

The

PSO Pileated



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The Newsletter of the Pennsylvania Society for Ornithology

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From the President's Desk...

I'm drafting this article fresh from our members' meeting in Lancaster County, the first such gathering of PSO members since 2019 when my local Audubon chapter (Lycoming) hosted this annual event in Williamsport. It was so great to see many old friends, make new ones, and enjoy birds and the study of birds together again.

The meeting was supported by 110 in-person registrations and an additional 19 online. I can't thank enough the many people who worked hard, often behind the scenes, to make this meeting possible. Lancaster County Bird Club members led most of the excellent field trips to birding hot spots across the county, coordinated by Ted Nichols II (bird club president) and Chad Kaufman (retiring PSO Board member). Thanks. We were blessed with great weather. Carole Winslow (retiring PSO Board member) coordinated the extraordinary speakers for Saturday's afternoon session of inspiring talks. Thanks. Frank Haas (PSO Treasurer) and others managed meeting registration. Carol Guba, Linda Wagner, and Marg and Roger Higbee staffed PSO's sales. Thanks. So, the annual PSO meeting of members is back!

On Friday evening we carried on the business of PSO. Three new board members were elected: Carolyn Hendricks, David Barber, and Doug Wentzel. Brian Byrnes was elected PSO's new Vice President. You can find their biographical sketches in this issue! I am so grateful for the active support of PSO's Board members – listed on the back page. Chad, Carole, and Eli DePaulis



Jonathan Heller led his field trip at Swatara State Park where participants had the opportunity to bird from a soy bean field. Highlights included an Olive-sided Flycatcher and multiple Lincoln's Sparrows.

have stepped off the Board after years of service, so we are glad to welcome these new members to help carry on the diverse mission of PSO. Board members are engaged in so many activities including coordinating bird projects; taking a stand on conservation issues; recognizing outstanding bird studies, organizations, and individuals; overseeing the state's records committee; advancing educational opportunities for birders through our website and in webinars; publishing our newsletter and journal to mention just some. Sorry if I missed

something – so much is happening that it's not possible to name everything being done through the oversight of PSO. The Board is comprised of the heroes of PSO, and I am honored to be a part of this group with so much knowledge and dedication to the birds of Pennsylvania and the state's birders.

Here are a few more reflections on the annual meeting. A total of 146 species were observed in Lancaster and Lebanon counties during the three-day event! This included all six of the likely vireo species and 24 warblers, including lingering local breeders and many migrants passing through. A summary of the eBird checklists from those trips can be found [here: https://ebird.org/tripreport/75455](https://ebird.org/tripreport/75455). The date of this meeting was of course selected to target migration, and warblers have always been a huge focus for me! It was great fun encountering a flock of various species of fall warblers with birding friends. Migrant flocks of Broad-

winged Hawks were observed during those peak days of migration of that species. Our scientific session on Saturday afternoon included four excellent talks, including topics on nest monitoring, songs of female birds, habitat changes at Middle Creek, and the keynote address by Scott Weidensaul on the wonders and challenges of bird migration. Scott's talk covered many dramatic examples

from around the globe. Plans are underway for a spring meeting next year in the State College area. I hope you can join us then.

Dan Brauning, President
Lycoming County

Congratulations, Dr. Margaret Brittingham!



Margaret Brittingham accepts the Earl Poole Award from Deb Grove, Chair of the Awards Committee.

Dr. Margaret Brittingham has been selected for the Earl Poole Award which is presented to a person or persons who have made significant contributions to Pennsylvania's ornithology. She has just retired as Professor of Wildlife Resources at The Pennsylvania State University (1988-2022) where her research projects are too many to all be mentioned. They encompass many conservation-related projects including forest fragmentation effects on songbirds, the impact of shale gas extraction on forest birds, raptors including Northern Goshawk and migrating raptors in the central Appalachians, monitoring of grassland species as surveyed in the Pennsylvania Conservation Reserve Enhancement Program (CREP), and more. Her research projects have resulted in more than 75 papers published in scientific journals and more than 50 PSU Extension publications. She has mentored many students who have gone on to exciting careers.

Margaret served on the Ornithological Technical Committee for more than 20 years and also taught ornithology courses and labs since the early 1990s. More recently she has also served as consultant for the development of the Penn State Arboretum's Avian Education Program.

A long-term member of PSO, Margaret joined PSO in 1990 and served on the board for three years.

Ned Smith Center Given PSO's Conservation Award

The Conservation Award has been presented to the Ned Smith Center for Nature and Art, spotlighting the many volunteers who have assisted with their projects. John P. Booth, Executive Director of NSCNA, was presented with this award by outgoing PSO Vice President Deb Grove.

The most remarkable projects have been the Northern Saw-whet Owl Project which they have been involved

with for the past 25 years. The success of this project is entirely due to the volunteers who catch, band, and release hundreds of these tiny owls at three stations in the central Pennsylvania region during the autumn migration period. In 2021, the 70 banders and volunteers logged 3,056 hours of research and caught 307 Northern Saw-whet Owls.

This project has illuminated much information on this secretive bird that was once considered rare.

The Ned Smith Center is also the institutional home of Project SNOWstorm, one of the largest and most ambitious Snowy Owl research studies in the world. Since 2013, more than 40 scientists, banders, wildlife veterinarians, and pathologists, have been studying the winter ecology of these huge raptors when they come south from the Arctic. To date, more than 70 Snowy Owls, from the Dakotas to New England, have been tagged with high-tech GPS transmitters, providing an unprecedented look into the biology of these magnificent hunters.

The mission of the Ned Smith Center is to honor the legacy of Ned Smith by merging the arts and natural world through education, exhibition, and experiences.

The center is located at 176 Water Company Road in Millersburg, PA, in Dauphin County.

Concerning the Ned Smith Center, Gary Alt, former biologist for the Pennsylvania Game Commission, states, “We need to connect people, especially children, to the natural world. Anyone who comes to the Center’s wildlife festival in late July and watches the kids, can see they have a natural love for the outdoors. Their enthusiasm and wonder gives you a warm feeling. You know this is right for families and for America.”

