



Fall 2016 Vol. 13, No. 3

# The Cerulean

Quarterly Newsletter of the Ohio Ornithological Society



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KING RAIL | ALEX EBERTS

## *From the Editor*

I am not sure if this is dorky, cool, or both.

Listers, traditionally, have kept their field notebooks and lists neatly on a shelf at home, next to the field guides maybe, easily accessible. I know that I have. One might share lists with fellow birders, but keeping a life list was essentially a private pursuit, and the information, considered valuable in the age of citizen science, was doomed to be eventually lost.

eBird ([ebird.org](http://ebird.org)) has been changing the game since the online realtime database started in 2002. For the computer-accustomed lister, there was no need no more to format an Excel sheet or purchase a special program to keep track of the birds seen in different places and through the years. eBird keeps birding records safe in the cloud and filters geography, species, and date so one can extract any list from the data.

Using the 'Recent Visits' and 'Top eBirders' functions, a birder could see the names of fellow eBirders in a region, but if you didn't know them already, they were just names -- no way to connect.

Now 'eBird Profiles' have been added to eBird's growing list of tools. Once activated, you can find out about the birders behind the names. It comes with a short bio and zoomable maps that display the number of species seen, from county level up to the planet. Now you can show off to the eBird community and compare your observational accomplishments.

I think that another dose of coolness was just added to the dorkiness of a lister's pursuits.

Please send your comments to [ceruleaneditor@ohiobirds.org](mailto:ceruleaneditor@ohiobirds.org).

# GETTING THE LEAD OUT THIS SEASON

From: The Birding Community E-Bulletin

Paul J. Baicich and Wayne R. Petersen

In June, the Delaware-Otsego Audubon Society in Oneonta, New York, teamed up with the American Eagle Foundation to create a video urging hunters to switch to non-lead bullets when hunting deer. The 13-minute video, "Lead Ammunition: A Needless Danger to Eagles and Ourselves," features interviews with hunters and their families, as well as with wildlife biologists and wildlife rehabilitators, and it encourages hunters to switch to non-lead ammunition.

The issue is becoming increasingly important now since it is a seasonal danger concurrent with the arrival of fall deer-hunting. This is because Bald and Golden Eagles, other raptors, ravens, crows, and other scavengers are at risk of consuming lead fragments from gut piles - the entrails left behind by hunters - or from unrecovered carcasses. A highly toxic metal, lead can cause damage to the central nervous system and the brain.

Symptoms of lead poisoning in eagles include tremors, convulsions, and organ failure, ultimately leaving these birds unable to fly or feed. Lead-poisoned eagles can also die from starvation or predation.

While lead use in gasoline, paint, pesticides, and solder in food cans has nearly been eliminated in the U.S., and despite the fact that lead shot was banned for waterfowl hunting in 1991, the use of lead in ammunition for upland game hunting, shooting sports, and in fishing tackle remains widespread.

The video encourages hunters to voluntarily switch to alternative types of ammunition, such as solid copper bullets. These bullets do not break apart on impact and pose no further lingering danger to eagles, other birds and wildlife, or humans. These points are all stressed in the video that is accessible here:

[youtube.com/watch?v=qffN1D3B0j8](https://www.youtube.com/watch?v=qffN1D3B0j8)



## Book REVIEW: The Birds of Hocking County, Ohio

John T. Watts, Paul E. Knoop, Jr., and Gary A. Coover  
McDonald & Woodward, 2016  
150 pages, 45 color figures  
Softcover, \$24.95

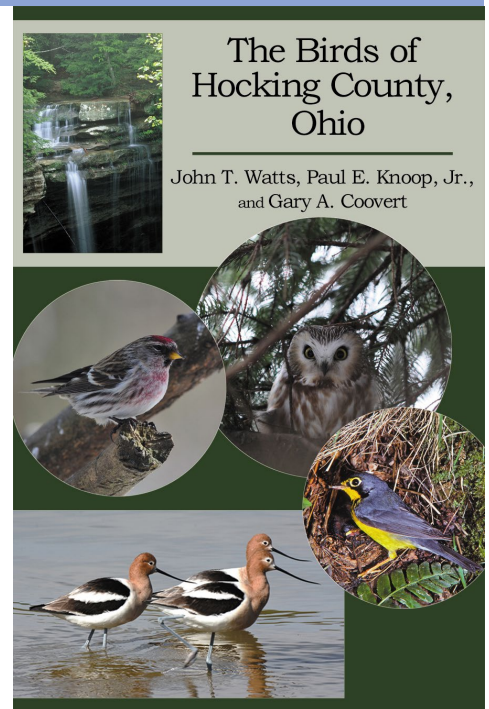
By Bob Scott Placier

Those who have never visited the Buckeye State, and even those visitors motoring across its northern expanse, could be forgiven if their idea of Ohio is a place of vast corn fields, a few big cities, a large lake, and a college football behemoth. Birders and other nature lovers, though, know that Ohio has much more to offer! There are oases of scenic beauty and biotic diversity to be found across the state. And few places fit that description better than the Hocking Hills region of southeastern Ohio. Its geological, floral, and faunal diversity have long made it a mecca for Ohio naturalists, and a location for numerous state parks and nature preserves.

Hocking County contains a variety of habitats perhaps unsurpassed in Ohio. Especially notable are the extensive hemlock dominated gorges, with their microhabitats supporting species more typical of northern forests, including the most southern locations in Ohio for such species as Canada Warbler, Hermit Thrush,

and Winter Wren. So it is not surprising, but very welcome, that three of Ohio's finest naturalists have worked to document the avian diversity of the county. John Watts, Paul Knoop, and Gary Coover are all residents of the county, and devoted to documenting and protecting its natural splendor.

*The Birds of Hocking County, Ohio* is a thorough, well-written, and very welcome addition to the ornithological literature of Ohio. The annotated list presents 266 species and two hybrids for the county, drawn from a variety of sources. That is an impressive number for a landlocked county, with few wetlands and only Lake Logan as a substantive body of water. The book contains chapters describing the geology and topography of the county, its habitat types, earlier publications and studies containing bird life, and how populations of avian species have changed over time. The chapter on birding in the region, with accessible locales and species expected, should be very helpful to visitors and beginning birders of the area. Other than historic photos, all images and maps are in color. Figures 9-10 and 11-12,



pairing 1924 and 2015 views of identical locations within what is now Clear Creek Metro Park, are especially instructive in showing what 90 years of habitat protection, or just benign neglect, can do on the landscape. Happily, and properly for such a work, the book contains a full bibliography and an index.

Watts, Knoop, and Coover have set the bar respectably high for such a work. But wouldn't it be great to see books like this for more counties of Ohio?

*Bob Scott Placier is a founding member of OOS, taught ornithology at Hocking College for more than 20 years, and is an active bird bander. Full disclosure: Bob Scott regards some of the authors as his friends and has contributed sightings to the book.*

# Rally for Rails convened in Lakeside, Ohio

By Cheryl Harner  
OOS Conservation Chair



JIM BERRY

*Jim Berry and Tanner Morris "Birding and Botany" group.*



MARY ANN WEBSTER

*Dr. Andy Jones.*



MARY ANN WEBSTER

*Rail trap at Winous Point.*

The shores of Lake Erie are a critically important stop-over habitat for migratory birds, and the people who hope to see them. The largest marshes remaining in the state are managed by the Ottawa National Wildlife Refuge and the Ohio Department of Natural Resources. Several conservation organizations which study rails during their spring and fall migrations provided programming for OOS' October 1 conference on these seldom seen birds.

The Cleveland Museum of Natural History provided study skins of several types of rails.

Cleveland Museum of Natural History's Dr. Andy Jones kicked off the Rally with a comprehensive program on rail species. We traveled the world via power-

point program and learned of both flightless rails, and highly migratory birds. Andy provided the basic life history of the North American birds of the family Rallidae.

Mark Shieldcastle of the Black Swamp Bird Observatory and Brendan Shirkey from Winous Point Marsh Conservancy gave programs and answered questions about their experiences and successes in studying migrating Sora, Virginia Rails, and King Rails in Ohio. Both organizations were given plaques of appreciation for their scientific research.

After a quick box lunch, the field trips set out for their respective locations. Trips 1 and 2 were premium packages with entrance to the private club at Winous Point. They were led by

Brendan Shirkey, Auriel Fournier, Andy Jones, Judy Semroc, and Larry Rosche. The additional fees from both trips will go directly to marsh or rail conservation. Other field trips explored East Harbor State Park (led by Jim McCormac, Chris Ashley, Mark Shieldcastle, and Joel Such), Meadowbrook Marsh (Jason Larson), Ottawa National Wildlife Refuge (Justin Woldt, Larry Richardson, Dan and Becky Donaldson), and Sheldon Marsh State Nature Preserve near Huron, Ohio (Tim Colborn). Jim Berry, retired director of the Roger Tory Peterson Institute, led a travelling field trip which featured Birds and Botany with Tanner Morris.

The evening gathering included a Silent Auction and more



opportunities for conservation fund raising. OOS President Julie Davis convened the Annual Meeting, and Executive Secretary Sue Evanoff conducted the official vote to ratify our newest board members, Steve Moeckel, Mary Warren and Justin Cale. Afterward, Conservation Chairperson Cheryl Harner introduced the keynote speaker, Auriel Van Der Laar Fournier.

Auriel grew up in Northwest Ohio and was a founding member of the Ohio Young Birders Club. She is currently a Ph.D. candidate with the Arkansas Cooperative Fish and Wildlife Research Unit at the University of Arkansas. Her presentation 'Elusive Migration: The Migration Ecology of Rails' was an inspiring combination of scientific research and girl-on-4wheeler power.

Since prime rail migration falls during Ohio's youth hunting season, many of our favorite birding locations were closed.



*Auriel Fournier and Cheryl Harner.*



VIRGINIA RAIL | BRUCE MILLER

However, Sunday's field trips were all hosted by Conservation partners: Black Swamp Land Conservancy, The Nature Conservancy, Erie County Park System and the EPA, Firelands Audubon, Trust for Public Land, North Central Ohio Land Conservancy, Black Swamp Bird Observatory, Ohio Wetland Association, and the Cleveland Museum of Natural History.

The final accounting shows just over \$2,000 was raised for conservation efforts. These funds will be divided between wetland conservation and rail research organizations. Rally for Rails was a huge success which demonstrates that education,

good fun, and conservation are all achievable primary objectives of our Ornithological Society.

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*Editor's note: Rally for Rails was held in conjunction with Flora-Quest's Wetland Workshop on September 30, and Cheryl Harner played a leading role in both events. Flora-Quest donated the cost of printing programs so that all funds raised could be used for OOS' conservation efforts. The interns and administrators from Flora-Quest also donated their time for conference set up.*






# Swifts Animated

By Stefan Gleissberg

Watching Chimney Swifts at their roost sites can be spectacular. Hundreds, sometimes thousands gather in Autumn in whirling clouds at dusk, chattering and chittering, and within ten or twenty minutes, shortly after sunset, they plunge into their chimney as if sucked in by a giant vacuum.

'Swift Night Out' collects Fall roosting counts throughout North America on two weekends in August and September. This year, several Ohio observers counted swifts in the hundreds, with Darlene Sillick's popular event in Dublin topping the list with 1533 swifts on September 9 (1,2). This Dublin chimney has seen more than 4000 swifts per night in some years.

As a result of their way of life, we encounter Chimney Swifts almost exclusively as silhouettes against the sky. That's okay since their sooty dark plumage offers little in the way of feathered beauty. But swifts are very special birds. They belong to a bird family whose ancestors have evolved an extreme lifestyle – devoted to the aerial element.



Their pointed, scythe-shaped wings and torpedo-like body allows for fast flight and quick manoeuvres. Swifts solely feed in flight, catching their insect prey with their wide gape. A captive injured swift would not attempt to


pick up food in front of it. Rarely, swifts have been observed to glean stationary insects from foliage in flight by plummeting "more or less tail first through the openings in the upperstory, braking as when descending a chimney, to flutter briefly and glean among the leaves lower down in the canopy" (3).

Swifts drink by skimming the water surface, and bathe by briefly hitting the water to sprinkle droplets over their body. They also keep flying in the rain (which should substitute for a bath). Some species, such as the larger Common Swift in Europe, even sleep in flight! These swifts manage to stay up high by gliding into the wind, only occasionally flapping.

The anatomy of swift wings (4,5) differs from swallows and other birds: their wrist joint is very close to their body (their upper arm and forearm is short), so that most of the wing length is made up of their hand. Swallow wings, on the other hand, are more conventional with longer forelimbs, allowing them to fold their wings in flight at the elbow joint. This makes for a different flight style: swift's wing beats appear more stiff without the conspicuous wing folding seen in swallows. It may also permit swifts to rest in flight during longer glides.

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*"Their sooty dark plumage offers little in the way of feathered beauty. But swifts are very special birds whose ancestors have evolved an extreme lifestyle devoted to the aerial element"*



Unlike the similar looking swallows, you will hardly see a Chimney Swift perched on a tree branch or a flat surface – their tiny feet are not suitable for perching, or walking, or hopping. The swift family of birds is named ‘Apodidae’ - meaning ‘without feet’. That is an exaggeration, but their feet really are tiny, and are used to cling to vertical surfaces in chimneys and hollow trees.

Swifts do look a lot like swallows though. Back in 1758, the Chimney Swift (*Chaetura pelagica*) was first described to science as *Hirundo pelagica* by Linnaeus, the father of organismal taxonomy (6). *Hirundo* remains today the genus to which the Barn Swallow (*Hirundo rustica*) belongs. The science of taxonomy has advanced since Linnaeus, and both morphological and DNA studies tell us that the two groups are not related: swallows are songbirds, whereas swifts are instead related to hummingbirds and nightjars.

There are just two instances where Chimney Swifts have to leave the aerial element and use solid structures: sleep, and reproduction. Chimney Swifts build a half-cup nest attached to the inside of a chimney, and use twigs (that they break off tree branches in flight) and glue them together with a sticky saliva (7). The young, fed by both parents and sometimes an additional helper bird, may leave the nest and can clamber around the chimney wall even before their eyes open. Hatchling swifts exercise their wings before they are ready for their first flight. Unlike swallows, young swifts are not fed by their parents after leaving the

nest, they seem perfectly prepared for their aerial life right away. If you are lucky to host nesting swifts in your chimney, it is very likely that the same pair returns to your house year after year.

Chimney Swifts like it warm. During cold and rainy periods, they may not leave their roost all day, and in cold nights they huddle close together up to three swift layers thick to maximize retention of body heat. Swifts are also capable of lowering their body temperature to minimize energy loss, a state known as torpor.

Chimney Swifts nest throughout the eastern United States and southern Canada. Like their closely related counterpart of the Pacific West, the Vaux’s Swift (*Chaetura vauxi*), they vacate North America entirely in the Fall, joining the about nine other species in the genus *Chaetura* that are permanent residents of Central and South America, and who never show up in North America (8). Tagged Chimney Swifts have been found to wander quite a bit on their Fall migration. Some would fly up to 500 miles north before eventually having to go back south. For a swift, that doesn’t seem to be a problem.

A likable trait of Chimney Swifts is their sociability. They tend to forage in groups, chittering and chattering about. Even during the breeding season, parent Chimney Swifts may leave their nestlings at dusk to gather above communal roosts. While only a single pair is nesting in each chimney, it may also serve as night roost for non-breeding swifts. There is no obvious aggression observed between



swifts, although they often seem to playfully pursue each other in the air. Tanner Steeves and colleagues, in their species account in *Birds of North America*, write “Much chasing of individuals, particularly during courtship; often involves threesomes, but difficult to discern intent. Needs study.” (7)


Swifts have associated themselves closely with humans by adopting hollow brick structures for nesting and roosting. Historically, this allowed them to expand their populations, and to this day, their preferred foraging habitat are urban and industrial areas. Ohio’s large cities have the highest population densities (9). However, like other aerial insectivores such as swallows and nightjars, Chimney Swift populations are in a steady long-term decline. In part, this decline may be due to changes in the abundance of flying insects that started back several decades.

