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April 2021

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How to snap great images of KENTUCKY WARBLER and other stars of spring. Page 10

Plus!

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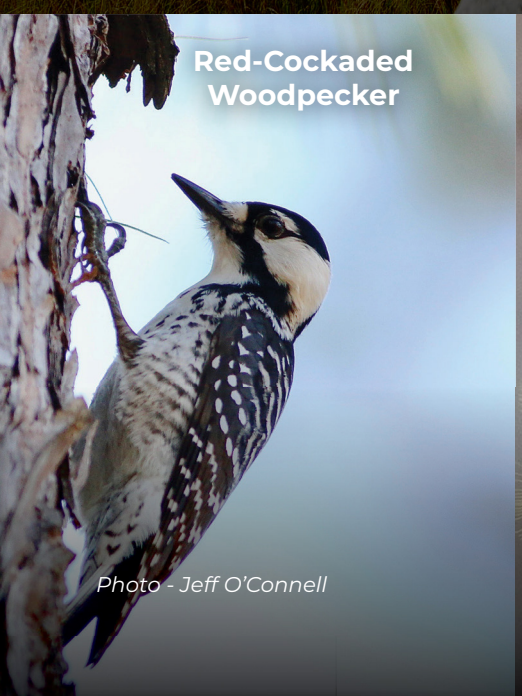
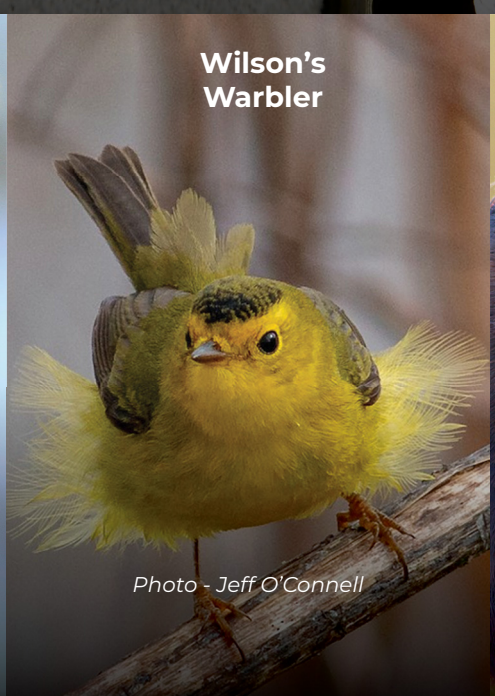


Red-Cockaded Woodpecker

Photo - Jeff O'Connell



Wilson's Warbler

Photo - Jeff O'Connell

Tricolored Heron

Photo - Jeff O'Connell

March/April 2021 Vol.35 No.2

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FEATURES

Saving the Great Green Macaw, p. 34

Macaw Recovery Network

IN EVERY ISSUE

COVER PHOTO Kentucky Warbler by Brian E. Small

Food for thought

Whether or not you feed birds in your yard, you probably know that one way to attract them is with fruit. Fresh or dried apples, oranges, berries, pears, bananas, and other fruits can help bring orioles, mockingbirds, robins, and catbirds to your feeding station, and hummingbirds may arrive to feed on fruit flies that the fruit attracts. That's far from the whole story of birds and fruit, however.

Two articles in this issue pertain to fruit, and they show both positive and negative sides of fruit and fruit crops.

Lisa Brunetti, an American birder and nature artist who lives in western Ecuador, tells the story (page 26) of her encounters with the rare Brown Wood-Rail, a bird of mangroves and swampy woodlands of western areas of Ecuador and Colombia. For the last few years, a group of the rails has visited the yard of the house where she lived to feed on a particular banana plant. The birds' affinity for the fruit enabled Lisa to observe their behavior closely — a rare chance for a naturalist to document the life history of this secretive species.

The following story, Brian Kluepfel's terrific profile of the critically endangered Great Green Macaw (page 34), notes that in Costa Rica, pineapple production has a significant negative impact on the macaw and other native flora and fauna. Pineapples have become a monoculture crop that are "essentially deserts to wildlife," one source says.

So, while feeding fruits to birds in your yard is a good thing, it's worth remembering that fruit farming can harm birds and other wildlife. Keep this in mind on your next trip to the grocery store.

Matt Mendenhall, editor
mmendenhall@madavor.com

» www.BirdWatchingDaily.com

» BIRDWATCHING

The birding world lost a luminary on Sunday, November 22, when Edward S. (Ned) Brinkley died during a birding trip in southern Ecuador. He was 55.

» PHOTOGRAPHY

Our 20 most popular photos on Instagram in 2020 included this cardinal in a snowstorm, a Gila Woodpecker in a cactus, and more.

» CONSERVATION

Wisdom, a Laysan Albatross and the world's oldest known, banded wild bird, returned to its nesting area on Midway Atoll. The bird is at least 69 years old.

Roberta Kellam; Gabriel Diaconu; Jon Brack/Friends of Midway Atoll NWR

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PONDERING ITS WORLD: Researches say the Carrion Crow, a bird of western Europe, shows signs of conscious thought.

Rudmer Zwerver/Shutterstock

Studies suggest some birds exhibit consciousness

Researchers looked at brains of pigeons and owls and behaviors of crows

Two studies published last September in the journal *Science* address the century-long riddle of why some birds, despite having a radically different forebrain organization than mammals, demonstrate comparable cognitive abilities.

The studies report that a neuron-dense part of the avian brain, the pallium, may help birds achieve these cognitive feats, including conscious awareness. Instead of the hallmark layering found in the cerebral cortex of mammals, the pallium in birds is characterized by high neuron density.

Using 3D-polarized light imaging and neural circuit tracing techniques, Martin Stacho of German's Ruhr-University Bochum and colleagues characterized the anatomy of the pallium in pigeons and owls, which allowed them to visualize the region's neuronal structure in great detail. Stacho discovered that the pallial fibers' structure and circuitry in each of the distantly related bird species are strikingly similar to the layered architecture of the mammalian cortex. This organization may be the foundation of birds' exceptional cognitive abilities.

Andreas Nieder of the University of Tübingen in Germany and colleagues observed the neuronal response in trained Carrion Crows as they responded to visual stimuli. The results revealed that, like the prefrontal cortex of primates, the pallium of crows exhibits neural activity that seemingly corresponds to the animal's perception about what it has seen, which may be a marker for consciousness, according to the authors.

The two studies raise an interesting suggestion—could the mammalian cortex-like neural hardware that allows for complex cognitive abilities, such as consciousness, have already existed in the last common ancestor of birds and mammals 320 million years ago? Or, perhaps, it arose independently in both classes, despite very different forebrain organizations, by way of convergent evolution.

OFF YOU GO: Frank Thompson of the University of Missouri and the U.S Forest Service releases a Brown-headed Nuthatch at Mark Twain National Forest.

Noppadol Paothong/Missouri Department of Conservation

With help, nuthatch returns to Missouri

Over the past few centuries, fire suppression and overharvesting greatly reduced Missouri's open pine and mixed-pine woodlands. As the habitats dwindled, Brown-headed Nuthatch, Red-cockaded Woodpecker, and other pine-specialist species vanished from the state.

In August and September of 2020, however, 46 Brown-headed Nuthatches found their way back — flown in on a Missouri Department of Conservation plane from neighboring Arkansas and released into Missouri's Mark Twain National Forest. The translocation was necessary because pine woodlands are not continuous from Arkansas to Missouri and because the nuthatches are nonmigratory. Within the national forest, years of habitat restoration laid the groundwork for what conservationists hope will become a new breeding population there.

Under the U.S. Forest Service's Collaborative Forest Landscape Restoration Program, 10 years of funding was awarded to the Mark Twain National Forest in 2012.

American Bird Conservancy and the Central Hardwoods Joint Venture (CHJV) helped bring together federal, state, and nongovernmental organizations and agencies that formally agreed to work together to restore pine woods in a large landscape called the Current River Hills. It's also a designated ABC BirdScape. Today, around 100,000 acres of shortleaf pine and pine-oak woodland have been or are being restored, including crucial habitat for the newly released nuthatches.

"I really think that a big take-home from all of this, and something we can all be proud of, is how well science, management, and conservation of species came together in this effort," says Jane Fitzgerald, ABC's coordinator for the joint venture. "Most of the people who, decades ago, imagined all of this happening are now retired, but a new cadre of folks saw, and see, the vision and are moving the ball forward. In the Interior Highlands, we really are a conservation *community*, and I hope that continues for decades to come."

In addition to ABC and CHJV, partners in the restoration and nuthatch translocation include the Forest Service's Northern Research Station, the Missouri Department of Conservation, the University of Missouri, and Tall Timbers Research Station.

Because the nuthatches were released on public land, anyone can see these birds. Mark Twain National Forest visitors can help monitor the nuthatches' presence and movements by submitting their observations to the eBird database (www.ebird.org).

American Bird Conservancy is a 501(c)(3), not-for-profit organization whose mission is to conserve native birds and their habitats throughout the Americas. You can learn more about its work at https://abcbirds.org.

PROHIBITED: Greater Sage-Grouse has been kept off the endangered list.

A mixed bag for sage-grouse

The federal budget that was signed into law in late December included millions of dollars for conservation efforts for the Great Lakes, the Everglades, and other programs, including $66 million to help Greater Sage-Grouse.

The law, however, disappointed conservationists because for the sixth consecutive year, the U.S. Fish and Wildlife Service will be restricted from pursuing endangered species listing and protections for the Greater Sage-Grouse.

"It is deeply disappointing that Congress continues to include short-sighted directive that prohibits the Greater Sage-Grouse from being listed under the Endangered Species Act," says Sarah Greenberger, interim chief conservation officer and a senior vice president at the National Audubon Society. "We hope the Biden-Harris administration will make it a priority to restore the historic multi-state agreement that remains the species' best shot at recovery."

Female warblers lose out

Black-and-white Warbler study shows males higher in trees, in better shape

Scientists know less about the behaviors and habitat requirements of migratory bird species during the winter months than they do at other times of the year, so it's notable when a study reports new information about a migrant's wintering habits.

Researcher Nathan W. Cooper of the Smithsonian Migratory Bird Center and colleagues recently reported in the journal *Ornithology* that among Black-and-white Warblers that winter in Jamaica, males and females are segregated vertically. Females forage primarily near the ground, and males were in the mid-canopy or canopy in second-growth scrub and old-growth mangrove forest.

The authors say the more dominant males excluded females from the higher sections of the forest and therefore found more food and were in better physical condition. They also note that grazing by livestock "could possibly reduce the quality of the female-dominated understory without affecting the male-dominated canopy. Furthermore, if sexual habitat segregation operates among a broader range of habitats than studied here, as we suspect that it does, then failure to protect some habitats could lead to different conservation outcomes for female and male Black-and-white Warblers."

A TRAGEDY IN COLOMBIA

Parrot conservationist murdered

In 1998, the Yellow-eared Parrot, an endemic species of the cloud forests of the central Andes, was on the brink of extinction, declining to about 80 birds in Colombia. Gonzalo Cardona Molina answered the call to help the bird and dedicated his life to the cause, despite the threat of violence between the military and guerrillas.

"Gonza," as he was known to friends and colleagues, worked for more than 20 years with Fundación ProAves as the coordinator of its Reserva Loros Andinos, conducting regular surveys of the parrots. In December 2020, he recorded 2,895 parrots in the municipality of Roncesvalles — approximately two-thirds of the bird's global population.

Gonzalo Cardona Molina

Sometime between January 8 and 10, 2021, Cardona Molina was shot and killed on the road to his home.

His murder reinforced Colombia's sad reputation for violence directed toward environmentalists. According to Global Witness, it's the most dangerous place in the world to take a stand for the environment. "Colombia didn't just lose a precious life," ProAves said. "Colombia lost a champion for nature and our beloved Yellow-eared Parrots lost their father and savior."

For more details about this story, visit our website.

Danita Delimont/Shutterstock; Fundación ProAves

PHOTO GALLERY

Recent rare-bird sightings in North America

George Armistead

FIRST IN PENNSYLVANIA: This Tundra Bean-Goose was seen at a few spots west of Philadelphia in December and then in and around Fairmount Park in the city in January.

Betty Sue Cohen

FIRST IN VIRGINIA: This Buff-bellied Hummingbird, a species of the Gulf Coast and Mexico, was seen in a yard in Norfolk in mid-January.

Mark McShane

FIRST IN ALABAMA: This Lesser Goldfinch, a bird of the western U.S., visited a backyard bird feeder in Mobile in December and January.

It's time to go 'plirding'

Goal is to inspire birders to help clean up the outdoors

Our friend Ray Brown, the host of *Ray Brown's Talkin' Birds*, a Massachusetts-based radio show and podcast, and his team recently began a project called "plirding" that they hope will become popular among birdwatchers.

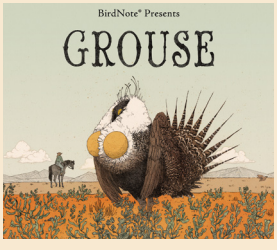
"Plirding" is a new word for picking up trash while birding. "As people who enjoy birds, we have an obligation to look after them by taking care of their (and our) environment," says an article at www.talkinbirds.com/plirding. "Picking up even a couple of pieces of trash while we're out on the trail or in a park can help make a difference. And as others see our example, they might be encouraged to pick up trash too — or perhaps even not throw it on the ground in the first place."

The article offers many ideas and considerations for picking up trash while you bird, including for individuals and bird clubs. The more we all pitch in, the better!

What we're listening to

BirdNote Presents: Grouse

Hosted by Ashley Ahearn



If you enjoy birding podcasts, here's one to look for on your podcast app of choice. *Grouse* is an eight-part series hosted by Ashley Ahearn, a public radio journalist who covers science, the environment, natural resources, and climate change. She dives into the story of the Greater Sage-Grouse and uses her personal journey — as an outsider trying to understand rural life — to serve as the proxy for listeners. She interviews stakeholders, including a state wildlife biologist, environmentalists, an oil industry executive, and an elder of the Northern Paiute Nation, about the bird to understand the current situation with this icon of the West.

Birds increase human happiness, study finds

Life satisfaction improves with a diversity of avian species

The number of bird species in a person's surroundings correlates to happiness, according to a new quality-of-life study of more than 26,000 adults from 26 European countries. Adding 10 percent more bird species to a vicinity increases the life satisfaction of Europeans at least as much as a comparable increase in income, the study notes. Nature conservation thus constitutes an investment in human well-being, according to the researchers.

Under the current pandemic conditions, activities out in nature are a popular pastime. The beneficial effects of a diverse nature on people's mental health have already been documented by studies on a smaller scale. Scientists of the Senckenberg Gesellschaft für Naturforschung, the iDiv, and the University of Kiel now examined for the first time whether a diverse nature also increases human well-being across the continent.

To this end, the researchers used data from the "2012 European Quality of Life Survey" to study the connection between the species diversity in their surroundings and the life satisfaction for people. Species diversity was measured based on the diversity of avian species, as documented in the European breeding bird atlas.

"Europeans are particularly satisfied with their lives if their immediate surroundings host a high species diversity," explains the study's lead author, Joel Methorst, a doctoral researcher at the Senckenberg Biodiversity and Climate Research Centre, the iDiv, and the Goethe University in Frankfurt. "According to our findings, the happiest Europeans are those who can experience numerous different bird species in their daily life, or who live in near-natural surroundings that are home to many species."

Birds are well-suited as indicators of biological diversity, since they are among the most visible elements of the animate nature — particularly in urban areas. Moreover, their song can often be heard even if the bird itself is not visible.

SQUABBLE: Male Baltimore Orioles via for space on a branch. The birds were attracted to the spot with a nearby water drip.

Water works

How to set up a drip system for photographing spring migrants

For me, there is nothing quite as exciting in bird photography as sitting in a photo blind and listening to the sweet sound of flowing water. When spring has sprung, I know that this beautiful sound will bring with it the birds I love to photograph the most. The arrival of spring in the United States also means the arrival of our Neotropical migrants as they return from south of the border.

The color, beauty, and diversity of North America's migrant passerines are hard to match. Our warblers, tanagers, orioles, thrushes, vireos, buntings, flycatchers, grosbeaks, and many others travel hundreds or thousands of miles from their southern wintering areas to their northern breeding grounds and then back again. During migration, they need important stopover areas to feed and rest so they can refuel their energy supply and continue their journey. By knowing where and when to anticipate these tired and hungry migrants, you can easily set up a portable water-drip system and hope to photograph some of them along their northbound journeys.

A slowly dripping trickle of water into a shallow pool in springtime is probably the most effective way to photograph a wide variety of land birds at a fixed location. The beauty of a water-drip is that you can easily create an inexpensive drip system in your yard, or you can make a lightweight and portable drip to take on your next birding and photographic adventure in the field. In fact, I use the same system both in the field and in my backyard.

My favorite water-drip system is made with a 2.5-gallon collapsible water jug (with an adjustable spigot), a small, flexible plastic trash can lid or flowerpot saucer, and some extra-strength bungee cords. This sturdy, lightweight, inexpensive, and portable trio has served me well for close to 30 years. You should be able to find all three items at your local camping or sporting goods store.

STUNNING: A male Magnolia Warbler pauses on a branch at a migratory stopover. A slow trickle of water into a shallow pool will entice birds to visit, offering photo opportunities for birders.

First, I bury the trash can lid about 6 inches in the ground and conceal it with soil, vegetation, sand, rocks, leaves, and other natural materials. Next, I fill the basin with water and set a few strategically placed photogenic perches above it, so that the approaching birds have a place to land, and I have a place to photograph them. Lastly, I use the bungee cords to suspend the water-filled container from a tree branch about 5 or 6 feet above the trash can lid. That's all there is to it.

The key to a successful drip is to open the spigot just enough to allow a drop of water to fall about every second. The falling water drops splash the water in the pool, the sight and sound of the drip attract the birds, and the magic begins. Before you know it, you will be photographing a surprising variety of birds at your own water feature.

Now that spring is upon us, you may want to first set up this simple drip system in your yard to, pardon the pun, test the waters. The best way to experiment with new photo techniques is to try and perfect them at home first. Once you are comfortable with the drip-system and how to photograph using it, you can then take it in the field and apply what you have already learned through trial and error in your yard.

LOCATION IS CRITICAL

You should remember a couple of important considerations for photography when you choose a location for a water-drip. Look for a spot in your yard that allows you to place the drip close to surrounding vegetation. This will provide visiting birds with secure cover before and after they leave your water-filled basin. I would also suggest you look for a place in your yard where the sun will be on your drip most of the day and you can place your camera equipment with the sun at your back.

It may also be helpful to put up a few seed, suet, or fruit feeders close to your water-drip. This will help bring birds into the area, and once the birds have seen the water, they are sure to make their way to it eventually. By providing food sources as well as the water, you increase your chances for a variety of birds to photograph. At this time of year, migrant birds are attracted to the activity of resident species that are regulars at your feeders.

When you are ready to try a portable water-drip in the field, the most important consideration is location. Setting up a drip along a creek or lakeshore will probably be a waste of time. Why would the birds need to visit your set-up in a place where there is plenty of water already available? Experience has taught me that you need to look for locations where there is no visible water, and the water you provide is the birds' only choice.

The most obvious location is a desert. Without a doubt, you are sure to attract many birds by providing water in the desert. I have also had success setting up my portable drip system in a dry forest, on a dry mountain slope, in a dry woodland, at a desert oasis, and even on a desert island. You may also find that state park and national forest campgrounds in these locations are great for setting up a water-drip. Usually, birds concentrate around campgrounds, and if you provide a water source, both the resident birds and migrants are likely to find it.

Of course, using a water-drip system isn't the only way to photograph migrants in spring. I've spent many days on the breeding grounds following birds through the forests and woodlands of North America in search of a good photo. Finding males singing on territory is a great way to create beautiful images of our spring migrants. This kind of photography requires more work but can be equally satisfying. I must admit that images created this way can sometimes have a more "natural" feel to them than photography at a set-up situation. In fact, in some ways, the challenges involved with photography on the breeding grounds are even more satisfying. But that conversation will be best left to another column. For now, I hope you'll give a drip system a try and see for yourself how well water works!

Brian E. Small is a nature photographer based in Los Angeles. His photos illustrate our "ID Tips" column, and they have been featured in hundreds of books, magazines, calendars, websites, newspapers, and smartphone apps. He is also the co-author, with Paul Sterry, of bird guides to eastern and western North America.

TAPROOM TECHNIQUE: A Lesser Goldfinch looks for a sip at a water spigot. Unlike other species, Lessers tend to perch and hang upside-down at a spigot.

S. Graue/Shutterstock

Just add water

A long drought forces an appreciation of the bird-attracting qualities of H2O

Paso Robles, California, the heart of Central Coast wine country, receives about 14 inches of rain per year, mostly in the winter. My in-laws' 5-acre ranch lies on the east side of town, so, the dry side. Ten inches of rain per year constitutes desert conditions, and the region west of Paso approaches this. As of December 2020, Paso had not received a drop of rain since April, when 1.59 inches fell.

It is dry, tinder-dry, and water in any form is hard to come by. The deer have taken to drinking from the drip lines supplying water drop by drop to the surrounding vineyards, whose soil seems to suck up every drop before it touches down. This is why the leaking outside spigot on my in-laws' front lawn makes it the bird magnet it is, an oasis in a growing desert where thirsty birds come to drink and bathe.

Dawn to dusk, but especially on hot, dry afternoons when cloudless skies let the sun shine through and desiccating easterly winds siphon the moisture right out of your mouth, the drip draws birds. I've tallied 18 species, including Phaino-

pepla, Lincoln's Sparrow, Bewick's Wren, and just yesterday, an adult Red-shouldered Hawk that perched on the spigot. There are other bird-rich corners of my in-laws' place, most notably the apple orchard and the bird-feeding station, where the suet block is always occupied. And did you know both Bewick's Wren and Lincoln's Sparrow like suet?

But bird for bird and drop for drop, nothing beats that dripping knee-high pipe with the shallow, dinner-plate-sized puddle beneath. The birds are accustomed to our evening family gatherings as we sit to watch the sunset and sip a semi-excellent Central Coast chardonnay. The spigot a mere 15 feet away is far enough for birds to feel comfortable with our presence, and it has given me the opportunity to study the taproom techniques employed by the various regulars.

American Robins are guzzlers, dipping their bills in the stream and emerging satiated. Red-winged Blackbirds are sippers; they get a snoot full and tip back their heads and gurgle. Western Bluebirds drink alone. Yellow-rumped Warblers like a crowd. One bird splashing in the pool attracts others that will dip and wing-flick until an Acorn Woodpecker ends the show by executing a fly-by or perching on the spigot. House Finches like to perch on the hose leading to the drip lines and slurp right from the trickle. Lesser Goldfinches have the most interesting technique. They perch on the spigot, hang upside-down, and sip. One goldfinch at a time while the others wait their turn.

Growing up in the East, which sees about 40 inches of rain per year, I never fully appreciated the bird-attracting properties of water. Nevertheless, all through my youth, I'd dutifully filled the birdbath only to watch birds gather in the puddles of standing water in the street. Only in times of drought was the birdbath used, and in the East, two weeks without rain is considered a drought. It was on one of my early trips to the Chiricahua Mountains of southeastern Arizona that I came to really appreciate the magnetic properties of water. Birding one hot, dry afternoon at Rustler Park, I chanced upon

The spigot … has given me the opportunity to study the taproom techniques employed by the various regulars

a trickle of water bubbling out of the forest. In it were birds — treetop species like Olive Warbler, Mexican Chickadee, and Hepatic Tanager — that I'd spent the last two hours trying to get looks at. Here they were, at my feet, and, in time, my hot, parched feet joined the birds in the stream.

But you need not live in a desert region to benefit from a good source of water.

Winter, which turns open water to ice, replicates drought conditions, and, once again, open water may make the difference between finding birds and not. I recall a Christmas Bird Count conducted in temperatures cold enough to freeze seawater where we faced going to the roundup without Lesser Yellowlegs on our list. At last light, we spotted a patch of blackened earth beside a blacktop road. Warmed by the sun, a small puddle of water had formed. In it was the day's only Lesser Yellowlegs, navigating a puddle so small it had trouble turning around. I don't know what it was finding to eat. Nothing, probably, but shorebirds are not called waders for nothing.

As I write this, I'm watching half a hundred White-crowned Sparrows and Yellow-rumped Warblers lining up along the drip line serving the roses outside the upstairs window, and a female Western Bluebird just flew in to join them. Now an American Robin. Robins are compulsive bathers. It's something of a fetish with them. It's almost time for the California Quail to file by and time for me to grab a glass of wine and join the gathering for the sunset.

So, if it's birds you seek, just add water. Cheers!

Pete Dunne is the author or co-author of many books about birds, including *Hawks in Flight, Gulls Simplified,* and *Prairie Spring: A Journey Into the Heart of a Season.*

WANTED:

Mangrove Cuckoo

How to be in the right place at the right time when seeking one of Florida's most elusive avian specialties

By John Lloyd

SWF 1/Shutterstock

IN THE SHADOWS: A Mangrove Cuckoo perches in a dark forest. The species is widespread in the Caribbean, on both coasts of Mexico and Central America, and in northern South America. In the mainland U.S., the bird is found almost entirely on the coasts of Florida.

I'm waist-deep in water the color of over-steeped tea, feet sinking into the soft, sucking mud of the coastal Everglades. My wet, salty pants chafe miserably at the back of my legs. All around me stand red mangroves, aerial roots spreading out like the legs of some enormous spider. Stretched across a low branch just above the water is a mangrove salt marsh snake, warming itself in the morning's first rays of sun.

No car horns, no rumble of outboard motors, no sign or sounds of people at all, in fact; just the steady drone of insects and the rattling whinny of a Red-bellied Woodpecker. The contrail of a jet across the thin blue strip of sky above me is the only reminder that I'm here in present-day Florida, deep in a small tributary of the Shark River, along the state's southwest coast.

It isn't quite 7 a.m., but the late-April heat is already suffocating. No breeze. Rivulets of sweat run down my forehead and into my eyes. I'd rub them, but I'm wearing vinyl gloves and am completely zipped into my bug suit. I briefly consider removing my hood for just a minute to catch a breath of air before returning to my senses: My clothes are covered in hundreds of mosquitos waiting patiently for a gap to emerge in my fabric defenses. Out here, you either live with the discomfort of being covered head-to-toe, or you agree to donate substantial amounts of blood to the local mosquito population.

Welcome to Mangrove Cuckoo country.

Mangrove Cuckoos bring birders both joy and frustration, much like our children, the weather, or the Chicago Cubs. With Mangrove Cuckoos, the joy comes from the encounter, borne out of some special combination of location, timing, and luck. Often, you'll hear one before you see it: an unmistakable series of guttural *aww* notes, rising and falling in volume and pitch.

It isn't an especially melodic song, but it snapped me to attention the first time that I heard it. On high alert, I scanned the vegetation all around me with just a hint of desperation. I didn't want this bird to disappear before I had a look at it.

And then, there it was: swooping down from a perch with wings flared wide. Nothing spectacular to see, grayish-brown back and wings, long tail trailing behind, bright white terminal spots contrasting on otherwise black outer tail feathers. Alighting for a moment on a low, exposed branch, it turned toward me, the sinking sun briefly illuminating the tawny belly and the bright yellow lower bill set hard against the entirely black upper bill. Not a Yellow-billed Cuckoo, its more common cousin. The white eyebrow highlighting the raccoon-like face mask gave it a look of skeptical curiosity. And then, quick as it came, the bird was gone into the dim, shadowy understory, perfectly camouflaged.

Susan Rydberg/Shutterstock

BIRD SANCTUARY: One of the more reliable Florida hotspots for Mangrove Cuckoo is J.N. "Ding" Darling National Wildlife Refuge, on Sanibel Island on the state's southwestern coast. Sightings occur year-round and are more common from April through August.

The frustration, of course, comes from the reality that these encounters are rare. Rare even for me after spending the better part of a decade tromping through the wilds — and not-so-wilds — of south Florida, studying the natural history of Mangrove Cuckoos.

GETTING STARTED

Location, timing, and luck. As with any of the uncommon birds that we chase, finding a Mangrove Cuckoo is about being in the right place at the right time. And, frankly, about being a little lucky. Science doesn't help so much with luck, but if you learn a bit of natural history, it can help when it comes to location and timing.

Start with location. First, some bad news: The geographic range of Mangrove Cuckoo in the mainland United States is tiny, and its preferred habitat is roadless and flooded. The species lives only in the narrow strip of mangroves that fringe the coast of southern Florida. Outside of a handful of easily accessible locations (see sidebar, page 19), the birds inhabit truly wild places.

LOOK-ALIKES: Mangrove and Yellow-billed Cuckoos are closely related and similar in size and appearance, but they can be distinguished in the field. Mangrove (left) has a black mask and buffy underparts while Yellow-billed (right) does not have a mask and is white below. Yellow-billed also has rufous primaries, which Mangrove lacks. Black-billed Cuckoo is uncommon in Florida. Its bill is all dark, unlike its cousins, and its undertail spots are smaller than those of the other birds.

Mangrove Cuckoos are also non-migratory and exceedingly unlikely to show up as vagrants anywhere north of southern Florida. Texas has recorded 10 observations, and Louisiana and Alabama each have a single accepted record of the species. So, unless you are staggeringly lucky, finding a Mangrove Cuckoo in the mainland United States requires making your way to Florida and then at least as far south as Tampa Bay. Leave the mainland behind, and you can find Mangrove Cuckoos throughout the islands of the Caribbean, along both coasts of Mexico and Central America, and as far south as Brazil.

Oddly enough, only in Florida and Brazil do Mangrove Cuckoos live solely in mangroves. In Mexico, I've seen them in dry forests at elevations of nearly 4,000 feet. In Puerto Rico, they are common in shade-grown coffee plantations. Although they inhabit mangroves wherever they occur, it is only at the northern and southern edges of their range that the cuckoos are truly specialists of mangrove forests.

Now some good news about location.

When I first started studying the birds in Florida and wanted to know more about where and how they live, I figured that the best place to look for them would be the wildest, most pristine mangrove forests that I could find. That led me to spend one spring navigating the backcountry of Everglades National Park in a small kayak.

I camped on beaches and chickees (the Seminole word for "house" but in this case referring specifically to the above-water camping platforms in the park's backcountry), came close to learning how many mosquito bites it requires to exsanguinate a human, was bumped on more than one occasion by a curious or hungry bull shark, enjoyed the company of bottlenose dolphins, and discovered a new appreciation for the raw beauty of that flooded landscape. I even found a few Mangrove Cuckoos.

What I later learned is that this was a fun but unnecessarily difficult way to find a Mangrove Cuckoo. Yes, you will find them in the majestic and towering forests along the Shark River — where you might enjoy the scenery and lack of traffic noise, too — but Mangrove Cuckoos aren't especially choosy about the kind of mangrove forest they inhabit, as long as they have enough space. Given a large enough patch of mangroves — 70 acres is about the minimum size, and most individuals seem to need closer to 300 acres — you can also find them behind strip malls and next to busy highways. Add that as another benefit to conserving Florida's remaining mangroves, even those that may not seem pristine or especially wild. (San Carlos Bay – Bunche Beach Preserve in Fort Myers is an excellent example of this.)

A BIRD ON THE MOVE

Once you've decided on a good location, whether discovered through your own travels or by visiting one of the well-known hotspots, be patient. Mangrove Cuckoos move around. A lot. One radio-tagged bird

Agami Photo Agency/Shutterstock; Paul Sparks/Shutterstock

that I followed traveled more than 20 miles in one day — not migrating, just moving from place to place.

That kind of wandering is almost wolf-like in its expansiveness. Why Mangrove Cuckoos need such large blocks of habitat isn't clear, but one speculation is that their diet demands it. Even more so than other cuckoos, Mangrove Cuckoos seem to like big prey: frogs, lizards, and large insects. Perhaps finding enough of the choice morsels, especially in mangroves, requires a lot of travel.

Paradoxically, once you find a Mangrove Cuckoo, it will often pose nicely for photographs and will reward your patience with extended opportunities for observation. They travel great distances to find food, but when they are actively hunting, they methodically search their immediate surroundings. They walk slowly along branches, frequently pausing for extended periods of time, craning their necks in almost grotesque fashion as they search the undersides of leaves for food.

A drawback of their patient hunting style is that they will not attract your attention with flitting and dashing like a warbler or flycatcher. Here's where timing comes in: It is a lot easier to find these birds during the breeding season, when they are more likely to be heard singing.

We don't know exactly when Mangrove Cuckoos nest in Florida, although it probably begins around the end of the winter dry season, usually in April, and may continue through July or early August.

One clue about the breeding status of Mangrove Cuckoos is the color of the bare skin around the eye. Long thought to indicate age (and still noted as such in field guides) — gray in juvenile birds and yellow in adults — the color of the eye-ring actually reflects readiness to breed, not age. Birds begin exhibiting a dusky-gray eye-ring as the breeding season begins. Like an aspen leaf in fall, it will turn yellow as the summer ends and remain so until the following spring.

From late summer until March, Mangrove Cuckoos tend to be quiet and solitary. This, coupled with their generally unobtrusive behavior, overall rarity, and preference for difficult environments, probably explains why many naturalists assumed that Mangrove Cuckoos migrated out of Florida during the winter. (The first published observation of a Mangrove Cuckoo in winter in Florida didn't occur until 1955, on the Coot Bay Christmas Bird Count.) We now know that they remain in the state all year, but they become quite hard to find in winter.

Back to location, timing, and luck. Being in the right habitat at the right time of year will increase your chances of encountering a Mangrove Cuckoo. It's worth remembering, though, that it is still a game of chance. The quest for a cuckoo rewards the well-prepared and patient, but neither is a guarantee. Keep this in mind: hidden within Florida's mangrove forests, which cover 1,000 square miles of mostly inaccessible coastline, are no more than about 7,000 Mangrove Cuckoos. To put that number in perspective, there are about 200 million American Robins in the United States.

All of these thoughts run through my head as I stand in that flooded forest of mangroves along that unnamed tributary of the Shark River, staring at a green wall of foliage that I keep expecting to open and reveal the prize of a Mangrove Cuckoo. It's nearly 10 in the morning now, and I've been out here for hours. It's hot enough that the mosquitos have given way to the no-see-ums, which is no improvement at all.

Just yesterday, a Mangrove Cuckoo, probably a male on a territory, perched right here, calling and preening for nearly 20 minutes while I floated along with the tide in my kayak. I'd hoped to include it in my research. Over the weeks to come, I'll return to this spot again and again, and never see or hear a Mangrove Cuckoo. As I climb back into the kayak to start the journey home, hot and exhausted, I am given a bit of solace in knowing that when I make it back to the boat ramp, the birders who I will meet as I shuttle gear from kayak to truck will understand and sympathize. Location, timing, and luck: two out of three just wasn't enough.

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BEST BETS

Here are three places in Florida where you can look for Mangrove Cuckoo without going into the wilderness.

Black Point Park and Marina, Homestead
Only 30 minutes from Miami International Airport, this is one of the most consistent and accessible spots to find a Mangrove Cuckoo. Birds can be found year-round; April to August is best. www.miamidade.gov/parks/black-point-marina.asp

J.N. "Ding" Darling National Wildlife Refuge, Sanibel
Mangrove Cuckoos are seen (and heard) regularly along the refuge's famous Wildlife Drive (contact the refuge for hours of operation). www.fws.gov/refuge/jn_ding_darling

Dagny Johnson Key Largo Hammock Botanical Garden State Park, Key Largo
This small but biologically diverse park, noted for protecting a fine example of a tropical hardwood forest known locally as a "hammock," offers a rare chance to see Mangrove Cuckoos outside of mangroves. www.floridastateparks.org/parks-and-trails/dagny-johnson-key-largo-hammock-botanical-state-park

TEXAS DELIGHTS

Tips for finding five specialty songbirds of the Lone Star State

By Jerry Uhlman

Zack Frank/Shutterstock

HOME OF A SPECIAL BIRD: The sweeping vistas of Big Bend National Park harbor one of the most sought-after birds in the United States: the Colima Warbler. The park is the only place in the nation where it breeds.

The list of songbirds that occur primarily or exclusively in Texas has sparked many a birding road trip. Many years ago, when I was a relatively new birder, I made several visits to the state in search of them and missed a number of desired species. After a while, I devised a plan to spend as much time as needed and cover the ground required to fill five holes on my life list.

Each of the five birds has a rather small, confined range, but with research and diligence, I was confident I could locate them. I soon hit the road and found them all, and on one of my most recent trips to Texas, I retraced my steps to find the original five target birds — with positive results. The route to find the five species crosses a wonderful and scenic mix of landscapes and habitats: the lush Rio Grande Valley in south Texas, Texas Hill Country north of San Antonio, the Edwards Plateau, and miles of the Chihuahuan Desert. For the adventurous spirit, it's a perfect blend of birding and beauty.

On the following pages, I present a guide to finding the five birds, which are prized additions to any birder's life list: Colima Warbler, Morelet's Seedeater, Tropical Parula, Black-capped Vireo, and Golden-cheeked Warbler. Your search for the five passerine specialties will require patience and persistence. Most may challenge you with lengthy treks into their habitats, but you'll find that the thrill of search and discovery is amply rewarding.

HANGING AROUND: The striking Golden-cheeked Warbler breeds only on the Edwards Plateau in central Texas. Preserves north of San Antonio are great places to look.

Alan Murphy

GOLDEN-CHEEKED WARBLER AND BLACK-CAPPED VIREO

This pair may be the easiest to find of our songbird quintet. The two species share a common breeding range in the Texas Hill Country, although the vireo also can be found in part of central Oklahoma.

Golden-cheeked looks similar to Townsend's Warbler of the West and Black-throated Green Warbler of the East, with bright yellow cheeks, gray head and back, and white breast. Its habitat in the central plains includes juniper and oak woodlands, with deciduous patches of hackberry, walnut, and pecan trees. The species feeds mainly on insects, foraging through the upper portions of the forest. Consequently, when looking for Golden-cheeked Warblers, expect to find them singing and foraging overhead in treetops and high limbs.

Black-capped Vireos, however, prefer more open habitats of oak scrub and hillside brushy patches that dot the central plains. The vireos eat insects and berries much lower to the ground, so when looking for the vireos, expect to find them on bushes, small saplings, and lower limbs of stunted trees. Black-capped Vireo looks somewhat like a Bell's Vireo but with a much darker gray or charcoal head and prominent white eye rings.

Both birds can be found in two preserves not far from San Antonio: Balcones Canyonlands National Wildlife Refuge, roughly 108 miles north, and Lost Maples State Natural Area, approximately 90 miles northwest of the city.

At Balcones Canyonlands, stop at the refuge office and pick up a handy map of roads and trails, then head for Warbler Vista and Sunset Deck, located in prime Golden-cheeked Warbler habitat. Here, you'll find over 2 miles of trails to explore while searching for the warbler in juniper and oak woodlands.

Next, make your way to Shin Oak Observation Deck, where you'll find great Black-capped Vireo habitat. Try Creek

Brian E. Small; Julio Mulero

TWO TEXANS: Black-capped Vireo (top) has a striking black crown and white spectacles, yellow flanks, and yellowish wingbars. It breeds on the Edwards Plateau as well as in Oklahoma and northeastern Mexico. Colima Warbler (bottom) is a drab bird of the Chihuahuan Desert that has a rufous spot on its head and yellow on its upper tail.

Trail or Pond and Prairie Trail, both well under a mile in length, which will take you through open grassland with scattered shrubs mixed with small saplings. Rimrock Trail, too, leads through vireo habitat, and although the 2-mile loop is steep in places, you'll find a gentler walk going clockwise before reaching the steep ascent, where you can retrace your steps.

At Lost Maples State Natural Area, birders prefer to hike East Trail for both songbirds. Pick up a handy trail map at the park headquarters and drive to the trailhead parking lot. East Trail follows the Sabinal River northward, then connects with East-West Trail, making a 4.5-mile loop back to the parking lot. The trail is known for its Uvalde bigtooth maple trees sprinkled among the forest woodlands and its wide riverbed and brushy edges dotted with saplings — great habitat for both songbirds.

If covering an uphill 4-mile-plus loop seems daunting, take heart. My first sightings of both birds happened within the first 1.5 miles heading up the trail. First, a pair of vireos appeared 45 minutes after my start, quickly and methodically flitting among tall grasses and bushes along the sandy riverbank. As I slowly moved farther uphill, it wasn't long until a Golden-cheeked sang overhead and flew upstream and perched in full view. With both prized songbirds in sight, I then had to decide whether to go on for more sightings or retrace my steps.

COLIMA WARBLER

The Colima Warbler, another Texas songbird specialty that is treasured by birders, can be found only in a small corner of Big Bend National Park at the eastern edge of the Chihuahuan Desert. The species breeds in the park's Chisos Mountains — the only area in the U.S. where it can be found — from late April to August. (Its range extends well into Mexico.)

This small warbler shares its drab plumage with two close relatives: Nashville and Virginia's Warblers. It is distinguished, however, by a small rufous patch on the head, yellow on its upper tail, and its distinctive song when foraging. You'll most likely hear the

warblers before you spot them in the oak and pine forest of the Chisos Mountains, so it's best to familiarize yourself with the song beforehand.

A practical strategy to begin your search for the bird is to arrive at Big Bend the day before your trek into the mountains and stay at the Chisos Mountain Lodge (open with limited availability during the pandemic; www.chisosmountainslodge.com; 432-477-2291). If you arrive early, the park has many birding sites where you can look for the 450 bird species on the park checklist. Sam Nail Ranch, for instance, is an oasis in the desert and a great spot to bird. Be sure to stop at the visitor center near the lodge to pick up a trail map and learn about current sightings. If you stay at the lodge for two nights, you'll be able to cover more sites in the park.

In the morning, you'll want to hit the trail early to beat the heat that you'll soon feel by 10 a.m. or so. Be sure to carry plenty of water. From the lodge, follow the trailhead signs and begin your trek with two options: a shorter route on the Chisos Basin Loop Trail, roughly 2 miles, or a longer loop on connecting trails (Laguna Meadows, Colima, Boot Canyon, and Pinnacles), nearly 10 miles. Either option is simply grand, with breathtaking scenery and active birdlife.

A compromise is to follow the shorter loop in its entirety, then branch out onto either the Laguna Meadows or Pinnacles Trail. You'll surely encounter several Colima Warblers along the way, and your dilemma will be whether to backtrack or complete the longer loop.

As you slowly climb in elevation, you'll notice a change in the landscape and habitat. Dry creek beds soon give way to oaks and pines, then juniper meadows and hillsides of Arizona cypress and Texas madrones, trees with several trunks that look misshapen. On my initial trek up the Chisos, I encountered several Colima Warblers as the trail wound into the juniper stands. As you climb, keep an eye out for other mountain specialties, such as Blue-throated Mountain-gem and Lucifer Hummingbird, which has a downward-curved bill. You'll be amazed at the variety of birdlife you witness during your quest for the Colima Warbler.

RECENTLY SPLIT: In 2018, taxonomists divided White-collared Seedeater into two species, and now the birds found in Texas are known as Morelet's Seedeater.

MORELET'S SEEDEATER

Morelet's Seedeater is a pint-sized member of the tanager family most often found, in the U.S., along the Rio Grande between Laredo and the Falcon Dam south of Zapata. Unlike most other Texas passerine specialties that enter the state only during breeding season, the seedeater is a year-round resident, although it's easier to see during early spring. (Until 2018, the bird was known as White-collared Seedeater. It was split into Morelet's Seedeater, which occurs from southern Texas to western Panama, and Cinnamon-rumped Seedeater, which occurs in western Mexico.)

The bird prefers reedy, grassy habitat near the river and adjacent weedy, overgrown fields, where it finds seeds and small insects or spiders.

You may need to visit several spots before you get a clear view of the bird. My first try was spoiled by thick morning fog, and a second try later in the day downstream was also futile. The next morning, the weather cooperated, and I easily spotted several seedeaters.

You'll find great habitats over the 50-mile stretch between Laredo and Zapata, and numerous sightings have been made at two in particular. The weedy field next to the public library in midtown Zapata on Highway 83 is one of the best places to look for the birds.

Altamira Oriole

More Lone Star birds

In addition to the five species profiled in this article, Texas has many other specialty songbirds. Those that have limited ranges in Texas and either don't appear elsewhere in the U.S. or are only in a few other U.S. locations include Rose-throated Becard, Northern Beardless-Tyrannulet, Rufous-capped Warbler, Clay-colored Thrush, Botteri's Sparrow, and Altamira Oriole.

And several species have fairly large ranges in Texas but may not occur in many other places in the U.S. Among them are Olive Sparrow, Great Kiskadee, Green Jay, Black-crested Titmouse, Long-billed Thrasher, Green Kingfisher, Ringed Kingfisher, Audubon's Oriole, Couch's Kingbird, and Tropical Kingbird.

Simon Pierre Barrette/Wikimedia Commons; Diane Isabel/Shutterstock

Another is the so-called "seedeater sanctuary" in the town of San Ygnacio, roughly 14 miles north of Zapata. Drive to the western end of Washington Avenue to the sanctuary and look for the birds in reedy overgrowth.

In addition, you can find seedeaters at several stops on the Laredo Loop of the Great Texas Wildlife Trails, including Lake Casa Blanca International State Park, La Laja Ranch, Laredo Community College campus, Paseo del Indio, Father Charles McNaboe City Park, and La Bota Ranch.

As you drive along Highway 83, watch for canebrakes and dense clusters of reeds, especially when you spot openings to the Rio Grande. These will give you additional opportunities to find the Morelet's Seedeater.

PRIZED SIGHTING: Views of Tropical Parula are often not as clear as this because the bird dwells in the upper canopy. The species is reliable in many south Texas hotspots.

TROPICAL PARULA

Tropical Parulas are colorful birds, the male in breeding plumage with a bright yellow throat and chest and a slate-blue back. A little larger than a kinglet, parulas are treetop dwellers in a semi-arid habitat with thick riparian woods. Extreme south Texas is the primary region where birders see them, but for the last decade or more, they have been turning up in central Texas and up the coast to Galveston County. The species forages for insects and spiders, and its preferred habitat includes Spanish or beard moss used mainly for nests.

Because of the bird's propensity for a canopy lifestyle, spying a Tropical Parula can be a daunting task. Parulas often travel in feeding flocks of other small birds, such as Black-crested Titmouse, Blue-headed Vireo, and Orange-crowned Warbler, so each flock should be searched for likely candidates.

Tropical Parula is a year-round resident, while the similar Northern Parula migrates through south Texas. Tropical can be distinguished from Northern by its cheek mask and lack of white eye crescents, but determining one parula from the other can be difficult when peering upward into a canopy.

Finding the uncommon Tropical Parula may challenge your persistency and doggedness. Several preserves have had reliable sightings, including Bentsen-Rio Grande Valley State Park southwest of Mission; Estero Llano Grande State Park southeast of Weslaco; Frontera Audubon Center near Hidalgo; Santa Ana National Wildlife Refuge south of Alamo; Laguna Atascosa National Wildlife Refuge north of Bayview; and Sabal Palm Sanctuary southeast of Brownsville.

My first sighting was purely accidental and unexpected. Shortly after entering Sabal Palm Sanctuary on an early April morning many years ago, I encountered a fellow birder who had spied a Tropical Parula and pointed it out to me. As he described the characteristics of the bird to me, we watched it dance among the leaves midway along an upper tree limb.

If you find yourself stymied in your search, you may have a better chance roughly 90 miles north of Harlingen, at the renowned King Ranch. Here, visiting birders have reported numerous sightings of Tropical Parulas over the past several years. King Ranch is a huge farming and ranching enterprise that actively manages the land for the benefit of wildlife. It is very birder-friendly and offers wildlife tours throughout the year (see king-ranch.com/visit/our-tours). The tour to the Norias Division is where Tropical Parula sightings have been more numerous.

MAPPING YOUR ITINERARY

To find the quintet of Texas songbirds in their small, confined ranges will require some heavy-duty driving and a number of days to reach each site. You'll need to plan for ample time to search, allowing for misses and possible visits to multiple sites.

If you were to reach each site on a circular route, you'd cover roughly 1,770 miles and take at a minimum eight or nine days, or more if you travel at a more leisurely pace. It is certainly possible to divide your search into several segments, keeping in mind that April and May are prime months to find the birds.

Lodging will require reservations in some instances. To stay at Chisos Lodge at Big Bend National Park, a reservation is wise since the park is popular in the spring before summer heat sets in. And if you plan to visit King Ranch, you'll probably need to book a reservation well in advance.

Good luck on your search!

Jerry Uhlman is an inveterate birder and traveler who lives in Richmond, Virginia. His tales of travel to discover and explore birding sites throughout North America have appeared in many magazines and newspapers, including BirdWatching.

S. D. & K. Maslowski/FLPA/Minden Pictures

Blessed WITH birds

A birder in western Ecuador lives alongside an extraordinary mix of birds, including a rarely observed rail with a taste for fruit

Story, photos, and art by Lisa Brunetti

OUT IN THE OPEN: A Brown Wood-Rail feeds on bananas in the author's yard in western Ecuador. The little-known species is only found in Ecuador and Colombia.

One bird's distinctive voice punctuated the morning's natural soundtrack. It sounded like a rubber ball dropped onto a hardwood floor: *bop bop bop bop bop bop bop-bop-bopbopbop-bopbop* and a sometimes barely audible final *ahhhhh,* as if the bird expelled (or inhaled) one last segment of air.

For weeks, I had wondered what bird made the unique sound — often quite close yet undetected by my novice eye. Orange-fronted Barbets often appeared at the same time, but they seemed mysteriously silent when foraging nearby.

"What. IS. That. Bird?" I wondered.

With childlike curiosity and a quest to learn about this protected tropical humid forest, I tuned into the surroundings that cocooned my home and began the task of identifying the new-to-me species.

How did I start? Where did I start?

One bird at a time.

It's a lesson I took to heart; it would be useful several weeks later, when a completely unexpected bird walked into my life.

Before I get to that story, I admit to being one of the luckiest people in the world. Immersed in wrap-around nature just a few minutes of latitude south of the equator, I live where temperatures never dip to freezing and rarely reach 90 degrees Fahrenheit. The site is near the Poza Honda Reservoir in western Ecuador's Manabí Province.

Ecuador is one of the most bird-rich countries on Earth; more than 1,640 species have been tallied. According to eBird, 557 bird species have been recorded in Manabí, which is about equal in size to New Jersey.

Poza Honda is a place where wild heliconias stretch their fingers toward the skies while Long-billed Hermits dart from flower to flower. Petite Amazilia Hummingbirds flit between many varieties of flowers, then patrol from higher perches like little Napoleons.

I eventually determined that the owner of the mystery voice was the Great Antshrike, a scarlet-eyed bird of the tropics that adds its staccato call to the daily soundtrack. The male, attired in crisp black and white plumage, contributes a classy presence to the scene while the equally handsome female dresses down in cinnamon.

TREE-TOP RAINFOREST VIEWS

A seldom-used gravel road became my wide and easy trail, where White-necked Puffbirds watch from specific perches with stunning views of the reservoir. Pockets of green hold on against deforestation that claims more of this supposedly protected forest each year.

A Huckleberry-Finn childhood in the Mississippi Delta prepped me for life in the Neotropics. I learned to be forever watchful for snakes and to navigate the woodlands in stealth mode while looking for birds, animals, and reptiles. My artistic training fine-tuned those observation skills. This artist's eyes never rest, and the 150-plus bird species at Poza Honda keep me well entertained.

Poza Honda is a place where wild heliconias stretch their fingers toward the skies while Long-billed Hermits dart from flower to flower.

My home provides tree-top views of a tropical humid rainforest that borders the 7-kilometer-long reservoir. Several meters from one window, stunning Orange-fronted Barbets sample the ripened starfruits before darting to a nearby orange tree. The female barbet's black bib is as lovely as her mate's bib of pale yellow. At a safer distance in the bird-popular tamarind tree sit the yellow-bellied Gartered Trogons with tails painted with bold black-and-white stripes. In slightly more daring attire, the Ecuadorian Trogon sports splashes of vivid red with matching eye rings. The Pale-billed Aracari drops in for an occasional roll call, loiters long enough for a few photo ops, then breezes back out of the scene.

As I write, the near-threatened Pale-browed Tinamou's distinct whistle announces its close presence, while a second answers from afar. *"Catch a glimpse of me if you can,"* it taunts. Stripping threads from palm leaves, Scarlet-rumped Caciques weave pendulous nests in easy view. They probe heliconias for selective

morsels but seem equally happy at the fruit feeder. Black-cheeked Woodpeckers often challenge the caciques for the bananas, yet a pair of Whooping Motmots visit the feeder most often.

Groove-billed and Smooth-billed Anis provide non-stop chatter from their loosely knit clusters. Both species appear almost daily and provide easy photo ops. Sky-high and motionless on a broken stick of bamboo, the Common Potoo holds its covert pose for hours.

At night, the Spectacled Owl, West Peruvian Screech-Owl, and Common Potoo watch over the area. The potoo offers an eerie melancholy wail that can prompt chills if one does not know the owner of the voice — or a smile from one who does. If I had perched completely

FORESTS AND BIRDS: Wooded hills rise above the Poza Honda Reservoir in Manabí Province (above). The reservoir was created in the early 1970s, when a 1.2-km-long hydraulic dam was built on the Portoviejo River. The region's many bird species include Barred Puffbird (right), an uncommon bird that occurs in Panama, Colombia, and Ecuador.

A CLOSER LOOK: The author's well-used field guide to birds of Ecuador lies open to the descriptions of crakes and rails alongside her notebook listing her recent sightings.

motionless for most of the day, I might whimper and cry with equal emotion.

'PAY ATTENTION'

It's not the antshrikes or the puffbirds or the trogons or even the aracaris that make this the most amazing place I've lived; most every day presents a private show that seems to be orchestrated just for me. I learned to ignore the neighbor's chickens, which roamed the yard in search of insects and fallen fruit. They sometimes leaped to the dragon fruit trellis and devoured the bananas placed for the tanagers.

Have you ever "known" something yet have no idea how you knew? Some inner nudge taps on your subconscious and says, *"Pay attention."* I did just that when I noticed a brown chicken-like bird mingling with the chickens one August day a few years ago.

"*What. Is. That?*"

I reached for my camera.

Click. Click. Click.

The bird quickly darted out of the scene. A poor image is better than no image, and the camera captured enough details to compare with my reference materials.

Flipping through my *Birds of Ecuador Field Guide*, I pondered the bird's identity and finally reasoned that it must be *Aramides wolfi*, a Brown Wood-Rail. It's a species with a limited range — western Ecuador and Colombia — that is listed as vulnerable. It quickly became the darling of my birding experience.

A Brown Wood-Rail strutted across the yard, jumped into a low-growing clump of bananas and began to break its fast.

Since I moved there in August 2017, two skittish adult Brown Wood-Rails used the thickly vegetated ravine beside my house as their primary residence. The birds' raucous dawn yelping often nudged me from a deep sleep, and even if I had painted for half of the night, I embraced their wakeup call. Stealth-like, they often hurried to the thick woodlands on the opposite side of the house.

I asked my neighbors about them.

"Yes, they eat the bananas," they shrugged.

And they did!

The rails visited the yard frequently for about five months until the rainy season arrived the following January. Life-giving rains triggered a frenzy of nest building by Scarlet-rumped Caciques, One-colored Becards, Masked Tityras, and Pacific Horneros. Many birds became silent — even the loud-mouthed Rufous-headed Chachalacas and rails. Several months later, I realized why the rails had been quiet. In several seconds' time, five young wood-rails darted across the yard and back to their safe zone. Yippee! Five precious babies!

A personal emergency called me away from home for almost a month, and when I returned, the young ones presented themselves in the rank ground cover of the back gardens. The juveniles foraged, darted, and dashed — and were sometimes bullied by the territorial chickens.

Once, I planned to go for an early-morning run, but a wood-rail tipped onto the stage. It strutted across the yard, jumped into a low-growing clump of bananas, and began to break its fast. It was

a lovely sun-filled morning, and the wood-rails conspired to delay my outing. The juveniles foraged, played, leaped into the bananas, nibbled at fallen star fruit — and provided all-day entertainment.

How lucky am I? Would you say that is luck? No, we would probably all agree: I am blessed.

A TASTE FOR BANANAS

The birds appeared to be addicted to bananas. As the low-growing bananas began to ripen, several Brown Wood-Rails foraged around the perimeters of the yard. Pumping its stumpy tail, one strutted across the close-cropped areas, circled the bananas, then darted back to safer areas. At random moments throughout the day, a lone rail would pass the fruits, then hurry back to wilder areas. I anticipated observing the rails as much as they anticipated those ripened bananas. Once the bananas matured, the birds ate their fill. I marveled at my good fortune to witness and document the behavior and quirks of this elusive and highly entertaining species.

When mature bananas once coaxed four wood-rails into easy view, the birds rotated shifts, approaching the bananas and leaping up to the ripest cluster. A clump of bananas supported one rail but became crowded when two ate at the same time. Neither competed for the same banana but feasted in harmony while balancing and adjusting until one of the two leaped to the ground. Always on alert, the birds pecked at the ripening fruit, then raised their heads to watch for danger, then pecked again. Many times, they paused as if to listen to a nuance of sound, then resumed. Or they might suddenly bolt to the ground and race across the yard.

Sometimes one rail waited in the shadows until the feeding bird returned to the ground. They seemed to respect one another, and the banana-stuffed bird usually fluffed its feathers as if to say, *"That was tasty,"* while the second circled the base of the plants, paused, and then leaped to the top of the cluster. Every so often, a feeding rail barked, much like a squirrel, then jumped down and hurried to the edge of the yard, where another bird appeared. The just-fed rail often faded into the background, and the other jumped to the cluster of bananas.

The banana plants grow near a slab of

Meet the Brown Wood-Rail

RIPE FOR STUDY: A wood-rail perches among bananas, allowing the author to observe closely the bird's behavior.

- One of eight species in the genus *Aramides*, which are found from Mexico to Argentina
- Listed as vulnerable on the international Red List
- **Population estimate:** 1,000-2,500
- **Range:** Western Colombia and western Ecuador
- **Habitat:** Mangroves and swampy woodlands

According to the online resource *Birds of the World,* Brown Wood-Rail is a "very poorly known species which has a restricted range and appears to have become extremely rare, at least in Ecuador, owing to extensive destruction of its mangrove habitats."

A 2011 paper in *The Wilson Journal of Ornithology* on the rail's breeding behaviors notes that the species "is reclusive, hard to observe, and vocalizes infrequently; its basic biology remains poorly known." The researchers, led by Tulane University ecologist Jordan Karubian, reported that the rails nested from February through April and laid about four eggs per nest. Two-thirds of 16 studied nests successfully produced young. A radio-tracked bird used a home range of 13.5 hectares (about 33 acres).

On eBird, records of the bird at Poza Honda posted by author Lisa Brunetti and others represent the southernmost sightings of the species. She speculates that birds at Poza Honda have adapted to living near people "perhaps because of their preference for ripe bananas. It's amazing to see how fast they zero in on ripe bananas, and when the bananas are ripe, the rails are there almost constantly."

In October 2020, birder Roger Ahlman, one of eBird's Ecuador reviewers and hotspot editors, visited Poza Honda to view the rails. They represented species No. 1,300 on his mainland Ecuador list.

concrete that covered the shut-off valves for the water system. The wood-rails often circled the bananas, marched to the slab, then leaped from the concrete to the bananas. After depleting the ripe bananas, they forcefully stabbed greener fruits with their bills. *Wham-wham-wham*. Much like a woodpecker, they pecked, paused, looked around, pecked again — repeating until they broke through the tough husk.

The rails also foraged along the shady trail that connected the yard to the reservoir. The chickens used the same areas, so the dusty-swept areas of trail might suggest both species. Rails sorted through fallen leaves with their bills, yet they stayed alert, raising their heads, looking left and right, holding frozen poses, then pushing more foliage. They clung to areas with light cover with easy-to-reach hiding places. They foraged beneath cascading leaves of tall gingers and heliconias or in the dense forest edge near the reservoir. I often wondered which bird did such a perfect job of cleaning the inside of fallen mandarin oranges. From afar, I watched a pair of rails feasting on similar fruits. The fallen lemons remained untouched.

CHASING BUTTERFLIES

The Brown Wood-Rails darted from standing still to full throttle with lightning speed. Sometimes a sound startled them, and other times they seemed to enjoy practicing their escape skills. They sensed and dodged any low-flying bird, and one rail once ducked when a Whooping Motmot passed low over the yard. Another time, a rail marched toward its next area of cover, then suddenly darted after a low-flying butterfly, which eluded the rail but provided a comical zigzagged chase.

The rails often foraged in loose clusters and sometimes shadowed the chickens. If a chicken suddenly cackled and scattered, the rails also bolted for cover. The larger chickens sometimes claimed all rights for backyard feeding privileges.

A wood-rail once displayed a serene yoga-like stance as it stretched and bowed in the sun. It seemed to celebrate the strong rays of sunshine after a cool and misty morning. About half an hour after the rail departed, a White-tipped Dove performed a similar ritual in almost the exact location.

AVIAN DIVERSITY: Masked Water-Tyrants (top) engage in a breeding display near the reservoir. The species lives in scrublands and riparian areas. Whooping Motmot (below) is a colorful, long-tailed resident of lowland forests in the tropics.

One day, a juvenile rail jumped from the bananas, fluffed its feathers, then meandered to the far side of the yard. A second bird appeared from dense cover and approached the first bird. They fluffed feathers, extended their wings, poked and nuzzled each other in what appeared to be a very tender exchange.

PRIVATE EUREKA MOMENTS

Taking a break from the rails, I prepared for an easy walk to the reservoir. Hoping to sneak up on a hard-to-photograph Limpkin, I pulled on my boots, placed the camera bag over my shoulder, and tucked an empty cardboard box under my arm. It would hold the peat-like composted water hyacinths to use as potting soil. If lucky, I would also return with better reference images of the loud-mouthed Limpkins.

The squeaky chatter of anis drew me closer to the water, and I paused to confirm the species – Groove-billed. Also nearby were the forever-cheerful Masked Water-Tyrants. These handsome black-and-white members of the flycatcher family flitted from low branches to shrubby herbs to the lake bank and water hyacinths. Almost always in perpetual motion, they danced and sang while searching for

Traveling to Poza Honda

Due to the coronavirus pandemic, the U.S. Embassy and Consulate has a Level 3 travel advisory for Ecuador: "Reconsider travel." When it is safe to travel again, here's what you need to know about visiting Poza Honda.

The closest international airport is in the city of Guayaquil in southwestern Ecuador. The drive to Poza Honda takes about four hours. Several birding locations and reserves can be found in southwestern Ecuador, so that would add more bird diversity, and time, to your trip.

Aside from overnight lodging on site at Casa Poza Honda, where this story takes place, accommodations in and around Poza Honda are basic. For more information, see the online version of this article at www.birdwatchingdaily.com, under "Locations & Travel" and "Featured Destinations."

THE ARTIST'S VIEW: Author Lisa Brunetti painted this depiction of Brown Wood-Rails based on her observations of the birds. She used the art to promote the worldwide birding event Global Big Day in 2020.

insects. So rapt with appreciation for this handsome species, I forgot all about my Limpkin quest until a larger bird revealed its presence in the hyacinths.

I froze. The cardboard box wedged between my left arm and hip; my camera balanced in my right hand. Two hands would guarantee better photos, but dropping the box would startle the Limpkin. I snapped a few unsteady photos, then eased lower and lower until concealed behind meter-high vegetation. Finally, the box touched the ground. I crawled closer, then took several more photos. Unaware of my presence, the bird hobbled to the edge of its hiding place and moved into the water.

The Limpkin then illustrated a talent I was not previously aware of — it swam!

As graceful as a swan, it floated across the surface of the water, meandered along the hyacinths, then aimed for another island of floating vegetation.

"Limpkins can swim," I continued to marvel while taking photos and video. "Limpkins can swim!"

Surely Audubon experienced similar surprises – as if nature orchestrated private "eureka" moments for a one-man (or woman) audience. I realize how lucky I am to observe and document the changes in this fragile forest in Ecuador. I reflect how each chapter in my life prepped me for the next.

A passage from the author and poet Wendell Berry's book *Given* seems apt: "I dream of a quiet man who explains nothing and defends nothing, but only knows where the rarest wildflowers are blooming, and who goes, and finds that he is smiling not by his own will."

I often realize that I am smiling as I meander to the water's edge, and I smile while watching the Limpkins and Masked Water-Tyrants and the anis and the caciques. I smile when the barbets drop in for a star-fruit feast and when the Great Antshrike projects its distinct voice. I definitely smile when the wood-rail bolts after the butterfly! My entire body smiles because my soul is happy and at peace. Observing nature provides the secret oh-so-calming ingredient.

Lisa Brunetti is an artist and a naturalist who lives in western Ecuador's Manabí Province. Read her blog and view her art and photos at https://lisabrunettiart.wordpress.com.

IT AIN'T EASY BEIN' GREEN

From the rain-soaked Caribbean lowlands of Costa Rica to the Pacific dry forest of Ecuador, multiple strategies emerge to save a magnificent macaw

By Brian Kluepfel


Macaw Recovery Network

CRITICALLY ENDANGERED: A Great Green Macaw preens its back feathers. The species is found from Honduras to western Ecuador.

Visitors to Ara Manzanillo's Great Green Macaw Reintroduction Station in southeastern Costa Rica, just miles from the Panama border, are met by an unholy racket. The local flock of Great Greens has arrived for its daily snack.

If it's tropical tranquility you were seeking, forget it: The *Ara ambiguus*, among the largest of the macaws and similar in length to Bald and Golden Eagles, is no retiring wallflower. You'd have to think that the genus name derives directly from the high-decibel blasts coming from the nearby treetops — *Ar! Ar! Ar!* — heard even as we walk up the drive to the center. It's enough to drown out our guide's voice as he explains some basic parrot facts. In fact, the name comes from the indigenous Tupi language of Brazil: *a'rara*.

Some of the avian aural assault is coming from customized plastic trash bins situated 100 meters up a massive almond tree, an example of the successful artificial nests Ara Manzanillo has contrived for the birds. Since 2010, approximately 60 captive-raised birds have been successfully reintroduced, and 15 active artificial nests have been in use since 2014.

The nest box solution was a must for this critically endangered species; fewer than 1,000 individuals exist between southern Honduras and northern Ecuador, while a tiny subspecies hangs on in southern Ecuador's dry forests.

It was a challenge finding the right material for the artificial homes. Roopak Bhatt, our volunteer guide, says the sharp-billed birds went through wood boxes "like a chew toy" and that metal nests tended to rust in the damp Caribbean climate.

The nest boxes have produced positive results in the Manzanillo population: nine breeding couples and 22 chicks in the past five years. The macaws lay one to four eggs each November or December. In three to four months, the chicks are full size; however, there is an 80 percent mortality rate, and the birds don't reach breeding age until four or five years.

VANISHING HABITAT

A major concern for conservationists is the rapid disappearance of the Great Greens' preferred nesting site: mountain almond trees.

"This tree provides 90 percent of the birds' nests, but 90 percent of them in Costa Rica have been cut down," says Sam Williams of the Macaw Recovery Network (MRN). The loss of habitat is in part attributed to oil palms replacing native trees. "Great Greens prefer an intact forest," he notes.

One problem is that ideal nesting sites tend to fall down because of age. "The palms have to have time to age, not merely grow," Williams explains. (The artificial box we saw at the entrance of Manzanillo was attached to an almond tree more than 300 years old.)

Williams is resigned to a somewhat unnatural method of growing the macaw population. "Since the mountain almond grows slowly, I'm comfortable with the nest boxes. We have to increase the numbers any way that we can," he says.

In addition to its ample nesting cavities, the tree's almonds are crucial to the birds' diet. Great Greens use their huge, powerful bills like massive can openers. "I've tried to crack these almonds with a machete and could not," Bhatt says. The Great Green's head and jaw are enormous compared to the Scarlet Macaw, which cannot eat the same almonds. (The largest macaw, Brazil's mighty Hyacinth, is also a big fan of the hard-to-crack

RARE BIRDS: Great Green Macaws perch in a Costa Rican forest. The global population is between 500 and 1,000 birds.

Macaw Recovery Network

almond.) Great Greens also like the monkey pot plant, which often grows near the mountain almond tree.

The idea of tree nurseries to help the macaw has come to fruition. Mario Jimenez, MRN's field leader, manages the effort. He says that while the mountain almond is crucial in providing nesting cavities and food, the titor tree can also be an important ally of the Great Green, as it provides good building material and food.

MRN's nursery project, near Cinco Ceibas reserve, hopes to produce different varieties of palm, including the non-native beach palm. "It's exotic, but it's been in Costa Rica for a while, and the macaws love it," says Jimenez. A graduate student's research in 2016 concluded that the birds used beach palm more than other trees. To further assist the macaws, MRN worked with local schoolchildren to plant 300 mountain almond trees in December 2019.

CALL OF THE WILD: RELEASE PROGRAM

Great Green chicks are brought to Manzanillo from MRN's breeding center in Islita, on the Pacific, home to 80 Scarlet and Great Green rescue birds that cannot be released and are kept only for breeding. The offspring are kept in an aviary for six to eight months, where they're raised on their wild diet — mountain almonds, beach almonds, nuts, and seeds. They also get used to the sights and sounds of the forest. "Watching them crack and eat the beach almonds and mountain almonds lets us know, 'Hey, these birds are ready to release,'" Bhatt says.

"We're trying to build a culture of reintroduction in Costa Rica," adds Williams. "There is some resistance, and it's also been shown that 120,000 birds (of all species) are still in captivity in Costa Rica. Although it's illegal to have wild animals as pets in Costa Rica, one-third of families still have had parrots as pets."

Another obstacle is a legal one: It's against the law to reintroduce animals in Costa Rica's national parks, which comprise one-quarter of the country.

Once macaws have flown the coop, locating the introduced birds takes a village — or several. A local outreach program has helped Ara Manzanillo monitor the birds. "People will contact us and say, 'Hey, we saw your birds,'" says Bhatt. Reports, sometimes with digital pictures, come from neighboring indigenous reserves and across the border in Panama.

"Most often, info comes via social media," says Emily Yozell of Ara Manzanillo's board of directors. "The Great Greens are very intelligent, curious, and mischievous animals with adept articulations, so tracking devices are not viable."

A DWINDLING SPECIES

In 2020, Great Green Macaw's status on the international Red List of threatened species was downgraded to critically endangered due to "extensive habitat destruction and capture for the cagebird trade" that has led to "extremely rapid and continuing population declines."

BirdLife International estimates the population numbers 260 mature individuals in Honduras, 130 in northern Costa Rica and southern Nicaragua, 100 in Colombia, and 35 to 50 in two separate sites in Ecuador, for a minimum of 525 macaws. An unknown number also are found in Panama, and, all together, BirdLife puts the total between 500 and 1,000 birds.

"According to this most recent census, the work of Ara Manzanillo has increased Costa Rica's population of free-flying Great Greens by 50 percent and the world population by more than 10 percent," Yozell says. "We are very proud of the impact the project is having on the recovery of this beautiful and emblematic bird."

> "The problem is likely the survival of chicks and adults after the breeding season has ended and they migrate to other areas. It is critical that we now focus our research on better understanding where they may be compromised."

Sarah Williams of MRN explains that the Red List status change happened "due to the data that MRN collected over the years, and MRN's collaboration with different partners across the range of the Great Green Macaw to get a better idea on the actual status. We have also found that for wild macaws, the problem isn't productivity, since we are seeing about 30 to 50 chicks fledging successfully every year pretty consistently. The problem is likely the survival of chicks and adults after the breeding season has ended, and they migrate to other areas. It is critical that we now focus our research on better understanding where they may be compromised."

In Costa Rica and Nicaragua, the breeding area covers about 1,200 square kilometers and includes four known breeding populations: near Sarapiqui, Tortuguero, and Siquirres, as well in Manzanillo, which is managed by Ara.

MRN works more with the wild populations than Ara, monitoring natural nest sites in the breeding season (December to June) and in the nonbreeding season, when the birds move to the highlands and the foothills of Braulio Carrillo National Park. The team looks for roosts and also attempts to repair nests damaged by the predation of toucans, aracaris, and the opportunistic tayra, a weasel-like rodent that scales trees. (MRN cuts vines to try to halt this activity.)

MRN is also involved in reforestation projects near Boca Tapada and in brokering peaceful relationships with owners of large properties who have macaw nests on their ranches. Lessons have been learned.

Olivier Chassot of the Great Green Macaw Research Center (GGMRC) worked in northern Costa Rica from 2006-'14 and was threatened multiple times, and his field house in Boca Tapada was burned down in 2010. "We quickly learned that

we had to work with local communities if we were to be successful in conserving the bird," says Chassot.

PINEAPPLE PROBLEM

Costa Rica is the world's second-largest exporter of pineapples. The billion-dollar monoculture crop comes with issues of environmental degradation and abusive labor practices. The *piña* plantations are "essentially deserts to wildlife," says MRN's Sam Williams. The battle with pineapples is "not a war we are going to win. The money behind pineapples is crazy," adds Jimenez.

Ornithologist George Powell, who did groundbreaking macaw research from 1994-2000 in Costa Rica, had identified the threat even back then. Chassot summed it up: "If there's a fruit we don't eat at home, it's the pineapple!"

"Costa Rica, despite its green reputation, is the world's worst polluter in terms of agrochemical use," notes Sam Williams. Multinationals use approximately 16 pounds of chemicals per acre of pineapple. Other challenges to macaws include cattle ranching and poaching.

Local conservation activist Alex Martinez (a former park ranger in the Sarapiqui region) feels that new research isn't the priority: buying and conserving the remaining almond trees is. For Martinez, bothering the birds further by tagging them is less crucial than preserving the ever-decreasing habitat.

"It's important to remember that we (humans) aren't always the best part of the process," he says. "Actually, we can interfere with nature's own ways of restoration and balance." Habitat preservation, education, and public consciousness are crucial, he argues.

Current political and environmental unrest affecting Costa Rica's neighbors does not bode well, however. "We're terrified of what could happen to the birds in places like Honduras and Nicaragua," says Sam Williams. The massive forest fire in Nicaragua's Indio-Maiz Biological Reserve in 2018 — and that country's refusal to accept Costa Rican aid in putting it out — is a case in point.

Still, Chassot is hopeful. In 2001, he and his wife, Guisselle Monge Arias, currently the director of the Sarapiquí Conservation Learning Center, worked to establish the transnational San Juan-La Selva Biological Corridor. "This is an alliance of local organizations, NGOs, academics, and government agencies that meet to implement conservation and sustainable development projects," he says. "It is still regarded as a model in Latin America."

A SUBSPECIES ON THE BRINK

It's a brave new world in the dry coastal forests of southern Ecuador, where a group of non-governmental organizations is trying to reestablish a Great Green subspecies population numbering only a few dozen.

The taxonomic validity of the *Ara ambiguus guayaquilensis* subspecies has been debated, but its narrower bill, unique habitat, and geographic separation differentiate it from the nominate subspecies, whose range ends in northern Ecuador.

In 2017, Jocotoco Foundation, in partnership with Loro Parque and Fundación Jambeli, started to release captive-raised birds into the wild. Jembeli's breeding program began with birds taken from zoos and pet owners.

So far, Jocotoco has released Great Greens four times at its Ayampe and Las Balsas reserves in western Ecuador. Nineteen birds have been liberated, and initial reports lend a glimmer of hope; one released bird has been observed nesting with a mate from the wild population.

About one-third of released birds were fitted with GPS collars, allowing Jocotoco to track their movements. The remote mountain habitat of Santa Elena province, where the last wild population exists, isn't easy to cover. Ayampe is about 50 kilometers north of Las Balsas, and at least one bird has flown between the two reserves, creating dreams for a "green corridor."

Ultimately, conservationists would like to link the dry forest of Cerro Blanco, just outside of Guayaquil, to this corridor. It would somehow be fitting if the bird deemed Guayquil's "emblematic species" in 2005 returns to live there. A local mall is even home to a huge 12-meter statue of the *papagayo de Guayaquil*, a splendid creation composed of more than 70,000 ceramic tiles.

Community involvement in mountain villages like Gualea, El Pital, and Matapalo — 60 educational visits in all — has definitely saved at least one Ecuadorian Great Green. An individual released in 2017 flew just 12 km in a torrential downpour and was found on the ground by a family, whose daughter had been part of an educational program about macaws. The family contacted Jocotoco, and the bird was saved. "Previously, it probably would've ended up on the illegal market," says Jocotoco conservation manager Michaël Moens.

Where to see Great Greens in Costa Rica

Great Green Macaws populate the Caribbean coast of Costa Rica. During our trip, we saw them near Boca Tapada (Maquenque Lodge), Tortuguero National Park, Yatama Lodge near Sarapiqui, and in Manzanillo. You can visit the Ara Manzanillo project for the daily 3 p.m. arrival of a mostly wild flock of Great Greens that come for an afternoon snack. And on the Pacific coast, you can visit Ara's breeding center at Punta Islita to see a raucous released group of Scarlet Macaws.

A RAINBOW OF FEATHERS: In flight, a Great Green displays its many colors that are less noticeable when the bird is perched.

Martin Mecnarowski/Shutterstock

DEATH BY A THOUSAND CUTS

Eric Horstman worked in southern Ecuador's Cerro Blanco forest for three decades, first as a Peace Corps volunteer and then as director of Pro-Forest Foundation (Fundacion Pro-Bosque). He was enchanted from the outset by the magnificent macaws.

In conservation terms, dry tropical forests aren't sexy — they "suffer an image problem," Horstman says. He needed a flagship species to create public awareness.

"One afternoon, I saw a pair of Great Greens fly into the crown of an *amarillo lagarto* (*Centrolobium paraense*) and begin to eat the spiny-covered nuts," he says. "I was enthralled to see the macaws fly off, vocalizing, with long tails streaming behind them. I decided that day the species would be Cerro Blanco´s conservation symbol."

Horstman took up the cause of replanting dry forest trees that the macaws fed upon, or, in the case of the Pijio tree (*Cavanillesia platanifolia*), they nested in. He saw macaws frequently in the reforestation zone, in groups of 9 to 11 during the rainy season.

His work brought people together: In one instance, an alliance of the Ecuadorian Army, park guards, and biology students traded round-the-clock shifts in a field tent at the base of a tree, saving a nest from machete-bearing poachers. As a bonus, the first scientific nesting data on Great Greens in Ecuador was recorded.

"A big problem is habitat fragmentation," says Horstman. "In Cerro Blanco, we successfully restored 647 hectares. The biological corridor … needs leadership from the authorities, and the planned road through Cerro Blanco will only complicate matters."

Lack of a nationwide vision is also a hindrance, he notes. "Everyone wants to do things on their own, so efforts will continue to be isolated. The most pressing need is to protect its habitat. The macaws are experiencing a death by a thousand cuts for all the deforestation of their natural range."

Indeed, Chassot says that he feels the Ecuadorian population "seems doomed by its limited range and increasing human demographics."

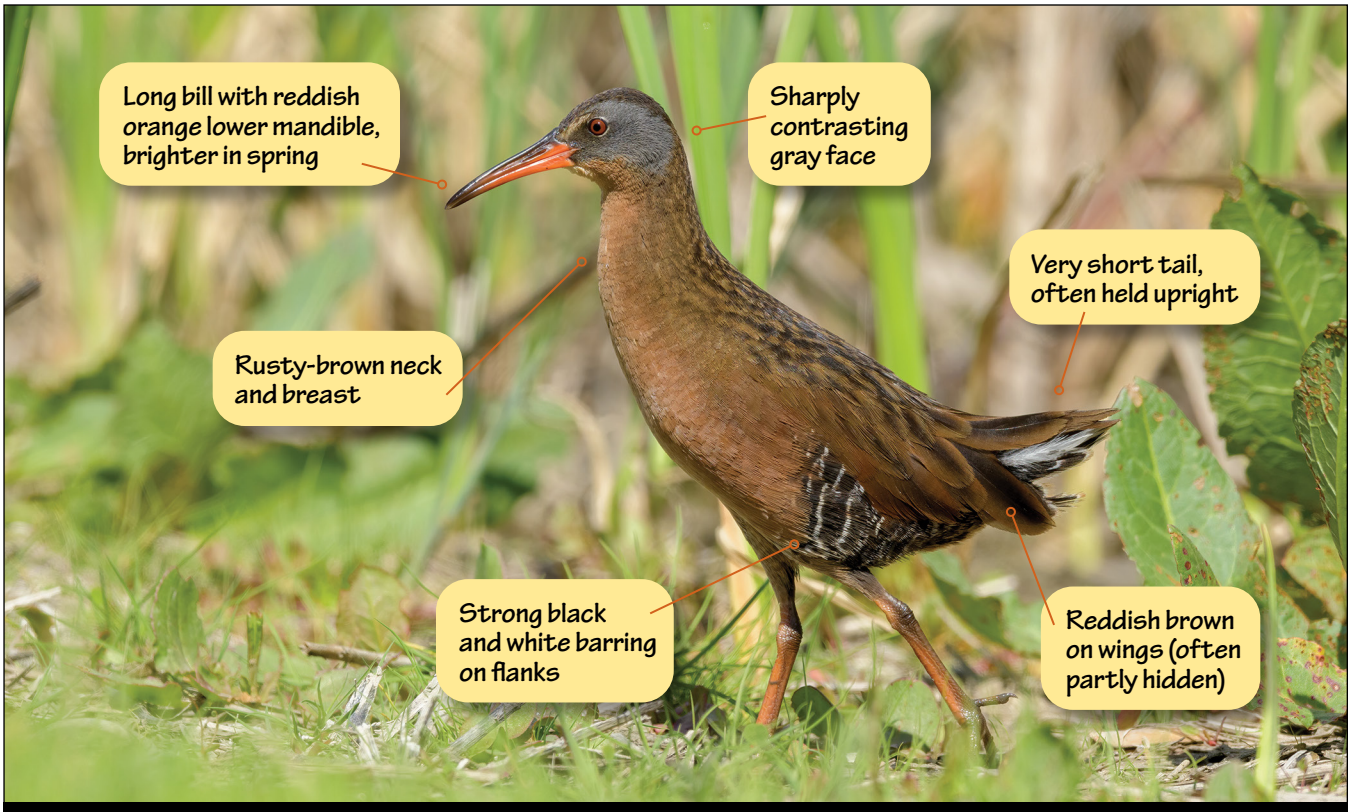
COLLABORATION REQUIRED

The beautiful psittacine's fate hinges on the six nations in its home range. Chassot calls the effort in Costa Rica a success, but adds, "the wider Great Green Macaw population will only thrive if countries agree to be more collaborative in transboundary conservation issues." Positive community work in Honduras has been negated by the violent drug trade, and NGO work in Nicaragua has come to a screeching halt. Colombia's Great Green population, perhaps the largest, is the least known of all.

Despite the challenges, efforts on the bird's behalf are vital. The species doesn't unfold its subtle beauty all at once. But once you've seen a Great Green Macaw open its wings and tail feathers in a burst of green, yellow, blue, and red, you'd be hard-pressed to name a more stunning bird.

Brian Kluepfel is the editor of the newsletter for Saw Mill River Audubon in Westchester County, New York, and a contributor to Lonely Planet and Fodor's travel guides. In past issues of BirdWatching, *he has profiled Ecuador's Black-breasted Puffleg and Bolivia's Blue-throated Macaw.*

Virginia Rail



Virginia Rail, adult **March in Riverside County, California**

What to look for

Size and shape. Roughly robin-sized with a very short tail, stout legs, and long, sharp bill.

Pattern of underparts. Bright rusty orange-brown on the neck and chest, with contrasting black and white bars on flanks.

Pattern of upperparts. Olive-brown back with blurry blackish stripes. Bright reddish brown on wing coverts, often hidden.

Face pattern. Gray or blue-gray face contrasts strongly against rusty brown of neck, unlike the pattern of similar rails.

Juveniles. Seen in summer, these are much darker and duller than adults, almost blackish on the underparts.

Denizens of dense marshes, rails slip through low vegetation on foot, seldom flying. All have loud and distinctive voices but tend to call mainly at night. Few other birds are so elusive.

Two small species, Virginia Rail and Sora, are widespread in marshes across North America. Both are fairly common, but they're so adept at staying out of sight that most birders encounter them first by voice. Fortunately, recordings of the birds are readily available today online or in apps, making it easy to learn their calls.

Also fortunately, these two common rails usually sound quite different. Sora typically gives a sharp *keek*, a plaintive, whistled *surrr-eeee*, or a descending whinny. Virginia Rail's common calls include a metallic *kik kidik kidik kidik* and a descending, grunting series, *wenk-wenk-wenk-wenk-wenk*. It has other vocaliza-

tions that are heard far less often (see sidebar on next page).

Seen in the open, these two can be separated at a glance: Their overall colors differ, and the Sora has a short, stout, yellow bill while the Virginia Rail's bill is long and thin. However, the Virginia Rail looks quite similar to two other species, King Rail and Ridgway's Rail. They are larger, but it's challenging to judge the size of a lone bird — especially when we're startled by the unexpected thrill of seeing a rail at all. So, it's worthwhile to study their ID ahead of time.

The King Rail is widespread in summer east of the Rockies and north to the Great Lakes, more scattered and localized toward the north. Farther south, in freshwater marshes from the Carolinas to Texas, it's fairly common year-round. Virginia Rails in the East are more migratory, breeding across southern Canada and the northern and central states, wintering in the south.

In most areas of the West, nothing looks similar to the Virginia Rail. But along the California coast, and locally inland in southern California, Nevada, and Arizona, Ridgway's Rail is a potential source of confusion. It's very similar to the King Rail, so separating it from the Virginia Rail involves the same process.

The best plumage mark for ID is the face pattern. On Virginia Rail, the face is a smooth gray or blue-gray, contrasting against the brown nape and rusty orange-brown neck. On King and Ridgway's Rails, the face is variably suffused with buff or brownish, so there's no sharp contrast with the neck color. King Rail also often shows a cleaner pattern of black striping on the back than Virginia Rail.

With practice, shape is a good distinction. All these rails can stretch their necks at times, but Virginia Rail never looks as long-necked as the other two. King and Ridgway's Rails look more elongated overall, with longer bodies and legs, while the Virginia always has a more compact look. But it takes a lot of time in the marshes to develop comparative experience with these shy birds.

Kenn Kaufman (www.kaufmanfieldguides.com) has written several books on birds and nature. Brian E. Small (www.briansmallphoto.com) is a nature photographer whose photos illustrate many books.

King Rail, adult April in Brazoria County, Texas

Widespread east of the Rockies, the King Rail overlaps extensively in range and habitat with the Virginia Rail and is the species most likely to be confused with it. The King is a much larger bird — almost twice the length of the Virginia Rail and four times the bulk — but size can be tricky to judge on a lone bird surrounded by marsh grass. On full alert, the King Rail looks longer-necked, but apparent neck length on both species varies depending on their momentary posture. The most reliable visual mark is the face pattern. On King Rail, a buff or pale brown wash suffuses the face, very different from the contrasting gray face of the Virginia Rail.

Ridgway's Rail, adult January in Orange County, California

Formerly considered just a western population of Clapper Rail, Ridgway's Rail is now recognized as a full species, found locally in salt marshes of the California coast and in salt and fresh marshes in the interior of the Southwest. The three subspecies in the U.S. differ slightly. This one (*R. o. levipes* of the southern California coast) is the most brightly colored. As such, it suggests the King Rail, which is found strictly east of the Rockies. However, Virginia Rails can occur in any habitat that hosts Ridgway's Rails. The larger size and more elongated shape of Ridgway's may be apparent with practice, but to be sure, look for the strongly contrasting gray face of Virginia Rail.

Virginia Rail, adult April in Chambers County, Texas

The overall pattern of an adult Virginia Rail can appear to change from moment to moment, depending on arrangement of the feathers. The wing coverts are bright reddish brown. They may be fairly obvious, as in this photo, or largely hidden by the body feathers. Similarly, the black and white barring on the flanks may be largely hidden under the wing, or those feathers may extend up over the wing even more than seen here. It's worthwhile to keep these momentary variations in mind when we get brief views. The most important plumage mark, the abrupt change in color between the rusty brown neck and the gray face, should be obvious regardless of the bird's posture.

Virginia Rail, juvenile August in Los Angeles County, California

Adult Virginia Rails show very little seasonal variation, aside from the bill looking richer orange-red in spring (and averaging brighter red in males than in females), but juveniles are strikingly different. Very dark gray overall, they are heavily mottled with black on the chest. Their eyes are dark olive at first, unlike the reddish brown iris color of adults, and their bills are dark. Such birds are seen only in summer and early fall; after their first molt, they look recognizably similar to adults. Juvenile King, Ridgway's, and Clapper Rails are also darker and duller than adults, and separating them from juvenile Virginia Rails may depend upon a careful assessment of size, shape, and habitat.

The mystery of 'the kicker'

In addition to its common calls, the Virginia Rail gives a loud, distinctive *ki-ki-ki-ki-KREAAH*, the first few notes sharp and metallic, the last more squealing. Dubbed the "kicker" call, it confused experts for years.

Early ornithologist William Brewster was fascinated by the call. He heard it in marshes in Massachusetts several times between 1889 and 1901. Although he noted its tone quality was similar to one Virginia Rail call, it was so infrequent that Brewster assumed it couldn't be the voice of such a common species. In a paper published in *The Auk* in 1901, he suggested the "kicker" must be the rare Black Rail.

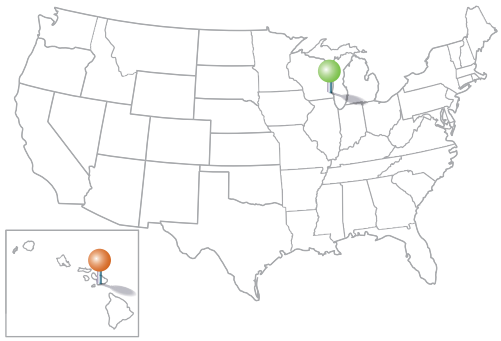
Amazingly, 60 years later, experts were still debating the source of this vocalization. The eminent Ludlow Griscom wrote in the 1940s that it was probably the Yellow Rail, but by 1955 he had decided it was more likely the Black Rail. The first Peterson *Field Guide to Bird Songs* record, released in 1959, included a recording of the call under Yellow Rail. After hearing the record, Chandler Robbins (later to be lauded for his skills at birding by ear) argued that it was Black Rail instead.

Finally, in the late 1960s, multiple observers confirmed that the "kicker" call is produced by the Virginia Rail. It's now a well-established fact. But a mystery remains: Why don't we hear this call more often? That's a good question to consider for the future.

The boardwalk at Kealia Pond National Wildlife Refuge.

Tim Roberts Photography/Shutterstock

HOTSPOTS 309-310



no. 309 **kealia pond national wildlife refuge**
kihei, hawaii

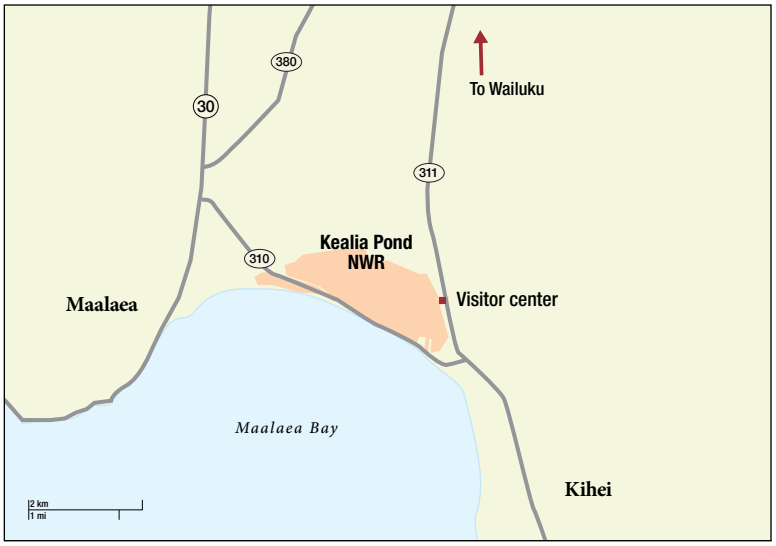
no. 310 **lake park**
milwaukee, wisconsin

IN THIS ISSUE, we're featuring 700-acre Kealia Pond National Wildlife Refuge on the island of Maui and 138-acre Lake Park in Milwaukee, Wisconsin. The pond was first set aside as a wildlife refuge in 1953, before Hawaii was a state, and it joined the National Wildlife Refuge System in 1992. Lake Park, which is more than 130 years old, is one of the most frequently birded sites in Milwaukee, thanks to its diversity of habitats and the long list of bird species that pass through. I hope that these and all of our hotspot articles are useful as you look for places to bird and to travel to when the pandemic has eased (fingers crossed!). You can find the full list of 310 hotspots that we have profiled over the years on our website. If you have a site to suggest, please send me an email to let me know about it. — *Matt Mendenhall*

kealia pond national wildlife refuge

kihei, hawaii

20°47'41.07"N 156°27'58.46"W



Kealia Pond National Wildlife Refuge sits on the south-central coast of Maui, overlooking Maalaea Bay, about 8 miles south of the Kahului Airport. The entrance road to the visitor center and Kanuimanu Aquaculture Ponds is located at milepost 6 on Highway 311, 1 mile north of the town of Kihei. The Kealia Coastal Boardwalk is off Highway 310.

For birders, Hawaii is often a destination to see critically endangered endemic forest birds such as honeycreepers, but the 50th state is also home to several endangered waterbirds. On Maui, one of the best places to see these birds is Kealia Pond National Wildlife Refuge, one of the state's top birding hotspots.

Established in 1992 to protect Hawaiian waterbirds, Kealia Pond consists of approximately 700 acres, including one of the finest remaining natural wetlands in Hawaii. The refuge features two birding locations: the 2,200-foot Kealia Coastal Boardwalk and paths along levees around the Kanuimanu Aquaculture Ponds near the visitor center. The locations (both are eBird hotspots) are on opposite sides of Kealia Pond, and there is no easy way to walk between them.

Kealia Pond is an excellent spot for Hawaiian Coot and Hawaiian Stilt, the endemic subspecies of Black-necked Stilt. Also present are hybrids of Hawaiian Duck and nonmigratory Mallard. (Genetically pure Hawaiian Ducks occur primarily on Kauai.)

In winter, many migratory species are present, including, incongruously, Snow Geese. Plus, a number of vagrants have made their way to the refuge, including Garganey, Curlew Sandpiper, Marbled Godwit, American Avocet, Spotted Sandpiper, and Eared Grebe. — *Jason A. Crotty*

Jason A. Crotty is birder, lawyer, and contributor to BirdWatching, *10000birds.com, and other outlets. He lives in Portland, Oregon.*

sites nearby

Hosmer Grove Campground, Haleakala National Park (Hotspot Near You No. 261)
About one hour east of Kealia Pond. This former experimental forest is one of the most accessible locations to find several native honeycreepers.

Kanaha Pond Wildlife Sanctuary
On Maui's north-central coast, this national natural landmark has many of the same species as Kealia Pond.

AT A GLANCE

HABITAT
Marshes, ponds, wetlands, and coastal beaches.

TERRAIN
The visitor center and Kealia Coastal Boardwalk are wheelchair-accessible.

BIRDS
Year-round: Mallard, Hawaiian Coot, Black-necked (Hawaiian) Stilt, Ruddy Turnstone, Pacific Golden-Plover, Wandering Tattler, Cattle Egret, Black-crowned Night-Heron, White-faced Ibis, Warbling White-eye, Common Myna, Spotted and Zebra Doves, Scaly-breasted Munia, Northern Cardinal, Red-crested Cardinal. Fall through spring: Snow Goose, Northern Shoveler, American Wigeon, Northern Pintail, Ring-necked Duck, Lesser Scaup, Pacific Golden-Plover, Semipalmated Plover, Sanderling, Least Sandpiper, Long-billed Dowitcher. Uncommon: Short-eared Owl (pueo), I'iwi, Apapane.

WHEN TO GO
Year-round, though the pond is smaller in summer because it fluctuates with the seasons.

AMENITIES
Kealia Coastal Boardwalk open daily, including federal holidays, from sunrise until 7 p.m.

ACCESS
National wildlife refuge. No fees. Open 7:30 a.m.-4 p.m. Monday to Friday. Visitor center open Monday 11 a.m.-3 p.m. and Tuesday through Friday 9 a.m.-3 p.m. Closed on federal holidays.

TIPS
Morning is best, as winds are lowest. Bring sunscreen or a hat, as there is no shade.

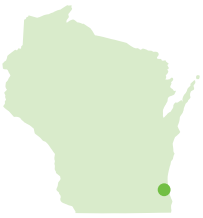
FOR MORE INFO
Kealia Pond National Wildlife Refuge, (808) 875-1582, www.fws.gov/refuge/kealia_pond. Hawaii Birding Trails, https://hawaiibirdingtrails.hawaii.gov. Maui Forest Bird Recovery Project, https://mauiforestbirds.org. Hawaii Audubon, www.hawaiiaudubon.org.

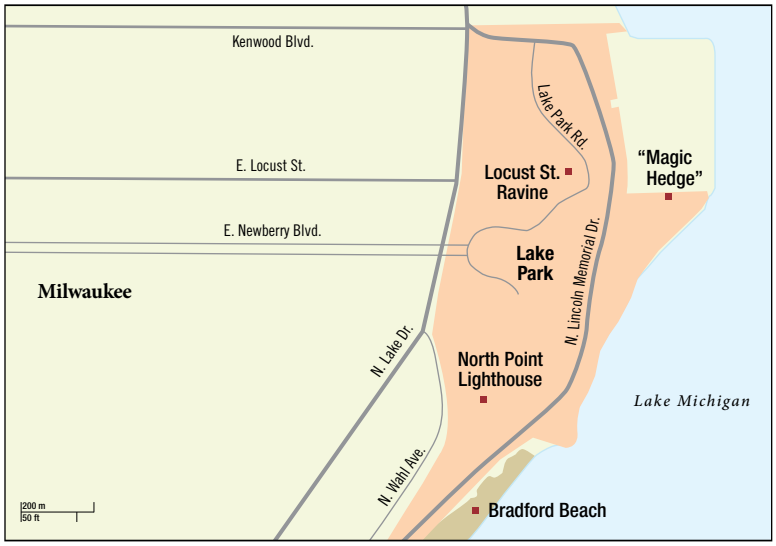
www.BirdWatchingDaily.com/hotspotsmap

lake park

milwaukee, wisconsin

43°4'3.10"N 87°52'13.15"W





Lake Park is the crown jewel of birding sites in the Milwaukee area. From downtown, head north on Lincoln Memorial Dr. for about 3.25 miles to N. Lake Dr. Turn left and drive south about 0.4 miles, then turn left into the park. Stay to the right and park in the lot between the restaurant and the golf course.

AT A GLANCE

HABITAT
Woodlands, riparian area, open grass, lakeshore.

TERRAIN
Mostly flat with wheelchair-accessible paved trails. Some areas with stairs leading to dirt paths along ravine.

BIRDS
Greater and Lesser Scaup, Surf, White-winged, and Black Scoters, Bufflehead, mergansers, Wild Turkey, Horned Grebe, Ruby-throated Hummingbird, sandpipers, gulls, Caspian and Common Terns, Red-headed, Red-bellied, Downy, and Hairy Woodpeckers, Merlin, Peregrine Falcon, flycatchers, vireos, Horned Lark, swallows, kinglets, nuthatches, wrens, Eastern Bluebird, thrushes, Fox, White-throated, Le Conte's, Savannah, and Song Sparrows, Baltimore Oriole, 35 warbler species, Scarlet Tanager, Rose-breasted Grosbeak, Indigo Bunting.

WHEN TO GO
Year-round. Best birding in spring and fall.

AMENITIES
Seasonal bird walks for warblers, ducks, and swifts (likely to resume after the pandemic). Restrooms at Lake Park Friends office near tennis courts and on lower level of Lake Park Bistro restaurant (east side of building).

ACCESS
County park. No fees. Parking lots off Lake Dr. and Lincoln Memorial Dr., plus street parking in adjacent neighborhood. Reachable via city bus routes 44U, 21, 22, and GoldLine.

TIPS
The most reliable spot for Red-headed Woodpecker, which is at Lake Park from late April through October, is along Locust Street Ravine and in the woods near picnic area #4. Bring a spotting scope for watching birds on Lake Michigan.

FOR MORE INFO
Lake Park Friends, lakeparkfriends.org. Birds of Lake Park in Milwaukee, www.facebook.com/LakeParkBirdsMilw. Wisconsin Society for Ornithology, https://wsobirds.org.

www.BirdWatchingDaily.com/hotspotsmap

Milwaukee's park system took shape in the late 1800s under the direction of landscape architect Frederick Law Olmsted, who felt that access to nature had a civilizing and restorative effect on the urban public. More than a century later, his vision for Lake Park, which overlooks Lake Michigan, remains intact, featuring woodlands, meadows, and access to the lake.

sites nearby

Bradford Beach
Just south and east of Lake Park. Parking lots just south and west of beach. Great for ducks, shorebirds, gulls, herons, and more.

Lakeshore State Park
Three miles south of Lake Park, adjacent to Discovery World science center. Waterfowl, shorebirds, migratory songbirds, and more.

Birds can be found throughout the park's 138 acres, and three spots in particular stand out.

The Locust Street Ravine winds through a wooded area near the north end of the park. It is an especially important stopover habitat for warblers, buntings, and other spring migrants.

Around the middle of the park, south of the main parking lot and just north of the North Point Lighthouse, stands the statue of Civil War physician Brigadier General Erastus Wolcott. Bird feeders near the statue attract a steady stream of sparrows, cardinals, and others, including a few surprises over the years.

Across Lincoln Memorial Dr. is a rugby field, and at the north end of the field is a line of trees that local birders refer to as Milwaukee's "Magic Hedge" for its propensity for luring spring migrants and rarities, including Prairie Warbler and Grasshopper Sparrow. — *Matt Mendenhall*

Matt Mendenhall is the editor of BirdWatching *and a regular visitor to Lake Park and other Milwaukee lakefront gems.*

TIMBERDOODLE: An American Woodcock scratches in the leaf litter in a North Carolina woodland. When the birds walk, their bodies and legs move while their heads and bills remain perfectly still.

Sky dancer

The American Woodcock's courtship display is just one of its amazing behaviors

We were near a woodland clearing just before sundown when we heard the first buzzy *peent*. The distinct nasal tone assured us that a male American Woodcock was advertising his presence on his "singing ground," and all females were welcome. Our hearts beat a little faster as we anticipated spectacular woodcock courtship. We weren't disappointed.

After more *peents*, the male sprang to the air, beginning his famous "sky-dance," which has similarities to flight by an untrained pilot. The high, twisting flight can reach several hundred feet and is accompanied by a twittering sound produced by air passing through the very narrow outer three wing feathers (primaries). He then hovers, drifting in a circular motion still twittering, and finally descends with a cascading pattern like a falling leaf while picking up speed and continuing to twitter. Listen carefully, especially during the descending flight, and you might hear single-note "chirps." (Whether the chirps are vocal or produced mechanically from wing feathers is still unclear. For more, search the phrase "David Sibley sounds of the American Woodcock" on Google.)

If females are present and impressed with the male's romantic acrobatics, they'll move to his landing area and approach him. The male will attempt copulation. Males and females do not form pair bonds, a breeding strategy called promiscuity. For this behavior to occur, the female must be able to build a nest, lay and incubate eggs, and brood and feed the young without help from the male. The nest is usually built within 50 feet of a wooded area.

A simple nest is prepared by scraping a shallow depression in a patch of short vegetation, including the previous fall's dead leaves. The female usually lays four mottled eggs and incubates them for about 21 days. Because chicks communicate while in the shell, hatching can be synchronized over a short time period. After about four hours or so, the mother takes the chicks away. The chicks can feed themselves in three days, and after six to eight weeks, the brood disperses. Female woodcock are known to be "tight" nest sitters while incubating. Many people have had the scare of their lives when a woodcock flushes just a few feet away from them while they walk in the woods.

David Byron Keener/Shutterstock

Females are somewhat larger and heavier than males, and both sexes have bills that are unusually long for their robin-like size. Female bills are about 2.75 inches long, and male bills are closer to 2.5 inches. Bills are used as probes, removing food items from damp soil. Earthworms are the birds' most common food source, but they feed on almost any invertebrate they encounter. The distal third of the upper mandible is hinged and can be raised, a major feeding adaption. When sensitive nerve endings near the tip of the bill detect prey — even when the bill is submerged in the ground — they can open the distal part of their bill and close it like a forceps to grab the prey item and pull it to the surface.

Even though woodcock have adapted to uplands, they are classified with shorebirds (the Scolopacidae family), which includes waders such as sandpipers, curlews, and godwits. Almost all of these shorebirds are white or light underneath, with dark patterns on their crowns, backs, tails, and wings. This color pattern, called counter-shading, is an adaptation for concealment. In a well-illuminated habitat, such as a lakeshore, the 3D shape of a bird is less clear because of shadow effects. Woodcock, on the other hand, are dark, with a mixture of brown, buff, gray, and black in irregular patterns that blend with the colors of the nest site and understory, creating excellent cryptic coloration.

When first seeing a woodcock, the viewer is struck by the unusual head. It appears large with no neck. Rusty lines broadly cross the black crown from side to side, while the crown stripes on other shorebirds, if present, run lengthwise. This is a quick ID tip if you're confused by woodcock and the similar-sized, long-billed Wilson's Snipe.

The eyes are positioned higher and farther back than the eyes of other birds, actually infringing on the brain space. Consequently, the woodcock brain is positioned back and more vertical in position. The location of the eyes allows woodcock to see their surroundings while their bills are probing the mud for earthworms. The extreme position of the woodcock eyes permits bilateral vision both in front and in back of the bird.

WHEN TO WATCH

American Woodcock displays begin in southern states in late December and peak in mid to late February in Texas, Louisiana, and nearby states. From the Midwest to the East, the birds display from mid-March to mid-May. Males display twice daily, at dawn and dusk.

Woodcock have a unique "weight-shift" style of walking whereby a bird will take a step, bring the body forward, and then shift its body back over the trailing foot and then back over the leading foot, then step out with the other foot, and the weight-shift continues. Sometimes there are several weight-shifts per step. Common explanations suggest that this pattern stimulates earthworm movement, which the woodcock can detect. But woodcock exhibit this behavior much of the time while walking — even when crossing a paved road or on snow.

If you have seen woodcock walking (or watched videos of them on YouTube), you may have noticed one other peculiar aspect of the behavior: While the body and legs are moving, their heads and bills remain perfectly still.

"Timberdoodles," as woodcock are often called, or "mud bats" or "bog suckers," nest in the eastern half of the United States and southern Canada, from the Atlantic coast to the Great Lakes, and winter in the southern half of that region. They prefer deciduous or mixed forests and require younger woodlots for courtship. The natural maturing of woodlots can be detrimental to woodcock success and may require special management.

American Woodcock are generally well hidden because they blend so well with their surroundings. To find them, however, is well worth the effort as they are handsome, unique, and masters of creative courtship. The timberdoodle is truly amazing.

Eldon Greij is professor emeritus at Hope College, located in Holland, Michigan, where he taught ornithology and ecology for many years. He is the founder of *Birder's World* magazine. You can find an archive of his "Amazing Birds" columns on our website at www.BirdWatchingDaily.com/news/science.

SPLENDID: A young Merlin peers from a perch in the author's neighborhood. Its parents hunted local songbirds to feed their brood.

Dealing with winged predators

It's OK to rethink your feeder setup if a raptor shows up

One spring morning a couple of decades ago, I heard horrible screeching and ran out to see a Cooper's Hawk ripping into a still-alive robin on my neighbor's back lawn. The robin was screaming, and his mate, facing the hawk head-on less than 3 feet away, screamed even louder until the hawk finally took off with its meal.

So many years later, I still feel a visceral sorrow remembering that robin, who was no generic bird — he was *my* robin. For a few years running, from the day he arrived in March through mid-July, he'd sing from the spire of my big spruce tree. The dry spring that year delayed nest building. (Robins need wet mud to construct their nests.) Thanks to rain the day before, the nest, right next to the house, was suddenly half-built, and now the male was dead.

I thought the female would move on, but the next morning, there she was, a new mate bringing her nest materials. He never sang from my spruce, and I didn't have the same affection for him, but the pair fledged two batches of young that year.

At the time, I was a raptor counter at Hawk Ridge Bird Observatory, less than a mile from my house, where we counted thousands of hawks winging past each fall. I often saw kestrels snatching dragonflies out of midair, Merlins tearing into swirling flocks of waxwings, or an accipiter ripping into a loose flock of jays, making me appreciate how difficult predators' lives are. Green darner dragonflies are abundant during kestrel migration, yet the little falcons often came up empty, and hawks aiming for birds had even worse luck. In Duluth, Cooper's Hawks are rarer than Northern Goshawks, so when I did see one at the ridge, I was always thrilled, never thinking of my poor robin.

Most of us human omnivores eat meat, but even avid hunters scavenge the majority of their protein at the grocery store rather than kill it themselves. A species that produces helpless babies must have a deeply rooted impulse to protect small beings. When we invite small birds to our feeders, we feel a similar instinct, and perhaps a moral imperative, to safeguard them.

When a pair of Merlins nested on my street, one often cruised down the block, dropping low, its wingtips barely clearing the sidewalk as it passed my house, staying completely out of sight of feeder birds until the moment it banked and cleared the corner hedge. Despite this well-executed maneuver, it usually came up empty, but after I saw it grab a siskin and then a junco, I closed down my feeders for the duration. I set out suet and seeds to attract birds, not to attract birds that might eat those birds. Even with no feeders around, both songbirds and raptors manage just fine.

I loved having the splendid little falcons in my neighborhood and felt exultant when I saw two adorable fledglings, proof of their parents' hunting success. There's a real inconsistency here, but I can't help it. I'm only human.

Laura Erickson, the 2014 recipient of the American Birding Association's highest honor, the Roger Tory Peterson Award, has written 12 books about birds and hosts the long-running radio program and podcast "For the Birds."

Laura Erickson

From our readers!

SQUIRREL GETS THROUGH

As the author of "Squirrel Wars" (*Birder's World*, December 1991), I've recently had reason to revisit it, with a slice of humble pie. A few days ago, I looked out my window to see a red squirrel resting comfortably on my bird feeder, snarfing down a day's worth of birdseed. It was the first breach (to my knowledge) of my barrier system, consisting of a 5-foot pole and 2-foot length of stovepipe.

Over-confidence had led me to ignore a slender maple branch that had intruded into the airspace above the feeder. A fatal oversight. I've since removed it and now see Little Miss Trouble forages on the ground below the feeder, having to settle for the discards that are routinely scraped out by finicky Blue Jays. Victory? The same can't be said, however, for what I assumed was a "squirrel-proof" feeder, which nevertheless routinely houses a brazen little red squirrel, who simply slips inside at her leisure and has her fill. So, just to confirm my observation in 1991 that "few feeders can be perfectly squirrel-proofed forever," it has taken nearly 30 years, but there it is: The squirrel may lose the battle, but eventually wins the war! — *Gary Tolliver, Portage, Michigan*

DON'T PUT OFF HEARING TESTS

As a hearing-aid wearer, I was very pleased to read Laura Erickson's "Out of Range" in *BirdWatching*, February 2021. I've been using hearing aids since February 2020.

The soundscape has always been of prime importance to my birdwatching: For land birding in particular, I'd often identify maybe as many as 80-90 percent of the birds I'd observe by voice alone. Through early 2019, my annual hearing tests indicated some hearing loss at higher frequencies but still within normal range;


attractingbirds BY LAURA ERICKSON

SEE-SEE-SEE! A Golden-crowned Kinglet sings in a spruce tree. Its song is one of the first that people lose the ability to hear as they age.

Out of range

Hearing aids can help us hear high-frequency birdsongs

Eh? What's that you say, little bird?
My saddest moment as a birder was when, about 10 years ago, I saw a Golden-crowned Kinglet singing. The bird was only about 10 feet away as I watched its tiny body vibrate with sound as it opened and closed its beak, but I couldn't hear a note.

According to the Mayo Clinic, about a third of Americans between the ages of 65 and 75 suffer some hearing loss. For most, the loss is at higher frequencies rather than across the board, so we usually can hear someone's lower-frequency vowel sounds after we've lost the higher-frequency consonants, making them sound as if they're mumbling.

As a birder, I was heartbroken to lose that Golden-crowned Kinglet along with Brown Creepers, Cedar Waxwings, and Blackburnian Warblers. But birdsong is important to a lot more people than us birders. One hearing aid company, Widex, conducted a survey of people in eight different countries across the globe and found that birdsong was among the top three most valued sounds across all cultures, along with music and human voices. Every country surveyed listed birdsong as the top natural sound, and in the U.K., birdsong ranked above music and human voices!

In April 2015, I visited an audiologist. Before the appointment, I looked at spectrographs of some birdsongs I couldn't hear anymore — the frequencies were mainly above 6,000 Hz. (*The Warbler Guide* by Tom Stephenson and Scott Whittle has spectrographs for every North American warbler, a family with extremely high-frequency songs as well as mid-range ones.) My test results confirmed severe hearing loss above that frequency but only minimal to moderate loss at mid-ranges.

The Phonak digital hearing aids my audiologist programmed for me, as well as other high-end ones, have two settings easily toggled between. The first is for everyday use. For me, that's the ideal setting for hard-to-hear movie or TV dialogue, noisy restaurants, or soft-spoken companions on car trips. My second setting is programmed for birds.

The first bird I heard through them was a robin. I thought I'd been hearing robins just fine, but with the hearing aids, their caroling sounded much more brilliant — high-frequency overtones contribute to the beautiful quality of their song. And now, instead of amorphous background noise with a few identifiable sounds, I can pick out individual birds singing simultaneously again. In the scene way that eyeglasses make our vision clearer, digital hearing aids make sounds clearer.

The hearing in one of my ears has always been more sensitive than the other. My hearing aids, each programmed for its own ear, balance the sound, *and so now* hearing board birds is easier than when I was in my 20s. Good digital hearing aids also effectively suppress noisy background sounds as they boost other sounds, making birdsongs clearer in high wind or along a shoreline with crashing waves.

I still can't have some high-frequency birdsongs unless the bird is very close, but I'm no longer watching Golden-crowned Kinglets without hearing their lovely song.

Laura Erickson, the 2014 recipient of the American Birding Association's highest honor, the Roger Tory Peterson Award, has written 12 books about birds and hosts the long-running radio program and podcast "For the Birds."

my audiologist indicated no need for hearing aids — yet. And that was consistent with my birdwatching experiences: I seemed to be hearing everything others would hear. But by the end of 2019, at times I wasn't hearing several species (e.g., Sedge Wren, Blue-gray Gnatcatcher) that companions standing right next to me could. I knew hearing aids were in the offing — my next hearing test confirmed that, and I got the hearing aids that very day.

But bird voices were not the only factors of import: When your brain doesn't get its usual auditory stimulation, it declines. The link between hearing loss and dementia (and other conditions) is well known (lots of info on the web about this). This is one of the most important things you should know about hearing loss and hearing aids. I had firsthand experience with that, as my mother's dementia was undoubtedly greatly exacerbated by her refusal to get hearing aids for at least 10 years after hearing tests indicated she needed them. So, whenever someone — birdwatching friend or not — mentions that they seem to be losing a bit of their hearing, I don't hesitate to make them aware of this. It may be preaching, but it's too important to let pass.

Now, I again can hear birds I'd been missing. But some I hear a bit differently, especially at a distance. (For example, is that chip I'm hearing a cardinal or an Orange-crowned Warbler?) That's the nature of hearing aids; not all the overtones come through exactly as you formerly experienced, so there's a bit of acclimation involved. But it's been wonderful since I first got the hearing aids. I occasionally even hear something that my companions with good hearing don't, as I can adjust the volume to a pretty high sensitivity. (I have to be on my toes to lower the volume quickly if, for example, a Carolina Wren belts out its song from close range.)

So, if you suspect you have hearing loss, do not put off getting tested. Do it for your enjoyment of bird sounds and for your mental health. — *Bob Honig, Waller County, Texas*

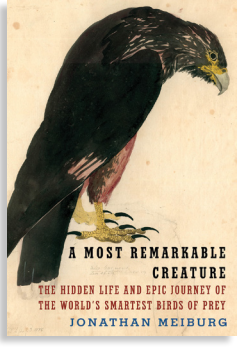
RESPONSIBLE BIRDING

I appreciated the editor's letter in the February 2021 issue (about COVID-safe birding practices). People often talk about responsible birding in context of the birds but not often enough about their fellow birders. Just wanted to pass on some kind words of praise. Please keep up the good work. — *Mark Fenter, Attleboro, Massachusetts*

Write to us!

