



# THE NUTHATCH

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## “Conservation and Management of the North American Black Tern”

Tuesday, October 10, 2017, 7:00 p.m.

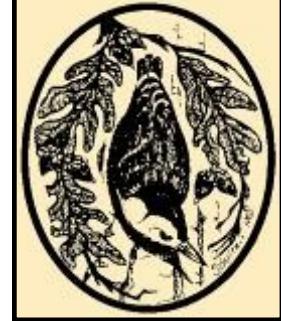
Erin Rowan

The Black Tern population in North America has been in decline since the 1960's for reasons not completely understood. In a joint research effort, partners from Detroit Audubon, Audubon Great Lakes, National Audubon, Detroit Zoological Society, Michigan Department of Natural Resources and Environment Canada, are studying the nesting colony at St. Clair flats. This project is in its fifth year in 2017.

Our team is currently trying to band adults and chicks for a long-term mark-recapture study from which population modeling will be done. This modeling will help us identify the pressures limiting population growth, which will inform conservation strategies. Black Terns are a Species of Special Concern for Michigan, and all the Great Lakes states have the species on their action plans. Come learn more about these efforts and the advancements the project has made over these last 5 years from Detroit Audubon's Research Coordinator, Erin Rowan!



Photo Credit: Diane Cheklich



### Inside This Issue

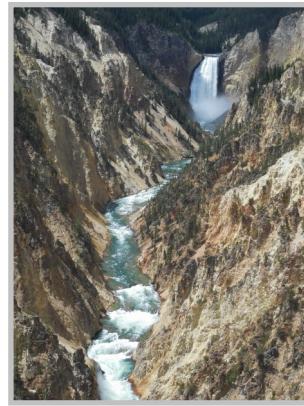
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## “Yellowstone: The First and Best”

Tuesday, November 14, 2017, 7:00 p.m.

Gordon Lonie

Yellowstone became our nation's first national park in 1872. It is world famous for its geysers and wildlife. Join speaker Gordon Lonie for the story behind the geologic and biologic wonders of the park. Highlights will include Old Faithful, Mammoth Hot Springs, Grand Canyon of the Yellowstone, Lake Yellowstone and Hayden Valley. Bring your bear spray and get ready to enjoy an evening in grizzly country.



**Please note the new earlier meeting start time of 7:00 p.m.**

## PRESIDENT'S COLUMN

Fall 2017

The weather should begin getting cooler as we enter the fall but I personally have enjoyed some of the cooler weather this summer. It has been great to not be burning hot most of the summer. Thank the lack of El Nino for the cooler weather. But fall will be upon us before you know it.

That said, we enter the fall program meeting schedule and all the regular activities of the organization. Field trips step up and we also have lots of other things happening. But with all these happenings, I still want to do a bit more as an organization. Consider me crazy but birding alone cannot be the end of our path. I recently participated in a National Audubon Ambassador training project oriented to help spread the word on climate change. Now, I know it's controversial in some areas but generally, the idea is to spread the word on things we can all do to help make sure that climate change doesn't become a real problem for our birds. I hope to help in this area. At the same time, conservation of natural areas is also a concern that I have, propped up by what I have seen in the rest of the world on my travels. To that end, I will be soliciting interest in doing more in these areas. That means, I'd like to get someone to chair a committee on Conservation/Environment within OAS, to help provide information on these topics, generate some focus on things we can do to help both areas and to help coordinate activities that we can participate in as an organization. The workday with North Oakland Headwaters Land Conservancy in August is just the beginning, I hope. So, if you have interest in such activities, I'd be happy to talk to you about taking on this job. I would expect this position to be involved with board meetings and have occasional input at program meetings. I do hope someone is interested enough to step forward. You'll have my full support.

As you are also aware, I have begun to expand our field trip schedule with more out of state tours. I hope to lead some trips to neighboring states but a trip to Arizona in 2019 is already being planned. I again ask folks to let Jeff Stacey and me know of birds and places you'd like to see and visit. We do try to have trips to help folks fill in their life lists and to discover new places to go birding. We try and like to keep the schedule interesting.

I am also working on other projects that I will bring to the group as time goes by. In the meantime, keep those feeders full and keep coming out to our field trips and programs. Participation is our only measure of our effectiveness in serving our community on the many levels that we can.

On a personal note, you all know I am fanatic about birding and have been working diligently on my world list. Well, in Borneo this past June, I passed 5000 species and the march toward 5500 (presumably more than halfway through the total species list in the world) will continue next year. I am taking more time out (sorry for my absence) for another knee replacement in October. But I will be back on the scene once I get my mobility back. Hopefully in time for the Christmas bird count.

Finally, our annual Nuthatch Open occurs in September. Some reliable teams will be participating but I would really urge many of you to consider coming out for the day. You don't have to be hard core but it is a fun day. Birding all day, getting together afterwards to compare experiences, good food, friends – it doesn't get much better. And the registration fee goes to Young Birder activities. That's what it's all about. See some of you then.

Don Burlett

*Page one banner credits: Green Heron, Belted Kingfisher, Osprey, Great Blue Heron —Mike Dougherty*

## **OFFICER/CHAIR POSITIONS AVAILABLE**

If you are motivated to contribute to the Oakland Audubon Society, there are a couple of positions open as these folks are moving on for different reasons. Here is a listing of open positions and a brief description of the roles. Please contact Don Burlett if you have interest. We want motivated people who want to make a difference in our organization.

**Program Officer** – This job involves scouting out speakers for programs and working with a small committee to assure that our monthly program schedule is flush with good programs. Our current schedule is complete for the next several months so the pressure is low when this position is filled.

**Co-Coordinator of the Young Birders Club** – This position involves working with another coordinator to assemble programs that will attract young birders to participate in nature/birding activities. Some publicity and communication skills will be useful. This will be coordinated with the President. An imagination and understanding of young people are essential for this role.

