



A non-profit Ohio organization

Wetland Trumpeter

Newsletter - March 2017

Our Mission

Ohio Wetlands Association is dedicated to the protection, restoration and enjoyment of Ohio's wetlands and associated ecosystems through science-based programs, education and advocacy.

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www.Scoop.it/t/ohio-wetlands

The Peaceful Transfer of Power by Ray Stewart

The predictable and peaceful transfer of power is indeed a phenomenon of the modern era. Kingdom and tribal leadership patterns have given way to the rule of law, not family and to the notion that our political and social institutions are more than an expression of their leaders. They have a life of their own; a reason for being that transcends the personality and charisma of any single individual.

It is with this tradition in mind that I wish to announce a transfer of leadership within Ohio Wetlands Association. According to the bylaws of the organization, a person may serve as an officer for no more than 3 three-year terms. Ray Stewart has recently completed 2 of those terms as President of OWA. In an effort to invigorate the leadership and establish a tradition of rotating duties among its directors, Mark Dilley has risen to the challenge and become the second President of OWA.

Mark Dilley earned a B.S. in Natural Resources (Fisheries Management) in 1991 and a M.S. in Environmental Science (specializing in wetlands) in 2003, both from The Ohio State University. He and his wife Chris are co-owners of the environmental consulting firm MAD Scientist



Mark Dilley

Associates, which specializes in ecological and wetland consulting. Mark has over 20 year's experience as a field biologist, ecologist, and wetland scientist. His academic research has focused on biological monitoring of streams and rivers and atrazine (agricultural herbicide) fate and transport processes in constructed wetlands. As consultants, Mark and

his staff are responsible for wetland delineation, permitting, assessment, and wetland restoration design and monitoring, as well as ecological surveys and ecological risk assessment. Mark is a Certified Senior Ecologist with the Ecological Society of America and is a Professional Wetland Scientist certified by the Society of Wetland Scientists. He has also been teaching the Wetland Ecology and Restoration course at The Ohio State University since 2012.

Those who know Mark understand that he is dedicated to his family, community and to education. He is a well-respected consultant and wetland ecologist. His service to OWA is greatly appreciated.

The other officers of OWA are: Mick Micacchion – Vice President; Delores Cole – Treasurer and Ray Stewart – Secretary.

Wetlands for Disaster Risk Reduction by Ray Stewart



The theme for World Wetlands Day was "Wetlands for Disaster Risk Reduction. But this sets the tone for the entire year. Consider the variety of benefits we enjoy from wetlands. There may be more to it than you know. Consider the inevitable natural disasters that are likely to occur, sooner or later. Wetlands can actually help us protect life and property.

Wetlands Support Rare Wildlife

Most of Ohio's wetlands, especially the Lake Erie Marshes, have been protected for wildlife and often by groups that support duck hunting. We thank them for their pioneering conservation work that, in many cases, stretch back into the 19th century. The coastal wetlands along the western basin of Lake Erie are home to a wide variety of wildlife, notably the Bald Eagle that was nearly extirpated in the 1960's but retained a viable nesting population there. These wetlands also help protect the coastline by resisting the surge of waves and waters during heavy storms and nor'easters. The value of coastal swamp forests and marshes can have an estimated worth of thousands of dollars per acre each year in property protection.

Wetlands protect our coastlines, bridges, ports and marinas

Riverine wetlands lie on the floodplains of rivers and streams, becoming a part of the river when precipitation and/or meltwaters swell to overflowing. This temporary accommodation for excess waters relieves the stress downstream. Flood stage heights are reduced, protecting bridges and other infrastructure near river banks. They slow the flow of water, reducing erosion that can steal large swaths of adjacent property. That eroded sediment is mostly deposited in the river mouth as water naturally slows entering a lake or other water body. Millions of dollars a year are spent removing these sediments from ports and marinas in order to maintain shipping channels and recreational boating.

Wetlands cleanse our water

Many floodplain wetlands include oxbows and vernal pools. These wetlands are normally not connected to the river flow but support the river nonetheless. Birds, mammals and other animals frequently take advantage of both the still and moving waters along a river channel. The excess water that temporarily settled into the floodplain percolates into the soil

and slowly releases, during dryer times, into the river helping to sustain a steady flow and support a sustainable current for a healthy river.

