PROJECT NATURE NEWSLETTER

NOVEMBER, 2019 ISSUE

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Events

Project FeederWatch
Blendon Woods Metro Park - Nature Center
15th & 16th November 10:00 am - 2:00 pm
Drop by the Nature Center to count birds at our feeder window and help collect data for this important citizen science project

Weekly Bird Hike
Scioto Audobon Metro Park - Grange Insurance Audobon Center
16th, 23rd, 30th November 10:00 am - 11:30 am
Hike with experienced birders to find and learn about birds (Binoculars and field guides can be provided)

100 Years of Coyotes
Battelle Darby Metro Park - Nature Center
16th November 4:30 pm - 5:30 pm
2019 marks 100 years of Coyotes in Ohio. Come and learn about this misunderstood animal on a 1-mile hike, as we call out to them

Lantern Stroll
Highbanks Metro Park - Nature Center
16th November 5:30 pm - 6:30 pm
Carry lanterns to light the way on a 1-mile hike on the Dripping Rock Trail

Stone Fence Hill Hike
Clear Creek Metro Park - Park Office
16th November 10:00 am - 12:30 pm
Enjoy forest views hiking through rough terrain in the backcountry. Water and hiking boots recommended.

Bird Feeding 101
Blacklick Woods Metro Park - Nature Center
17th November 4:00 pm - 5:00 pm
Come learn about the basics of bird feeding and attracting birds to your yard

Owls
Battelle Darby Metro Park - Indian Ridge
17th November 5:00 pm - 6:00 pm
Lure in owls using calls on a 1-mile hike

Turkey Trek
Blacklick Woods Metro Park - Nature Center
23rd November 10:00 am - 11:00 am
Take a 2-mile walk to search for signs of our elusive turkeys

Duck ID Hike
Blendon Woods Metro Park - Nature Center
23rd November 2:00 pm - 3:00 pm
Learn about the Waterfowl visiting Thoreau Lake!

Buckeye Trail-Gate Party
Blendon Woods Metro Park - Nature Center
23rd November 10:00 am - 12:00 pm
Prep for the big game with a 1.5-mile nature hike; stay afterwards to enjoy a hot dog over the fire and yard games!

Off-Trail Hike
Battelle Darby Metro Park - Nature Center
23rd November 10:00 am - 12:00 pm
Explore remote areas of the park on a rugged 3-mile hike. Please wear good hiking shoes

Events

Project FeederWatch
Highbanks Metro Park - Nature Center
23rd November 11:00 am - 1:00 pm
Learn how to identify feeder birds and join in the citizen science program to make a contribution towards advancement of citizen science

Walk To The Eagles' Nest
Three Creeks Metro Park - Confluence Area
23rd November 10:00 am - 11:00 am
Learn about our national bird on a 2-mile off-trail walk to visit their nesting site

Wild Turkey Display
Blacklick Woods Metro Park - Nature Center
23rd & 24th November 8:00 am - 6:00 pm
Learn about Ohio's gobblers by viewing our display

Feed The Stream
Battelle Darby Metro Park - Nature Center
24th November 5:00 pm - 6:00 pm
Enjoy the fish feeding frenzy as you help feed them worms, crickets, and other foods

Off-Trail Adventure
Three Creeks Metro Park - Confluence Area
24th November 1:30 pm - 3:00 pm
Explore rarely seen parts of the park on a 2.5-mile hike

Winter Hawks
Battelle Darby Metro Park - Nature Center
24th November 10:00 am - 11:00 am
Search for Hawks visiting the park in winter

Walk and Woof
Glacier Ridge Metro Park - Shelter House
24th November 3:00 pm - 4:00 pm
Enjoy a 2.5-mile hike with your dog

Opt Outside Hike
Battelle Darby Metro Park - Cedar Ridge
29th November 11:00 am - 1:00 pm
Instead of waiting in line, come take a 4-mile hike with us

Living On The Edge
Blacklick Woods Metro Park - Nature Center
30th November 11:00 am - 12:00 pm
Join a naturalist for a walk to explore the world where forest and field meet