Please contact President Don Burlett to express interest in any of these positions. The Program Officer spot needs to be an Oakland Audubon member while the Young Birders Club Co-Coordinator is encouraged to be a member. You can always join when you take a spot also.

## **OAS BOARD MEMBERS**

### **Elected Officers**

President	Don Burlett	(248) 236-9486	baikalteal13@netzero.net
Secretary	Doris Applebaum	(248) 542-2506	ibis4247@sbcglobal.net
Treasurer	Elaine Ferguson	(248) 470-2212	fergusonelaine6@gmail.com
Membership Officer	Dave Frye	(248) 627-5650	kestrel11dcf@gmail.com
Field Trip Officer	Jeff Stacey	(248) 798-0508	jdstacey@ameritech.net
Program Co-Officer	Doris Applebaum	(248) 542-2506	ibis4247@sbcglobal.net
Program Co-Officer	Margaret Moran	(248) 646-7387	marmo48009@yahoo.com

### **Appointed Officers**

Young Birders Club Rep.	OPEN		
Hospitality Officer	Alice Marotti	(248) 545-4165	amarotti@aol.com
Publicity/Fundraising	Phil Bugosh	(248) 763-3163	peb729@gmail.com
Web Co-Editor	Don Burlett	(248) 236-9486	baikalteal13@netzero.net
Web Co-Editor	Hannah Dunbar		hannahmdunbar@aol.com
Social Media Administrator	Janet Hug	(248) 736-2839	jkissnhug@comcast.net
Nuthatch Editor	Mike Dougherty	(248) 972-7802	mikeodoc@comcast.net
Seven Ponds Rep.	Dr. Greg Gossick		ggossickdds@sbcglobal.net

**UPCOMING FIELD TRIPS**  
**(Details of these outings are on the Field Trips page of our website at [www.oaklandaudubon.org](http://www.oaklandaudubon.org))**

Date	Event	Trip Leader(s)
September 9, 2017 (Saturday) 8:00 AM - 12:00 PM	Lake St. Clair Metropark  Meet at the Nature Center lot  Metroparks daily or annual pass required	Mike Mencotti
September 13, 2017 (Wednesday) 8:00 AM - 12:00 PM	Red Oaks and the Detroit Zoo  Meet at Red Oaks County Park  Oakland County Parks annual or day pass required  Zoo admission charge	Mike Mencotti
September 16, 2017 (Saturday) 12:00 AM - 4:00 PM	Nuthatch Open  See website for details	Jeff Stacey
September 20, 2017 (Wednesday) 8:00 AM - 12:00 PM	Kensington Metropark  Meet at the Nature Center  Metroparks daily or annual pass required	Mike Mencotti
September 23, 2017 (Saturday) 7:00 AM - 2:00 PM	Watkins Lake State Park  Meet at the MDOT lot in the northwest corner of the Meijer parking lot at 8 mile and Haggerty	Jim Koppin
October 11, 2017 (Wednesday) 8:00 AM - 12:00 PM	Robert Long and Heritage Parks  Meet at the parking lot of Robert Long Nature Park	Mike Mencotti
October 14-15, 2017 (Saturday – Sunday)	Whitefish Point  Drive up Friday evening and return on Sunday	Jeff Stacey
October 22, 2017 (Sunday) 7:00 AM – 5:00 PM	Ottawa NWR  Meet at the MDOT lot in the northwest corner of the Meijer parking lot at 8 mile and Haggerty	Jim Koppin

**UPCOMING FIELD TRIPS**  
**(Details of these outings are on the Field Trips page of our website at [www.oaklandaudubon.org](http://www.oaklandaudubon.org))**

Date	Event	Trip Leader(s)
<b>October 25, 2017 (Wednesday) 8:00 AM – 12:00 PM</b>	<b>Kensington Metropark</b>  Meet at the Nature Center  Metroparks daily or annual pass required	<b>Mike Mencotti</b>
<b>November 4, 2017 (Saturday) 8:00 AM – 12:00 PM</b>	<b>Sterling State Park</b>  We will meet at the covered large pavilion off the beach near the campground. Be prepared for a three-mile hike on paved trails.  State recreation passport required	<b>Mike Mencotti</b>
<b>November 8, 2017 (Wednesday) 8:00 AM – 12:00 PM</b>	<b>Robert Long and Walled Lake</b>  Meet at the parking lot of Robert Long Nature Park.	<b>Mike Mencotti</b>
<b>November 18, 2017 (Saturday) 8:00 AM – 12:00 PM</b>	<b>Belle Isle State Park</b>  Meet at the Nature Center at the east end of the island and carpool from there.  State recreation passport required	<b>Jim Koppin</b>
<b>November 26, 2017 (Sunday) 8:00 AM – 11:30 PM</b>	<b>Lake Erie Metropark</b>  Meet at Nature Center  Metroparks daily or annual pass required	<b>Dave Frye</b>
<b>December 2, 2017 (Saturday) 8:00 AM – 11:00 AM</b>	<b>U-M Museum of Natural History – Bird Collection</b>  Contact Don Burlett for details	<b>Don Burlett</b>
<b>December 6, 2017 (Wednesday) 8:00 AM – 12:00 PM</b>	<b>Robert Long and Walled Lake</b>  Meet at the parking lot of Robert Long Nature Park.	<b>Mike Mencotti</b>
<b>December 16, 2017 (Saturday) 7:00 AM – 4:00 PM (earlier if owling)</b>	<b>Christmas Bird Count</b>  Contact Jeff Stacey for details	<b>Jeff Stacey</b>

# Field Trip Reports

## Nyanquing Point - June 3, 2017

**Leader:** Jeff Stacey

The target bird for this trip was Yellow-headed Blackbird, and fortunately they were mostly happy to comply. A large group of 20 birders were able to enjoy these stunning birds, albeit not as closely as desired. Nayanquing Point also rewarded the group with both Least and American Bittern sightings, as well as some late shorebirds (Dunlin, Semipalmated Sandpipers, Semipalmated Plovers, and White-rumped Sandpipers). A singing Northern Parula was quite a pleasant surprise. Bay City SRA chipped in with both Cattle and Snowy Egrets. Many Purple Martins were using the two houses provided there as well.



