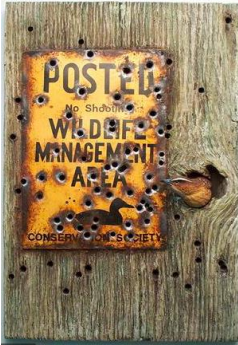
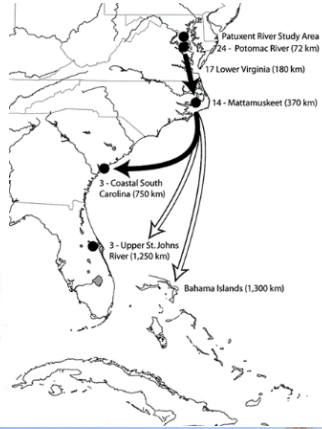


A Brief History of Ornithology in Maryland



Colin Rees

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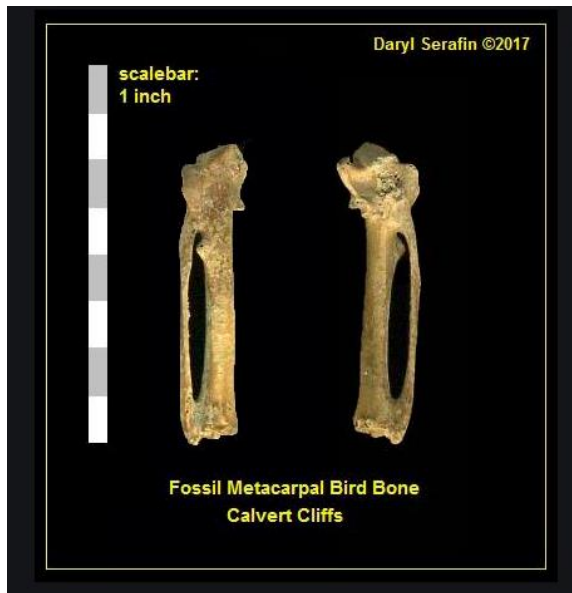
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The birds and I share a natural history.
Terry Tempest Williams.

The history of birds in Maryland goes back as far as the Cretaceous Period. Paleontologists conclude that tropicbird-like species graced the coastal skies of Maryland and its neighboring waters about 65 million years ago, while some terrestrial birds inhabited forests with species similar to those of the American tropics and the Old World. A rich avifauna is evident about 5 to 14 million years ago, as described by Alexander Wetmore (*Observations on Fossil Birds Described from the Miocene of Maryland*, 1936) in the fossil record at Calvert Cliffs. The species included the Puffin, Brown Booby, Northern Gannet, Northern Fulmar and, possibly the Manx Shearwater, all of which occur along today's seacoasts.



Fossil bird bones found at Calvert Cliffs.

Two million years ago, the Pleistocene saw conditions equivalent to the Canadian Maritime Provinces and coniferous forests with evidence of the Great Auk, Northern Gannet and Common Murre and Spruce Grouse and Gray [Canada] Jay. David Steadman in his *A Long-Term History of Terrestrial Birds and Mammals in the Chesapeake–Susquehanna Watershed* (2001) examined the late Pleistocene deposits of the greater Chesapeake region and found all but 8 of the 91 bird species listed in the fossil record are common to the region today. The exceptions included the California Condor, Rock Ptarmigan, Whooping Crane and Black-billed Magpie.

Beginning around 12,000 to 10,000 years ago, Amerindians used bow and arrow or nets to capture birds and other fauna for food, clothing, headdresses and tools throughout Maryland and adjacent states. Remains from archaeological sites point to the Passenger Pigeon and Wild Turkey as diet staples, but also feature Northern Bobwhite, Tundra Swan, Bald Eagle, hawks, game birds and geese and ducks.

Records of fossils and other remains eventually yielded to the earliest written accounts of birdlife in the US -- mostly from the pens of Mark Catesby, John James Audubon and Alexander Wilson drawing portraits further south and west. Maryland and surrounding states received scant attention in colonial and post-colonial times. Settlers often mentioned waterfowl and game birds because they were fit for the pot, but there is little in the literature profiling birds and their habitats.