For further information, email info@nedsmithcenter.org.



Deb Grove presents John P. Booth, Executive Director of the Ned Smith Center, with PSO's Conservation Award at the Annual PSO Meeting at Middle Creek Wildlife Management Area.

Presentations at the 2022 Annual Meeting

We maintained a long tradition of high-quality speakers on the Saturday afternoon of the Annual Meeting. Topics at these events ranged widely, and this year’s four speakers, listed below, maintained our standard of nationally (and even internationally) recognized experts. Below are the titles of three which will be available on our website and a summary of Scott Weidensaul’s keynote talk on page 4.

Robyn Bailey – NestWatch, Cornell Lab of Ornithology

**Dr. Lauryn Benedict – She sings, too! Female Birds’ Songs
in North America and Beyond.**

**Brant Portner, Pennsylvania Game Commission –
Middle Creek’s Habitat Happenings**

Scott Weidensaul – A World on the Wing: the Global Odyssey of Migratory Birds

Scott Weidensaul is an internationally known speaker and author and is no stranger to PSO.

Scott provided an exhilarating exploration of the science and wonder of global bird migration as described in his recent best-selling book, *A World on the Wing: The Global Odyssey of Migratory Birds*. In the past two decades, our understanding of the navigational and physiological feats that enable birds to cross immense oceans, fly above the highest mountains, or remain in unbroken flight for months at a stretch has exploded. What we've learned of these key migrations—how billions of birds circumnavigate the globe, flying tens of thousands of miles between hemispheres on an annual basis—is nothing short of extraordinary.

Scott included various examples of the almost unfathomable endurance displayed during bird migration, like a sparrow-sized sandpiper that will fly nonstop from Canada to Venezuela—the equivalent of running 126

consecutive marathons without food, water, or rest – avoiding dehydration by "drinking" moisture from its own muscles and organs, while orienting itself using the earth's magnetic field through a form of quantum entanglement that made Einstein queasy. Crossing the Pacific Ocean in nine days of nonstop flight, as some birds do, leaves little time for sleep, but migrants can put half their brains to sleep for a few seconds at a time, alternating sides—and their reaction time actually improves.

These and other revelations convey both the wonder of bird migration and its global sweep, from the mudflats of the Yellow Sea in China to the remote mountains of northeastern India to the dusty hills of southern Cyprus.

This breathtaking work of nature writing from Pulitzer Prize finalist Scott Weidensaul also introduced readers to those scientists, researchers, and bird lovers trying to preserve global migratory patterns in the face of climate change and other environmental challenges.

Welcome, New Board Members!

Brian Byrnes, Vice President

Brian Byrnes is a lifelong Delaware County resident and birder. Brian joined PSO in 2005 after attending his first Annual Meeting in Clarion, where he added Henslow's Sparrow to his life list. Brian joined the PSO Board of Directors in 2021 and helped launch the Breeding Bird Blitz for Conservation program. He has spent his career in the nonprofit and conservation worlds. Currently, he serves higher education institutions as a Grants Specialist for Ellucian.com. He previously served as Executive Director of the Chester Ridley Crum Watersheds Association, lifting the organization's profile through large riparian restoration projects and redesigning their water quality



Brian Byrnes poses with sons Jack, Scott, and Kevin at Acadia NP while a Red Crossbill sings over his head.

monitoring program. During his seven years as Important Bird Area Coordinator for Audubon Pennsylvania, he forged partnerships across the Piedmont region of the state to expand bird conservation efforts. Brian started his career at the Brandywine Conservancy, where he managed and wrote conservation easements to protect open space and wildlife habitats. He holds a Master of Environmental Studies degree from the University of Pennsylvania and a Bachelor of Arts in

Biology from Swarthmore College. Brian lives in Glen Mills with his wife, Katie Tarr, and their three boys: Jack (13), Kevin (11), and Scott (11).

David Barber



David Barber

David Barber has been bird watching for 35 years and has been conducting research on birds for nearly as long. He graduated from the University of Arkansas with a Master of Science degree where he studied the effects of Brown-headed Cowbird parasitism in Black-capped Vireos.

He is the Senior Research Biologist at Hawk Mountain Sanctuary where he has worked for the last 23 years. During that time, he participated in the fall migration count each year and conducted breeding bird and winter bird censuses on the Sanctuary's long-term study plots. He currently oversees the long-term migration count and other monitoring on the Sanctuary, manages the Sanctuary's Geographic Information System (GIS), and conducts research on the movement ecology of Turkey and Black Vultures.

He has led bird walks for Hawk Mountain members and led trips for Hawk Mountain's trainees to other hawk-watch sites. He participated in Pennsylvania's 2nd Breeding Bird Atlas Project. For the last three years, he has been the Hawk Watch Report Editor for *Pennsylvania Birds*.



Carolyn Hendricks

Although Carolyn began birding on a whim in 2005 when she gave her husband a gift of a Winter Raptor Workshop in Missoula MT, she quickly developed a passion for birds and bird conservation. She served on the board of the American Bird Conservancy for nine years under George Fenwick and Mike Parr as leaders of the organization and chaired the Nominating and Governance Committee for her entire tenure.

She also currently serves on the boards of the Western Pennsylvania Conservancy under Tom Saunders and NatureServe under Sean O'Brien which oversees the Pennsylvania National Heritage Program through the US Section Council. Carolyn is a member of the Juniata Valley Audubon Society and the Woodland Owners of the Southern Alleghenies. Their home borders Buchanan State Forest and affords them a varied habitat for their daily local bird walks. She also regularly signs up for local weekend birding trips within a two-hour radius (or 100 miles by electric vehicle) from their home.



Carolyn Hendricks



Doug Wentzel

Doug Wentzel

Doug is a program director, instructor, and naturalist at Shaver’s Creek Environmental Center in central PA. For 30 years he has directed the education internship and numerous birding programs including helping to create The Birding Cup annual fundraiser.