Family Turkey Talk
Blendon Woods Metro Park - Nature Center
30th November 2:00 pm - 3:00 pm
Learn about these thanksgiving icons and take a 1.5 mile hike to spot some

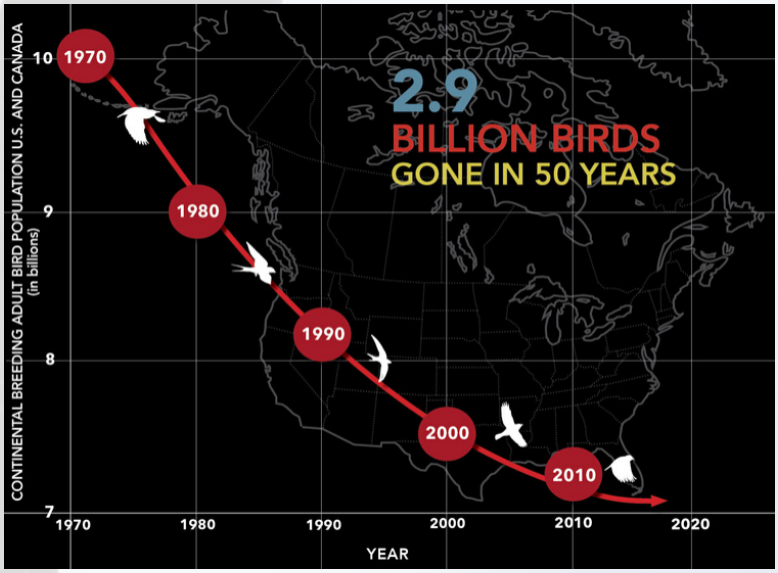
Project FeederWatch
Blacklick Woods Metro Park - Nature Center
1st December 9:00 am - 11:00 am
Learn how to identify feeder birds and join in the citizen science program to make a contribution towards advancement of citizen science

Project FeederWatch
Blendon Woods Metro Park - Nature Center
7th & 8th December 10:00 am - 2:00 pm
Learn how to identify feeder birds and join in the citizen science program to make a contribution towards advancement of citizen science

Decline of Birds

This past September a study titled "Decline of the North American Avifauna", published in the journal Science, found that today there are almost 3 billion fewer birds than there were in 1970. To put it in a different way, we have lost 1 in 4 birds in the last 50 years. This study, undertaken by 7 research institutions in the US and Canada, is a first of its kind study quantifying the total decline in population trends across 529 bird species in continental United States and Canada. All the species studied make up 76% of total breeding bird species in the US and Canada. The loss is reported in almost every biome. Forests alone have lost 1 billion birds. In the grasslands, bird population has declined by over 50%, which amounts to over 700 million birds. This study is conservative in its estimate of the loss since only breeding bird populations were studied for the analysis. The total loss could be much higher than reported!

In order to evaluate and quantify the magnitude of declines and long-term trends in population sizes, an exhaustive amount of data, consistently recorded over a long period of time, is required. Fortunately, data on birds has been collected for over a century through the citizen science program **Christmas Bird Count**, and for the last 50 years from the **North American Breeding Bird Survey**, and for several decades through many other citizen science programs including **eBird**. The population models used in this study were based on multiple long-term standardized data collected over the past several years. Hence, this study is the most comprehensive and definitive of the overall trends. This kind of long-term extensive data does not exist for any other group of animals!



Graphic Source: Cornell Lab of Ornithology

Biome

A biome is a specific geographic area of complex biotic community characterized by distinctive plant and animal species and maintained under the climatic conditions of the region. Biome is broader than habitat. Habitat refers to the local environment where a specific species lives, whereas biome describes a major life zone that can comprise many different habitats.

