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aikorns
AIKEN AUDUBON SOCIETY

MISSING— 3 BILLION BIRDS!

by Linda Hodges

On September 19th of this year, the journal *Science* published astonishing news: North America has lost almost 3 billion breeding adult birds in the last 50 years. That represents 29% of all North American birds.

“Multiple, independent lines of evidence show a massive reduction in the abundance of birds,” said Ken Rosenberg, the study’s lead author and a senior scientist at the Cornell Lab of Ornithology and American Bird Conservancy.¹ Although the study doesn’t address why birds are disappearing, both a decline in successful breeding as well as an increase in mortality are evident.

What exactly does this mean?

It means that a wide spectrum of bird populations are in trouble. Grassland birds have been hit especially hard, losing 53% of their population since 1970. For example, the Cornell Lab of Ornithology reports that three of four Eastern Meadowlarks are gone.

It means that we’ve lost 1.3 billion forest-dwelling birds, or 25%. To bring it home, nine often Evening Grosbeaks have vanished.

It means that migratory birds have diminished by 2.5 billion, or 28%. Baltimore Orioles alone have lost 40% of their population.

Oddly enough, common birds were hit as hard as rarer species.



As a family, American sparrows have suffered the most: 750 million or 25% are gone. Other families taking the biggest hits include blackbirds, finches, larks, Old World sparrows, and warblers.

On a positive note, not all birds are in danger. Raptors and turkeys are up in significant numbers. Waterfowl are also on the upswing. And Sandhill Crane populations are stable across the U.S.

“This increase is no accident,” Rosenberg says. “It’s a direct result of decades of conservation efforts

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A MESSAGE FROM THE PRESIDENT

Many of you have probably heard about a study published last month in the journal *Science* about the precipitous decline of America’s birds. Using a variety of data sources, the paper estimates that North America has nearly 3 billion fewer birds than in 1970. This decline is not only limited to rare species—common birds are also declining across the country. The families seeing the sharpest drops include sparrows, wood warblers, and blackbirds. The news wasn’t all bad—waterfowl, raptors, game birds, and other families have seen population increases, in some cases directly linked to active conservation efforts.

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Coming programs

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Making a Bird...

Dr. Garth Spellman

DECEMBER 14

Christmas Bird Count

JANUARY 15

Birding as a Human Right

Eric Eaton

FEBRUARY 19

Bird Anatomy

Jenyva Fox

Newsletter articles

Articles, announcements, or other items of special interest to Aiken Audubon members are welcome for consideration. We’d love to hear from you!

The deadline for submissions to the January/February 2020 issue of the *Aikorns* is Wednesday, December 18. Contact the editor, Leslie Holzmann, at Editor@AikenAudubon.com or call (719) 964-3197.

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NOVEMBER 20 / DR. GARTH SPELLMAN MAKING A BIRD: HOW SPECIES FORM AND STAY SEPARATE



Birds are the most diverse group of terrestrial vertebrates. Scientists have known for the greater part of a century that physical separation (geographic isolation) of populations often leads to the evolution of new species. This presents a conundrum since birds fly and are able to move large distances efficiently—how did they become so diverse?

Dr. Spellman will lead you on a journey across North America using examples from his own research projects to reveal how

bird species originate and uncover the often complex evolutionary forces that keep species apart, or lead to two species becoming one. All the birds we visit should be familiar to Coloradans, from Warbling Vireo to Brown Creeper to Brown-capped Rosy-Finch. These common Coloradan birds have fascinating stories to tell that can help us understand how and why we truly live in the “Age of Birds.”

As the Curator of Ornithology, Dr. Garth Spellman’s research focuses on how recent and ancient environmental changes have affected bird species. The response of a species to environmental change leaves lasting footprints in its DNA. Dr. Spellman uses genetic tools to examine “bird DNA footprints” and determine just how a species or multiple species that make up a modern community have responded to past environmental change.



DECEMBER 14 / YOU! AUDUBON CHRISTMAS BIRD COUNT & POTLUCK

You can add to a century of community science data by signing up for this year’s Colorado Springs Christmas Bird Count (CBC) on Saturday, December 14, 2019! Everyone is welcome to participate. Plan to spend at least the entire morning finding birds, though times will vary. Come prepared for cold temperatures, and possibly snow and ice. Feeder watchers are also encouraged to sign up and participate.

After the count, we will gather for a potluck dinner, species compilation, and sharing of the day’s adventures at Bear Creek Nature Center from 5 to 7 pm on count day.

The CBC is a long-standing program of the National Audubon Society, with over 100 years of community science involvement. It is an early-winter bird census, involving thousands of volunteers across the U.S., Canada, and many countries in the Western Hemisphere.

There is a specific methodology to the CBC, and you must sign up in advance. Each count takes place in an established circle 15 miles in diameter, and is organized by a count compiler. Count volunteers follow specified routes, counting every bird they see or hear. It’s not just a species tally—all birds are counted, giving an indication of the total number of birds in the circle that day.

For more information or to sign up, please contact Tyler Stuart at colospringscbc@gmail.com.

Aiken Audubon programs are free and open to the public. They are held at Bear Creek Nature Center, located at 245 Bear Creek Road in Colorado Springs, 80906. Coffee and socializing begins at 6:30 pm and programs begin at 7 pm.

If inclement weather cancels an Aiken meeting, decision will be made by 1:00 PM on the meeting date. Notification will be placed on our [website](#), on our [Facebook page](#), and sent out through our email notification list. If there is any doubt, please contact any Aiken board member via telephone. Always, your safety is first, so use your own judgement when coming to a meeting.

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Aiken Audubon Field Trips & Events

Everyone is welcome on Aiken field trips, regardless of experience level or membership in Audubon. Contact trip leader for details and to let them know you are coming. Remember to pack your binoculars, scope (if you have one), field guide, water, snack or lunch, hat, rain gear, sun screen, bug spray, camera(?), and some gas money for the drivers. No dogs are allowed.

Note: In cases of extreme weather, trips may be cancelled. If this might be a possibility, please contact the trip leader an hour before the scheduled meeting time. To receive e-mailed reminders of upcoming field trips and notices of last-minute cancellations, send your name and e-mail address to AikenAudubon@gmail.com.

SUNDAY, NOVEMBER 10, 6:30 – 11:30 AM RAINBOW GULCH & RAMPART RESERVOIR



Explore the montane forest of western El Paso County along the Rainbow Gulch Trail and a portion of Rampart Reservoir. We will be looking primarily for finches, woodpeckers, and other songbirds that spend the winter at high elevation, as well as waterfowl and other water birds. Be sure to dress for the weather and plan to hike 4 to 5 miles on trails. We will meet at the east end of the Red Rocks Safeway parking lot, 3275 W. Colorado Ave, CS 80904. Maximum of 10 participants. Contact Tyler Stuart, tylerhstuart@gmail.com with any questions and to sign up. (Trip is full, waiting list available.)

MONDAY, NOVEMBER 25, 7:30 – 11:30-ISH DOUBLETREE POND & STRATTON OPEN SPACE

Start your Thanksgiving week with this trip led by Diana Beatty. We will visit two good birding hotspots in one morning: the Doubletree Pond, which provides both open water and shrubby habitat, and Stratton Open Space. The trip will start from the Target parking lot just off the I-25 Circle Drive exit at 1630 E. Cheyenne Mountain Blvd., 80906. We'll walk across the street to see what birds are on and around the pond. Then we'll carpool to the La Veta Way trailhead at Stratton Open Space, where we'll walk the Stratton Springs path up to the first reservoir and back—a round trip hike of roughly two miles. Depending on weather/trail conditions, hiking spikes could be useful around the spring. Please bring whatever you need to be comfortable. Here are the eBird Hotspot lists for our destinations:

- Doubletree Pond: <https://ebird.org/hotspot/L2107980>
- Stratton Open Space: <https://ebird.org/hotspot/L2361953>

Trip is limited to 10 participants. Please contact Diana Beatty at otowi33.33@gmail.com to sign up.

More trips online!

For the latest information on field trips and events:

AikenAudubon.com

SATURDAY, DECEMBER 7, 6:30 AM—NOON+ LAKE PUEBLO & NATURE CENTER

David Tønnessen will lead his annual field trip at Pueblo Reservoir and Pueblo Nature Center. We can see an interesting array of waterfowl, birds of prey and just about anything else. Pack a lunch; if the birding is good this trip can be longer than a half-day event.

We'll meet at the Safeway parking lot at S Academy and Hwy 115 (6520 S Academy Blvd.) for carpooling. Please note there is a \$5 parking fee at the nature center, plus it is very helpful to bring a vehicle with a state parks pass. Please contact David at davidtonnesenx@gmail.com to register. Field trip is capped at 12 participants.