As a Penn State instructor, Doug teaches natural history and environmental interpretation and is a certified trainer through the National Association for Interpretation. As a naturalist, he regularly contributes field data to citizen science projects on birds (Stone Mountain hawk watch, Winter Raptor Survey, BBS route, Audubon Climate Watch, CBCs, Big Sit, eBird hotspots, and other initiatives), butterflies, and amphibians within the park, and his ongoing passion is to foster the awareness of the diversity of life in our own backyards.

Doug is currently serving a third two-year term as the President of the State College Bird Club and is a member of the Avian Education Advisory Committee at the Penn State Arboretum, as well as a part of the Millbrook Marsh Nature Center advisory committee.

PSO Grants Three Student Research Awards

By Deb Grove

Three Student Research Awards of \$500 were granted by PSO in May 2022 to students who had submitted research proposals. “The award is designed to provide support to either graduate or undergraduate students in pursuit of a bachelor’s degree, master’s degree, or doctorate. The research should be conducted in support of a thesis or dissertation and eventually published. Proposals are judged for their scientific merit and the likelihood that the work will make a meaningful contribution to our understanding of Pennsylvania avifauna.” The students who received awards are Michelle Eshleman at the University of Delaware, Mercy Melo at University of Massachusetts Amherst and in collaboration with Hawk Mountain Sanctuary. and Lan-Nhi Phung at Penn State University.

The first awardee is Michelle Eshleman at the University of Delaware and her

advisor is Jeffrey J. Buler, Ph.D., Associate Professor of Wildlife Ecology in the Department of Entomology and Wildlife Ecology. The title of her research is “Identifying Seasonal Habitat Use and Survival of Juvenile Eastern Towhees Throughout Their First Year.” Eshleman states that although Eastern Towhees are still common and widespread, their population trends in the Northeast where they are listed as a Species of Greatest Conservation Need are alarming. Theories about why the bird populations are declining include habitat loss, light pollution, and the presence of outdoor cats. Juvenile birds are especially susceptible to these dangers, and mortality for juvenile birds making their first migration is much greater than for adults. Thus, her project examines the migration pattern for these birds.



This male Eastern Towhee has been fitted with a solar-powered nanotag.

Eshleman’s proposal is to tag Eastern Towhees with radio-transmitter

nanotags to follow juvenile birds during their first migrations. The tags will be tracked using the Motus Wildlife Tracking System which is a network of more than 1,300 coordinated, automated radio telemetry receiving stations and thus, will not require recapture. The objective will be to gather data of migration routes and survival rates of juvenile and adult Eastern Towhees.

Captures of 6 juveniles and 4 adults will be made at each of three sites. This year she placed 30 multi-year radio tags on immature and adult Eastern Towhees that spent the summer in eastern PA at Rushton Woods Preserve, the Great Marsh Institute, and Middle Creek Wildlife Management Area. Small solar panels on the tags will recharge the battery so that the tag will transmit signals for the life of the bird. This data will determine whether populations of Eastern Towhee in eastern PA are migratory or sedentary as well as the migration timing and pathways taken by adult and immature birds. This information will be useful to landowners as they manage their properties.

Mercy Melo's research proposal is focused on determining the causes of decline of American Kestrels. Kestrels have steadily declined since the 1970s, resulting in a once-common raptor now being a rare sighting. She is exploring several factors that may be causing the decline: intraguild predation, habitat loss, decreased prey abundance, and contaminant load. Over the past two summers, Mercy has written protocols, trained collaborators, and run study sites resulting in a large amount of field data from the northeastern United States (where kestrels are declining most dramatically) and across the continent. This summer she added more data methods to gather information for each factor.

One factor was contaminant load, and she submitted blood samples collected this summer to analytical laboratories. She will receive the results in the next few months. Once results from the labs come back, she plans to prepare a manuscript and share those results with land managers and the general public.



Mercy Melo holds two adult kestrels with transmitters added this past winter for part of her winter survival study.



This kestrel chick has been fitted with a transmitter.

This data is expected to lead to actions that will reduce the effects of contaminants on kestrels as quickly as possible. She has also gathered data for land-use change, and her analyses of this data have also led to her preparing a manuscript for publication.

Lan-Nhi Phung is in the lab of Dr. David Toews, Assistant Professor in the Department of Biology at The Pennsylvania State University. Her thesis is "Nashville warbler playback study in Pennsylvania." Phung's proposal is to use Nashville Warblers to probe the role of vocalization as a mechanism of premating reproductive isolation. The observation of territorial reactions between two groups or reciprocal playback is a method to examine speciation (Kenyon et al. 2017; Irwin et al. 2008).

Her field work was to be primarily in the Adirondacks on Nashville Warbler breeding grounds with a few sites in Pennsylvania. However, she had to change her plans. She did work on protocols for taking recordings in the field. These will be instrumental for the proposed Nashville project that she be able to start next spring.

A special thanks to the students who supplied the information for this article.

Kenyon, H. L., M. Alcaide, D. P.L. Toews, and D. E. Irwin. "Cultural Isolation Is Greater than Genetic Isolation across an Avian Hybrid Zone." *Journal of Evolutionary Biology* 30, No. 1 (January 2017): 81–95. <https://doi.org/10.1111/jeb.12989>.

Irwin, D. E., M. P. Thimgan, and J. H. Irwin. "Call Divergence Is Correlated with Geographic and Genetic Distance in Greenish Warblers (*Phylloscopus Trochiloides*): A Strong Role for Stochasticity in Signal Evolution?" *Journal of Evolutionary Biology* 21, No. 2 (2008): 435–48. <https://doi.org/10.1111/j.1420-9101.2007.01499.x>.

Cameron County Spotlight

October 14-17, 2022

The PSO is highlighting counties across the state to explore its hotspots and find as many birds as we can. As a group, we want to document as many birds as possible during these extended weekends. Birders are invited to tag along with trip leaders or explore that county's hotspots on their own terms.

Birders of all skill levels are invited to join us. If you just want to learn more about birds or if you can help others

and our challenge, we want you to be involved! We look forward to seeing you in Cameron later this October!