*Snowy Egret (left), Cattle Egret*

*Photo Credits: Jeff Stacey*

## Orion Oaks Field Trip – June 7, 2017

**Leader – Dave Frye**

The annual hike through the grasslands at Orion Oaks County Park yielded a nice population of birds (40 species). The trip was attended by 7 individuals with near perfect weather conditions. The group was a bit disappointed by a lack of grassland species observed. Even though the grassland area at the park is vast, the birds that might be expected there just have not returned to adopt the area for breeding.

## Field Trip Reports - continued

### Birds and Butterflies at Independence Oaks – June 24, 2017

A wonderful group of about 16 birders and butterfly enthusiasts gathered at Independence Oaks County Park in Clarkston on June 24. The weather was near perfect with mild temperatures, a light breeze and blue skies. A fair number of people were new to Oakland Audubon. The group hiked about 5 kilometers through the open field, Southern Mesic Forest and Hardwood Conifer Swamp environments at the park. Birds singing in territories helped with identification and also assisted some birders learning new songs. In total, **40 species of birds were seen and heard.**



Dwayne Badgero

Photo Credit: Kathleen Dougherty

Butterfly expert, Dwayne Badgero, joined the hike for several hours to assist with butterfly identification. A number of beautiful butterflies, **17 species total**, were encountered during the hike including the Great Spangled Fritillary, Baltimore Checkerspot and Eastern Comma. The highly camouflaged Giant Swallowtail larva was also seen on the Prickly Ash. The larva resembles bird droppings. Dwayne encouraged the larva to extend its red osmeterium which appeared from the head of the caterpillar like horns. Osmeteria are defense organs used to distract and confuse predators. The results of the butterfly count are part of an annual count for the North American Butterfly Association under the Oakland County Headwaters Count. This year only 104 individual butterflies were observed.

Thanks to Nancy Tar, past OAS/MAS President, for helping with bird identification and leading this hike. The bird checklist has been reported on eBird.



Birders and Butterfly Enthusiasts

Photo Credit: Kathleen Dougherty



Giant Swallowtail larva showing osmeterium

Credit: By Ianaré Sévi (Own work) [CC BY-SA 3.0]

(<http://creativecommons.org/licenses/by-sa/3.0>), via Wikimedia Commons

## Field Trip Reports - continued

### Seney/UP Field Trip – July 14-16, 2017 Leader – Don Burlett

This weekend trip started Friday with 12 people gathering along the route to the UP. Once together, we first stopped at a Forest Service road to look for Black-backed Woodpecker. No luck but we did get a few warblers and other birds. Our next stop was the Racco burn, with a little information from Curt Hofer. We walked into the burn and soon found a young Black-backed Woodpecker calling for food from an adult that was working nearby trees. Because the youngster was stationary in one tree, we got great looks at the two birds. Tick! A lifer for most folks. We then headed to Seney NWR for a relaxing drive through the refuge before we headed for dinner.

On Saturday, we were up early and headed to Seney NWR to see what was out and active. Lots of Trumpeter Swans and Canada Geese and good number of loons along with some youngsters were seen. We watched one adult loon feed a crayfish to a young bird that managed to get it down. We also saw beavers and muskrat. Osprey and Northern Harrier and many other birds were observed in the drive. After that drive, we headed to a spot on the north side of the refuge where Black-backed Woodpeckers have been for the past two years but no luck, as the area has grown in a bit. After lunch, we headed to Whitefish Point and got a lecture on Piping Plover and were taken out to observe the breeding pair and a couple of their young on the beach. A few other shorebirds were also observed. Dinner again, after which, the leader's car got a coyote crossing the road on the south end of Newberry.

On Sunday, we drove toward Pickford with a stop at a spot where a White-winged Dove had been reported. No luck (even with two stops there). Our real destination was Munuscong WMA (Potholes). Here we got looks at LeConte's Sparrow, Bobolink, other sparrows, Wilson's Snipe, a Black-billed Cuckoo and other birds. Again, a life bird for many in the group.

All together, it was a fun trip with lots of birds, our list totaling 83 species by the end. A great group then disbanded for other sites in the UP. At the high point, there were 13 birders but only 7 went back to the lower peninsula on Sunday.



Black-backed Woodpecker (2007)

Photo Credit: Robert Epstein



Black-billed Cuckoo (2014)

Photo Credit: Jeff Stacey

## Field Trip Reports - continued

### Shiawassee Basin Preserve and Springfield Township Park

July 22, 2017

Leader – Kathleen Dougherty

A small group of adventurous OAS members attended the Shiawassee Basin Preserve field trip in Springfield Township on July 22. The weather was overcast and rainy. Eight birders gathered at the beginning of the field trip, but light rain reduced the number to seven when the group hit the trail. The Shiawassee Basin Preserve is owned and operated by Springfield Township Parks and Recreation. The Preserve consists of 514 acres of natural areas and several miles of trails.

It is the home of one of Michigan's largest, most pristine prairie fens. Fens are unique wetlands fed by groundwater and associated with the headwaters of streams, lakes and rivers. Fens are rare and one of the most biologically diverse habitats in the world. Rare communities of unusual plants are found in fens along with endangered animals. The SB Preserve is home to the Eastern Massasauga Rattlesnake and Poweshiek Skipperling, both endangered. During the hike the group observed several butterflies identified by Doris Applebaum, including Pearl Crescent, Wood-Nymph, Monarch and Cabbage White.