Perhaps the first reference to birdlife is by the English Jesuit missionary Andrew White in 1677 who stated that parrots (Carolina Parakeets?) abounded in the winter in Baltimore County. The earliest listing of birds appears to have been done by David Baillie Warden in his *A Chronological and Statistical Description of the District of Columbia* published in Paris in 1816. Of the 32 species, Warden noted that the turkey had disappeared and that the Common Grackle was “a natural enemy of the mockingbird”. The next list (226 species) was prepared by Elliot Coues and Daniel Webster Prentiss in 1861 and expanded by a few more species in their *Avifauna Columbiana* (Bulletin 26 of the United States National Museum in 1883). This remained the standard reference for Washington DC and a portion of Maryland until 1895 when Frank Kirkwood completed his *List of the Birds of Maryland, giving dates of the arrival, departure and nesting periods of our regular birds; also including stragglers and such others as no doubt occur but are not recorded*. Most of the 339 species and subspecies recorded are from Baltimore, although he refers to several sightings of the Passenger Pigeon around the state as late as 1893 and occasional occurrences of the Ivory-billed woodpecker!

Kirkwood maintained correspondence with many in Maryland and in 1895 made his first trip to Allegany County during the breeding season. However, he provided little information on the distribution of the breeding species and it remained for Edward Preble of the US Bureau of Biological Survey to undertake the first detailed expedition to that region in 1899, including the higher mountains of Garrett County. The following year, Preble (1900) assembled a fine collection of specimens and published his findings in the Maryland Geological Survey.

Harriet Tubman, a Marylander who was clearly an accomplished naturalist, used Barred Owl calls as signals to help guide her charges, eventually helping some 70 people escape slavery. The famed conductor of the Underground Railroad traveled at night, employing an intimate knowledge of

the region's natural environment to communicate, navigate, and survive. The Harriet Tubman Underground Railroad State Park at Church Creek memorializes Tubman's connection to birdlife, as does the Poet Laureate Robert Hayden's poem *Runagate*, celebrating the owls she mimicked with such accuracy.

From 1899 to 1903, the pastor of the Lutheran church in Cumberland, the Rev. Charles William Gustave Eifrig (1871-1949), collected the first detailed information on the migration of birds through Allegany and Garrett counties. He also contributed substantially to the knowledge of breeding and wintering birds in the area and obtained specimens of 165 birds that he donated to the Saint Mary of the Lake Seminary at Mundelein, Illinois, upon his death. In 1969, much of this collection was transferred to the Chicago Academy of Sciences (Stewart and Robbins, 1958).

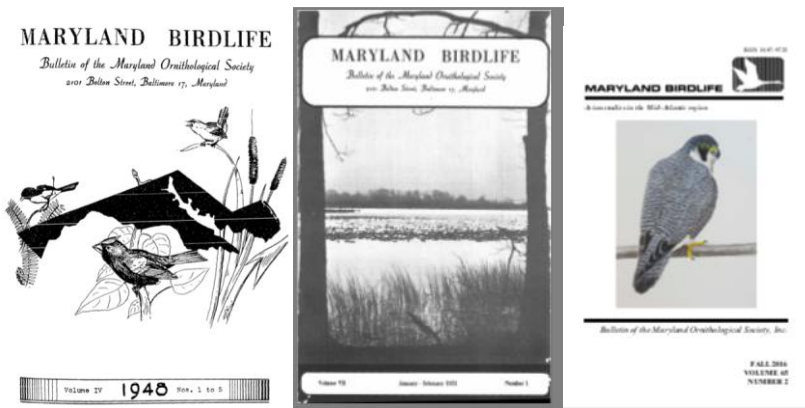
Birds of Washington and Vicinity: Where to Find and Know Them by Lucy Warner Maynard and published in 1898, lists and describes 291 bird species from various localities. It states that "Passenger Pigeons are now very irregular in September and October." Gone were the Labrador Duck, Carolina Parakeet and Ivory-billed Woodpecker

The formation of natural history organizations in the late 19th century helped promote the study of birdlife in Washington DC and Maryland. Several founding fathers of the American Ornithologists' Union (established in 1883 and now the American Ornithological Society) observed birds in DC and its Maryland and Virginia suburbs, recording their findings in prestigious journals. By the 1920s Ralph Jackson of Cambridge became the foremost ornithologist on the Eastern Shore and most of the records for Dorchester County before the 1930s are a result of his endeavors. From the late 1930s staff members of the Blackwater National Wildlife Refuge (established in 1933) furnished valuable information, as did Frazer Poole on the birds of Caroline County and nesting records from Worcester County. Kirkwood was the only supplier of information on the birds of coastal Maryland before the 1930s. Thereafter, it was left to observers from the Baltimore area and Maryland suburbs of Washington DC.