Three days of field trips have been lined up with help from local birders. Just a reminder: If you are able to do any birding in Cameron County during those four days, please share your eBird checklists with PSO Birding Data so we can keep track of how our county spotlight helps an underbirded and under appreciated county in the Wilds.

Scheduled Bird Walks at Sinnemahoning State Park during PSO's Cameron County Birding Spotlight

Friday, October 14 – Meet at 2:00 p.m. at Pavilion 1 for a bird walk at the 40 Maples Day Use Area. Park in the main parking lot of 40 Maples Day Use Area. (GPS 41.4509, -78.0472) Address is 4843 Park Road, Austin, PA 16720.

This walk passes through open field, early successional habitat and may include conifer forest and mixed deciduous forest, depending on the route choice of participants. Likely species include sparrows, confusing fall warblers, backyard birds. Also included will be an overview of where to go in the park to see other species. The distance of 1.5 to 2 miles over slightly uneven gravel and natural trail surfaces has a minimal elevation change and some small hills. Sturdy shoes are recommended. This trip will be led by the park educator and local birder Barb Gee.

Saturday, October 15 – Meet at 7:00 a.m. at the main door of the Wildlife Center, the park office. GPS 41.4735, -78.0562. The trip is scheduled to run till 9:00 a.m., but this is dependent upon the number of birds seen.

We'll bird the Lowlands Trail which passes through mixed lowland habitat and open fields. The distance is 1.5 to 2 miles over slightly uneven gravel and natural trail surfaces with some off-trail meadow walking and minimal elevation change and some small hills. Sturdy shoes are recommended. This trip will be led by local birder Mark Johnson.

Sunday, October 16 – Park at the Lake Day Use Area, GPS 41.4226, -78.0296. Meet at the boat launch at 7:30 a.m. for a pontoon trip that will last till 9:00 with stops along the edges of the 145-acre lake. Viewing habitat includes shoreline, tributaries, mature hardwood forest, meadows, and mixed lowland habitat. Likely species include waterfowl, shorebirds, sparrows, etc.

We will also receive an overview of where to go in the park to see other species. Dress in warm layers as it is cool on the lake in the morning. Life vests will be provided. No walking is required; the boat is wheelchair accessible. This trip will be led by the park educator, with spotting and identification done by participants.

Field Trip – Hawk Mountain

November 12-13

Tag along to enjoy raptor watching at this famous landmark! Golden Eagles will be the target species, but we expect other hawks, falcons, and Bald Eagles. This is a great way to study these birds. Details will be on social media.

The Raven Reporter

Tales of
Discovery about
Pennsylvania
Birds



Boreal Forest Bird Report 2022

It was another discouraging year for boreal forest birds in Pennsylvania. For the most part, I am observing declines in breeding populations of breeding bird species with northern affinities. Some species are slipping from Endangered to Extirpated status while I am studying them.

The good news has been the wide distribution of Red-breasted Nuthatch, not only in boreal forests but also in hemlock woods and some conifer plantations where they can find seeds. In Ricketts Glen State Park (RGSP), the Red-breasted Nuthatches were not clustered in any particular part of the forest. The hemlock cone crop provided a lot of forage. These little conifer specialists also forage on a lot of insects as well, sometimes even sallying out and catching their prey mid-air. While I was explaining this to a group of birders, a Red-breasted Nuthatch cooperated with my narrative by flying out from a large hemlock and snatching an insect only a few feet from my head. I love cooperation in the field.

Red Crossbills were not common this summer, but I did encounter them flying low over the canopy in one place and singing and calling in another location. Each of these locations was dominated by red spruce with many large hemlocks as well. The first was Coalbed Swamp and the second was a remote conifer forest in SGL 57 near the headwaters of Somer Brook. However, I did not get repeated observations that would indicate local nesting at either location. This bears watching, so I will revisit these locations this fall. I urge birders to be alert for crossbill activity and seek out forests where there is a good spruce, pine, or hemlock cone crop to listen and look for them.

Relating the Pennsylvania conifer specialists to the Northeast USA region, I observed a huge crop of red spruce seed cones in coastal Maine in early September. These truly awesome numbers of cones weighed down the spruce branches. The birds have responded to the abundance of these cones. Red-breasted Nuthatch was the most abundant bird in the woods at several Maine

locations. I also found several Red Crossbills including some singing birds.

In the cases of Blackpoll Warbler, Yellow-bellied Flycatcher, Swainson's Thrush, and Northern Goshawk, my basic approach is to visit locations where I have found them previously during the breeding season. In most cases, these are locations that I have found myself with little outside assistance, especially in recent years. In many cases, I treat the locations as proprietary and do not provide details on locations except when necessary.

I have been studying clusters of Swainson's Thrushes in northeastern Pennsylvania for a few decades. I found my first cluster of Swainson's Thrush territories in 1983 when I discovered some nesting in a hemlock forest of SGL 13 along Glass Creek. They fed their fledglings some blueberries that conveniently grew nearby. Almost all of these clusters have disappeared in the last decade. I checked some of these locations again in 2022. The only substantial population was found in a remote conifer forest in SGL 57 near the headwaters of Somer Brook. The pairs were found in spruces and hemlocks near a flowing stream and a small bog. I also heard a distant male singing at a remote location in RGSP near the Little Cherry Run Trail. Other populations in the park have apparently "winked out" despite that the habitat looks acceptable and basically unchanged from past years when the Swainson's Thrushes were fairly easy to find there. The Swainson's Thrush territories found in 2022 were at the highest locations that I have found this species on North Mountain. The territories in SGL 57 are above 2100 feet in elevation. Each occupied Swainson's Thrush location is a mix of mature conifer forest with natural and unnatural openings where they often forage, especially during post-nesting dispersal. This deep-forest species also seems insensitive to minor human disturbances such as hiking trails and narrow unimproved roads. I have seen males fly right across hiking trails and old logging roads to provision the nestlings with food. Like my first experience with this species, I recently observed families often found blueberry bushes to forage in late July and early August not far from where I found them singing and calling earlier in the season. It is disconcerting to witness the loss of breeding populations where good habitat still appears to exist. I would recommend to other PA birders to check on Swainson's Thrush nesting populations that they have found previously. There may be regional declines, mostly off-road and out-of-notice.