**Thirty-nine species of birds** were seen before the rain downpours dampened everyone's enthusiasm. A bird checklist has been reported on eBird. Surprise birds seen were the Yellow-billed Cuckoo and the Pied-billed Grebe.

Thanks to everyone attending, sharing their expertise and braving the elements.



Pitcher-plant



Blanche, Gail and Phil chilling

Photos Credit: Kathleen Dougherty

## **Field Trip Reports - continued**

### **Butterflies at Independence Oaks County Park - July 29, 2017**

**Leader: Doris Applebaum**

On a mostly sunny day with pleasant temperatures, 11 people looked for butterflies at Independence Oaks County Park. Though there was more wind than we would have liked, which kept some butterflies low in the vegetation, we nevertheless found 16 species—14 in the first two areas searched, then 2 more in a third area (when just 5 hardy souls participated by then).

Spicebush Swallowtails provided some very nice looks, there were several Monarchs seen (always nice), and a very cooperative Question Mark allowed everyone to see how it got its name.

Without an expert to lead the walk, there were problems with some identifications. Proving that she wasn't an expert, the leader identified the last species seen as Peck's Skipper. It was not until she was on her way home, sitting in an I-75 traffic jam, that a thought struck: There was not enough yellow on that skipper to be Peck's; it was much more likely to be a different skipper called the Long Dash. Skippers are tricky!

### **Pointe Mouillee State Game Area - August 13, 2017**

**Leader: Dave Frye**

A beautiful August morning provided a spectacular backdrop for 20 attendees at Pointe Mouillee. Many got life birds, as highlights of the 58 species included Virginia Rail (2 separate sites), Tricolored Heron, Little Blue Heron, Snowy Egrets, White Pelicans, and Baird's Sandpiper. It was a very good day for shorebirds!

## Your Membership At Work

Thank you notes were received from the Michigan Nature Association, the Rouge River Bird Observatory, and Seven Ponds Nature Center for donations made to these organizations last quarter made possible by your continued support and membership.



July 19, 2017

Oakland Audubon Society  
PO Box 796  
Birmingham, MI 48012-0796

Dear Friends:

Thank you—made our day! Your ongoing support of the Michigan Nature Association speaks volumes for your commitment to protecting Michigan's rare plants and animals and the natural communities they need to survive. We are truly honored that you are part of the MNA family!

Your gift of \$100.00 will be put to work immediately to safeguard important natural areas, restore critical habitat, assist with much-needed scientific research, and connect young people to nature in order to foster our next generation of conservation leaders. Your generosity will make a lasting impact that will benefit Michigan for decades to come.

Thank you again for your thoughtful donation. Because of you—and people like you—MNA will continue to lead the state in the protection of rare, threatened and endangered species, now and forever. If you have any questions or comments about our work, events or other programs, please don't hesitate to contact me at (866) 223-2231 or michigannature@michigannature.org

With gratitude from everyone at MNA,

*Sherry Stewart*

Sherry Stewart  
Member Service Coordinator

P.S. Join us for MNA's Race for Michigan Nature, our signature series of six family fun runs and 5Ks held around the state to spotlight rare species. Not a runner? Tell your friends and family—locations.

This letter serves as your gift receipt. The Michigan Nature Association is a nonprofit 501(c) 3 organization. No goods or services were provided in return for this contribution. Contributions are deductible to the full extent of the law. Please consult your tax advisor.



July 25, 2017

Oakland Audubon Society  
P.O. Box 796  
Birmingham, MI 48012

Dear Oakland Audubon Society Board and members,

Thank you so much for your recent contribution of \$200.00 to the Rouge River Bird Observatory. Your support allows us to continue analyzing, synthesizing, and sharing the wealth of a quarter-century of data on urban bird ecology with other scientists, governmental organizations, land managers, and the public.

I deeply appreciate your support over the past two decades. Thank you, again, for your important contribution.

Sincerely,

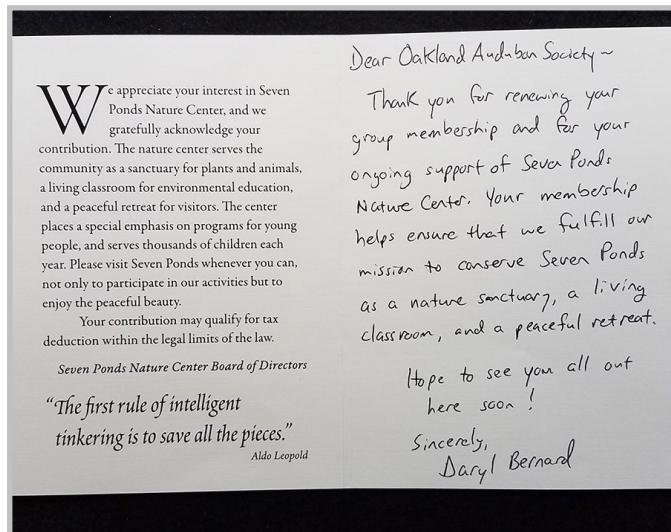
*Ale Cr*

Julie A. Craves  
Supervisor of Avian Research

Thank you so much to  
the very first bird club I  
ever joined!

*JAC*

Mirrored text from the Michigan Nature Association letter.



## THE FROG THAT SINGS LIKE A BIRD

Several birds can produce the sounds of other creatures. Mockingbirds are well known for this. Some parrots are good at this also, and lyrebirds in Australia have even been heard producing the sounds of mechanical objects. Recently, an unexpected example of an animal that sounds like something entirely different was reported from India.

A forester in the Karaavali region was documenting the wildlife near his village when he thought he heard the call of the White-throated Kingfisher. He was surprised to realize that the sound was actually being made by a frog, and he recorded the call on his mobile phone.