Where water moves through wetlands, it is cleansed. Slow velocities settle out particles that nourish the plants and organisms low on the food chain. Decades of research shows that wetlands remove nutrients like phosphorus and nitrogen that contribute to harmful algal blooms. Wetlands also remove or denature toxics and dangerous bacteria like *E. coli*. If even a modest percentage of the wetlands that once surrounded the western basin of Lake Erie were properly and functionally restored, we would not have beach closures, fish consumption warnings or interrupted drinking water supplies.

Wetlands remove greenhouse gases

Wetlands are also one of the strongest carbon sinks on the planet. Simply put, they remove the greenhouse gas, carbon dioxide, and keep it tucked away better than any other habitat. Wetland protection and restoration are necessary components of any effort to reduce the growing threat of climate change.

(Continued on page 5)

OWA Partners on Petition to Protect Ohio's Wild Turtles by Ray Stewart

OWA, the Center for Biological Diversity and others petitioning the Ohio Department of Natural Resources (ODNR) to propose regulations that will end the unlimited wild collection of common snapping and softshell turtles in the Ohio. Turtle populations in the state and across the country are already experiences declines due to habitat loss and road mortality, and unlimited wild collection of these reptiles exacerbates these unfortunate trends.

The Center for Biological Diversity is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center is supported by over 1 million members and online activists throughout the United States, including approximately 45,000 members and supporters in Ohio. The Center and its members are concerned with the conservation of rare wildlife, including turtles, and their essential habitats.

Softshell turtles are stream dwellers and are unlikely to be

found in wetlands. Snapping turtles, on the other hand, are frequently found in wetlands, and therefore constitute a concern for OWA. While these native species are not the charismatic critters that quickly evoke public sympathy, they are critical components of the



Snapping Turtle. Photo by Kent Bekker

ecosystem. The snapping turtle (*Chelydra serpentina*) is Ohio's largest turtle, up to 35 lbs and more than 14 inches long. Their shell has three rows of keels that serrate toward the back; their habitat is fresh water with muddy bottoms and abundant vegetation. Snapping turtles eat invertebrates, carrion, aquatic plants, fish, birds, and small mammals. Peak breeding occurs

from April to November with up to 83 offspring. Except for softshell turtles, the sex of all species of Ohio turtles depends on the temperature at which the eggs develop. For instance, eggs that develop at 77 degrees F will be male, while eggs that develop at much higher or lower temperatures will be female. In the wild, warmer eggs at the top of a nest may all hatch as females, while cooler eggs at the bottom hatch as males.

Ohio does not allow its live, wild caught turtles to be exported. However, export of turtle meat or parts is allowed. While still common in Ohio, the snapping turtle and softshells are at risk in a global

marketplace where demand in other parts of the world is insatiable. Market hunters are turning their gaze to Ohio as sources become depleted elsewhere. It is time to get ahead of the curve and secure protection now.

You Shop. Amazon Gives



AmazonSmile is a website operated by Amazon that lets customers enjoy the same wide selection of products, low prices, and convenient shopping features as on Amazon.com. The difference is that when customers shop on AmazonSmile (www.smile.amazon.com), the AmazonSmile Foundation will donate 0.5% of the price of eligible purchases to the charitable organizations selected by customers. Link your Amazon account to the Ohio Wetlands Association today! Just go to www.smile.amazon.com.

Wetlands for Disaster Risk Reduction (Cont'd)

(Continued from page 2)

The frequency of natural disasters worldwide has more than doubled in just 35 years, driven by climate and weather related hazards like flooding, and droughts. UN Water estimates that 90% of all natural hazards are water-related. The Intergovernmental Panel on Climate Change (IPCC) predicts

even more extreme events going forward. In the Midwest and in Ohio we are already experiencing more drought, more deluges and exaggerated swings in temperature as predicted by climate scientists. In recognition of the theme of this year's World Wetland Day, "Healthy wetlands help us cope with extreme weather events" do what you can to support wetlands in your

community and across Ohio.