The Endangered Blackpoll Warbler population also continues to decline. Very few males were found in searches at their usual locations in Dutch Mountain

forested wetlands. For the first year since my studies began in the 1990s, I did not find any females in territories visited. I found only singing males in both Coalbed Swamp and Tamarack Swamp, but not at several locations where I have found them in past breeding seasons. I have placed many territories of this species in my GPS as waypoints so I can revisit these locations. Blackpolls have a remarkable ability to occur at the same exact locations year-to-year, especially the females. This breeding site fidelity can make it much easier to track their occurrence annually. I did observe one male with food for young in mid-July, so apparently one pair did breed successfully. Otherwise, it was a bleak year for Blackpolls. The locations where I searched seemed to have most of the species that I regularly observe, so I am not convinced that the breeding habitat is the factor limiting Blackpoll Warbler success in northern Pennsylvania.

As bad as the news is for Blackpolls, the news for Yellow-bellied Flycatchers is even worse. For the second straight breeding season, I have failed to find a singing male Yellow-bellied Flycatcher in the usual nesting grounds on North Mountain. I checked several former territories, some repeatedly, but did not find any singing males much less females at these locations. One location that I checked has hosted this species since 1995. It has been very predictable over the years. To my eyes, the habitat looks acceptable to this boreal forest species, not changing much in the several years of study. This year I observed more Yellow-bellied Flycatchers on their wintering grounds in Central America than I did in Pennsylvania where they are verging on extirpation from the state as a breeding species. A friend of mine has reported to me that some Yellow-bellied Flycatchers are already on their wintering ground territories in Honduras. This species spends more time on its wintering grounds than on its breeding grounds. Thus, we need to pay a lot of attention to the quantity and quality of bird habitat down there where they inhabit a variety of wooded environments, often shrubby and near water.

I did not concentrate on Northern Goshawk this year, but I have often encountered this species in the past when searching for other deep woods birds. That was the case this year when I found two juveniles in the post-nesting period. The origin of each bird is unknown, but each observation was made within a mile of where I have confirmed nesting goshawks in the past. Any observations of goshawks in the breeding season should be shared in confidence with the PA Game Commission. I have done so.

The future of Pennsylvania's boreal forest birds is quite uncertain. I plan to continue searches for each of these species and to report findings to the pertinent agencies and research organizations.

Ricketts Glen State Park Bird Education

We had another very successful and satisfying educational field trip season in 2022. Rhiannon Summers, the Environmental Education Specialist, and I led nine educational bird walks in which 83 people attended. And the North Branch Bird Club had another bird walk in the park, totaling ten organized bird walks. A group of birders came from the Philadelphia area and enjoyed the park this summer on a weekend when I could not assist them. They seemed to have a great time and found that the area is great birding. RGSP is a pretty good place for birding even though it is 30 miles from anywhere. On our walks, we learned together about the birds of Pennsylvania's big woods. It was especially satisfying to meet so many folks from out of the immediate area on our walks. Most of our attendees were not local people within easy driving distance of the park. We had walk participants from southeast Pennsylvania, the Pittsburgh area, New Jersey, Maryland, and Virginia. During the latter part of the camping season, there were usually more visitors from out of state attending the walks than from Pennsylvania.

A few of our walks included some very well-behaved and curious young naturalists. I did not plan to lead walks for youthful birders, but it happened. With so many urban visitors, we also had a more ethnically diverse group of people than live in the immediate area. This was a delightful result of having many visitors from out of the area, and we had a great time on our walks. I would especially congratulate Rhiannon who handled the young attendees very well. It made it easier for me to concentrate on locating birds and showing them to the attendees. The fledgling birders' parents were very good at keeping the youngsters involved in the walks and paying attention to the birds. When they got tired and bored, their parents usually took the occasion to quietly leave the group and participate in another activity. On one of the walks, one of our best bird finders was about 12 years old and had not used binoculars before. We showed several new birders their first Red-eyed Vireo and Black-throated Green Warbler. Hardly anyone had seen or heard a Winter Wren before we found them on a few hikes. Almost every walk included an explanation of resolving the identification of Common Raven versus American Crow.

Bird walks sometimes feature a bird nest if you are alert and a little lucky. On one field trip, we found a Louisiana Waterthrush nest well-hidden in a tree root tip-up. That female waterthrush was confident in her camouflage and sat tightly while our party walked by. I had just explained how these root balls are great bird nesting habitat for waterthrushes, Winter Wrens, Eastern Phoebes, and Dark-eyed Juncos. The waterthrush cooperated with my field lecture. In 2021, we found an Eastern Wood-Pewee nest along a trail in the Glens Natural Area. On our walks we

confirmed that the pair of pewees used the same nest twice, fledging the second brood in late August.

One of the best themes to strike up on a bird walk in a big woods is the connection between birds and watershed health. With waterthrushes and mergansers flying along the creek, this is an easy subject to bring up as you identify the flying bird. My own experience has enlarged the birding audience recently. For the second year, I have led a bird walk for a local watershed group. These walks were the best attended of the season and included several beginning birders with a sincere interest in bird habitat conservation. They got the conservation message. The challenge is often basic bird identification.

Thanks to everyone who has assisted with the project, especially Rhiannon Summers who has been a fabulous bird education partner. She also leads other bird education walks herself.

The summer season also was an occasion for me to make a Zoom presentation to the PSO about the birds of RGSP in July. Thanks to Julia Plummer for setting this up and patiently assisting me with this presentation. I was out of practice and a bit rusty with Zoom for this presentation, but the reception was very satisfactory. The audience had great questions that also added to the narrative and gave me good ideas to improve the Power Point for future presentations. Thank you for attending and for the thoughtful questions! This presentation can be found on-line at: [\(11\) Birds of Ricketts Glen State Park - YouTube](#). Please share it. We hope that other birders adopt state parks as their home turf and show birds of the park to others. It certainly helps to work as a team with the park's staff.