Later, while doing field work in another part of the country, he played the frog's call for several scientists. They all thought they were hearing the kingfisher.

One scientist visited the area of the forester's village, heard the call there, and was convinced that it really was coming from a frog. Further study showed that this was a new species, and it has been named the Karaavali skittering frog—an unusual name for an unusual amphibian.

Unfortunately, this frog has an extremely limited range and is threatened by highway construction and agricultural activities. It has been recommended for classification as Endangered on the International Union for the Conservation of Nature (IUCN) Red List of threatened species of the world.

(This item is based on information in the May 2017 issue #32 of *Update*, the newsletter of Fauna & Flora International.)



*Photo Credit: KS Seshadri*

## **NATURE NOTES** by Allen Chartier

*Do we have evidence in eBird data or other data from migratory bird days or CBC's that indicate a firm move of species north based on climate change?*

This is a very broad and complex topic that cannot be adequately addressed in a short column like this. The massive amount of data spanning several decades that could begin to answer this question is scattered among many different sources and publications, and to a large degree it continues to be collected. To my knowledge researchers have only begun to scratch the surface on this question, with very few papers published to date. One that I remember, published in *The Auk* in 2013, is a study of Ruby-throated Hummingbird migration that compares data from the North American Bird Phenology Program (1880-1969) to more recent data from eBird and published sources from Audubon's (now ABA's) *North American Birds* (1997-2010). A key graphic from that paper is reproduced below, and shows a northward shift in arrival dates that is most pronounced in the southern U.S. The correlation with climate change is suggestive, but the authors extensively discuss other complicating factors, and limitations of the data. This paper is worth a full read.

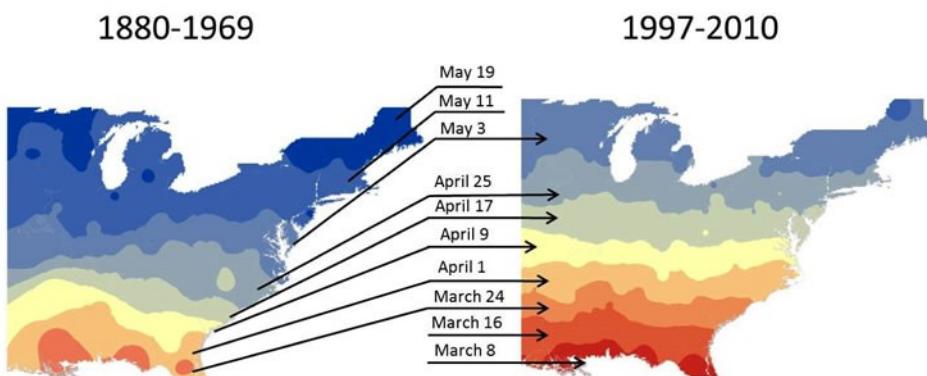


FIG. 2 (from Courter et al. 2013). A depiction of mean first arrival dates of Ruby-throated Hummingbirds in eastern North America, 1880–1969 and 2001–2010. Arrival dates were advanced at all latitudes. This figure was generated using inverse-distance weighted (IDW) interpolation in ARCGIS, version 10.

Northward movements of breeding birds in Michigan have been documented through various means over the past 150 years or so, including the arrival and spread of Northern Cardinal in the 1800s, and more recently Tufted Titmouse, Red-bellied Woodpecker, and Carolina Wren. But no clear correlation with climate change can be made for any of these range expansions. It seems that possibly the next “southern” species to expand north into Michigan is the Blue Grosbeak, which was first documented breeding in the state a little more than a decade ago, and which has now nested in multiple locations in each of the past few years.

## **NATURE NOTES** by Allen Chartier *(continued)*

*I understand that with climate change, some migratory species are arriving to find conditions different with respect to insects hatches, etc. that they rely on for food. How serious is this issue for our migratory species?*

This is another very broad, and very complex topic, about which very little has been studied in North America. One study that I cannot cite specifically documents a “mis-match” in the hatches of insects and northerly breeding birds, not migrants. This was based on about two centuries (!) of bird data from northern Europe. To date, we have nothing comparable in North America. More birders should expand their interests to insects and other life forms, to be able to document how our birds fit in our ecosystems.

Reference:

Courter, J.R., R.J. Johnson, W.C. Bridges, and K.G. Hubbard. 2013. Assessing Migration of Ruby-Throated Hummingbirds (*Archilochus colubris*) at Broad Spatial and Temporal Scales. *The Auk* 130(1): 107-117.

***Don't be shy! If you have a question you would like Allen to answer in a future Nature Notes column or a topic you are interested in hearing more about, you can email it to him at:***

**[amazilia3@gmail.com](mailto:amazilia3@gmail.com)**

# Conservation Stewardship



On August 5, 2017 several members of the OAS participated in a conservation stewardship workday with the North Oakland Headwaters Land Conservancy (NOHLC). The workday was held at a property in Independence Township known as the Voorheis-Beardsley Preserve, which is owned by NOHLC.

The group worked on a variety of tasks including mowing, trail maintenance, cutting back Common Buckthorn, planting native plants, and installing a couple of Northern Flicker nest boxes. It was a beautiful day and a lot was accomplished. NOHLC thanks the OAS for their participation and efforts and looks forward to working with us again.