Ohio Wetlands Association (OWA) is dedicated to the protection, restoration and enjoyment of Ohio's wetlands and associated ecosystems through science-based programs, education and advocacy. For more about OWA see www.OHwetlands.org.

The Value of Science (Cont'd)

(Continued from page 4)

is known as peer review. Once a scientist is confident in his/her conclusion, the result is presented for others in the field to closely examine the methods and conclusions. Questions can be raised, flaws or weaknesses can be addressed. Replication of original investigations can validate or refute the previous work. Eventually a consensus might be reached after any possible problems have been resolved.

Scientific fact is not based on the status, position or power of personality that the scientist enjoys. Reality is not the result of pronouncements by Einstein or Newton. Nature, itself, is the ultimate authority, the Supreme Court of science.

This larger meaning, then, fits into a scheme of understanding including planetary science, physics, biology and ecology. When all of these systems coalesce, a high degree of confidence resembles what we hope to call 'truth.' When science is done properly, it gives us a

clear understanding of nature and the universe in which we reside. And more, it gives us confidence to predict the future. Science helps us to understand the consequences of our actions. It illuminates cause and effect.

How does this involve wetlands?

OWA is a non-partisan science-based advocate for wetlands. We do not endorse candidates to political office or legislation. Nevertheless, we find that our support of science-based policy in pursuit of the highest level of protection for Ohio's wetlands will sometimes put us at odds with the political establishment. We are bracing for a likely challenge to many environmental policies that we champion, because they protect our wetland resources and the health of our environment. Policies related to controlling climate change are a prime example.

The United States is the only place in the world where climate science denial is widely practiced, despite widespread agreement within the scientific community that climate change

is occurring due to human-induced changes on our planet. Denial of the effects of greenhouse gases and the climate change that ensues is only espoused for political gain. Policy that chooses to disregard science does not bode well for wetland protection or for other waters and terrestrial habitats nationwide. Please stay informed and help OWA stand strong for conservation and wetland protection. Support the March for Science on March 22nd.

For more of the basics on science, here are several authoritative sources of information:

What Science Is —How and Why It Works bit.ly/sci-tyson

Understanding Science, How it Really Works bit.ly/berk-misc

Evolution and the Nature of Science bit.ly/ensi-indi

How the Enlightenment Changed the World bit.ly/enl-live

2017 OWA Events

How Wetlands Will Save the World

February 28, 2017

7 p.m. – 8:30 p.m.

Firelands Audubon Monthly Meeting

Great Lakes Marsh Monitoring Volunteer Training & Recruitment - North Central

Saturday, March 4, 2017

10am – 3pm

Old Woman Creek
2514 Cleveland Road
East Huron, OH
Free but registration required.

Great Lakes Marsh Monitoring Volunteer Training & Recruitment - Northeast

Saturday, March 11, 2017

Noon to 5 p.m.

Stratton Place
26 West Main Street
Madison, OH
Free but registration required.

Great Lakes Marsh Monitoring Volunteer Training & Recruitment - Kent

Sunday, March 19, 2017

Noon to 4 p.m.

Room 127, Cunningham Hall,
Kent State University
1275 University Esplanade
Kent, Ohio 44242
Free but registration required.

Vernal Pool Workshop, Central Ohio

Saturday, March 25, 2017

9 a.m. - 3:15 p.m.

Blacklick Woods Metro Park
Golf Course Banquet Room
7309 E. Livingston Ave.
Reynoldsburg, OH
Fee. Registration required.

Vernal Pool Workshop Northeast Ohio

Saturday, April 11, 2017

9 a.m. - 4 p.m.

Morgan Swamp Conservation
Campus
Rock Creek, Ohio
Fee. Registration required.

Vernal Pool Expedition at Gahanna Woods State Nature Preserve

Saturday, May 13, 2017

10 a.m. to noon

Vernal Pool Expedition at Tupelo Bottoms, Ashland County Park District

Sunday, May 21, 2017

1 p.m. to 4 p.m.

