April. Interviews to recruit new stewardship assistants started in mid-March.

We are always happy to have new volunteers, so come out and join us some day soon! If you cannot join us and want to support our efforts in other ways, feel free to send in a donation specifically for the ONAPA Stewardship Program.



Above, volunteer Tom Fishburn (left) and Stewardship Assistant Lydia Radcliffe remove woody invasive plants at Jackson Bog.

At left, cedar trees that shade rare sun loving plants are taken down at the Lakeside Daisy State Nature Preserve.

Photos by Jennifer Windus

Salamander nuptials occur in spring woodlands

Story and photos by Guy Denny

An early spring ritual that takes place for thousands of years and ushers in the earliest arrival of spring is the annual migration of woodland salamanders.

They are returning to their vernal breeding ponds to mate and insure the continuation of their species. These mass migrations feature what are known as mole salamanders --- so named because they spend most of their life out-of-sight in underground tunnels within rich mesic woodlands that support ephemeral vernal ponds.

Species of *Ambystoma* salamanders native to Ohio are the Streamside, Jefferson, Spotted, Blue-spotted, Marbled, Small-mouthed, and Eastern Tiger salamanders. The genus *Ambystoma* comes from the Greek word *amblys* meaning "blunt" and the Greek *stoma* meaning "mouth." This refers to the shape of the mouth of these woodland dwellers. Some think the shape of the mouth looks like these salamanders have a perpetual grin.

Here, we are going to focus on the Spotted Salamander (*Ambystoma maculatum*) since their migrations are the most spectacular. The Spotted Salamander is the same species of salamander proudly displayed on the ONAPA logo, representing both terrestrial and aquatic species of wildlife found in natural areas. This is a large species of salamander, as most salamanders go, about 6-8 inches in length. It has a dark blackish dorsal accented with a pattern of two irregular rows of very distinctive round, bright yellow contrasting spots running down the back. Spots on the head are yellow as well, but occasionally can be orange. The sides and belly are a light-gray.

Spotted Salamanders occur across much of Ohio with the notable exception of the agricultural region of northwestern Ohio where they are less common. This is a closed-canopy woodland species that avoids agricultural fields and grasslands. Like the other species of mole salamanders, it spends most of its life in underground dwelling in tunnels and runways mostly made by small rodents. They feed primarily upon earthworms, snails, slugs, insects, and other invertebrates. They hibernate below the frost line - usually a few feet - but they have been recorded at an excessive depth of as much as 4.3 feet. Occasionally, during the summer months, they can be encountered under decaying logs and wet leaf litter as well.

Mass migrations to breeding ponds are not restricted to the Spotted Salamander. However, they are perhaps the most noticeable participants of these early spring events. As spring approaches on the first warm nights when temperatures exceed 55 degrees Fahrenheit with



Spotted Salamander

warm rainfall and high humidity, Spotted Salamanders emerge from hibernation leaving their tunnels to head in mass to their traditional breeding ponds. In Ohio, this is usually during late February or early March. Of our seven species of mole salamanders, the Spotted Salamander is usually the last to breed. Emerging individuals have been found a quarter mile from the nearest breeding pond, but usually they only have to travel 100-200 yards. They typically follow the same trail each year to and from the ponds, then head back to their same burrows from which they emerged.

Males tend to arrive at the breeding ponds a few days before females. Numbers vary considerably, but not all adults breed ever year, yet they tend to return to the same pond where they were born when they do breed. Woodland breeding ponds have to have semi-permanent, fish-free shallow water. When the females enter the pond, several males will approach a female with a contorted courtship dance which involves a great deal of body rubbing together and nose-nuzzling. Occasionally, each participant must swim rapidly to the surface to get a gulp of air before returning to the dance. At just the right time, males deposit little cone-shaped gelatinous mounds topped with packets of sperm. Females position themselves over these spermatophores and insert the sperm packets into their cloaca.

The white gelatinous remnants of the spermatophores remain in clusters on the floor of the pond during the next few days revealing that breeding salamanders are present. Otherwise, during the day, adults remain hidden at the bottom of the pond under sunken leaf litter. In a few days, each female can lay one to ten egg masses each of which typically contain 50-150 eggs, and sometimes up to around 250. As the eggs emerge from the female they are suspended in a gelatinous material that absorbs water and swells to finally form a globular, palm-size or larger egg mass. These dense jelly-like egg masses, in which individual eggs are imbedded, can be colorless-clear or sometimes milky-white. They are usually attached to a submerged plant stem.

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Spotted salamander



Above, a vernal woodland pond in Knox County is optimal for breeding salamanders.

At right, a spotted salamander is found with her egg mass.



Egg masses can turn green after a week or so from a symbiotic algae (*Oophila amblystomatis*) that impregnates the egg. It is thought that the algae produces additional oxygen for the developing salamanders. In return, the embryos give off carbon dioxide and nutrients needed by the algae. The breeding season can last for a few days to several weeks depending on weather conditions.

Hatching takes place in about four to six weeks.

The newly emerging larvae are about one-half inch long with feathery external gills near the base of their heads. By late summer, before the ponds dry up, the larvae undergo metamorphosis into small (about an inch and a half to two inches in length) versions of adults, with external gills being replaced by strong lungs for their new life on land. They are mature and capable of breeding in two to three years.

Yet, there is a very high mortality rate from the time they are an egg until they become breeding adults as a result of breeding ponds drying up too fast and predation of eggs and larvae. Fortunately, breeding adults are long lived and have been known to live for 20 -25 years in captivity. Yet, even adults face serious challenges, especially during migrations when large numbers, often in the hundreds or more crossing roads, are run over. In some years, if the pond freezes over with snow cover for a long time after breeders have entered the pond, the adults trapped under ice can die from lack of

having access to air. Even at other times of the year, land development, timber harvest (especially clear cutting), recent livestock grazing, prescribed fire, and removal of fallen logs take a serious toll on salamander populations.

If you haven't already done so, hopefully you will get the opportunity to experience the annual migration and courtship activities of Spotted Salamanders in their ephemeral breeding ponds. It is one of the most fascinating and unforgettable events to witness in nature.



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