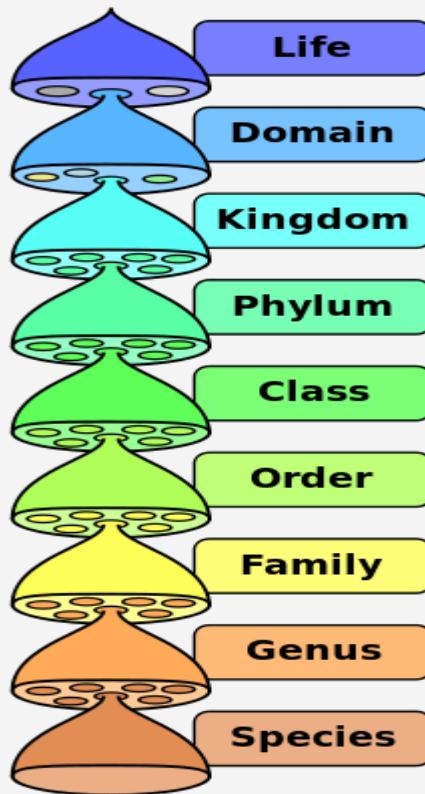


# Taxonomics – The Hidden Science Behind Birding

## Don Burlett

Birding is a popular endeavor and includes many levels of interest. From backyard feeder watchers and avid birding the neighborhood up to world traveling birders. For most people, knowing the common names of the birds they see is the only aspect of taxonomics that is necessary. However, to truly understand the birds around you, it is important to know something about the taxonomics of this wonderful group of animals.

To begin, the definition of taxonomy is important. **Taxonomy** (from Ancient Greek τάξις (*taxis*), meaning 'arrangement', and -νομία (*-nomia*), meaning 'method') is the science of defining and naming groups of biological organisms on the basis of shared characteristics. Thus, organisms are grouped together into taxa (singular: taxon) and these groups are given a taxonomic rank; groups of a given rank can be aggregated to form a super group of higher rank, thus creating a taxonomic hierarchy. The schematic shown below (1) shows the various “ranks” that are used in modern taxonomy.



These “ranks” and this scheme have evolved over many years. Medicinal plant illustrations show up in Egyptian wall paintings from c. 1500 BC. (2) Organisms were first classified by Aristotle (Greece, 384–322 BC), during his stay on the Island of Lesbos. (3,4) He classified beings by their parts, or in modern terms attributes, such as having live birth, having four legs, laying eggs, having blood, or being warm-bodied. (5) He divided all living things into two groups: plants and animals. (4) Some of his groups of animals, such as *Anhaima* (animals without blood, translated as invertebrates) and *Enhaima* (animals with blood, roughly the vertebrates), as well as groups like the selachians and cetaceans, are still commonly used today. (6) Again, several plant groups currently still recognized can be traced back to Theophrastus, such as *Cornus*, *Crocus*, and *Narcissus*. (4) During the Renaissance, the Age of Reason, and

the Enlightenment, categorizing organisms became more prevalent,(4) and taxonomic works became ambitious enough to replace the ancient texts. The Swedish botanist Carl Linnaeus (1707–1778) (7) ushered in a new era of taxonomy. With his major works *Systema Naturae* 1st Edition in 1735,(8) *Species Plantarum* in 1753, (9) and *Systema Naturae* 10th Edition, (10) he revolutionized modern taxonomy. His works, known as Linnaean taxonomy, implemented a standardized binomial naming system for animal and plant species, (11) which proved to be an elegant solution to a chaotic and disorganized taxonomic literature. With the subsequent advent of such fields of study as phylogenetics, cladistics, and systematics ("The study of the identification, taxonomy and nomenclature of organisms, including the classification of living things with regard to their natural relationships and the study of variation and the evolution of taxa"), the Linnaean system has progressed to a system of modern biological classification based on the evolutionary relationships between organisms, both living and extinct.

A common example of this "binomial" naming system would be our American Robin. Its taxonomic name is *Turdus migratorius*. *Turdus* would refer to the genus of thrushes to which this bird belongs; *migratorius* refers to the individual species. Of course, this bird also belongs to the Turdidae family, which includes all the thrushes. This classification also places the American Robin in the Passeriformes order. The Eastern Bluebird is also a member of Turdidae but belongs to another genus, having a taxonomic label (scientific name) of *Sialia sialis*. I find it interesting that most Americans learn the common names first, while in many other places, the scientific name is learned first and common names added after.

Now, let's make this even more confusing. Two terms are used to label taxonomy – alpha and beta. The term "**alpha taxonomy**" is primarily used today to refer to the discipline of finding, describing, and naming taxa, particularly species. (12) In earlier literature, the term had a different meaning, referring to morphological taxonomy. Then, William Bertram Turrill introduced the term "alpha taxonomy" in a series of papers published in 1935 and 1937 in which he discussed the philosophy and possible future directions of the discipline of taxonomy. (13) He said "... there is an increasing desire amongst taxonomists to consider their problems from wider view-points, to investigate the possibilities of closer co-operation with their cytological, ecological and genetical colleagues and to acknowledge that some revision or expansion, perhaps of a drastic nature, of their aims and methods may be desirable ...". This was the obvious opening of Pandora's box – the introduction of genetic data as part of the taxonomic discussion, along with other information on song, structure, etc. This became "**beta taxonomy**".

Since we are now using "beta taxonomy", there are other aspects to understand. How species should be defined in a particular group of organisms gives rise to practical and theoretical problems that are referred to as the species problem. The scientific work of deciding how to define species has been called microtaxonomy. (14,15,16) By extension, macrotaxonomy is the study of groups at higher taxonomic ranks, from subgenus and above only, than species. (14) The advent of molecular genetics and statistical methodology allowed the creation of the modern era of "phylogenetic systems" based on cladistics, rather than morphology alone. (17,18,19)

As seen in recent years, the taxonomic order of birds has been turned upside down on the basis of genetic investigations and detailed research into a number of birds and bird families. The placement of falcons next to parrots and movement of ducks up and loons back are all from these investigations. The most recent split of the South Hills Crossbill from the Red Crossbill is another example of genetic differentiation along with other investigative information on breeding, call and other factors. This sort of investigative work by field ornithologists and genetic investigators has led to an increase in species numbers around the world from below 10,000 species 20 years ago to now approach 11,000.