Date TBA

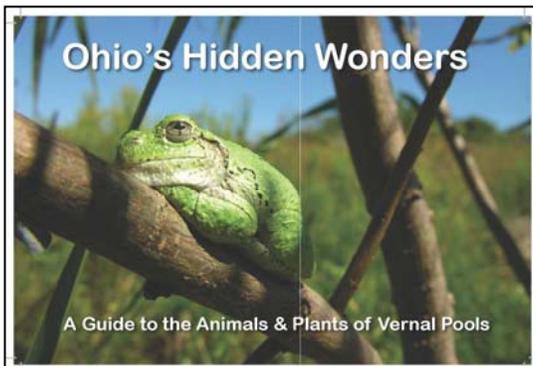
Annual Science Summit

Visit our table at:

Wildlife Diversity Conference
March 7, 2017
Columbus, Ohio

Botanical Conference
March 24, 2017
Columbus, Ohio

Event details and registration can be found at www.OHwetlands.org



Ohio's Hidden Wonders

A Guide to the Animals and Plants of Vernal Pools

Fourth Edition now available!

\$25 donation online, plus shipping

Makes a wonderful gift!

The purchase of this book helps us to further our mission of protecting Ohio's wetlands.

Give us Your Best Wetlands Shot!

Give Us Your Best Wetlands Shot! is the Ohio Wetlands Association's 2017 photo contest that celebrates the joy of wetlands through photography. Subjects will include the flora, fauna and variety of landscapes within Ohio's diverse wetlands. The contest runs from February 2, 2017 (World Wetlands Day) to September 15, 2017 and features six entry categories.

Contest Rules

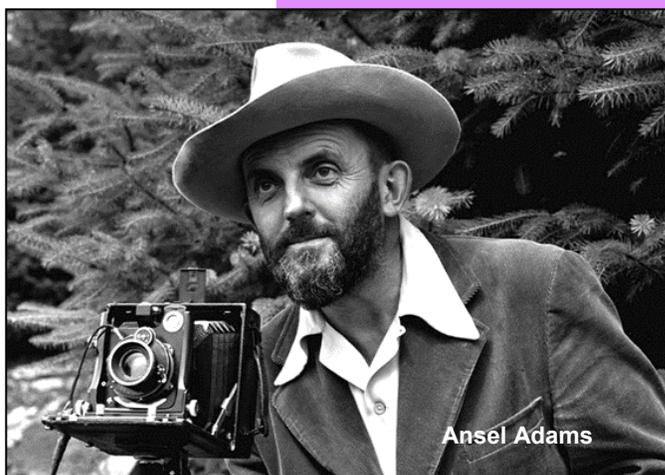
An official online entry form must be completed for each photograph submitted. Photographers may submit no more than one photo from each category for a **TOTAL OF UP TO SIX PHOTOS** per photographer. The online photo submission form is available at www.OHwetlands.org/photo-contest.html

All photos must be taken within an Ohio wetland between February 2, 2017 and September 15, 2017. All subjects should be typically found in wetlands.

The contest is open to all photographers, except for contest judges and their families. OWA reserves the right to verify entrant eligibility.

Photographs must be taken in Ohio. Photos may not include people who are identifiable. Entrants agree to allow OWA to publish any submitted photograph in its newsletter, website, publications or other materials to help support OWA's mission to promote and protect Ohio's wetlands.

Photo Contest details are posted at: <http://www.ohwetlands.org/photo-contest.html>.



Photographers may submit one photo in each of these six categories:

1. Wetland landscapes including marshes, wet meadows, wet prairies, swamps, bogs, fens, and vernal pools: Incredible landscapes.

2. Herpetology - Frogs, toads, salamanders, snakes, and turtles: Capture the experience of these amphibians and reptiles in their wetland homes.

3. Flora - wetland plants, including forbs, graminoids, shrubs, and trees: Share your best photos of Ohio's native wetland plants, shrubs, or trees.

4. Dragonflies and Damselflies and Spiders: Spend a day in a wetland and get close to these multi-legged creatures.

5. Aquatic Macroinvertebrates: This may require some underwater or microscopic photography!

6. Birds: Must be a species more likely to be found in wetlands than other habitats.

Conservation Partners Permanently Preserve Nearly 1,500 Contiguous Acres in Ashtabula, Trumbull Counties by Alex Czayka, WLRC



Western Reserve Land Conservancy

land • people • community

After more than ten years of concerted efforts involving numerous stakeholders, Western Reserve Land Conservancy has permanently preserved 1,477 contiguous acres in Orwell Township in Ashtabula County and Bloomfield Township in Trumbull County.