Good birding!

Doug Gross
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The Evolution of Bird Identification

by Bob Ross

Why do I write about this topic? It's because it has changed so drastically in my lifetime and deserves some comment, as well as some prediction as to where it is going. I now have in my hand a device, smaller than my hand, that when a button is pushed, it detects, identifies, and shows a picture of every bird singing or vocalizing within several hundred yards of my location. I have tested it (the "app" is called Merlin, named after a small but fast North American falcon) on the big marsh near my home in Wellsboro, PA, where I have recorded every bird species that has visited or lives there over the past three decades. This thing is accurate and reliable, though not without some error, as in humans. The scientific basis for this phenomenal ability has been known and available over all of my lifetime: sound spectrograms, graphs of frequency in Hertz versus time in milliseconds, for any recorded sound. Merlin runs these spectrograms across the top of its display while recording sounds (see photo).

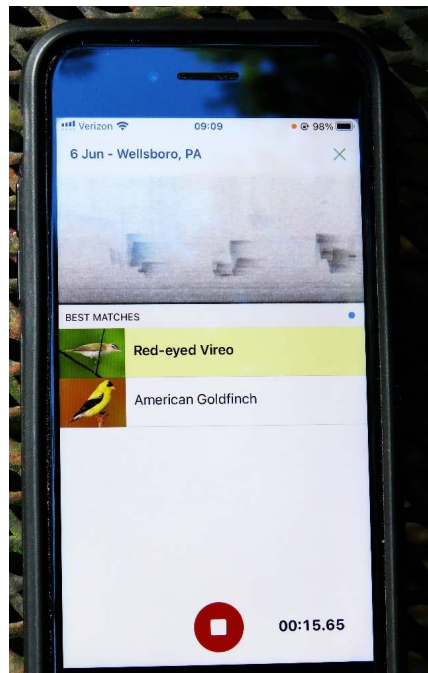


Photo of iPhone with the app Merlin running. A sound spectrogram runs across the top of the display from right to left. The bird detected from its frequency versus time spectrogram is identified, displayed by name, and highlighted below.

I used a parabolic dish and recording device to capture bird sounds for my own undergraduate work and thesis on bird communication in college. I had micrographs of those sounds printed off with the help of a researcher/professor whom I visited at the University of Buffalo over five decades ago. But the young researchers and "techies," who only recently saw the power of applying this technology to a burgeoning interest in birds and competitive birding, are nothing less than revolutionaries.

When I was young and became interested in birds, the technological tools available at the time were a pair of binoculars with high-quality lens, perhaps a spotting scope, and a Roger Tory Peterson comprehensive bird field guide. That was it, except maybe for a notepad and pencil. My generation learned birds the hard way by hiking into good wild habitat, listening for a target species, focusing binoculars on

rapidly moving, often small, songbirds in the canopy or distant forest floor, enduring endless insect bites to get that diagnostic color pattern or behavior, then comparing what was observed to what was pictured or written in the field guide. After a dozen mosquito bites you didn't forget that image and the identity it proved! With further observation over the years the bird's song and call notes were learned and not forgotten either, especially for young people in zealous pursuit of this body of knowledge and skill.

Why was "bird watching" or "birding" so engaging? Partly because "listing" (or "ticking" as the Brits would say) became a competitive game, I believe. How about a peaceful pastime? Outdoor recreation? A way to impress a buddy or teacher? A rewarding social activity with like-minded people? A step toward a career? For me, it was probably all the above.

But now so many have taken up the sport, I believe, simply because of the high-tech nature of apps easily downloaded onto one's pocket phone. Apps such as eBird, a leading citizen-science program where anyone can contribute to our understanding of bird distribution and thereby bird conservation, lead the way. Since then a number of apps, such as Merlin described above, have emerged, each going a step further to assist beginning birders or to add scientific understanding of bird sounds, color patterns, and global distribution. eBird (www.eBird.org) alone has a user base that contributes more than 100 million observations to their database annually with a growth rate of 20% per year and has spread to nearly every country in the world. What conservation potential! eBird is the brainchild of young scientists and technologists at the Cornell Lab of Ornithology just two hours away from my home in PA! Of course folks at firms in Silicon Valley and many other tech centers across the nation played important roles in its development as well.

So where is this technology going? I don't know. Predictions are hard to make, especially about the future, as Yogi Berra once said. But here's a scenario I can imagine, spreading like a corona virus variant to a different set of interests and users, one which uses a hypothetical app called T-Bird:

[JR and friend Gino in the car]

"Hey, JR, what do you say we cruise on out to The Bell for a burger and some fries? I'm hungry."

"Oh, why not, things are a little slow right now... nothing but the usual Corollas, Cherokees, and Silverados out there. Yesterday I had a '71 Datsun 521 pickup down on State Street, but nothing great since then."

"Wow, those aluminum engines are still running after all these years? Great find!"

"JR, wait a minute... T-Bird just picked up a Gran Torino, only a half mile west of here!!!"

"No way."

"Way!"

[silence] "Hang a right!"

PSO Bird Quiz

(Answers on page 16)

How well do you know your Pennsylvania birds' nests?

1. Which is our most notable cavity-nesting warbler?
2. Which warbler would you expect to find nesting high in a tall tree, a Cerulean Warbler or a Canada Warbler?
3. Which flycatcher is known to use nest boxes placed on a tree trunk?
4. Name the two waterfowl species most likely to use nest boxes placed on posts above water.
5. Which shorebird has been described as sometimes nesting on "weed-choked shoulders of roads...often remote from water"?

*For a bonus, which author and which artist -- both from Pennsylvania -- told us about No. 5 in a famous field guide?

"No bird soars too high if he soars with his own wings." — William Blake

Pennsylvania Ornithological Research

Our state made hybrid history in 2018 when a birder discovered a “triple hybrid” in Blair County: a Brewster’s Warbler (itself a hybrid Golden-winged x Blue-winged Warbler) and a Chestnut-sided Warbler. All three are members of a single taxonomic family, Parulidae, the wood warblers.