The field guides that we use help us to understand what is around us. Whether the presentation is current or not is not material. They can still do the job as long as they include some indication of new species. I would expect that new field guides with updated information will continue to be published throughout our lifetimes. But it is helpful to have a basic understanding of the taxonomic ordering of the bird families, how it all came into existence and to learn those scientific names that will help keep us informed about the birds we love to observe.

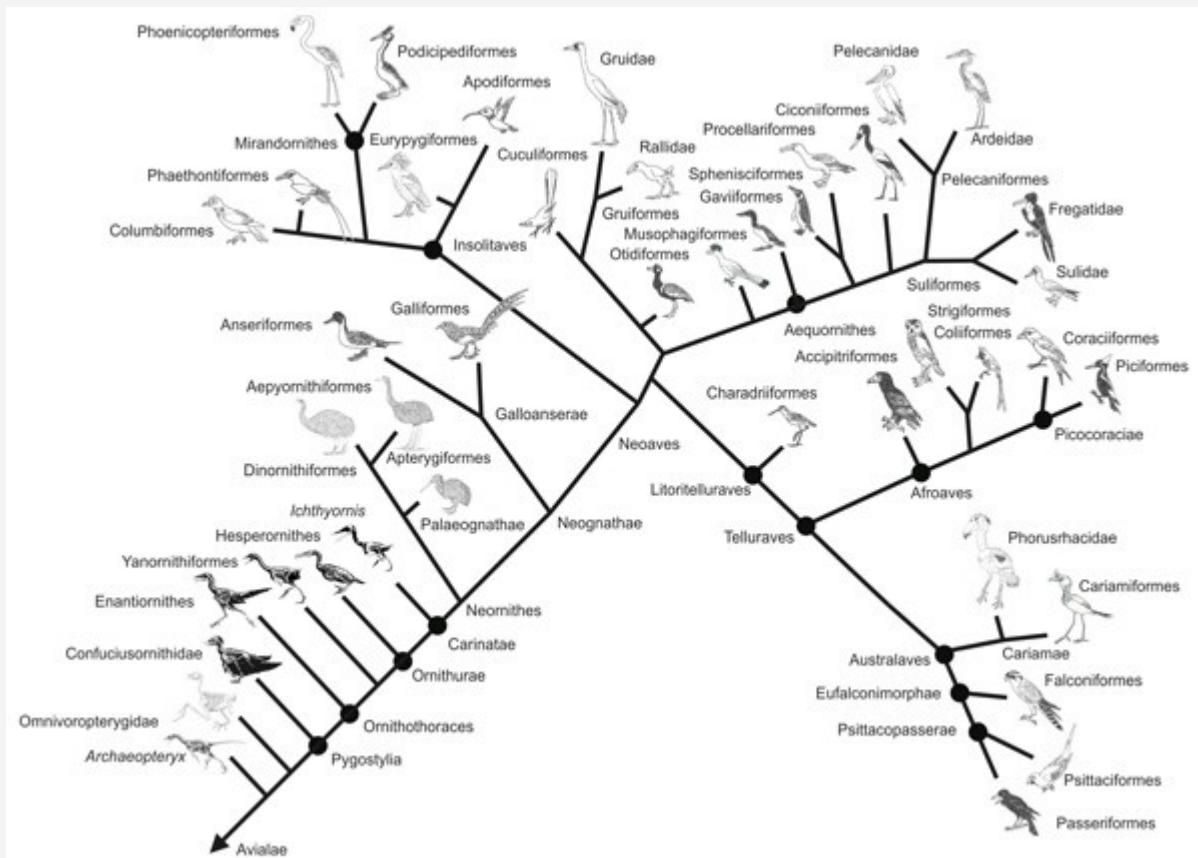
At the bottom of the article (page 19) is a cladogram of the bird families using current taxonomies. The circle format has become very popular in recent years. Starting at the left, we begin with Archaeopteryx and work our way around to the passerines.

## References

1. Wikipedia, listed under taxonomy.
2. Manktelow, M. (2010) History of Taxonomy. Lecture from Dept. of Systematic Biology, Uppsala University.
3. Mayr, E. (1982) *The Growth of Biological Thought*. Belknap P. of Harvard U.P, Cambridge (Mass.)
4. "Palaeos : Taxonomy". [palaeos.com](http://palaeos.com).
5. "Biology 101, Ch 20 (23-Mar-1998)". [www.cbs.dtu.dk](http://www.cbs.dtu.dk).
6. "Andrea Cesalpino | Italian physician, philosopher, and botanist". Encyclopedia Britannica.
7. "Biology 101, Ch 20 (23-Mar-1998)". [www.cbs.dtu.dk](http://www.cbs.dtu.dk).
8. Linnaeus, C. (1735) *Systema naturae, sive regna tria naturae systematicae proposita per classes, ordines, genera, & species*. Haak, Leiden.
9. Linnaeus, C. (1753) *Species Plantarum*. Stockholm, Sweden.
10. Linnaeus, C. (1758) *Systema naturae, sive regna tria naturae systematicae proposita per classes, ordines, genera, & species*, 10th Edition. Haak, Leiden.
11. "taxonomy - The Linnaean system | biology". Encyclopedia Britannica.
12. "Taxonomy: Meaning, Levels, Periods and Role". Biology Discussion. 2016-05-27.
13. Turrill, W.B. (1938). "The Expansion Of Taxonomy With Special Reference To Spermatophyta". *Biological Reviews*. **13** (4): 342–373. doi:[10.1111/j.1469-185X.1938.tb00522.x](https://doi.org/10.1111/j.1469-185X.1938.tb00522.x).
14. "Taxonomy: Meaning, Levels, Periods and Role". Biology Discussion. 2016-05-27.
15. Ernst Mayr (1968), "The Role of Systematics in Biology: The study of all aspects of the diversity of life is one of the most important concerns in biology", *Science*, **159** (3815): 595–599, Bibcode:1968Sci...159..595M, PMID 4886900, doi:[10.1126/science.159.3815.595](https://doi.org/10.1126/science.159.3815.595)
16. Mayr, E. (1982). "Chapter 6:Microtaxonomy, the science of species". *The Growth of Biological Thought: Diversity, Evolution, and Inheritance*. Belknap Press of Harvard University Press. ISBN 9780674364462.
17. Stace, Clive A. (1989) [1980]. *Plant taxonomy and biosystematics* (2nd. ed.). Cambridge: Cambridge University Press. ISBN 9780521427852. Retrieved 29 April 2015.
18. Datta, Subhash Chandra (1988). *Systematic Botany* (4 ed.). New Delhi: New Age Intl. ISBN 8122400132. Retrieved 25 January 2015.
19. Stuessy, Tod F. (2009). *Plant Taxonomy: The Systematic Evaluation of Comparative Data*. Columbia University Press. ISBN 0-231-14712-0. Retrieved 6 February 2014.

