BIRDCONSERVATION

The Magazine of American Bird Conservancy

WINTER 2018-2019

Scaling Up Migratory Bird Conservation: A New Approach?

While there is more to be learned about the threats facing many species of migratory birds, we already know enough to target conservation work in ways that will help some of the fastest-declining species. For example, species such as the Wood Thrush and Long-billed Curlew face habitat loss and degradation on both breeding and wintering grounds, across large areas of habitat.

How can we deliver conservation at a scale that will turn their populations around? We will ultimately need to positively influence millions of acres of land through conservation and restoration. In the United States, we have some programs, including Farm Bill conservation incentives, that are large enough to significantly influence bird populations at scale. Outside the U.S., though, few programs provide dedicated funds for migratory birds, and Latin American governments are often already at full stretch trying to conserve their existing parks and other protected areas.

But what if bird conservation could generate revenue? ABC staff are piloting a new approach to habitat restoration to see if we can actually generate revenue from bird-friendly habitat management. For example, a North Dakota ranching family might choose to move their herd around the ranch, helping to create a diverse grassland for Bobolinks and Long-billed Curlews, later selling their top-quality beef at a premium.

What if bird conservation could generate revenue?

I have already seen some small-scale "bird and business ventures" first hand, and ABC is now working with landowners to develop pilot projects that could be taken to scale. But can we step it up a notch or two beyond this? What if we were to encourage investment in such projects by private capital: funding habitat restoration and getting paid back with interest? In Central America, where many of our migrant songbirds winter, forest loss is severe, and we know there is not currently enough philanthropic or government funding to turn the situation around. ABC is piloting a program in Guatemala that provides bridge funding for landowners to move from virtually sterile pasture to shady, bird-rich chocolate, black pepper, cardamom, and mahogany plantations — in places that provide excellent habitat for long-distance migrants such as the Wood Thrush.

By piloting test projects like this, ABC hopes to learn how to develop a bird-friendly agroforestry operation with the potential to generate returns for investors, and which also provides proof of concept on the financial, legal, and logistical protocols that larger investors would expect. ABC recently signed its first contract to support a habitat restoration project designed to pay us back with interest. In our case, we will reinvest in more habitat protection. What would you do? Are you intrigued? If you are, please watch this space, as I will report further on what we discover!

Thank you for supporting and partnering with ABC.

Michael J. Parr, President
American Bird Conservancy

COVER: Whooping Crane by Michael J. Parr

TOP: Don Francisco Lopez, a Guatemalan landowner experimenting with a more bird-friendly approach to farming (black pepper, in this case) with the help of ABC and local partners. Photo by Michael J. Parr, August 2016

AMERICAN BIRD CONSERVANCY

ABC is dedicated to conserving birds and their habitats throughout the Americas. With an emphasis on achieving results and working in partnership, we take on the greatest problems facing birds today, innovating and building on rapid advancements in science to halt extinctions, protect habitats, eliminate threats, and build capacity for bird conservation.

A copy of the current financial statement and registration filed by the organization may be obtained by contacting: ABC, P.O. Box 249, The Plains, VA 20198. 540-253-5780, or by contacting the following state agencies:

Florida: Division of Consumer Services, toll-free number within the state: 800-435-7352.

Maryland: For the cost of copies and postage: Office of the Secretary of State, Statehouse, Annapolis, MD 21401.

New Jersey: Attorney General, State of New Jersey: 201-504-6259.

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BIRDCONSERVATION

The flashy Nacunda Nighthawk can be seen at several ABC-supported reserves, including Bolivia's Barba Azul. Photo by Greg Lavaty

DEPARTMENTS

TOP: Blue-throated Macaws by Sebastian Herzog

First Protected Area for Brazil's Gray-breasted Parakeet

On August 17, the Ceará state government established the 97-acre Cara-Suja Refuge in the heart of the Baturité Mountains in northeastern Brazil. *Cara-Suja* ("dirty face") is the Portuguese name for the Gray-breasted Parakeet, an Endangered, extremely localized species confined to a few upland forests in northeastern Brazil.

The creation of this conservation area is the culmination of a decade of conservation work by ABC's Brazilian partner Aquasis. The refuge will house an Aquasis administration office and an interpretation center, while at the gate will sit an environmental police office.

Located in isolated mountains rising from a large area of dry forest called the *Caatinga*, 60 percent of the reserve is covered by an unusual combination of Atlantic and Amazonian forest. The remaining 40 percent consists of open areas targeted for reforestation. The reserve protects not only the Gray-breasted Parakeet, but also the Spot-winged Wood-Quail, the isolated Baturité population of Gould's Toucanet, and other wildlife.

Aquasis will sign a long-term management agreement with local authorities to manage the refuge, including conducting educational trips for local school children.

ABC supported the Aquasis Gray-breasted Parakeet educational program, and, in 2018, helped to purchase a vehicle that will enable staff to access remote areas as the Gray-breasted Parakeet population expands.