More natural history organizations sprung up nation-wide during the first half of the 20th century bringing amateur and professional ornithologists together at meetings and field trips and stimulating concern for conservation. Two clubs under the name of Maryland Audubon Society were formed, one persisting until 1937. Wells Cooke, an employee of the Biological Survey, contributed substantially to recording the birds of Maryland and his daughter May Thacher_Cooke published *The Birds of the Washington DC Region* in 1929 covering some 20 miles from the Capitol and providing a summary of migration records. However, it was not until the creation of the Natural History Society of Maryland in 1929 that the state initiated an active ornithological program and published records of birds. In 1938 it published a booklet *Birds of Baltimore and*

Vicinity from observations by Irving Hampe and in 1947 *A Preliminary List of Birds of Maryland and the District of Columbia* by Irving Hampe and Haven Kolb. In the same year, the Audubon Society of the District of Columbia published *A Field List of Birds of the District of Columbia Region* by John Aldrich *et al* listing several notable birding sites in Maryland.

Meantime, the Maryland Ornithological Society (MOS) was formed in 1945 as an offshoot of the Natural History Society of Maryland. Its early officers included Irving Hampe (first President), Hervey Brackbill, and Orville Crowder (second President). A series of meetings of the MOS were held at the Natural History Society to “organize a bird study club”, elect officers, establish an Executive Council and five committees and formulate a constitution and appropriate bylaws. Orville Crowder produced the first *Maryland Ornithological Society Bulletin* in mimeographic form in March of 1945 (later becoming *Maryland Birdlife*). The editorial noted that there was “a very wide interest in the conservation of wild birds ... manifested in the interest which the public shows in proposed legislative enactments for bird populations ... and a seeming desire on the part of many people to learn about birds.” Initial issues were devoted mainly to reports of field trips. By 1947, records and Seasonal Counts, including the Christmas Count were reported from several counties and technical reports covered such topics as bird distribution, new species lists, nest records and species profiles. The MOS now also holds May, fall and midwinter counts.

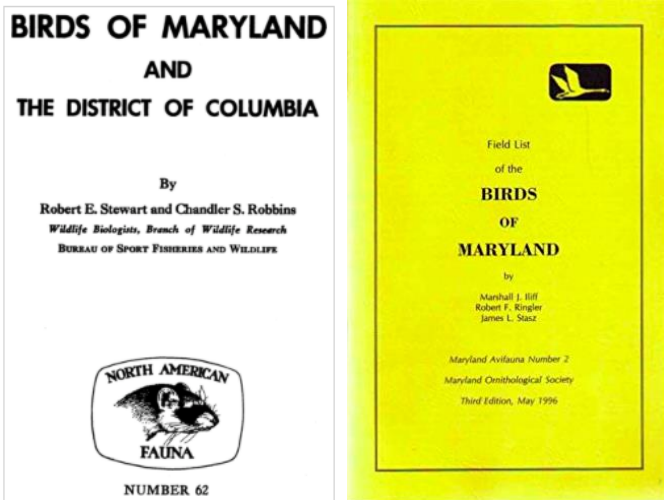


Covers of the 1948, 1951 and 2016 editions of *Maryland Birdlife*.

The first seven MOS Conventions were held at Camp Greentop, Catoctin State Park. In 1951, *Maryland Birdlife* changed to a photographic format (continued to this day) and the Society’s quarterly publication *The Yellowthroat* was introduced in 1980.

The Baltimore Oriole was officially named the State Bird of Maryland by the legislature in 1947, having been afforded protection by legislation in March 1882.

With *Birds of Maryland and the District of Columbia* by Robert Stewart and Chandler S. Robbins published in 1958 came a comprehensive coverage of birdlife, including geographical distribution, details on each species, and several maps of breeding ranges in Maryland. As a complement, in 1968, the MOS published a *Field List of the Birds of Maryland* by Chandler Robbins and Willet Van Velzen. In summary form it presented a complete list of the birds, with their dates of occurrence and relative abundances throughout the year. Known subsequently as the ‘Yellow Book’, it listed 329 species and included birding hotspots. The second edition by Chandler Robbins and Danny Bystrak was published in 1977 and listed 374 species with 16 additional species listed as hypothetical. The number rose to 399 species (a further 11 are listed as unsubstantiated) by the time Marshal Iliff, Robert Ringler and James Stasz compiled the third edition in 1996. All species were verified by specimen, photograph or other documentation and accepted by the Maryland/District of Columbia Records Committee established in 1982. In June 2020, the Maryland/District of Columbia Records Committee of the MOS published the *Official List of the Birds of Maryland/DC* listing 455 species as the number accepted (see <https://mdbirds.org/records-committee/>).



Covers of the Birds of Birds of Maryland and the District of Columbia (1958) and the second edition of the Field List of the Birds of Maryland (1996).

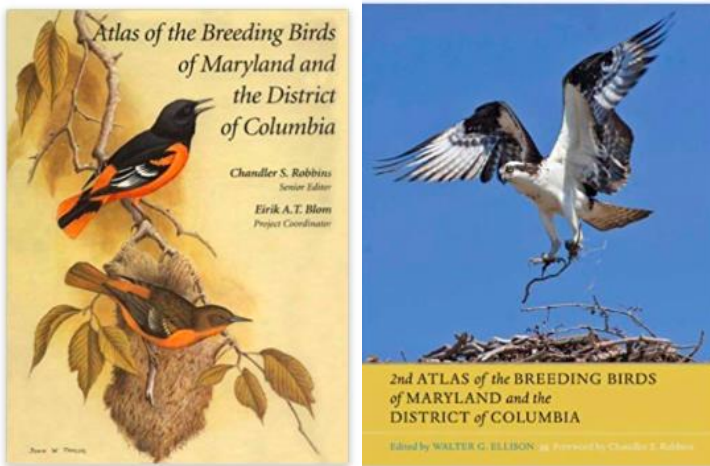
Chandler Robbins also edited *Maryland Birdlife* from 1948 to 2013 and helped shape the MOS, with many members benefiting from his willingness to educate and inspire. Chan undertook innovative research and engagement of citizens in the science of ornithology at national and international levels. He co-authored *Birds of North America: A Guide to Field Identification* and organized the North American Breeding Bird Survey, essentially placing continent-wide bird monitoring on a sound statistical footing. It was first tested in Maryland and Delaware in 1965 and rolled out nationwide over the next few years. His fellow ornithologists spoke of his "superhuman tolerance for the bookkeeping aspects of bird counting" enabling him to transform volumes of data into knowledge, thereby forming the research backbone of North American bird conservation (Sheppard, J.M. et al, 2017).

With a deepening understanding of Maryland's exceptional birdlife, field guides and opportunities to participate in recording occurrences and conservation activities, six county chapters of the MOS were formed by 1950, some quickly preparing bird checklists and managing bird-banding programs. The first checklist appeared as a *List of Caroline County Birds* under Maryland Avifauna, Number 1, December 1956. Progressive interest in conservation led to the establishment of the first MOS Sanctuary at Rock Run, Garrett County in 1960. The MOS now has 10 sanctuaries with a total area of 2,921 acres. Irish Grove, in Somerset County, is an impressive 2,264 acres of salt marsh, overgrown fields and mixed woodland, and also has a small house for overnight stays.

During the 1950s to the early 1970s, the Chesapeake Bay became the focus of national attention when organochlorine pesticides were proved to have adversely affected the reproductive success of many colonial and wading birds and the Osprey and Bald Eagle. Rachel Carson, who lived in Maryland, was instrumental in efforts to ban DDT. Her extensive research into pesticide impacts led to her book, *Silent Spring*, which was largely responsible for launching the efforts to reduce the impact of these chemicals across the continent. Banning of these pesticides during the 1970s enabled the affected populations to increase such that, by the 1980s, their numbers started to regain their former levels. However, encroachment on the habitats of waterfowl combined with other factors, has caused continued declines of breeding and migratory and wintering populations.