Wikipedia was a major resource for this material.

## Bird Family Cladogram (<https://blogs.scientificamerican.com/tetrapod-zoology/hot-news-from-planet-archosaur/>)



## BIRD ID QUIZ (Fall 2017)

Another interesting family of birds seen well in late summer and early fall!!



A) \_\_\_\_\_

B) \_\_\_\_\_



C) \_\_\_\_\_

Last (summer 2017) issue photo quiz answers: a) Summer Tanager (female), b) Scarlet Tanager (female) and c) Orchard Oriole (female). How'd you do with the ID's?

*Photo credits: Joan Tisdale*

## **HIGHLIGHTS OF THE BOARD OF DIRECTORS MEETING**

### **JULY 8, 2017**

Membership Officer Dave Frye reported that we ended up with 200 members for 2017, the same as 2016.

Dave did some presentations for several Earth Sciences classes and will repeat this in September. He also gave a well-received presentation about birds at the Holly Library and was invited to do another one there.

Planning is underway for the Nuthatch Open on September 16, including a couple of new rules for the participants.

Social Media Administrator Janet Hug reported that our Facebook page now has 801 "likes."

Website Editor Hannah Dunbar is hard at work revamping and vastly improving the OAS website.

Dr. Greg Gossick, our chapter representative for Seven Ponds Nature Center, reported that recent fund-raising events were successful. If you are interested in becoming a board member of the nature center, there are some openings.

Plans are being finalized for the OAS workday at a North Oakland Headwaters Land Conservancy preserve in Independence Township on August 5.

### **T H A N K   Y O U**

I would like to thank all of you folks that helped me unload my car of the 40 (plus) wildflowers I brought to the program. Also a **GREAT BIG THANKS** for your patience while I had to reload my slide tray. I would also like to thank the young lady who helped me fix the slides in the tray.

**THANK YOU, THANK YOU, THANK YOU ALL!**

Caryle Spence

June Wildflower Program

## UPCOMING MEMBERSHIP MEETINGS AND PROGRAMS

Date	Time	Program	Location
Tues., September 12	7:00 p.m.	The Philippines – Islands of Endemics	First United Methodist Church (see below)
Tues., October 10	7:00 p.m.	Conservation and Management of the North American Black Tern	First United Methodist Church (see below)
Tues., November 14	7:00 p.m.	“Yellowstone - The First and Best”	First United Methodist Church (see below)

Monthly membership meetings are held on the second Tuesday of each month (except December, May, July and August) at 7:00 p.m., at the First United Methodist Church, 1589 West Maple Road, Birmingham, in the Thomas Parlor. The facility is located on the south side of Maple Road between Southfield and Cranbrook Roads. There is plenty of lighted, free parking and barrier-free access. Our meetings are free and open to the public. For meeting cancellation information, check our website, call a board member or call the church at (248) 646-1200.

## MEMBERSHIP MESSAGE

**Welcome New Members!**

**Darlene Friedman, Edie Schmitz**

Our membership drive for 2018 is underway! Please pay your membership dues at a monthly meeting or by mailing in the membership form on page 20.

Thanks to everyone who helps sustain OAS with your membership contributions. We would be nowhere without you!



## OAKLAND AUDUBON SOCIETY MEMBERSHIP FORM



Name: \_\_\_\_\_


Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

Mobile: (\_\_\_\_) \_\_\_\_\_

Email address: \_\_\_\_\_

Please indicate with an ( X ) in the box any personal information above you do not want listed in the OAS membership directory.

Check also if you are a member of:

- National Audubon Society  
 Michigan Audubon Society

**OAS needs and welcomes volunteers — please participate if you can!**

Check if you have the skills to help:

- Become a board member  
 Lead a field trip or present a program  
 Fill an open position (Position: \_\_\_\_\_)

Please check appropriate line:

- Member renewal  
 New member  
 Change of address

### ***OAS Membership Fees***

- Individual \$15
- Family \$20
- Contributing \$25
- Supporting \$50
- Benefactor \$100

Please make checks payable to:  
OAKLAND AUDUBON SOCIETY

Mail to:  
OAS MEMBERSHIP  
2780 SCENIC MEADOWS DRIVE  
ORTONVILLE, MICHIGAN 48462

### ***Our Mission***

- To provide, on a local level, access to the natural world through educational programs such as meetings and field trips.
- To advocate the preservation of wildlife habitats and endeavor to create interest in native birds, other animals and plants in Michigan.

*Oakland Audubon Society is a 501(c)(3) organization.  
Your donation is 100% tax deductible to the extent allowed by law.*