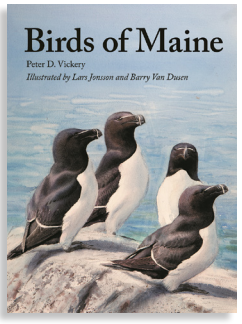
Send a letter to the editor at http://bit.ly/WriteALetter or mail@birdwatchingdaily.com, or write to BirdWatching Letters, 35 Braintree Hill Office Park, Suite 101, Braintree, Massachusetts 02184. Please include your name and postal address. We may edit your letter.

A Most Remarkable Creature, *by Jonathan Meiburg, Knopf Doubleday, 2021, hardcover, 384 pages, $30.*



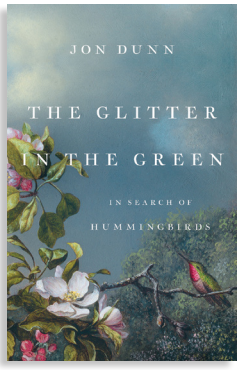
In this book, ornithologist and musician Jonathan Meiburg tells the story of the Striated Caracara, a bird that captivated Charles Darwin during his voyage around South America. Meiburg, who leads the acclaimed band Shearwater, reveals the wild, fascinating story of the caracara's history, origins, and possible futures. He takes readers from the fog-bound coasts of the Falklands to tropical forests in Guyana to falconry parks in the English countryside, where captive caracaras perform incredible feats of memory and problem-solving.

Birds of Maine, *by Peter D. Vickery, illustrated by Barry Van Dusen and Lars Jonsson, Princeton University Press, 2020, hardcover, 664 pages, $45.*



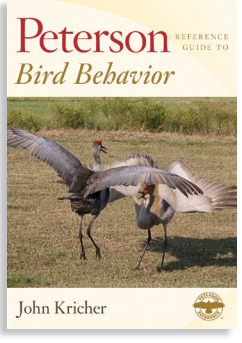
This overview of the birdlife of Maine covers all 464 species found in the state. Written by the late Peter Vickery in cooperation with a team of leading ornithologists, the guide offers a detailed look at the state's dynamic avifauna — from the Wild Turkey to the Arctic Tern — with information on migration patterns and timing, current status and changes in bird abundance and distribution, and how Maine's geography and shifting climate mold its birdlife. The book was edited by Scott Weidensaul and Barbara Vickery.

The Glitter in the Green: In Search of Hummingbirds, *by Jon Dunn, Basic Books, 2021, hardcover, 352 pages, $16.99.*



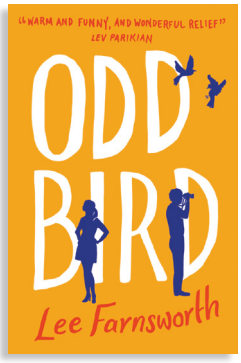
In this book, British natural history writer, photographer, and wildlife tour leader Jon Dunn takes readers on a journey throughout the range of hummingbirds: from near the Arctic Circle to near-Antarctic islands. He encounters birders, scientists, and others as he unravels the story of one of Earth's most charismatic bird families. The birds, revered by humans, exist on a knife-edge, fighting for survival in boreal woodlands, dripping cloud forests, and subpolar islands.

Peterson Reference Guide to Bird Behavior, *by John Kricher, Houghton Mifflin Harcourt, 2020, hardcover, 360 pages, $35.*



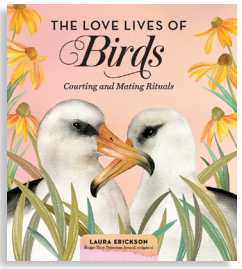
John Kricher, a professor at Wheaton College who taught ecology, ornithology, and vertebrate evolution for 48 years, has produced a vital new volume in the Peterson Reference Guide series with this comprehensive look at bird behavior. The easy-to-understand text covers topics such as birds' annual cycles, feathers and flight, social behaviors, pair bonding and nesting, and much more. If you have questions about why birds do what they do, this book has the answers.

Odd Bird, *by Lee Farnsworth, Farrago Books, 2020, paperback, 320 pages, $12.99.*



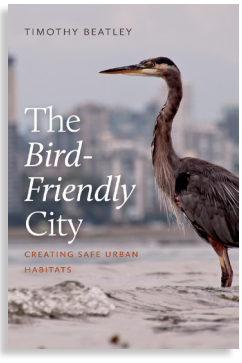
If you enjoy fiction that incorporates birding and ornithology, check out this romantic comedy from British author Lee Farnsworth. The main character, Simon Selwood, studies the courtship behaviors of birds but is hopeless when it comes to finding human love. Along comes Kim, who doesn't have an interest in birds and doesn't seem too interested in Simon either, but he is keen on her. The student of the Pied Flycatcher and other species uses his knowledge of how birds attract mates as well as some advice from his best friend Phil to pursue a relationship with Kim.

The Love Lives of Birds: Courting and Mating Rituals, *by Laura Erickson, Storey Publishing, 2020, hardcover, 152 pages, $19.95.*



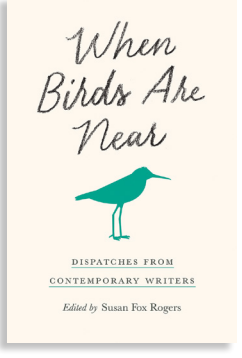
Our friend and Contributing Editor Laura Erickson's latest book is a survey of the breeding behaviors of 35 bird species, including Greater Prairie-Chicken, Satin Bowerbird, and Great Horned Owl. Erickson's brief and informative prose about the varied ways birds pair up and breed complements stunning illustrations by artist Veronica B. Lilja. For example, we learn that for a female Limpkin, apple snails brought by a male "heighten her romantic impulses," and that Adélie Penguin pairs spend six weeks building a platform of stones that the female then lays her eggs upon.

The Bird-Friendly City: Creating Safe Urban Habitats, *by Timothy Beatley, Island Press, 2020, paperback, 272 pages, $35.*



The author of this book is an expert in environmental planning and policy at the University of Virginia and a longtime advocate for intertwining the built and natural environments. Here he takes readers on a global tour of cities that are reducing the risks birds face in urban areas. We visit Phoenix, New York, Toronto, and many others. Beatley argues that it's not enough to simply minimize harm for birds: We need to design cites so that birds are actively welcomed as part of the urban fabric.

When Birds Are Near: Dispatches from Contemporary Writers, *edited by Susan Fox Rogers, Cornell University Press, 2020, paperback, 304 pages, $22.95.*



In this dazzling literary collection, writers explore and celebrate their lives with and love for birds — detailing experiences from Alaska to Bermuda, South Dakota to Panama. The book gives us the chance to walk alongside luminaries such as J. Drew Lanham, Jonathan Rosen, Rachel Dickinson, Katie Fallon, Jonathan Franzen, and Donald Kroodsma, reading their field notes as well as their reflections on life, love, loss, and the wonder of birds.

Color of Birds

PHOTO CONTEST

Last summer, we conducted our Color of Birds 2020 photo contest, inviting submissions to celebrate the amazing colors of the world's birds. We received more than 725 entries — images of hummingbirds, macaws, warblers, flamingos, and other beautiful birds.

On our website in December, we announced the finalists and honorable mention photos, and a week later, we presented the three winning images, which are shown on the following pages.

Thanks to everyone who submitted photos! To see all of the finalists and honorable mention images, visit www.birdwatchingdaily.com/photography/featured-galleries.

FIRST PLACE

Bob Graham of Kingsville, Ontario, won first place with this photo of a male Orange-breasted Bunting. The species is endemic to western Mexico. Graham and his wife are retired and spend much of the year in Mexico. They were renting a house on Troncones Beach in February 2020, when Bob photographed the bunting while it splashed in a pond.

The bird certainly lives up to the name of our contest. Males of the species have a pale green crown, turquoise blue nape and upperparts that are often tinged with green, and a turquoise tail. The lores, eye-ring, and underparts are canary yellow, deepening to golden-orange on the breast.

"It was made doubly beautiful by its reflection," Graham says.

Ernie Mastroianni, one of our judges and a former photo editor of *Birder's World* magazine, praised the photo: "Great light, nicely composed, technical quality high, plus a compelling, warm palette. The environment of water and droplets is a plus."

Graham used a Sony Alpha SLT-A58 camera and a 300mm lens with a 1.4x teleconverter.

SECOND PLACE

Philip Witt of Somerset, New Jersey, received second place with this stunning image of a Scarlet Macaw. The bird was drinking from a clay lick near the Napo River in Ecuador. Witt made the photo on February 24, 2020. The clay lick is within Yasuní National Park, which protects nearly 10,000 square kilometers of rainforest in eastern Ecuador.

"We waited over two hours in a blind for the macaws to arrive at the clay lick, and our patience was finally rewarded with fantastic sightings of the birds drinking, nicely set off by the dark entrance to a cave," Witt says.

Mia McPherson, a bird photographer and one of our judges, says, "the rich, natural colors of the Scarlet Macaw drinking at the clay lick are enhanced by the low pose of the macaw, its behavior, and the water droplets falling from its bill. This captivating image not only shows the beauty of the bird but its environment and behavior."

Witt used an Olympus M1X camera and an Olympus 300mm f/4 lens.

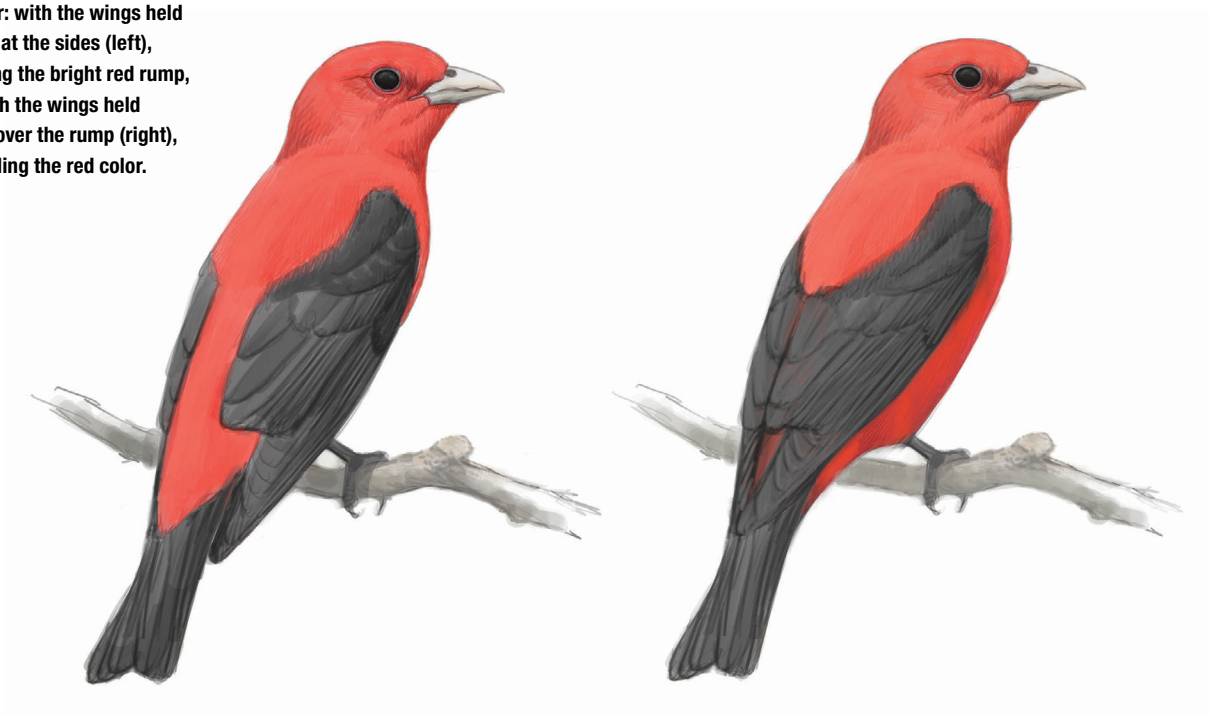
THIRD PLACE

Ken Archer of Twin Falls, Idaho, took third place with this photograph of a White-necked Jacobin spreading its tail during a rain shower. He took the photo in February 2015 at the Asa Wright Nature Centre on the island of Trinidad, which lies off the coast of Venezuela.

Archer was with a small group of photographers when "we were surprised by a sudden afternoon shower. While rushing to cover our equipment and ourselves with rain gear, I realized that many birds had come out of the thick underbrush to bathe in the warm spring shower. Almost every open branch had a bird on it, enjoying the rare shower this time of year. Although birds were all around, I was attracted to this particularly active male White-necked Jacobin enjoying the shower, giving us the unique perspective of looking down on the hummingbird. The shower only lasted a few short minutes, but the magical moment was captured forever."

He used a Canon 7D Mark II camera and Canon 600mm f/4 lens with a 1.4x teleconverter on a tripod.

▶ View all of the finalist and honorable mention images at **www.birdwatchingdaily.com/photography/featured-galleries**



Two views of a male Scarlet Tanager: with the wings held loosely at the sides (left), exposing the bright red rump, and with the wings held higher over the rump (right), concealing the red color.

The bottom line

What you should know about using rump color as a field mark

A bright and contrasting flash of color on the rump is a prominent feature of many bird species and also a useful field mark. Yellow-rumped Warblers are distinguished from almost all other small songbirds by their contrasting yellow rump patch, and the White-rumped Sandpiper is among a small number of sandpiper species with white rumps, and so on. But the telltale flash of color from the rump feathers of these species can be completely hidden when the birds are perched. Understanding how and when these feathers are visible is critical to using these field marks with confidence.

The rump feathers are body feathers — relatively short and normally shaped feathers growing from the lower back and (with other body feathers) forming a streamlined shell around the entire body. The wings fold up against the sides of the body, for the most part resting on top of this smooth shell of body feathers.

The visibility of the rump feathers depends mainly on the position of the folded wings. In all species, the wings can be held relatively high and tight, with the wingtips meeting above the tail, or they can be held lower and more loosely, sliding to the side with the wingtips alongside or below the tail. The wings move, but the body feathers stay in place. When the wings droop in this way, they move down the side of the body, leaving a gap on the back where the rump feathers can be seen.

Understanding how the wings can control the visibility of the rump patch makes clear that it is no coincidence that a brightly colored rump is a common feature of many species. It's a valuable signal, available when it's needed but hidden at will. Of course, the bright rump patch becomes very visible when a bird takes off, and this also has some benefits. Research has shown that a sudden flash of color in the instant before a predator strikes can cause the predator to flinch, possibly allowing the prey to escape.

David Allen Sibley is the author of *The Sibley Guide to Birds, Second Edition, What It's Like to Be a Bird*, and other books. In our last issue, he wrote about watching waterbirds in winter.

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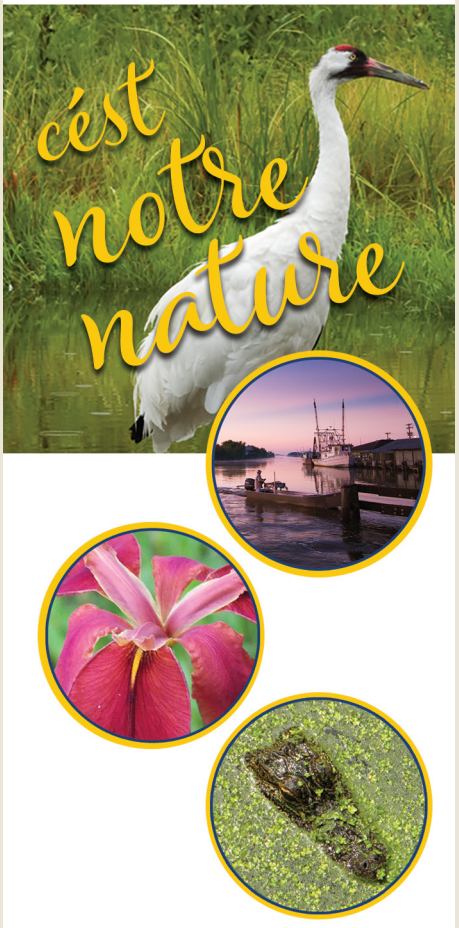

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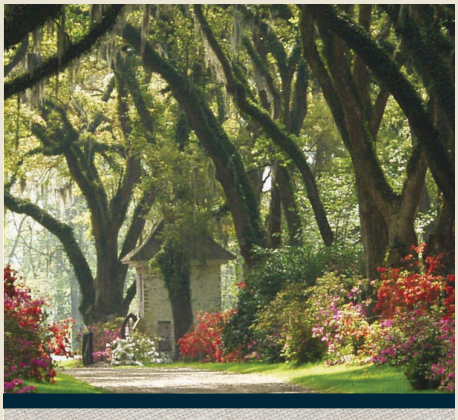

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