Under the leadership of Chandler Robbins, Maryland and Delaware became pilot states for bird-censusing projects in 1965 and the genesis of the North American Breeding Bird Survey. In Maryland, six counties tested a new bird survey technique with the first project atlas being *The Bird Atlas of Montgomery and Howard Counties*. Such activities led to the initiation of a statewide survey of breeding birds starting in 1983. For five years, under the guidance of county coordinators, some 797 volunteers recorded species in their 'blocks' and eventually producing the *Atlas of the Breeding Birds of Maryland*

and the District of Columbia in 1996 with Chandler Robbins as the senior editor and Eirik Blom the project coordinator. A second such census was conducted from 2002 to 2006 led by Walter Ellison who edited the resulting 2nd Maryland/DC Breeding Bird Atlas. Through comparison with the results of the first *Atlas*, it identified where changes were occurring, how they related to current changes in the environment and what steps were needed to prevent further loss of nesting species. It was noted that several species increased their ranges, many maintained the same distribution, but many lost ground. Some species, such as Northern Bobwhite and Barn Owl declined precipitously though Common Merganser and Ruddy Duck were added as new breeding species. The third *Atlas* project began in 2020 and will run through 2024 led by Atlas Coordinator Gabriel Foley.



Covers of the first and second atlases of the *Breeding Birds of Maryland and the District of Columbia*.

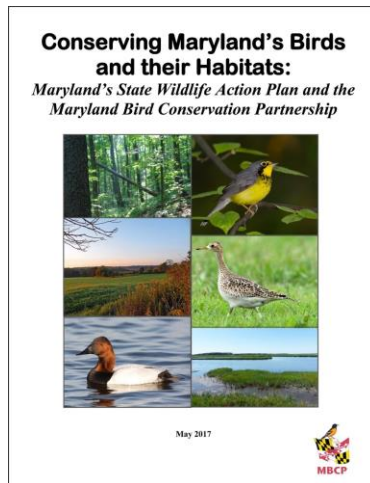
Meantime, *Maryland Birdlife* celebrated the 50th Anniversary of the MOS in 1995 with lead articles on the changes to birdlife in the state. Covering avian studies in the Mid-Atlantic region, the journal has become a highly respected source of information and scholarly papers. Regular features include first records, surveys and counts, population studies, behavior and conservation.

In parallel, the *Maryland Wildlife Diversity Conservation Plan* was published by the Maryland Department of Natural Resources in May 2005. All 50 U.S. states and six territories were mandated by Congress to write and implement such a plan in order to receive federal funding for conservation work. The *Plan* recognized wildlife species of Greatest Conservation Need and their key habitats. Conservation actions to address threats to these species and key habitats were identified with much depending on collaboration and partnerships with those interested in conserving Maryland's wildlife diversity. Bird species of

Greatest Conservation Need (GCN) numbered 141 of which 127 were ranked vulnerable in the state and 8 were ranked as vulnerable across their entire range.

The 2005 *Plan* was revised as the 2015 *Maryland State Wildlife Action Plan* (SWAP). It included plant and animal species and their habitats, ranked according to level of threat. Emphasis was placed upon monitoring to ensure priority conservation decisions were implemented in a time-bound manner specified under the Plan. A regional approach was adopted using standardized criteria so that Plans from neighboring states have complimentary actions at the ecosystem level.

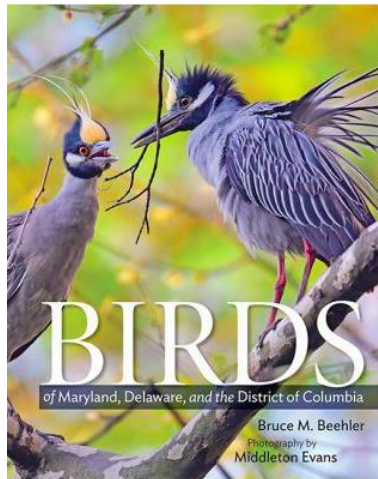
In April 2013, a *Workshop on How the Birding Community Can Support Habitat Conservation* brought together MOS and others from Maryland’s bird and birding communities to: confirm the major pressures on birdlife; ascertain measures for protecting wildlife populations and habitat; determine priority actions for adoption by the conservation community; and, identify durable partnering opportunities. This led to a series of follow-up meetings culminating in the formation of the Maryland Bird Conservation Initiative later renamed the Maryland Bird Conservation Partnership (now known as the MBCP). The MBCP has been supported by the DNR and the MOS and given in-kind support by the US Fish and Wildlife Service. The MBCP is a coalition of over 45 partner organizations with expertise and experience in conserving bird populations through research, citizen science and community engagement with a focus on protecting and restoring the habitats of the 143 Species of Greatest Conservation Need.