Referred to collectively as Sugar Island Preserve, the conservation complex includes the historic Grand Valley Ranch and Greg Cahlik Preserve. Sugar Island Preserve is located in a key wetland conservation corridor one mile north of the Ohio Division of Wildlife's 9,000-acre Mosquito Creek Wildlife Area and five miles from the 7,400-acre Grand River Wildlife Area.

"In keeping with the Land Conservancy's goal to create webs of strategically connected natural and agricultural land throughout the region, this project is an impactful acquisition that furthers both natural area conservation and farmland preservation efforts," explained Brett Rodstrom, vice president of eastern field operations for the Land Conservancy.

Sugar Island Preserve is comprised of over 1,100 acres of diverse habitat for fish and wildlife including various successional stages of hardwood forest, wetlands, vernal pools, and old field habitat. The protection of these natural habitats provides shelter, food, and nesting areas for birds, fish, small and large mammals, and other wildlife. At least 20 plant and animal species listed by the State of Ohio as threatened or endangered have been documented on the property including the Northern Harrier, Sandhill Crane, American Bittern and Fireweed.

The protection of these natural habitats also improves water quality and the overall health of regional aquatic systems. Wise management of vegetated and forested buffers along the property's many tributaries will help control run-off, prevent erosion, and mitigate flooding to downstream communities such as the Villages of Roaming Shores and Rock Creek. In addition, a significant aquifer on the property is recharged by expansive wetlands on site. This is critically important as the Village of Orwell supplies its community with water wells from an adjacent property downstream of Sugar Island Preserve.

Additionally, the Land Conservancy is engaging in one of the largest wetland restorations in Northeast Ohio on the property. The project will restore more than 200 acres of wetlands and redirect nearly three miles of Snyder Ditch to a flowing wetland complex with expansive floodplain connectivity. Snyder Ditch was originally constructed to drain a large portion of the historic 'Bloomfield Swamp' in 1913 for farming purposes. Today, Snyder Ditch flows north from Mosquito Creek Wildlife Area through the Grand Valley Ranch property and into Rock Creek before joining the Grand River just west of the Village of Rock Creek. Returning the ditch and much of the bordering agricultural land to wetland will reduce sediment and nutrient discharge into Lake Roaming Rock in the Village of Roaming Shores.

"Still, agriculture remains an important part of the local community and rural economy in northern Trumbull County,"

noted Alex Czayka, eastern field director for the Land Conservancy, "the Land Conservancy was fortunate to find a local, private partner that helped ensure that prime nearby farmland was preserved." W.I. Miller and Sons voluntarily protected 300 acres of farmland adjacent to the Sugar Island Preserve with a donated agricultural easement held by the Land Conservancy. The easement prevents the prime farmland from being converted to other non-agricultural uses.

The vision for Sugar Island Preserve was made a reality through essential partnerships with Bloomfield Township, Orwell Township, Ashtabula County, Trumbull County, The Cleveland Museum of Natural History, Ducks Unlimited, ODNR - Division of Wildlife, Ohio EPA, Ohio Public Works Commission, US Fish & Wildlife Service and W.I. Miller & Sons Farm. Moreover, the Land Conservancy and its partners secured upwards of \$5 million in conservation and restoration funding for the 1,100-acre natural areas portion of the property from the Clean Ohio Fund, North American Wetlands Conservation Act (NAWCA), Great Lakes Restoration Initiative (GLRI) and the Ohio EPA's Water Resource Restoration Sponsor Program.

"The conservation and restoration of Sugar Island Preserve would *never* have happened without the help of the local communities and our amazing partners," Czayka emphasized. "We sincerely thank those that collaborated to make this visionary project a reality."

Wetland Loss and Drainage History

Compiled from <http://www.libraryindex.com/pages/332/Wetlands.html>

Until well into the twentieth century, wetlands were considered nature's failure, a waste in nature's economy. For this reason, people sought to increase the usefulness of these areas. In the agricultural economy of that time, land unable to produce crops or timber was considered worthless. Many Americans began to think of draining these lands, an undertaking needing government funds and resources.