At a swift roost site at Queen’s University in Kingston, Ontario, researchers discovered a 2-m-deep (78 inches) deposit of guano (10). They realized that the layered poop accumulated over decades could be used as an archive to reconstruct historical swift diet – back to the 1940s. The age and average thickness of annual guano layers could be estimated by finding the peak of a radioactive Caesium isotope that above-ground nuclear tests in North America had deposited since the 1940s and which peaked in 1963. Then, the Canadian research team, headed by Joseph Nocera, detected a steep increase in DDT in the swift excrements that correlated with widespread use in the 1950s and into the 1960s.

It is well known that environmental accumulation of the insecticide DDT resulted in crashing Bald Eagle populations. Eagles and other top-of-the-food chain raptors have rebound only decades after the Environmental Protection Agency had banned DDT in the early 1970s. But in their study of swift guano at the Ontario chimney, the researchers discovered that historical DDT use had altered swift diet.

To identify the types of insects that swifts consumed over the decades, the scientists examined chitin exoskeleton parts preserved in the swift guano under the microscope. They found that at the same time when DDT accumulated, the composition of insects in the swift guano changed. Specifically, the remains of beetles decreased, while parts belonging to true bugs increased. This implied that the swifts had to respond to a change in prey availability. It’s difficult to imagine a swift’s taste and food preferences, but apparently these birds don’t just swallow everything indiscriminately. Beetles (Coleopteres) seem to be preferred, and may be more nutritious, whereas true bugs may taste bad due to their chemical defenses. But if DDT caused good-tasting beetles to become a rarer treat for swifts, shouldn’t the chemical have affected other prey as well? It did, but true bugs (Hemipteres) are known to quickly develop resistance to the insecticide, and rebound quickly in the presence of DDT.


While DDT has been gradually disappearing from the



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*“The researchers realized that the layered swift poop accumulated over decades contained a historical archive of swift diet”*





environment, the slow but long-term decline of swifts and other insectivores persists, particularly in the northeast of the continent. Multiple factors may play a role, but all seem to be going back to human activities: intensified agriculture, application of insecticides against forest tree pests, climate change-induced shifts in insect composition, and the removal of ageing chimneys and the capping of chimneys by homeowners.

The swifts have left for the year and we won't see them until next April. In the meanwhile, you may enjoy some 3-D computer-animated swift flocks produced by researcher Dennis Evangelista and colleagues ([vimeo.com/116117556](https://vimeo.com/116117556)). The researchers computer-tracked the three-dimensional flight paths of swift flocks in Raleigh, North Carolina from multiple videos, and then recreated the swirling cloud in 3D (11). Virtual swifts, animated.

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Read more:

(1) Swift Night Out, [chimneyswifts.org](http://chimneyswifts.org). – Informative online newsletter 'Chaetura' of the Chimney Swift Conservation Association

(2) Jenny Bowman: 'Swift Watch: The Best Free Show in Town.' [columbusaudubon.org](http://columbusaudubon.org). – A wonderful description of the 'reverse smoke' of swifts entering a chimney in Dublin, Ohio

(3) William G. George, 1971: Foliage-gleaning by Chimney Swifts (*Chaetura pelagica*). *Auk* 88:177

(4) Adam Summers: On Swift

Wings. *Natural History Magazine*. [naturalhistorymag.com/biomechanics/02944/on-swift-wings](http://naturalhistorymag.com/biomechanics/02944/on-swift-wings)

(5) Gary Ritchison: Bird Flight lecture notes. Eastern Kentucky University. [people.eku.edu/ritchison/554notes2.html](http://people.eku.edu/ritchison/554notes2.html)

(6) P. Chantler and P. Boesman, 2016: Chimney Swift (*Chaetura pelagica*). In: del Hoyo, et al. (eds.): Handbook of the Birds of the World Alive. Lynx Edicions, Barcelona. [hbw.com/species/chimney-swift-chaetura-pelagica](http://hbw.com/species/chimney-swift-chaetura-pelagica)

(7) Tanner K. Steeves et al., 2014: Chimney Swift (*Chaetura pelagica*), The Birds of North America (P. G. Rodewald et al., eds.). Ithaca: Cornell Lab of Ornithology. [birdna.org](http://birdna.org)

(8) Neotropical Birds Online. Edited by T. S. Schulenberg, Ithaca: Cornell Lab of Ornithology. [neotropical.birds.cornell.edu](http://neotropical.birds.cornell.edu) – Accounts and range maps for 11 *Chaetura* species

(9) The Second Atlas of Breeding Birds in Ohio, 2016. Edited by P. G. Rodewald et al. – Chimney Swift, pages 220-221

(10) Joseph J. Nocera et al., 2012: Historical pesticide applications coincided with an altered diet of aerially foraging insectivorous chimney swifts. *Proceedings of the Royal Society B: Biological Sciences* 279:3114-3120

(11) Dennis Evangelista, Pranav Khandelwal, Jonathan Rader and Ty Hedrick, 2015: Free flight kinematics of massed Chimney Swifts entering a chimney roost at dusk. Society for Integrative and Comparative Biology Annual Meeting, Jan 3-7, West Palm Beach, FL.

# Canton Audubon provides Scholarship

By Laura Dornan

In 2010, Canton Audubon Society opened a \$1000 scholarship fund to be awarded annually to a college student who is majoring in any Environmental Science program. Since named the Arnold W. Fritz Memorial Scholarship, in honor of the first president of Canton Audubon, this scholarship has been awarded to five very worthy recipients from area colleges. However the past 2 years there have been no qualified students to apply for the scholarship, so the CAS Scholarship Committee has realized we must find more ways of getting the word out to college students.

To be eligible a student must be a Junior, Senior or Graduate student in college at the time of the award. May be a college sophomore at the time of the application. The scholarship is awarded for the year following the application.

The student must be majoring in any environmental science discipline or in law or business with the full intent on

pursuing a career in the environmental field. In the latter case, the student must be able to prove an interest in the environment and a commitment to serving in this field.

This scholarship is offered to any student residing in or attending school in any Ohio county served by Canton Audubon Society or any county contiguous. Thus the student must live in or attend college in Ashland, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Holmes, Jefferson, Knox, Mahoning, Medina, Muskingum, Portage, Stark, Summit, Tuscarawas, or Wayne Counties.

Application forms and guidelines are available at [cantonaudubon.org](http://cantonaudubon.org) and must arrive at Canton Audubon Society, P.O. Box 9586, Canton, Ohio, 44711, by the March 1st deadline.

Questions or problems may be directed to the Scholarship Committee Chairman, Laura Dornan, at [tlldornan68@att.net](mailto:tlldornan68@att.net).

## Ohio Birding Resources

Check out these organizations for up-to-date field trip and event info! If you want your local bird club listed here, contact [ceruleaneditor@ohiobirds.org](mailto:ceruleaneditor@ohiobirds.org)

### American Avian Conservation and Research Institute

[tuckercasey.wixsite.com/aacri-birds](http://tuckercasey.wixsite.com/aacri-birds)

### Athens Area Birders

[groups.io/g/athensbirders](http://groups.io/g/athensbirders)

### Audubon Ohio, Cincinnati Chapter

[cincinnati.audubon.org](http://cincinnati.audubon.org)

### Blackbrook Audubon

[blackbrook.audubon.org](http://blackbrook.audubon.org)

### Black River Audubon

[blackriver.audubon.org](http://blackriver.audubon.org)

### Black Swamp Bird Observatory

[bsbo.org](http://bsbo.org)

### Canton Audubon

[cantonaudubon.org](http://cantonaudubon.org)

### Columbus Audubon

[columbus.audubon.org](http://columbus.audubon.org)

### Greater Cleveland Audubon

[cleveland.audubon.org](http://cleveland.audubon.org)

### Greater Mohican Audubon

[gmasohio.org](http://gmasohio.org)

### Kirtland Bird Club

[kirtlandbirdclub.org](http://kirtlandbirdclub.org)

### Mountwood Bird Club

[brooksbirdclub.org](http://brooksbirdclub.org)

### Ohio Bird Conservation Initiative

[obcnet.org](http://obcnet.org)

### Ohio Young Birders Club

[ohioyoungbirders.org](http://ohioyoungbirders.org)

### Tri-Moraine Audubon

[tri-moraine.audubon.org](http://tri-moraine.audubon.org)

### Western Cuyahoga Audubon

[wcasohio.org](http://wcasohio.org)



# Calendar of Events

A selection of local and state-wide field trips and programs, available at press time. Please confirm event details and registration needs using the weblinks or email provided.