Just two years later, we were astonished by another historic hybrid, this one in the family Cardinalidae: a Scarlet Tanager and a Rose-breasted Grosbeak.

On June 6, 2020, veteran birder and photographer Steve Gosser was birding in Lawrence County when he heard an apparent Scarlet Tanager singing, a bird he wanted to photograph. When he finally saw the singer, it struck him as looking surprisingly more like a Rose-breasted Grosbeak.

Steve’s photos show why he quickly reported the bird to Bob Mulvihill, an ornithologist at the National Aviary in Pittsburgh, and why Bob responded by saying he would meet Steve out there first thing the next morning.

Quick action was needed in order to fully document this very unusual bird for the scientific record. After an hour or so, the bird was relocated the next day, and Bob immediately threw up a mist net and switched on an “audio lure” of a Scarlet Tanager song. The target bird responded immediately, making one aggressive pass over the net, and then diving directly into the net on the next pass.

While the researchers had it in hand, they banded it, photographed it extensively to illustrate many plumage details, and made numerous measurements of its morphological features such as bill length and primary projection. The bird’s measurements and plumage were all intermediate between the two putative parental species.

Dr. Steve Latta then carefully drew a small blood sample for later genetic analysis. Only minutes after being captured, the now famous bird was released again.

The following day, Tom Johnson was able to relocate the bird and obtain high-quality audio recordings of its song for later analysis. Next came the ultimate test: What would the bird’s DNA reveal? The answer from laboratory



This is the famous Scarlet Tanager-Rose-breasted Grosbeak hybrid photographed by Steve Gosser in June 2020.

analysis was that a Rose-breasted Grosbeak was the maternal parent and a Scarlet Tanager was the paternal parent. We know that songbirds learn their songs from their fathers, so the puzzle pieces were all falling into place.

Combined, the nine-member research team’s extensive effort documents the first described hybridization between these two highly divergent taxa—and they diverged a long time ago. The authors note that studies by experts in phylogenetic analysis indicate that grosbeaks and tanagers diverged from a shared ancestral species at least 10 million years ago.

The team represented an extraordinary array of Pennsylvania investigators including David Toews at Penn State University, Tessa Rhinehart at the University of Pittsburgh, Robert Mulvihill and Steven Latta at the National Aviary in Pittsburgh, Spencer Galen at the University of Scranton, and Tom Johnson at Drexel University in Philadelphia.

Their scientific paper, “Genetic confirmation of a hybrid between two highly divergent cardinalid species: A rose-breasted grosbeak (*Pheucticus ludovicianus*) and a scarlet tanager (*Piranga olivacea*), is available online at <https://doi.org/10.1002/ece3.9152>.

Meanwhile... There is a connection between the “Burket hybrid” and the “Gosser hybrid.” In both cases, the genetic evidence of hybridization both came from analysts at the Toews Lab of Evolutionary Ecology and Genomics at Penn State University.

Pennsylvania Birds named the “Burket Warbler” to honor its discoverer, Lowell Burket, who found it on his farm. See Deborah H. Grove’s article in the Vol. 33, No. 2 (2019) issue. Now we need to name the grosbeak x tanager for future reference in ornithological literature. In line with that tradition, should it be the “Gosser hybrid”?

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Conservation Chat Room



2022 Breeding Bird Blitz for Conservation Benefits Birds!

The results of the 2022 Breeding Bird Blitz for Conservation (Blitz) are in, and we sure have something to crow about! In fact, the news is so good that I'm raven about it to everyone I tern to. That's right! More than 100 birders in 20 Blitz teams raised

\$15,072 to help birds and protect bird habitats – and they did that without robin the bank. PSO contributed \$1,000, so every PSO member helped, too. The funds were divided between three Pennsylvania non-profits dedicated to conservation: the Erie Bird Observatory, the Ned Smith Center for Nature and Art, and the Willistown Conservation Trust. Each of these groups will use their \$5,024 to fund specific projects that help birds and protect bird habitats.

Owl bet you didn't know that over 3 billion birds have disappeared since 1970 – it's a terrifyingly sad statistic, but the Blitz is one small way we can help birds and maybe reverse the downhill trend. Don't think of the Blitz

as a short-term lark; it's an annual event that could amount to some serious conservation dollars over the years. The Blitz is for all birders, even old coots, so this is a great way to get young birders involved.

Let's talk turkey: we'll need your help for the 3rd Annual Blitz in June 2023 to document birds using eBird and fundraise for conservation. Note the word, "fun," in fundraising. Fundraising isn't something most of us like to do, but let's not duck our responsibility toward helping birds. Usually all you need to do is give a little goose to your friends and they'll open their wallets.

Be sure to give a hoot about this year's outstanding efforts: The award for the highest one-day count went to the "Pennsylvania is for Plovers" team (Josh Heiser, Katie Andersen, Sarah Sargent, and Ruth Swaney), who tallied a remarkable 121 species in Erie County. The highest fundraising total was achieved by the "Brandywine Breeding Bird Blitzers" (Brian Byrnes, Barry Blust, Alison Fetterman, Joel Flachs, and Jessica Shahan), who tracked down 101 species in a day in Chester County while raising nearly \$4,000 for conservation. The full list of contest winners can be found at www.breedingbirdblitz.org/post/results.

Blitz teams documented 169 avian species and 9 other taxa during the four-day event, outpacing the 152 species found last year. The cumulative results and local data can be found at ebird.org/tripreport/63903.