Yellow-rumped Warbler

The result is further corroborated by a continent-wide weather radar data, which shows a steep decline in detecting the passage of migrating birds over the last 10-year period. Since the more abundant species are caught by weather radar during migration season, radar-derived data provides an independent measurement of the widespread decline in the population of migratory species. Additionally, the broad coverage and a continuous operation of the radars provides a very consistent and reliable monitoring tool. A network of 143 **NEXRAD** weather radars was used to get estimates of long-term changes in the nocturnal migratory passage of the birds in spring from 2007 through 2017. The radar data provides a unique standardized monitoring of all the migratory birds in both space and time. Many of the migratory birds breed further north in the continental United States where the survey data is scarce. Thus, the radar measurement effectively expands data sampling to poorly monitored regions.

Red-winged Blackbird

The majority of loss (over 90%) in the bird population is within 12 avian families, including sparrows, warblers, blackbirds and finches. The common birds have suffered the most and are facing the sharpest decline. A very common bird - the Red-winged Blackbird - is estimated to have suffered a loss of almost 100 million since 1970. This study is not only compelling in the need to take action, it also highlights that conservation efforts focused on just one or two species is not enough. While we were able to successfully rescue several threatened species of birds such as the Bald Eagle, the Trumpeter Swan, and the Peregrine Falcon among others through concerted restoration efforts and policies, unfortunately, our overwhelming focus on the endangered and threatened species took attention away from the decline in abundance of the more common species. We tend to not notice the change in the more common species because of the ***shifting baseline syndrome***. Common species can go extinct in a rather short span of time and the extinction of the Passenger Pigeon is a strong evidence of this. This study reveals that we need to move beyond a narrowed-

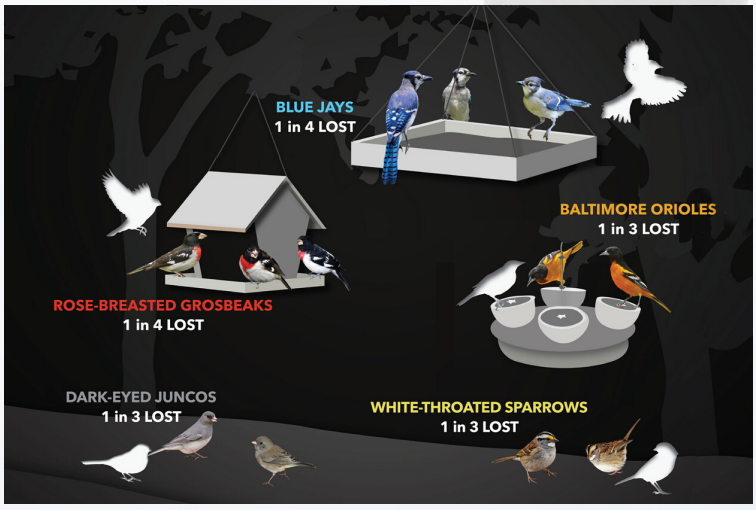
down effort to a much larger scale of thinking. Our approach needs to move beyond considering an Endangered Species List to a whole Endangered Natural World!

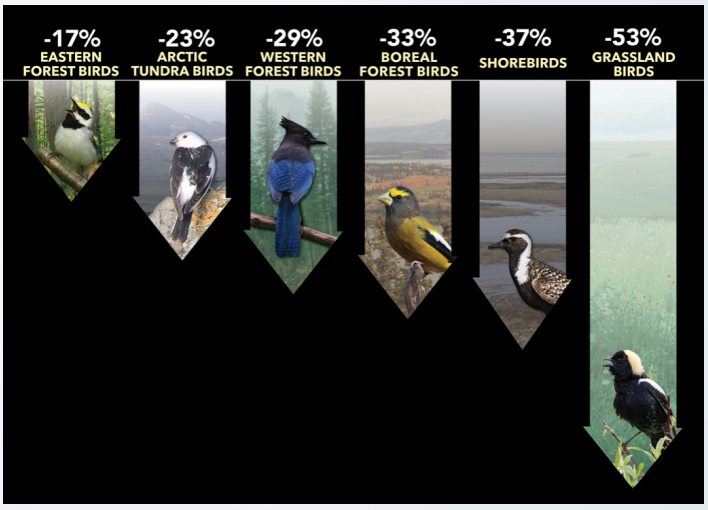
Shifting Baseline Syndrome

Shifting Baseline or Sliding Baseline describes a gradual change in the accepted norms for the condition of the natural environment due to lack of past information or experience of past conditions. It is a psychological and sociological phenomenon, where, due to our limited and relatively short life-spans, compounded with faulty memory, we lose the reference or baseline with which we perceive changes in the natural world around us, which leads to an incorrect evaluation of the degradation of the environment.