In 2017, the DNR’s *Conserving Maryland’s Birds and their Habitats: Maryland’s State Wildlife Action Plan and the Maryland Bird Conservation Partnership* drew on the SWAP to connect scientific knowledge about the State’s birds and their habitats with the threats faced and described conservation

actions over the next decade to protect such species and their habitats. Of the 143 Species of Greatest Conservation Need (SGCN) identified, 20 are listed in Maryland as Threatened or Endangered and 12 as in Need of Conservation. Conservation actions at the statewide level were identified as needed in the following areas: land and water acquisition and protection; law and policy; planning and administration; inventory, monitoring and research; education and outreach; and, climate change adaptation.

During the last few decades publications on birdlife in Maryland have diversified, including, for example, birding guides for counties and the larger terrain *Finding Birds of the National Capital Area* by Claudia Wilds, 1989, revised in 1992, with useful profiles of birding sites in Maryland, Virginia and Delaware, *Bird Finding in Frederick County, Maryland*, by Stauffer Miller, *Birding Howard County, Maryland*, by Joanne Solem in 1995, A Birder's Guide to Baltimore and Baltimore County by Elliot Kirschbaum, and *A Birder's Guide to Montgomery County, Maryland*, in 2001 (Second edition in 2008), paintings of birds and their habitats (*Birds of the Chesapeake Bay* by John Taylor, 1993), portraits of wildlife (*Chesapeake Wildlife: Stories of Survival and Loss* by Pat Vojtech), and conservation (*Chesapeake Bay waterfowl policy and management plan* by the Chesapeake Bay Program, 1990). Other publications included profiles of the birding community (*Connecting with nature via our feathered friends* by the MD DNR, 2012 and *Birds of a Feather: Seasonal Changes on Both Sides of the Atlantic* by Colin Rees and Derek Thomas). In 2019, *Birds of Maryland, Delaware and the District of Columbia* by Bruce Beehler portrayed the lives of 400 species: where they nest, how they forage, their various behaviors, and the natural environments upon which they need to survive.



Cover of Bruce Beehler's *Birds of Maryland, Delaware and Maryland*.

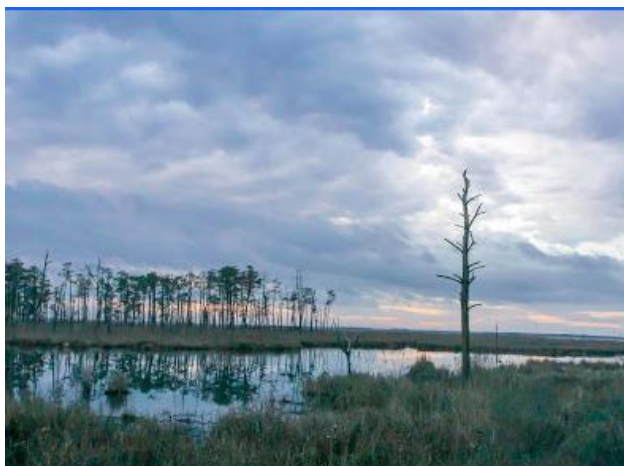


The MOS is now in its 75th year and it seems appropriate that the third *Maryland/DC Breeding Bird Atlas* (2020 - 2024) is underway. One key difference from the previous atlases is the use of a customized eBird portal to collect and submit field data (see <https://ebird.org/atlasmdc/home>). By continually tracking bird populations, distributions, and the timing of their breeding, scientists can understand the health of bird populations and inform land-use planning, conservation land management, the status of species at risk, and research. As a community effort, the *Atlas* will engage people in conservation, introduce them to birds and to nature, and increase participants' knowledge and awareness of bird behavior and distribution for which Maryland's Department of Natural Resources and the MOS provide financial support.

The MOS has an active Conservation Committee that pushes for legislation and rules supportive of birds and campaigns against adverse actions to birds and their habitats, and the Society's Records Committee carefully reviews reports of new and rare species for the state and DC, before handing down decisions. The Youth MOS fosters young bird enthusiasts, their striking success in Birdathons and first-place finishes (beating all adult teams) in the World Series of Birding, bearing witness to their identification skills and energy. An MOS scholarship program encourages natural history educators with field courses in ornithology. It is hoped that through these programs, younger members will become future leaders in ornithology and the supporters of bird conservation.

Another project was the collection of nest records. Pioneered by Robert Stewart in 1938 and later managed by Chan Robbins from 1949 until the 1970s. To date there are approximately 33,000 records covering over 100 species, now digitally archived. The Maryland/District of Columbia Records Committee was established in 1982 under the MOS to review reports of rare and unusual birds in both jurisdictions and issues decisions in the *Maryland Yellowthroat*. The committee keeps voluminous notes on each record and requires a high standard of bird identification by its members.

Maryland has been the beneficiary of proximity to national and international bird conservation organizations in Washington DC and hosting various Federal agencies. Noteworthy among the latter is the Patuxent Wildlife Research Center (PWRC), a leading international research and educational institute established in 1939 for such programs as the Bird Banding Laboratory (established in 1920), North American Bird Phenology Program and North American Breeding Bird Survey. The PWRC is located on the grounds of the Patuxent Research Refuge and is managed by U S Geological Survey. It is housed in the only National Wildlife Refuge, which includes the unique purpose of supporting wildlife research. The state has also enjoyed the presence of national and state parks and federal land protected for birds and other wildlife in the form of national refuges, of which the Blackwater National Wildlife Refuge is the most famous.



Blackwater National Wildlife Refuge.

Maryland is also fortunate in having its own vibrant bird conservation organizations such as Maryland-DC Audubon and its chapters, the Maryland Conservation Partnership, the Audubon Naturalist Society and the MOS and its chapters as well as dedicated individuals supporting such as initiatives the Maryland Biodiversity Project. Between 2007 and 2012, more than 100 MOS members helped identify Important Bird Areas (IBAs) by conducting “Bird Blitz” surveys at candidate sites across Maryland.

The MOS and its chapters will continue to play a critical role in fostering interest and concern for birds and their habitats, producing periodic newsletters, annual reports, maintaining websites, running meetings and field trips, and using social media to inform the community about birdlife. Considerable efforts will continue to be devoted to more targeted survey work, supporting the maintenance of reserves and acquiring new land for conservation. Partnerships will intensify and underpin many urgent investigations and studies which, with

deft maneuvering, may effectively contain the further erasure of the natural landscape wrought by economic development. They may also take actions to enhance avian diversity at policy and project levels.

The Maryland Ornithological Society, and indeed all birding and conservation organizations, entered a new phase in its history in 2020. Awareness of the long-standing systemic racism came to a head nationally, in part because mobile phone cameras began capturing videos and images of violence against Black people. The MOS and others were quick to adopt essential statements condemning racism in all its forms, including within the birding community. The bigger and more significant challenge ahead is enacting a plan that incorporates equity, diversity, and inclusion into the fabric of birding groups. Black people, Indigenous people, and People of Color have fewer opportunities and more difficulty engaging in hobbies like birding, and they are too frequently targets of confrontation and threats white birders don't experience. This crucial chapter in the history of Maryland ornithology is going to be difficult. However, a well-executed plan of action to actively engage Black birders can make this chapter a positive one. The MOS recognizes that *A Brief History of Ornithology in Maryland* is based on the very narrow historical record available to us today and hope future accounts will be able to document a wider and more inclusive narrative.

There are many conservation issues on our doorstep. According to the journal *Science* (Rosenberg *et al*, 2019), a staggering 3 billion or 1 in 3 birds have been lost to North America since 1970, diminishing their important role in pollinating plants, dispersing seeds and controlling pests. And in the last 20 years in Maryland, waterfowl have been disappearing from our creeks, swallows abandoning nesting sites beneath piers because of rising sea levels, and the Baltimore Oriole and other birds are breeding further north owing to warming conditions and associated changes in fauna and flora. The disappearance of islands in the Chesapeake Bay and coastal bays and forest fragmentation and loss have resulted in the precipitous declines of their associated wildlife. Wetlands are under threat from sea level rise, and in 2019 the health of the Chesapeake Bay received its first grade C- since 2011, with a changing climate as the culprit.

Not so long ago, the skies over the Chesapeake Bay were often darkened by streaming flocks of waterfowl; for hours, swans, geese, and ducks came in layer upon layer and filled the air with their haunting music. So dense were the flocks that they merged with the horizon and, on landing on water, obscured its surface. They still come, but their numbers have been greatly diminished and we can only enjoy such spectacles through the memories of others.

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