The 169 Species Documented in eBird on the B4C in 2022

Snow Goose	Chimney Swift	Great Blue Heron	Red-headed Woodpecker
Canada Goose	Ruby-throated Hummingbird	Great Egret	Red-bellied Woodpecker
Mute Swan	Virginia Rail	Green Heron	Downy Woodpecker
Trumpeter Swan	Sandhill Crane	Black-crowned Night-Heron	Hairy Woodpecker
Wood Duck	Semipalmated Plover	Yellow-crowned Night-Heron	Pileated Woodpecker
Mallard	Piping Plover	Black Vulture	Northern Flicker
American Black Duck	Killdeer	Turkey Vulture	American Kestrel
Green-winged Teal	Upland Sandpiper	Osprey	Merlin
Lesser Scaup	Ruddy Turnstone	Northern Harrier	Peregrine Falcon
Bufflehead	Dunlin	Sharp-shinned Hawk	Olive-sided Flycatcher
Hooded Merganser	Semipalmated Sandpiper	Cooper's Hawk	Eastern Wood-Pewee
Common Merganser	American Woodcock	Bald Eagle	Acadian Flycatcher
Wild Turkey	Spotted Sandpiper	Red-shouldered Hawk	Willow Flycatcher
Ruffed Grouse	Ring-billed Gull	Broad-winged Hawk	Least Flycatcher
Ring-necked Pheasant	Herring Gull	Red-tailed Hawk	Eastern Phoebe
Rock Pigeon	Great Black-backed Gull	Barn Owl	Great Crested Flycatcher
Mourning Dove	Caspian Tern	Eastern Screech-Owl	Eastern Kingbird
Yellow-billed Cuckoo	Common Tern	Great Horned Owl	White-eyed Vireo
Black-billed Cuckoo	Forster's Tern	Barred Owl	Yellow-throated Vireo
Common Nighthawk	Double-crested Cormorant	Belted Kingfisher	Blue-headed Vireo
Eastern Whip-poor-will	Least Bittern	Yellow-bellied Sapsucker	Warbling Vireo

Red-eyed Vireo	Marsh Wren	Savannah Sparrow	Common Yellowthroat
Blue Jay	Carolina Wren	Henslow's Sparrow	Hooded Warbler
American Crow	European Starling	Song Sparrow	American Redstart
Fish Crow	Gray Catbird	Eastern Towhee	Cerulean Warbler
Common Raven	Brown Thrasher	Yellow-breasted Chat	Northern Parula
Carolina Chickadee	Northern Mockingbird	Bobolink	Magnolia Warbler
Black-capped Chickadee	Eastern Bluebird	Eastern Meadowlark	Blackburnian Warbler
Tufted Titmouse	Veery	Orchard Oriole	Yellow Warbler
Horned Lark	Hermit Thrush	Baltimore Oriole	Chestnut-sided Warbler
N. Rough-winged Swallow	Wood Thrush	Red-winged Blackbird	Black-throated Blue Warbler
Purple Martin	American Robin	Brown-headed Cowbird	Pine Warbler
Tree Swallow	Cedar Waxwing	Common Grackle	Yellow-throated Warbler
Bank Swallow	House Sparrow	Ovenbird	Prairie Warbler
Barn Swallow	House Finch	Worm-eating Warbler	Black-throated Green Warbler
Cliff Swallow	Purple Finch	Louisiana Waterthrush	Canada Warbler
Golden-crowned Kinglet	American Goldfinch	Northern Waterthrush	Scarlet Tanager
Red-breasted Nuthatch	Grasshopper Sparrow	Blue-winged Warbler	Northern Cardinal
White-breasted Nuthatch	Chipping Sparrow	Black-and-white Warbler	Rose-breasted Grosbeak
Brown Creeper	Field Sparrow	Prothonotary Warbler	Blue Grosbeak
Blue-gray Gnatcatcher	Dark-eyed Junco	Mourning Warbler	Indigo Bunting
House Wren	Vesper Sparrow	Kentucky Warbler	Dickcissel
Winter Wren			

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Recap of PSO Board Minutes

The Pennsylvania Society for Ornithology's Board of Directors met on August 31, 2022, with 14 directors present for the teleconference meeting.

The minutes of the July 13, 2022, board meeting were approved. The interim treasurer's report was distributed, and it was noted that PSO is in good shape financially. The annual report has also been posted to the website.

The final details of the annual meeting at Middle Creek were discussed and worked out.

The location of the 2023 annual meeting will be in State College at the Shaver's Creek Environmental Center from May 19 to 21. Plans are already well underway.

The current editor of *Pennsylvania Birds* would like to have a new editor in place by the end of 2023. A job description will be circulated among the PSO membership with the hope that it will entice someone to volunteer for the job.

The Breeding Bird Blitz for Conservation was held June 17 through 20 with 20 teams participating and \$15,071 raised. The money was distributed equally to the Erie Bird Observatory, Ned Smith Center for Nature and Art, and the Willistown Conservation Trust. In 2023 the B4C will be held June 9 through 19.

The Anthracite Ridge Wind Project has been withdrawn and is not moving forward at this time.

Webinars will continue every other month with the next one on November 21. Possible future webinars could be birding equipment, conservation subjects, and the next Breeding Bird Atlas to begin in 2024.

Cameron County will be the next "county spotlight" from October 14 through 17. Doing a spotlight in one of the northeastern under-birded counties in the spring is being considered.

A new PORC voting member and a new secretary will be needed by the end of December. A new database and system has been completed and is in place with several enhancements.

Several committees need chairpersons and members. Any PSO member can serve on a committee.

The Earl Poole and Conservation Award winners will be announced at the annual meeting. A motion was made to increase the honorarium to \$250 for the award winners. The motion passed.

(continued on page 16)

Answers to Bird Quiz

(page 12)

1. Prothonotary Warbler
2. Cerulean Warbler
3. Great Crested Flycatcher
4. Wood Duck and Hooded Merganser
5. Spotted Sandpiper

*Hal H. Harrison and Ned Smith in *A Field Guide to Birds' Nests in the United States east of the Mississippi River*. (Hal's wife Mada also contributed maps for the book.)

Recap of Minutes *(continued from page 15)*

The need for a budget was discussed. It was decided that an interim budget for the remaining fiscal year would be completed at the next board meeting.

A complete transcript of the meeting minutes may be found on the PSO website.

Respectfully submitted,
Roger Higbee, Secretary

PSO Newsletter

This newsletter is published four times a year by the Pennsylvania Society for Ornithology. To renew your membership, either pay on line or send your check made payable to "PSO" to:

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