In the nineteenth century, state after state passed laws to facilitate drainage of wetlands by the formation of drainage-districts and statutes. When a number of landowners in an area petitioned for a drainage project, a hearing was held. A district encompassing the area affected could be created with the power to issue bonds, drain the area, and bill the landholders—petitioners and opponents alike. Coupled with an agricultural boom and technological improvements, reclamation projects multiplied in the late nineteenth and early twentieth centuries. The farmland under drainage doubled between 1905 and 1910 and again between 1910 and 1920.

Early Conservationists

The earliest effective resistance came from hunters, sportsmen, and naturalist lobbies. Organizations such as the Izaak Walton League, the Audubon Society, and the American Game Protective Association deplored the destruction by

drainage of wildlife habitats and began to press for protection of wetlands. These early conservation efforts met chilly receptions both from the public and the courts. A growing number of Americans, however, were beginning to sympathize with conservationists. Drainage projects were often



Cracked mud that remains after wetland is drained.

disappointing—soils had proven to be poorer than expected, and the costs were generally greater than expected.

Reclamation's Failures

Lower Klamath Lake, in Northern California, became a striking example of reclamation's potential for creating wastelands far more desolate than those they replaced. The lake, a shallow sheet of water fringed by marshes, had been set aside by Theodore Roosevelt in 1908 as a waterfowl sanctuary. In 1917, the water inflow was cut off. The lakebed dried up and became prey to dust storms. The peat in the marsh bottom caught fire. Rather than being a reclaimed area of extraordinary fertility, the former wetlands became an ecological travesty. Time helped to reverse the damage, but as of 2002 less than 25% of the historic wetland basin remained. In spite of this, the basin continues to support tremendous bird life on a smaller scale.

Similarly, for many years Florida sought to drain the Everglades, a vast wetland region covering much of the southern part of the state. Efforts there resulted in lands prone to flooding and peat fires. Peat fires are particularly dangerous because they burn underground and can flare up without warning long distances from where they were originally ignited. Costs escalated, and the drainage district went broke. Across the nation, the gap between the cost and the value of reclaimed land widened even more. The agricultural depression, beginning in the 1920s, increased the growing skepticism as to the value of reclamation.

Tide Turns for Wetlands

Since the early 1970s, conservationists have turned to the courts to challenge reclamation projects and protect wetlands. If drainage once seemed to improve the look of the land, today it is more likely to be seen as degrading it. Wetlands turned out not to be wastelands, but systems efficient in harnessing the sun's rays to feed the food chain, and important in the global cycle of water, nitrogen, carbon, and sulfur. A number of studies have shown that the value of wetlands for flood protection is far greater than their potential value for agriculture.

No Net Loss

As the drainage movement once found support in state laws and federal policies, so did the preservation movement. In

(Continued on page 11)

Another Plant to Thrill: Marsh Marigold (*Caltha palustris*) By Mark Dilley

Editor's Note: Board Member Mark Dilley delivered a presentation at the 2016 Flora Quest conference with the title "Wetland Plants: Twenty to thrill, five to kill." He will be sharing details of select plants from this talk in a series of articles for the OWA newsletter.

A member of the Family Ranunculaceae (Buttercup Family), Marsh Marigold brings early season brilliance to forested wetland seeps and fens. A large population of this plant can be seen brightening the soggy understory of Cedar Bog (actually a fen) in Urbana, usually in mid-April. It often grows in areas with another "thriller" plant, Skunk Cabbage, which also occurs in groundwater-influenced wetlands. Both are obligate wetland plants that cannot persist without regularly-saturated soils. Perhaps because of its preference for growing in hillside seep areas that might prove a challenge to bovine wanderers, the plant also has a common name of

Cowslip (as well as Cowflock, Kingcup and, in the UK, the Mollyblob!).

Marsh marigold, as this author prefers to call it, is pollinated by hoverflies and some beetles, and its seed dispersal mechanism is



Marsh Marigold

water dependent (hydrochory). When the follicles open, they form a "splash cup." When a raindrop hits one at the right angle, the walls are shaped such that the seeds are expelled and can then travel with the water flow to settle and germinate in new locations.