The main threats to the Gray-breasted Parakeet are illegal trade and habitat destruction. By establishing an environmental police station in the area and protecting a large forested reserve, both of these threats will be reduced.

Brazilian partner Aquasis will manage the new refuge for the Endangered Gray-breasted Parakeet in northeastern Brazil. Photo courtesy of Aquasis

Site of the Cara-Suja Refuge.

Welcome News for Jones Beach Piping Plovers

Following an August 4, court-ordered settlement, Piping Plovers at Jones Beach State Park in New York will now be protected from feral cats. In March 2016, ABC filed a lawsuit to protect the birds, alleging a violation of the Endangered Species Act (ESA) by the New York State Office of Parks, Recreation, and Historic Preservation for facilitating feral cat colonies near Piping Plover nest sites within the park.

The settlement dictates that all cats living within Jones Beach State Park will be humanely trapped and removed to a sanctuary by March 31, 2019. If necessary, a limited number will temporarily live within a fenced enclosure inside the park. Any new cats appearing in the park will be humanely trapped and removed.

ABC President Mike Parr says, "We are delighted to reach this agreement. By removing the cat colonies, New York State Parks has ensured a much safer environment for the plovers to help them nest successfully in the future."

Piping Plovers nest on open sand just above the beach tideline and are vulnerable to disturbance and predation. The Atlantic Coast population is listed as Threatened under the ESA and as Endangered on the New York state list.

ABC is grateful to the Goodwin Procter law firm, which handled this case on a pro bono basis.

Piping Plovers are now safe from feral cats at Jones Beach, New York. Photo by Matt Filosa, Shutterstock

If you know of feral cat colonies threatening endangered species in public parks, please contact ABC's Director of Invasive Species Programs Grant Sizemore at **gsizemore@abcbirds.org**.

Brazil First to Enact a National Decree on Alliance for Zero Extinction Strategy

Brazil has become the world's first nation to adopt a national policy on the Alliance for Zero Extinction (AZE), which identifies and maps sites holding the last known populations of highly threatened species. In July, the Ministry of Environment of Brazil published an ordinance recognizing AZE sites as an official tool to implement national policies for saving the country's most imperiled species.

Araripe Manakin and other species will benefit from the Brazilian Alliance for Zero Extinction. Photo by Ciro Albano

Brazil is home to nearly 150 critical sites that comprise the last habitats for more than 200 Endangered species, including birds such as the Araripe Manakin, Stresemann's Bristlefront, and Lear's Macaw, all of which ABC is currently working with local partners to protect.

Called the Brazilian Alliance for Zero Extinction (BAZE), the initiative was inspired by the global AZE, which, led by ABC, brings together more than 90 nongovernmental biodiversity conservation organizations and engages with governments, multilateral institutions, and the private sector. ABC has worked with partners in both government and nonprofit organizations in Brazil on AZE conservation, and looks forward to continued collaborations to advance AZE site protection in Brazil and throughout the Americas. Brazil has also secured a commitment for additional nations to consider adopting the AZE approach within their borders.

Work on the global AZE program is supported by the Global Environment Facility in conjunction with ABC, BirdLife International, and the United Nations Environment Program.

Threatened Birds Find More Room in Northern Peru

The Endangered Long-whiskered Owlet and 23 other globally threatened bird species got a boost in September, when ABC funded the purchase of two key properties that add 104 acres to the Abra Patricia Reserve. The acquisitions were completed by Asociación Ecosistemas Andinos (ECOAN), ABC's partner in Peru, and bring the reserve's total area to 25,250 acres of cloud forest. The new acreage was private property within the reserve, alongside a highway that runs through it. It now falls under ECOAN's protection.

In 2005, ECOAN established the reserve with support from ABC. Since then, ECOAN and ABC have worked together to expand it. The Abra Patricia Reserve sits adjacent to the Alto Mayo Protected Forest and is home to more than 527 bird species, including many Peruvian endemics such as the owlet and the Ochre-fronted Antpitta. The Alliance for Zero Extinction (AZE) declared the reserve a critical site for these two species. (For more on AZE, see the previous story.) Birders come from around the world to the Owlet Lodge, where, as an added attraction, both Rusty-tinged and Chestnut Antpittas make daily appearances at newly installed feeding stations stocked with worms.

The reserve also provides wintering habitat for several songbirds that nest in North America, including the Swainson's Thrush, Blackburnian Warbler, and Canada Warbler. Among the reserve's myriad flora and fauna is the *quina* or cinchona, Peru's national tree and a natural source of anti-malarial quinine; many rare orchids; and the Critically Endangered Yellow-tailed Woolly Monkey. In addition to protecting this diverse ecosystem, Abra Patricia protects the local watershed, benefiting local communities as well.

To read about a large new community reserve established nearby, see page 11.

Support for the land protection and acquisition was generously provided by David and Patricia Davidson, Field Guides, Judith Randal, Larry Thompson, Laurie Dann, Michael and Lorna Anderberg, Mohammed bin Zayed Species Conservation Fund, