
2nd Annual Maryland Bird Symposium



*Advancing Avian Conservation and
Research in Maryland and Beyond*

**Patuxent National Wildlife Visitor Center
Laurel MD
January 25, 2020**

The Maryland Bird Conservation Symposium is presented in partnership with:



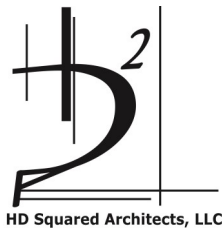
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Thanks to the sponsors below, we raised **\$4,700** for the Maryland Avian Research & Conservation (MARC) Fund for Youth!

Keystone (\$500)



Conservation (\$250)



Research (\$100)



Joyce and Wayne
Bell



Individual (\$50+)

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Peter Bungay
Lynn Davidson
Steve Holmer

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Exhibits and Displays

Rachel Carson Room

| | |
|----------------|--|
| Nathan Tea | Art - Framed art and small canvas |
| Aaron Reb | Art - Drawings |
| Oliver Patrick | Art - Piece depicting a map of Maryland composed a collage of bird species |
| Lisa Garrett | Poster - Bird watching in North Beach Maryland and Calvert County |

Thank you for participating in the Maryland Bird Symposium.

Contact us about Sponsorship opportunities for the 3rd Annual Maryland Bird Symposium!

About the MARC Fund for Youth

The **Maryland Avian Research & Conservation (MARC) Fund for Youth** was launched at the Maryland Bird Conservation Symposium in January 2019. This fund is the first of its kind in Maryland, and possibly the Mid-Atlantic, that empowers youth to conduct avian research or conservation.

WHO MAY APPLY? All Middle School and High School youth who are residents of or attend a school in Maryland. Graduated high school seniors who have not started college are eligible. Several youth may also apply as a team.

WHAT KINDS OF PROJECTS ARE CONSIDERED?

- **Research / Monitoring:** conducting research on a species to find out something new. You will need a research question that your work will seek to answer.
- **Conservation:** Implementing an action that seeks to create / restore / improve habitat or eliminate a threat.
- **Community Engagement:** Working with a community or school to make a positive impact for birds and for the community. This could involve creating or improving habitat, forming a citizen action group, or some other kind of positive action toward helping birds.

Projects must include one or more of the 143 Species of Greatest Conservation Need (SGCN) as documented in Maryland's State Wildlife Action Plan., and may take place anywhere the bird species you pick spends any part of its annual cycle. A MARC Fund Committee member is assigned as a mentor to every project. We want youth to have a successful project and want to know how they're doing throughout your project.

For more information or to apply for a grant, see <https://marylandbirds.org/about-the-marc-fund>.

2019 Maryland Bird Conservation Symposium

Presentation Abstracts

AUDITORIUM

Migration biology in the context of the full annual cycle: identifying stopover habitat hotspots for conservation – Emily Cohen

Research in Dr. Cohen's laboratory broadly aims to understand animal migration biology in the context of the full annual cycle. We live in a rapidly changing world where many species are declining, and this is especially true for migratory species. It is possible that changes in habitat, climate, and resource availability due to unprecedented human activity are inflating the costs associated with animal migration. At the same time, advancing technologies and analytical tools are making it possible to solve many of the important mysteries about migratory animals. Dr. Cohen's research makes use of field, lab, and remotely sensed data integrated with rigorous quantitative tools to 1) address fundamental questions about migration biology, 2) understand how and why migration is changing and migratory species are declining, and 3) develop tools for the inclusion of stopover and airspace habitats into conservation and management efforts for migratory species.

Maryland & DC Breeding Bird Atlas 3: A Record of Change – Gabriel Foley

Breeding bird atlases are a great way for you to explore new birding areas, learn more about the behavior of their local birds, and contribute directly to bird conservation! The Maryland & DC Breeding Bird Atlas 3 began in January 2020 and will continue until December 2024. This community science effort will document the distribution, abundance, and timing of the birds breeding in Maryland and DC. Volunteers will use the website ebird.org/atlasmdcc to collect atlas data. Gabriel Foley, Atlas Coordinator, will be discussing what the Atlas is, how it is used to conserve birds and their habitats, and how, with a little knowledge of your local birds, you can get involved. You can follow the Atlas on social media at [@mddcbba3](https://twitter.com/mddcbba3).

Banding and telemetry Study of Fall Migrant Soras on the Patuxent River – Greg Kearns

Greg Kearns began studying the Sora rail in 1987. At their peak in 1998, they banded 1,300 rails; by the year 2000, only 100. This research linked the decline of the rails to the vanishing stands of wild rice (95% decline) observed during the same period. Resident Canada Geese, whose population was increasing 15-20% per year during the 1990s, were grazing the wild rice. Greg coordinated a goose management plan and the additional planting of seeds and rice plants. Today the wild rice has recovered beyond the acreage there was 30 years ago. Now, 20 years later, Greg revived the Sora telemetry migration research with a new system called Motus, meaning "movement" in Latin. Motus is a large network of automated tracking stations all over eastern North America and beyond to detect birds with a digitally coded transmitter. Work was also done using DNA from blood samples to try and develop a method to sex the birds accurately.

Halting habitat loss and mitigating climate change: What are your elected officials doing? – Kimberly Golden Brandt

Our local and state elected officials have a critical role to play in halting habitat loss and mitigating climate change. Learn about recent and on-going efforts at the state level and in several of Maryland's fastest growing counties. Topics will include local forest conservation ordinance improvements, solar siting, transportation investment, and planning for future growth.

Bringing Birds to Your Backyard – Jonathan Irons

Have you ever wondered how to bring more birds to your back yard? Jonathan will discuss habitat, feeding and making your yard bird friendly.

Drones for conservation: how drones are providing a new way to monitor bird populations – Andy Wilson

Low-cost drones are increasingly used in ecology and conservation, for mapping, counting and monitoring larger organisms, including large birds such as wildfowl and seabirds. Drones can be used to access terrain more quickly and easily than fieldworkers can on foot, and in some circumstances, this can reduce disturbance. However, many birds are too small to capture and identify from aerial images, and often they are obscured from above by vegetation. I describe how airborne bioacoustics, that is, taking audio recordings of singing and calling birds from a drone-mounted recorder, could be a useful new way of monitoring birds. I will discuss recent advances from an ongoing research program conducted by undergraduate students at Gettysburg College, PA.

2019 Maryland Bird Conservation Symposium

Presentation Abstracts

RACHEL CARSON ROOM

The Killing of Bald Eagles on Maryland's Eastern Shore – Donna Cole

30 bald eagles have been killed on Maryland's Eastern Shore in the last ten years, but that's just the tip of the iceberg. There's a long history of these carbofuran poisonings on the Delmarva Peninsula, which have continued to happen long after the Environmental Protection Agency banned the toxic pesticide. Award-winning journalist Donna Cole, has spent over three years on this story, explains the sordid history of these killings, why they've happened and what's being done about it.

Anthropogenic Alteration of Common Shorebird Stop-Over Sites in the North Atlantic Flyway – Madelaina Ondo

Migratory shorebirds using the Atlantic flyway rely on a few productive stopover sites to fuel their journeys. The presence of humans in these crucial habitats has had quantifiable effects on shorebird migratory success. This talk will identify and expand on ways humans have altered migration success of shorebirds through the lens of Washington College's Senior Capstone Experience.

Barn Owls of the Patuxent River – Andy Brown

When you imagine the bird life of the Patuxent River, you don't usually think of owls. However, the marshes of the Patuxent and surrounding farmlands are important habitats for one of Maryland's most endangered owls. I will discuss the history of Barn Owls conservation efforts along the Patuxent River and how the nest box program is helping to maintain their population.

Effects of Heavy Metal Pollution on Quality of Bird Song – Nina Black

This study is an acoustic analysis of the vocal quality of multiple European bird species living in areas of high anthropogenic heavy metal pollution compared to those with little exposure to heavy metal pollution. This study also looks at the use of public science for research purposes.

Maryland & DC Breeding Bird Atlas 3: A Record of Change – Gabriel Foley

Breeding bird atlases are a great way for you to explore new birding areas, learn more about the behavior of their local birds, and contribute directly to bird conservation! The Maryland & DC Breeding Bird Atlas 3 began in January 2020 and will continue until December 2024. This community science effort will document the distribution, abundance, and timing of the birds breeding in Maryland and DC. Volunteers will use the website ebird.org/atlasmddc to collect atlas data. Gabriel Foley, Atlas Coordinator, will be discussing what the Atlas is, how it is used to conserve birds and their habitats, and how, with a little knowledge of your local birds, you can get involved. You can follow the Atlas on social media at [@mdccbba3](https://twitter.com/mdccbba3).

Patuxent Forest Breeding Bird Surveys and Forest Inventory – Sandy Spencer

Patuxent Research Refuge is a nearly 13,000 acre national wildlife refuge of the U.S. Fish & Wildlife Service. This presentation is on recent efforts to understand the contribution this forest makes to a selection of the area's forest-dependent bird species as well as the quality of the forest.

Manakins: nature's Lords of the Dance – Kevin Bennett

The manakins are a Neotropical family of birds unique for their elaborate courtship displays, anatomical and behavioral novelties, striking male ornamentation, and complex social behaviors. The traits that make manakins so remarkable stem from their breeding system in which males gather in aggregations called leks to display for females. The extraordinary features of manakin biology have made them a model system for studying sexual selection and its impact on morphology, behavior, ecological roles, and even evolutionary trajectories.

2020 Maryland Bird Symposium
Saturday, 25 January 2019
Patuxent National Wildlife Visitor Center, Laurel MD

– AGENDA –

AUDITORIUM

- 9:00 AM (Registration in Rachel Carson Room)
- 10:00 AM Welcome, Opening remarks
- Keynote: *Maryland, the State of Bird Conservation*Mike Parr**
- Keynote address brought to you by*
Maryland Ornithological Society and Maryland Biodiversity Project
- 10:50 AM *Migration biology in the context of the full annual cycle: identifying stopover habitat hotspots for conservation* Emily Cohen
- 11:15 AM *Maryland & DC Breeding Bird Atlas 3: A Record of Change* Gabriel Foley
- 11:40 AM Making a DifferenceDaniel Irons/YMOS
- 12:05 PM Banding and telemetry Study of Fall Migrant Soras on the Patuxent RiverGreg Kearns
- 12:30 PM (Lunch in Rachel Carson Room)
- 1:40 PM *Halting habitat loss and mitigating climate change: What are your elected officials doing?*
..... Kimberly Golden Brandt
- 2:05 PM *Bringing Birds to Your Backyard* Jonathan Irons/YMOS
- 2:30 PM *Drones for conservation: how drones are providing a new way to monitor bird populations*.....
..... Andy Wilson
- 3:00 PM **Keynote: *Uniting across the Americas to discover unknown bird migrations for conservation***
.....Autumn-Lynn Harrison
- Keynote address brought to you by*
Maryland Ornithological Society and Maryland Biodiversity Project
- 3:30 PM Moving Bird Conservation Forward: Next Steps Chris Eberly
- 3:40 PM *Adjourn*
- 4:15 PM *Must be out of Building!*

2020 Maryland Bird Symposium
Saturday, 25 January 2019
Patuxent National Wildlife Visitor Center, Laurel MD

– AGENDA –

RACHEL CARSON ROOM

9:00 AM Registration, coffee/tea, exhibit setup

10:00 AM (Welcome, Keynote in Auditorium)

Keynote address brought to you by
Maryland Ornithological Society and Maryland Biodiversity Project

10:50 AM *The Killing of Bald Eagles on Maryland's Eastern Shore* Donna Cole

11:15 AM *Anthropogenic Alteration of Common Shorebird Stop-Over Sites in the North Atlantic Flyway*.....
..... Madelaina Ondo

11:40 AM *Barn Owls of the Patuxent River*..... Andy Brown

12:05 PM *Effects of Heavy Metal Pollution on Quality of Bird Song*..... Nina Black

12:30 PM Lunch catered by Absolutely Perfect Catering
Networking, posters/exhibits, Phoenix Wildlife Center rehab Eastern Screech-Owl

1:40 PM *Maryland & DC Breeding Bird Atlas 3: A Record of Change* Gabriel Foley

2:05 PM *Patuxent Forest Breeding Bird Surveys and Forest Inventory*..... Sandy Spencer

2:30 PM *Manakins: nature's Lords of the Dance* Kevin Bennett

3:00 PM (Keynote in Auditorium)

Keynote address brought to you by
Maryland Ornithological Society and Maryland Biodiversity Project

3:30 PM (Closing Remarks in Auditorium)

3:40 PM Adjourn

4:15 PM Must be out of Building!

2019 Maryland Bird Conservation Symposium

Presenter Information



Kevin Bennett

PhD Candidate, University of Maryland, College Park; kevinfpbennett@gmail.com

Kevin is a PhD Candidate at the University of Maryland, College Park and currently doing his dissertation research at the Smithsonian's National Museum of Natural History. He studies sexual selection and plumage color evolution in manakins, after having previously studied bird migration timing at Colby College for his Bachelor's and abundance patterns of free-ranging domestic cats at Fordham University for his Master's. Though he now studies evolution for a living, Kevin has been lucky enough to work on several exciting conservation projects, including Whooping Crane breeding in the US and tagging endangered marsupials in Western Australia. He is a birder in his (sparse, graduate student) free time.



Nina Black

Student, Washington College; nblack4@washcoll.edu

Nina Black is a senior at Washington College majoring in Biology with a concentration in Ecology and Evolution from Chestertown, MD. She has interned at Washington College's River and Field Campus for summer and fall seasons doing both field sparrow nest searching and learning to bird band. She recently returned from a year abroad in the Netherlands where she conducted acoustic research on European bird species with Dr. Hans Slabbekoorn.



Kimberly Golden Brandt

Director of Smart Growth Maryland; kbrandt@presmd.org

Kimberly has a graduate degree in urban and regional planning and has worked as a professional planner for twenty years. Her work experience includes local land use planning and natural hazard mitigation planning for the State of Maryland, where she served as the state's Hazard Mitigation Officer. More recently, she served as the Local Policy Director at 1000 Friends of Maryland, a smart growth advocacy organization that merged with Preservation Maryland in 2018. Kimberly leads Preservation Maryland's smart growth education and advocacy efforts, which support preservation of forests and open space and revitalization of Maryland's cities and towns.



Andy Brown

Calvert County Natural Resources Division; andrew.brown@calvertcountymd.gov

Andy Brown is the Senior Naturalist with Calvert County Natural Resources Division. He received a B.S. in Wildlife Biology from Frostburg State University. He has been working with Barn Owls in Southern Maryland since 1994.



Emily Cohen

University of Maryland Center for Environmental Science, Appalachian Laboratory;

Emily.Cohen@UMCES.edu

Research in Dr. Cohen's laboratory broadly aims to understand animal migration biology in the context of the full annual cycle. We live in a rapidly changing world where many species are declining, and this is especially true for migratory species. It is possible that changes in habitat, climate, and resource availability due to unprecedented human activity are inflating the costs associated with animal migration. At the same time, advancing technologies and analytical tools are making it possible to solve many of the important mysteries about migratory animals.

2019 Maryland Bird Conservation Symposium



Donna Cole

Multimedia reporter at WNAV Radio; donna@wnav.com

Donna L. Cole is an Associated Press and Society of Professional Journalists award-winning journalist. She hosts the 1430 Connection, a weekly radio show on WNAV Radio in Annapolis. The professional work Donna is most proud of came in the summer of 2018, when she broke news about carbofuran killing Bald Eagles - the story received global coverage. It raised awareness of the dangers of pesticide use and wildlife poisonings and led to change in the state of Maryland pesticide licensing procedures. For this work, Donna received the Society of Professional Journalists DC Pro Chapter 2019 Dateline Award for Investigative Journalism and the Chesapeake Associated Press Broadcasters Association Outstanding Enterprise Journalism award.



Gabriel Foley

Coordinator for the Maryland & DC Breeding Bird Atlas 3; mddcbba3@mdbirds.org

Gabriel Foley is an avid birder from the prairies of Saskatchewan, Canada. For his graduate work there, he researched nighthawk habitat use in Canada's boreal forest. Gabriel has also published research on acoustic analysis and interactions between bats and nighthawks around the Washington Monument in D.C. Over the past decade, he has worked on research projects in Canada, the US, and South Africa, and was the host of a weekly nature radio show, The Prairie Naturalist. You can connect with him on social media at @birdnirdfoley.



Autumn-Lynn Harrison - Keynote Speaker

Research Ecologist, Smithsonian Migratory Bird Center; HarrisonAL@si.edu

Dr. Harrison has led field projects to deploy electronic tracking devices on seabirds and shorebirds breeding in the Alaskan Arctic, Brown Pelicans in the Chesapeake Bay, and seals and sea lions in South Africa and California. She has contributed to United Nations efforts to identify ecologically significant areas for migratory marine animals in international waters of the North Pacific Ocean and to create a new international treaty for the ocean. Harrison earned B.S. Degrees in Environmental Science and Fisheries and Wildlife Science from Virginia Tech, a Graduate Diploma of Science from James Cook University in Townsville, Australia, and a Ph.D. from the University of California, Santa Cruz. She grew up on the Eastern Shore, where her family has lived since the 1600s. Her first job in this field was a seasonal naturalist at Pocomoke River State Forest and Park.



Daniel Irons

YMOS; danielirons02@yahoo.com

An avid birder and avian wood carver, Daniel is 17 and is a native to Maryland's Eastern Shore. He's been an active member of the Youth Maryland Ornithological Society for 10 years and competes annually in the World Series of Birding. Daniel also volunteers at the Foreman's Branch Bird Observatory, and has worked as a migration counter for the Cape May Bird Observatory. This past year, he spent the summer and fall working with Richard Crossley in Cape May, NJ. Specializing in birding by ear, Daniel has a strong interest in visible migration including morning flight, seawatching, and nocturnal flight call counts.



Jonathan Irons

YMOS; Jonathanirons28@gmail.com

Jonathan Irons is an avid birder and wildlife photographer. Jonathan is 15 years old and resides on Maryland's Eastern Shore. He has been an active member of the Youth Maryland Ornithological Society for 8 years and competes annually in the World Series of Birding. Jonathan has been a volunteer for the past 4 years at the Banding station at Foreman's Branch Bird Observatory at Chino Farms. Jonathan has attended many Youth Birding camps throughout the US including Camp Chiricahua, Hog Island, Camp Colorado. Jonathan is also a 5-time world champion youth wildfowl carver.

2019 Maryland Bird Conservation Symposium

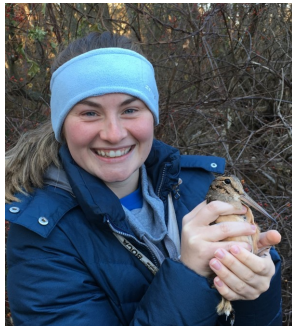
Presenter Information



Greg Kearns

Naturalist, Patuxent River Park; Greg.Kearns@pgparks.com

Greg Kearns, a MNCPPC naturalist for over 35 years at Patuxent River Park in Upper Marlboro Md., is an accomplished photographer, expert birder, and a renowned authority on the Sora Rail (*Porzana carolina*) and wetland ecology at Jug Bay. He was named conservationist of the year by the Md. Dept. of Natural Resources in 2006 for this work and for restoration of the wild rice marshes on the river, which has been recognized as one of the best wetland restorations in MD. He also received the Jug Bay Award for significant contributions to the environment on the Patuxent and recently was awarded the 2017 National Wetlands Restoration and Conservation award from the Environmental Law Institute In Washington, DC.



Madelaina Ondo

Student, Washington College; mondo2@washcoll.edu

Madelaina is a senior at Washington College studying environmental science with an interest in wildlife conservation and monitoring. Over the summer she interned at Washington College's River and Field Campus, monitoring nesting success of Field Sparrows. During the 2019 fall semester, Madelaina interned at the Foreman's Branch Bird Observatory where she learned to identify common bird species and extract them from mist nets. Aside from her interest in birds, Madelaina enjoys spending time outside and hanging out with the animals on her family's farm.



Mike Parr - Keynote Speaker

President, American Bird Conservancy; mparr@abcbirds.org

Mike joined American Bird Conservancy in 1996 after graduating from the University of East Anglia, UK, and working for BirdLife International. He has co-authored seven books including: *Parrots - A Guide to the Parrots of the World*, *Important Bird Areas in the United States*, and *The American Bird Conservancy Guide to Bird Conservation*, along with numerous articles and papers. He is Chair of the Alliance for Zero Extinction and a member of the Board of Directors of the Sustainable Forestry Initiative.



Sandy Spencer

Refuge Wildlife Biologist, Patuxent Research Refuge, USFWS; sandy_spencer@fws.gov

Sandy has been a Refuge Wildlife Biologist, at the Patuxent Research Refuge since 2011. Prior to coming to Patuxent she was refuge biologist at Rappahannock NWR from 2000-2010. She graduated from the College of William and Mary, and received a graduate degree at George Mason University in 2000. Her research was on the last Marsh Wren population of the Potomac River/Dyke Marsh.



Andy Wilson

Gettysburg College; awilson@gettysburg.edu

Andy has been an avid birder since childhood. In his native UK he was an Ecologist at the British Trust for Ornithology for 10 years before moving to PA for grad school in 2004...just in time for the start of 2nd Pennsylvania Breeding Bird Atlas (2nd PBBA) fieldwork. After six years as a 2nd PBBA point count technician, Andy took a lead on analyzing the wealth of atlas data, and, along with Dan Brauning and Bob Mulvihill, edited the atlas book (published 2012). Andy is an Associate Professor of Environmental Studies at Gettysburg College, PA.



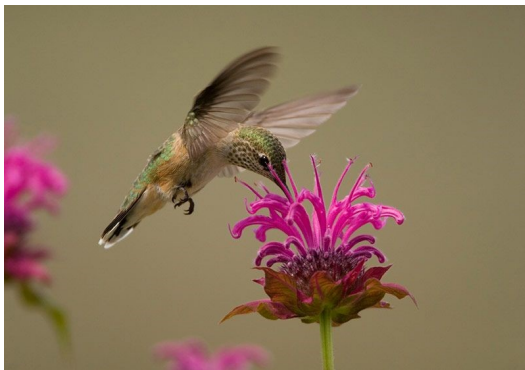
2020 Legislative Agenda



SB0299 & HB0192

Department of General Services—Energy-Conserving Standards (Maryland Sustainable Buildings Act of 2020)

Requiring the Department of General Services to enact Leed Credit 55 to conserve energy and reduce avian mortality associated with the use of glass.



HB0279

Real Property—Restriction on Use—Low-Impact Landscaping

A bill to support citizens utilizing their own private property to plant native in support of biodiversity and to reduce resource intensive, harmful practices associated with the required maintenance of turf.

SB0028 & HB0013

Solid Waste Management—Prohibition on Releasing a Balloon Into the Atmosphere

Ban the intentional release of balloons, the deadliest form of marine debris, impacting all animals within the marine ecosystem, including birds.



Elimination of Stockpiles of the Banned Pesticide Carbofuran (Carbofuran Stockpile Elimination Act of 2020)

A bill to eliminate the possession loophole of a deadly banned pesticide still killing eagles and other wildlife and threatening human health.



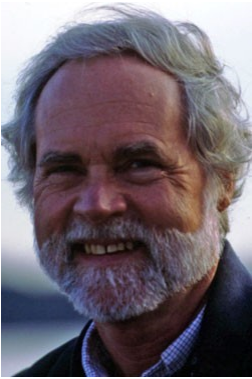
Please join Safe Skies Maryland, Maryland Ornithological Society, and Audubon MD-DC in a Joint Lobby Night in support of these and other important pieces of legislation

View and Sign-up for Action Alerts and Updates at:
bit.ly/SSMD2020



2019 Maryland Bird Conservation Symposium

— Organizing Committee —



Wayne Bell

Center for Environment and Society at Washington College; wbell2@washcoll.edu

Dr. Bell is Senior Associate and founding Director of the Center for Environment and Society at Washington College. Prior to joining the College faculty in fall 2000 he served as Vice President for External Relations for the University of Maryland Center for Environmental Science (UMCES), a global research facility headquartered at Horn Point near Cambridge, MD. His love of birds began in his childhood, catalyzed a bit by having Rachael Carson as a neighbor in Silver Spring, MD. While at Harvard he expanded this love to ecology in general, this time encouraged by E. O. Wilson at a time when the field was transforming itself from descriptive natural history into a predictive, quantitative science. He is a past-president of the MOS and continues his affiliation through the YMOS program for youth birders.



Beth Decker

Director, Safe Skies Maryland; beth@safeskiesmaryland.org

Beth Decker is the Director of Safe Skies Maryland and chairs both a conservation committee for Maryland Ornithological Society, as well as the Sustainability Working Group for the Maryland Bird Conservation Partnership. She is currently working to advance forest literacy, as well as increasing opportunities for students and educators to engage with current and emerging topics in conservation toward a sustainable future.



Chris Eberly

Executive Director, Maryland Bird Conservation Partnership; director@marylandbirds.org

Chris was born in Maryland and grew all over Pennsylvania. He received a B.S. in Computer Science at Indiana University of Pennsylvania and spent 11 years in the computer field. He then returned to grad school and earned an M.S. from the University of Georgia. For the next 17 years Chris managed the bird conservation program for the Department of Defense and consulted with military bases in the U.S. (including AK and HI). Chris has been the Executive Director of the Maryland Bird Conservation Partnership (MBCP) since 2017.



Patrick Newcombe

YMOS; patrickstonecroft@gmail.com

An avid birder, Patrick Newcombe has tied birding into his many interests. He helped organized the first MD Bird Conservation Symposium and has done research ranging from manakin courtship displays, to nocturnal migration, to the diets of endangered birds. Patrick had his paper, Migratory flight on the Pacific Flyway: strategies and tendencies of wind drift compensation, published in the professional journal *Biology Letters* in September 2019! He believes in environmental education and the economic sustainability for conservation. He is passionate about conservation and international development, and appreciates the mentorship he has received from many people. He is excited to give back to the birding community through the MARC Fund. Patrick is a senior at Sidwell Friends School (Montgomery County, MD) and a Caroline D. Bradley Scholar.



George Radcliffe

YMOS Coordinator; radclifg@gmail.com

George taught middle school science for 38 years in Dorchester and Queen Anne's Counties and has been the Youth Coordinator for the Maryland Ornithological Society since 2005. He has been an active member of the Maryland Association of Environmental and Outdoor Education since its inception in 1986 and has been both President and Trustee of that organization. He currently lives and works on his farm in Dorchester County, a property which has been in his family since 1663 and the first property in Maryland to be given an environmental easement by the Maryland Environmental Trust.