SATURDAY, DECEMBER 14, TIMES VARY COLORADO SPRINGS CHRISTMAS BIRD COUNT & POTLUCK

See the article on page 2 for details, and come count the birds!

Would you like to lead a field trip? No experience necessary, just enthusiasm and a friendly attitude. Contact Diana Beatty, FieldTrips@AikenAudubon.com, for more information on volunteering to lead a trip for Aiken Audubon.

JR. BIRD CLUB

If you are 8 – 17 years old and love the outdoors, JR. Bird Club is for you! Together we will hone our birding skills to be able to ID birds by sight and sound. Along the way we'll learn how to help our environment and have fun! This new club will meet every-other-month on a Saturday.

First Meeting October 19th, 8am-11am
Fountain Creek Nature Center

S25 per youth for annual membership/6 meetings
Prepaid registration required.
719-520-6745

OH, POO!

by Leslie Holzman

We carefully avoid stepping in it. We hurry to wash it off our cars before the paint is ruined. It's an important reason we birders wear hats. Yes, bird poop can be a real nuisance. But have you ever wondered why it is like it is?

Birds (and reptiles) don't excrete their waste in the same way mammals do. We mammals keep our food residue (mixed with a lot of bacteria) separate from our metabolic waste (largely ammonia), and they leave our bodies from two different places. Birds, on the other hand, combine all their waste into one messy, slimy product.

Like other animals, birds don't digest everything they eat. All that undigested food comprises one part of the bird's droppings. If you've ever gotten a good look at the ground under a berry-laden plant, you can easily recognize parts of berries and seeds in the bird poop.

Also like other animals, birds generate metabolic waste products—water, carbon dioxide, and nitrogen. The carbon dioxide is exhaled. Water is both exhaled and excreted, but it's often conserved, as it's a scarce resource for many land animals. We'll come back to that in a moment.

The nitrogen, which comes from the metabolizing of proteins and nucleic acids, is initially converted into ammonia. However, ammonia is highly toxic. Aquatic animals, such as fish, can simply dilute it with a lot of water, then excrete it into the environment. Land animals, however, can't afford to waste that much water.

Mammals convert that ammonia into urea, which is less toxic and doesn't need to be as diluted. The diluted urea is stored in the bladder until it can leave the body.



Prairie Falcon lightening the load.



Birds and reptiles, on the other hand, convert their ammonia into uric acid. Uric acid is even less toxic than urea, so much so that it doesn't need to be diluted at all, and is excreted as a non-soluble white solid. Therefore, birds do not have bladders as part of their urinary systems, which makes sense when you consider how much water weighs.

Both undigested food and uric acid leave a bird's body by way of the cloaca, a single opening that also provides a passageway for eggs or sperm. While the uric acid is in the cloaca, any remaining water can be reabsorbed, leaving just enough to ease elimination.

This saves a lot of water, so much so that many bird species get all the water they require from their food or (such as in the case of migrating hummingbirds) the burning of their fat reserves. In fact, one [website](#) states that "birds require forty times less water than mammals require!"

The next time you see a bird dropping, take a good look. You'll notice that there are black lumps—undigested food—and white goop—uric acid. Who would have guessed that bird droppings could be so interesting? ☞

CHICO BASIN RANCH UPDATE

You may remember that in the last issue, we reported that the State Land Board is re-evaluating its options regarding its largest land holdings, including Chico Basin Ranch. The ranch's current lease expires in 2024.

While the proposed options include selling the entire property for \$33 million or continuing to lease to one entity, it would be more profitable for them to split up the ranch. Public access would likely be denied.

Aiken is continuing conversations with The Nature Conservancy, the Colorado Natural Heritage Program, and other interested parties regarding how best to preserve Chico and its resources.

BIG JOHNSON RESERVOIR

Fountain Mutual Irrigation says it's on track to begin filling Big Johnson in late November or early December. Keep your eyes peeled for waterfowl.

CORRAL BLUFFS, BIRDER SHARON MILITO IN WORLD NEWS

If you missed "Rise of the Mammals," the October 30 NOVA documentary on PBS, you can still catch it online. It tells of scientists from the Denver Museum of Nature and Science finding a wide array of mammal fossils from the post-dinosaur era at Corral Bluffs Open Space, here in Colorado Springs.

Our own birder, Sharon Milito, found the first mammal skull showing evidence of the K-Pg (formerly K-T) boundary. Sharon will be our May speaker, so plan to attend on May 20 and watch for Aiken's next birding trip to Corral Bluffs! ☞

JOIN THE CONSERVATION ACTION TEAM

Are you interested in learning about regional conservation issues? In sending an email to a legislator, to protect a property or species that you care about? Aiken Audubon has a list of folks who could be contacted for issues of import. No commitment required. To join, please contact Linda Hodges at (719) 635.5551 or Conservation@AikenAudubon.com

A BUNCH OF BEAKS

by Leslie Holzmann

We have hands. Birds have beaks. Have you ever noticed how useful a beak is? While lacking our manual dexterity, birds have no problem securing their dinners—and stuffing it down the gullets of their young. Beaks are used to manipulate objects and preen ragged feathers. Some birds use their beaks to impress potential mates, or to scare away intruders. Beaks can even be used as weapons. Have you ever tried to steal an egg from under an irritated hen?

Beaks are also useful to birders, as their size, shape, and color are all helpful when it comes to identifying bird species.



Rhinoceros Hornbill



Wilson's Plover

Some differences are obvious, such as between a dabbling duck's bill, adapted for eating plants, and a grebe's pointy beak, just right for grabbing fish—or between the wedge-shaped, seed-eating beak of a finch and a warbler's sharp, insect-nabbing beak.



Long-billed Curlew

Shorebirds show a remarkable diversity of beak length and shape, largely to avoid competing for the same buried resources. For example, long-beaked birds, such as curlews and godwits, probe for creatures buried far down in the muck, while short-billed plovers and turnstones search through piles of stranded seaweeds. Female shorebirds typically have longer bills than males of the same species, likely so that they aren't searching for food at quite the same depth. Similarly, the beaks of female American Avocets turn up more at the end.

How do these probing birds know when their beaks come into contact with prey such as a worm or clam? Their beaks have a sensory organ at the tip, aptly named the "bill tip organ." The surface of the beak has many nerve endings (known as the corpuscles of Herbst) that sense changes in pressure—even if the beak isn't actually touching the prey! Parrots are similarly equipped, which may explain their incredible dexterity.

Some beak adaptations are truly remarkable. Consider the specialized pliers of Red Crossbills, which allow them



American White Pelicans

to open pinecones to extract the seeds. Pelicans have giant scoops for catching fish, while kingfishers have long, pointed beaks for more precise fishing. Sunbirds, hummingbirds, and other nectar eaters have long, thin beaks for probing the depths of flowers, which have co-evolved with tube-shaped blossoms. And woodpecker beaks are just right for pounding holes into trees.

An orthodontist would diagnose Skimmers with a significant underbite—if birds had teeth—but the protruding lower beak is ideal for collecting fish from the ocean surface. Flamingos' beaks require the birds to feed upside down as they strain the water for tiny crustaceans.



Black Skimmer



Red-shouldered Hawk

Beaks tell you a lot about a bird's diet and habitat, but they have many other purposes. Preening is an essential behavior, as it allows birds to "fix" their feathers, cleaning and oiling them (in the case of water birds), and reconnecting any interlocking barbs that have become separated. Preening also removes parasites such as lice.

Beaks also allow birds to regulate their body temperatures. Birds in colder climates have smaller beaks, while the huge bill of the toucan is as effective as an elephant's ears at radiating heat.

A number of species use their beaks when courting. For example, "Gannets raise their bills high and repeatedly clatter them, the male puffin nibbles at the female's beak, the male waxwing puts his bill in the female's mouth and ravens hold each other's beaks in a prolonged 'kiss'."¹

Bill clapping behavior doesn't always have to do with mating. Birds of some species, such as Australia's Noisy Miner, clap their bills to communicate with one another. Other species use their beak to threaten possible territorial trespassers or predators. Barn Owls, for example, hiss and clap their beaks to warn away intruders.



Noisy Miner

Don't feel sorry for the poor birds, having to manage with their beaks instead of having fingers and an opposable thumb. With beaks like these, who needs hands? ☞

¹ <https://en.wikipedia.org/wiki/Beak>



Look for the
Aiken Audubon Society
Facebook page!

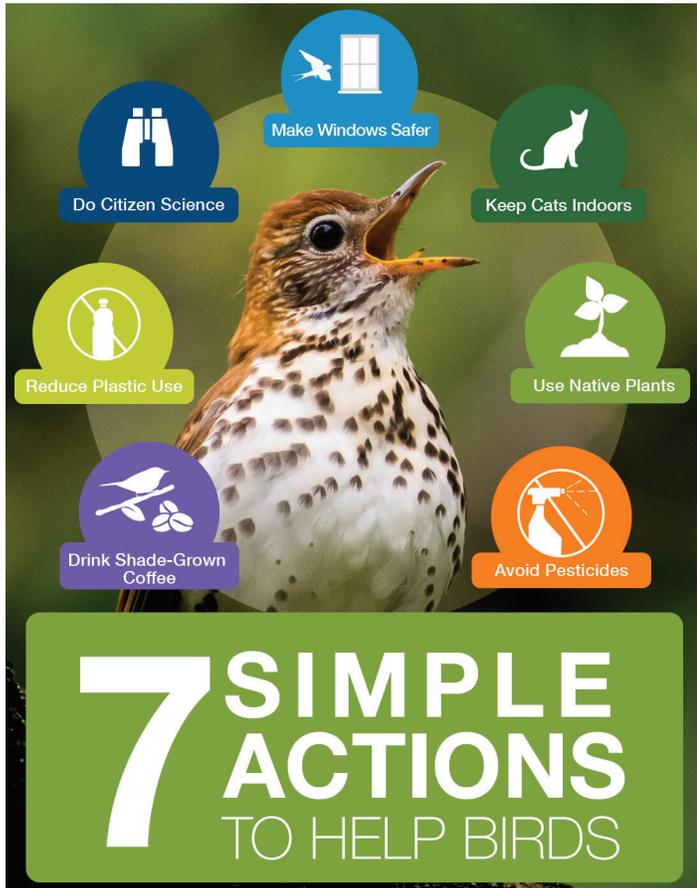
facebook.com/pages/Aiken-Audubon-Society

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made by hunters and billions of dollars to protect these birds and their habitat.” Rosenberg says he hopes this study will spur similar concern for all birds.²

“I think this analysis shows that we’re eating away at the foundations of all of our major ecosystems on the continent,” said Arvind Panjabi, study coauthor and avian conservation scientist at the Colorado-based Bird Conservancy of the Rockies.³

At this point you may be asking “what can I do to help?” Cornell offers some steps that you can take at home:



The study notes that birds are indicators of environmental health, which means changes must be made if bird populations are to remain stable.

Politically, our actions should include collaboratively working to preserve landscapes, to protect wildlife habitat and corridors, and to speak out against fragmentation and development of sensitive areas. While Aiken Audubon and the Audubon Colorado Council work continually on these issues, you might consider writing your legislators on topics that matter to you, or simply signing on to an Audubon petition. In addition, talk with your friends about the plight of birds, and pass on information via social media. Every action matters. ☘

1 https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=299264&org=NSF&from=news

2 <https://www.sciencenews.org/article/3-billion-birds-lost-since-1970-north-america>

3 <https://www.allaboutbirds.org/vanishing-1-in-4-birds-gone/>

President's Message, continued from front page

While we don't yet know all of the causes that are driving the losses, there are likely a few large factors behind much of the decline. Loss of habitat in breeding, migration, and wintering areas is a major problem. Disruptions in migration patterns, pesticide use, and climate change are also contributing factors. Window strikes and outdoor cats account for the direct mortality of billions of birds each year.

The news presented in the paper is disheartening, but hopefully it will be a call to action for individuals, organizations, and government at all levels. There are a number of actions that you can take around your own home to help birds. You can make your windows bird-strike-proof by adding screens or using other methods to break up reflections. Visit the American Bird Conservancy's [website](#) to read about some of the available products. Consider replacing all or part of your lawn with native grasses, flowers, and trees—even small habitat patches can be crucial during migration and winter. Let your elected officials at all levels know that you support bird-friendly legislation, such as the [Bird-Safe Buildings Act](#) and laws regulating use of certain pesticides.

The picture may seem grim, but through a combination of legislation and personal actions, we can make our country a safer place for birds.

Happy birding,

Anna Joy Lehnicke
President, Aiken Audubon Society

Flores' Funnies



Artist Rick Flores, an El Paso County Nature Center volunteer, enjoys sharing his views of happenings at Bear Creek & Fountain Creek Nature Centers.