Saturday, 5 November  
**10th Annual Ohio Young Birders Conference**  
[ohioyoungbirders.org](http://ohioyoungbirders.org)

Monday, 7 November  
**History of Bird Research**  
David YMCA Jackson Twp  
The Wilderness Center  
[wildernesscenter.org](http://wildernesscenter.org)

Tuesday, 15 November  
**The Birds of Hocking County with John Watts**  
Grange Insurance Audubon Center  
Columbus Audubon  
[columbusaudubon.org](http://columbusaudubon.org)

Tuesday, 15 November  
**"Who keeps changing my Field Guide" with Andy Jones**  
Holden Arboretum  
Blackbrook Audubon  
[blackbrookaudubon.org](http://blackbrookaudubon.org)

Saturday, 18 November  
**Waterfowl Watch**  
Nimisila Reservoir  
Summit Metro Parks  
[summitmetroparks.org](http://summitmetroparks.org)

Saturday, 19 November  
**Birdwatching for Beginners**  
Scioto Audubon  
[metroparks.net](http://metroparks.net)

Saturday, 19 November  
**Bird Walk**  
The Wilderness Center  
[wildernesscenter.org](http://wildernesscenter.org)

Saturday, 19 November  
**Lake Erie Pelagic**  
Black Swamp Bird Observatory  
[bsbo.org](http://bsbo.org)

Sunday, 20 November  
**Field Trip**  
Sandy Ridge Reservation  
Blackbrook Audubon  
[blackbrookaudubon.org](http://blackbrookaudubon.org)

Saturday, 3 December  
**Lake Erie Pelagic**  
Black Swamp Bird Observatory  
[bsbo.org](http://bsbo.org)

Saturday, 14 January 2017  
**Breakfast with the Birds**  
The Wilderness Center  
[wildernesscenter.org](http://wildernesscenter.org)

Saturday, 21 January 2017  
**Bird Banding**  
The Wilderness Center  
[wildernesscenter.org](http://wildernesscenter.org)

Monday, 23 January 2017  
**Birding at Green Lawn Cemetery**  
Dalaware County Bird Club  
[columbusaudubon.org](http://columbusaudubon.org)

Tuesday, 7 February 2017  
**'Peregrine Falcons in Cleveland'**  
Chris and Chad Saladin  
Carlisle Reservation  
Black River Audubon  
[blackriveraudubon.org](http://blackriveraudubon.org)

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# Ohio Ornithological Society Membership Application

Join us online! [ohiobirds.org](http://ohiobirds.org)

We provide a statewide birding network welcoming bird watchers of all interests and abilities to unite for the enjoyment, study and conservation of Ohio's birds.

<b>\$15</b> Student/Limited income	<b>\$100</b> Patron/Business
<b>\$35</b> Individual	<b>\$250</b> Sustaining
<b>\$50</b> Family/NonProfit	<b>\$500</b> Benefactor
<b>\$20</b> Print publications*	<b>\$1,000</b> Lifetime

\*All members will receive the *Cerulean* and the *Ohio Cardinal* electronically. For Print Publications, please add \$20 to the membership fee. Membership is tax deductible to the extent allowed by law.

## JOIN US TODAY!

The *Cerulean* is our quarterly newsletter featuring articles and birding news around the state.

The *Ohio Cardinal* is our quarterly periodical that includes the current season's bird sightings and scientific articles.

Carlisle Printing | Made with 30% recycled fiber and chlorine-free pulp from well-managed forest.



**Please check your membership renewal date, IN RED, above your address!**



UNITED TOGETHER, BIRDERS  
IN OHIO CAN MAKE A HUGE  
DIFFERENCE FOR BIRDS &  
CONSERVATION!

PLEASE TAKE TIME TO  
RENEW OR JOIN OHIO'S  
BIRDING NETWORK!  
wild birds.

To provide an Ohio Birding  
Network welcoming bird  
watchers of all levels of  
interest and ability to unite  
for the enjoyment, study,  
and conservation of Ohio's

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THE OHIO ORNITHOLOGICAL SOCIETY  
OHIO'S BIRDING NETWORK!



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Christopher Collins, Webmaster  
Cheryl Harner, Conservation Chair  
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