Early spring greens are reportedly edible when cooked. The preparation instructions are to cover the young leaves with 2-3 changes of boiling water until barely tender; cut into bite-sized pieces, salt lightly, and cover with butter and some vinegar. Sounds delicious, right? Since I'm not one to dispense advice on plants to eat, my usual response when asked if a plant may be consumed is "You can eat anything...ONCE." The juices of this plant can cause blistering or inflammation on skin or mucous membranes on contact, and can result in gastric illness if ingested. The leaves are toxic, but only in large quantities. Symptoms include burning of the throat, vomiting, bloody diarrhea, dizziness, fainting, and convulsions.

Given these risks and its stunning beauty, I think the sustenance I derive from this plant will be of a more spiritual than physical nature. This would be my recommendation to our readers, as well!

Spring Pools

*These pools that, though in forests, still reflect
The total sky almost without defect,
And like the flowers beside them, chill and shiver,
Will like the flowers beside them soon be gone,
And yet not out by any brook or river,
But up by roots to bring dark foliage on.
The trees that have it in their pent-up buds
To darken nature and be summer woods---
Let them think twice before they use their powers
To blot out and drink up and sweep away
These flowery waters and these watery flowers
From snow that melted only yesterday.*

~ Robert Frost



Vernal pool in Gahanna Woods State Nature Preserve.

Wetland Loss and Drainage History (Cont'd)

1977, President Jimmy Carter issued an executive order instructing federal agencies to minimize damage to wetlands. In 1989 the EPA adopted a goal of "no net loss" of wetlands, meaning that where a wetland is developed for other uses, the developer must create a wetland elsewhere to maintain an overall constant amount of wetland acreage.

Compensatory Mitigation

A major part of the no net loss policy is the practice of compensatory mitigation. Mitigation requires that a party who alters or destroys a wetland area must offset that loss by restoring, creating, or enhancing wetlands elsewhere. For example, a builder can be permitted to construct a highway that will disrupt a wetland if the builder will construct or restore a wetland elsewhere. The premise of mitigation is that the same amount or more wetlands will be created or restored without unnecessarily slowing down economic growth.

The U.S. Army Corps of Engineers determines the number of credits required to obtain the permit needed to develop wetland areas. The



Wetlands valued for flood protection.

lowest ratio the Corps seeks is one to 1.5 acres—this means that for every wetland acre the person is destroying or harming,



A high quality wetland.

the person must assume the cost of restoring 1.5 acres of wetlands. Ratios can be as high as 3:1 for impacts to high quality forested wetlands.

Mitigation banking, a variation of compensatory mitigation, allows people who build on wetlands to pay to a "bank" to enhance another wetland area.

This is particularly advantageous to the small property owner who seeks to build only one or two structures. The person purchases "credits" in the bank and transfers full responsibility to an agency or environmental organization that runs the bank. Environmental professionals design, construct, and maintain a specific natural area using these funds. Several states use mitigation banking.

Critics contend that new or improved wetlands may not provide the same value over the

same span of time and dislike mitigation because it presumes that wetlands destruction at certain sites is acceptable. Many mitigation projects have not worked well because permittees fail to keep their mitigation agreements, it is difficult to mimic natural systems, and even where it is done properly, a wetland can take as long as thirty years to mature. In the

intervening years, however, since the mitigation policy went into effect, the science of wetland creation and restoration has made significant advances, so that the number of sites with successful wetland mitigation is growing.



Ohio Wetlands Association

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Wetlands for a Better Ohio

March 2017 Issue



Ohio Wetlands Association

RENEW OR JOIN TODAY!

Membership Year: June 1 - May 31

MEMBERSHIP LEVELS

- Individual \$20
- Student - \$10
- Senior - \$10
- Family - \$30
- Organization - \$40
- Business - \$50

EVENT SPONSORSHIP LEVELS

- Heron Level - \$100
- Rail - \$250
- Bittern - \$500
- Swan - \$1000

Name: _____

Address: _____

City/State/Zip: _____

Email: _____

Phone: _____

PLEASE MAKE CHECK PAYABLE TO OWA AND MAIL FORM WITH PAYMENT TO:

Ohio Wetlands Association, PO Box 3, Amherst, OH 44001