Causes of Decline

Climate change is certainly a major contributor but there are other factors, most of which are caused by us humans. Habitat loss, use of more toxic pesticides, and unregulated harvest are some of the other causes of the declining bird populations. Agriculture expansion as well as urbanization are yet other contributors. Increased urbanization and expansion of agricultural land not only results in a loss of habitat for birds, it also leads to a drastic decrease in insect population. Insects are a major food source for most birds and a decline in food abundance, results in a commensurate decline in bird population. Another less intuitive factor is cats. Each year, 2.6 billion birds are killed by cats in the US and Canada by over 110 million feral and pet cats.





Graphic Source: Cornell Lab of Ornithology

Importance of Birds

Birds play a vital role in the ecosystem. They disperse the seeds from the fruits and berries they eat and hence are responsible for maintaining and expanding our forests. Insects form a large part of their diet, which makes them nature's pest control. Hummingbirds are pollinators and hence responsible for many of the foods we eat. Eastern meadowlarks are a grassland bird and play an important role in filtering water runoff. [To learn about runoff, read the September 2019 issue of Project Nature newsletter.] This species has suffered a drastic decline in recent years. Consequently, water quality in many communities near the habitat of these birds has degraded and there have been numerous reports of water contamination. Hence, a decline in not just bird diversity but even in their numbers, degrades the ecological integrity, ultimately resulting in a loss in the ecosystem goods and services we benefit from.

White-throated Sparrow

In addition to the benefits to the environment, birds are also very important to the US economy, engaging 4.7 million people who spend a collective 9.3 billion dollars each year in bird-related activities!

Beyond Birds

This study is far more consequential than any other study of a single species of flora or fauna, because this finding extends far beyond birds and points to the devastating impacts on the global environment. Similar declines have been reported in Europe and elsewhere, which suggests that this decline is a global trend. The Climate Change Bird Atlas (fs.fed.us/nrs/atlas/bird/), developed by the USDS Forest Service, uses long-term data and trends of changing distribution of birds, and models a possible future distribution. This atlas provides a detailed information on environmental characteristics that influence these distributions. Birds are an important indicator species of the environment - a reliable barometer of environmental health - and their decline implies a degradation of the larger ecosystem, of which we ourselves are an integral part.

This is yet another study raising alarms but the scale of loss that this study reports is a blaring siren of the impending collapse of the natural world if nothing is done!

Baltimore Oriole

Magnolia Warbler

Conservation and Hope!

There are several government agencies as well as non-governmental organizations and groups such as **United States Geological Survey** (USGS), **National Audubon Society**, **Cornell Lab of Ornithology** and others that have been working for decades protecting birds and educating the general public about them. The **North American Bird Conservation Initiative** (NABCI) works to link several conservation groups and efforts and coordinate broad partnerships. **Ohio Bird Conservation Initiative** (OBCI) is a local arm of NABCI. In addition to coordinating several different conservation efforts, OBCI organizes the **Ohio Lights Out** program to prevent migratory birds from being killed each year due to collision with tall city buildings during migration season. [To learn more about migratory birds and the threats they face, read the April 2019 issue of Project Nature newsletter.] In partnership with the Ohio Division of Wildlife, Ohio State University, OSU Extension, The Nature Conservancy, and Ohio Biodiversity Conservation Partnership, OBCI has prepared a detailed guide and produced several educational videos on recommendations for managing Ohio's forests for birds. Additionally, OBCI has developed a companion guide for the "small patch" woodland owners.

Scarlet Tanager

There is some good news from this study on bird populations as well. A few species of birds have actually done well, and their population has seen an increase since 1970. One biome that stands alone in seeing a net increase in bird population is the wetland. Conservation laws protecting waterfowl and wetland birds such as **North American Waterfowl Management Plan** is to be credited with this success. A few other groups such as raptors - hawks, eagles and other birds of prey - have also shown a recovery since the banning of the harmful pesticide DDT and making hunting raptors illegal. **The Migratory Bird Treaty Act** (MBTA) of 1916 between US and Canada has successfully prevented extinction of many bird species.

Snowy Egret

Trumpeter Swans

Cooper's Hawk

Unfortunately, a minor increase in a few groups is far from sufficient to make up for the large loss in abundant species. But this result does prove the effectiveness of conservation laws and provides a direction and hope for the future! As proven by conservation laws such as MBTA, we don't necessarily need to set aside large acres of land and make them into nature preserves in order to protect the birds; we can do a lot by simply making a few adjustments in our lifestyle and practices that are environmentally friendly. When our actions are a cause of destruction, we also possess the ability to reverse it. And we don't need to give up on our way of living completely; we just need to find synergistic solutions that help us integrate our cities, towns and neighborhoods with the environment such that we can sustainably cohabit with the ecosystem around us - the very ecosystem whose services we depend on for our own civilization!

What You Can Do to Help!

The foremost step before any conservation and restoration effort can be undertaken, is to collect data. Good data helps inform restoration efforts and conservation policies. There are several citizen science programs to monitor birds and report one's observations. This incredible study on the dramatic decline in bird population could be made possible only because of the wealth of data provided by the hundreds of thousands of volunteer citizen scientists all over the North American continent for the last several decades. [To learn more about Citizen Science, read the January 2019 issue of Project Nature newsletter.] One can join and contribute to the numerous bird surveys conducted by the Audubon Society, Cornell Lab of Ornithology, North American Bluebird Society and others. Columbus and Franklin County Metro Parks conduct and facilitate several bird surveys and one can sign up to volunteer. One can also submit their observations of birds to the Cornell Lab of Ornithology's eBird (ebird.org/home) database.

Northern Parula

During winter, there is a very convenient way to survey birds by participating in the **Project FeederWatch** program, which documents the feeder birds. You sit warm inside by a window and record the birds that visit the feeders outside. If you have a backyard with all the necessary requirements, you can do it at your home, otherwise you can become a Metro Parks volunteer and participate in the survey at any of the three Metro Parks - Highbanks, Blendon Woods or Blacklick Woods. If you are new to birding, Project FeederWatch is the best survey to start learning birds as there are far fewer birds in the winter. Feeder birds, particularly winter feeder birds, are not very difficult to learn. It's a very rewarding and enriching experience. More information about Project

American Tree Sparrow

FeederWatch can be found at feederwatch.org/about/how-to-participate/. Another opportunity in the winter to survey the winter birds is the **Christmas Bird Count**. Christmas Bird Count is the oldest running citizen science program. This year will be the 120th year of the survey! The schedule for the 2019-2020 surveys can be found at columbusaudubon.org/citizen-science/christmas-bird-count/. [To learn more about citizen science programs such as Project FeederWatch and Christmas Bird Count, and winter birds in general, read the December 2018 issue of Project Nature newsletter.]

Other Simple Ways to Help!

There are some very easy and simple ways in which we can help the birds.

Black-throated Blue Warbler

1. Almost 1 billion birds die each year after hitting a window. During the day, birds see the reflections in the glass and perceive it as a through passage, and during the night, the migratory birds are attracted and drawn to the lights in the buildings. In each case, it results in a collision, mostly fatal. You could help by employing one of the many methods to break up reflection from the window. There are several options such as installing screens or hanging strings or sticking strips of tape spaced about four inches wide on the window glass. There are some commercially available options such as the Acopian BirdSavers (birdsavers.com/) and the ABC Bird Tape (collidescape.org/abc-birdtape).

Cape May Warbler

Additionally, you could join the **Ohio Lights Out** program (ohiolightsout.org/cities/lights-out-columbus/) that works to encourage businesses to turn off the lights in their buildings at night as well as organize early morning walks (during migration season) to look for any injured or deceased birds from building collisions. Contact Matthew Shumar (obcicoordinator@gmail.com) for more information.

Lights Out Buckeyes is a student-run program undertaken by OSU Ornithology Club. Contact osubirds@gmail.com for more information.

2. As mentioned above, cats are a major threat to the birds killing over 2 billion birds each year. Cats are non-native predators that can instinctively hunt and kill birds, even when they are well fed. You can save birds and keep your cats healthy by keeping them indoors or even train them to walk on a leash.

Yellow Warbler

3. One of the major causes of bird population decline is loss of habitat. You can help by planting native plants and create a prairie bed instead of lawn grass in your yard. In addition to providing shelter to the birds, native plants produce berries, fruits, seeds and nectar as well as attract other insects - all of which are a food source for birds.

4. The most widely used pesticides in North America, called neonicotinoids or "neonics", are toxic to birds and can harm or even kill them if they come in direct contact or eat contaminated seeds. Pesticides and insecticides also reduce insect diversity and population, thereby reducing the food source for the birds. Avoid using pesticides and urge U.S. Representatives to cosponsor the **Saving America's Pollinators Act**. The bill, **H.R. 1337**, requires the Environmental Protection Agency (EPA) to suspend registration of neonics.

5. Very few coffee consumers are aware that 75% of the world's coffee farms are created by destroying forests that provide food and shelter for birds and other wildlife. Sun-grown coffee also requires harmful pesticides and fertilizers. On the other hand, shade-grown coffee preserves the forests and hence protect the birds.

Chestnut-sided Warbler

Look for Bird Friendly coffee, a certification from the Smithsonian Migratory Bird Center that also includes organic standards. Advocate for more coffee farms to grow in shade, without clearing the trees.

6. One of the biggest environmental menaces of the modern times is plastic! It takes over 400 years for the plastic to degrade. It has been studied that at least 80 seabird species ingest plastic, mistaking it for food. Avoid using plastic, and if using it, make sure to reuse or recycle it. Advocate for reducing or even banning plastic bags, straws and styrofoam.

A Laysan Albatross with a stomach full of plastic
Photo by Chris Jordan via U.S. Fish and Wildlife Service Headquarters

Finally, become a citizen scientist and get actively involved. Enjoy watching the birds, learn about them and in the process, contribute valuable data!

Epilogue

Birds are the most and best-studied fauna of any group of wildlife species. There are numerous other species of plants and animals that work diligently, playing their respective parts in the smooth functioning of the ecosystem, and providing us with the ecosystem goods and services. But we don't even have nearly as extensive and long-term data, and hence an understanding, about their state as we have for birds. There have already been studies pointing to a decline in numbers

Tennessee Warbler

Black-throated Green Warbler

of several species across a range of groups. Pollinator insects such as bees, butterflies and moths have been declining at an alarming rate, and their decline has the most immediate effect on our lives. Pollinators are responsible for over half of our crops.While there are many Federal and local laws to protect birds along with several groups and organizations constantly working on their conservation and restoration, clearly, it's not enough! Despite these conservation laws and efforts, we have lost 30% of the bird population over the last 50 years. (Although, one must pause for a moment here and wonder if it were not for these conservation efforts, what might have been the scale of devastation!) There's a dire need to do more, a lot more. And fast!

Extinction begins with a sharp loss in abundance, and along with numerous studies reporting loss in species of flora and fauna all over the world, the scale of loss as found in this study has only strengthened the dreadful possibility that we might be heading into – what many scientists believe – another mass extinction! We must understand that if the environment is not healthy for the birds, it's no better for us either, since we both share the same home! We need to protect the birds (and every organism in the ecosystem) for selfish reasons - to protect ourselves!

Blackburnian Warbler

Yellow Warbler

Palm Warbler

Cover Photo: Chestnut-sided Warbler

To subscribe to the newsletter or for any questions/comments/feedback, please email

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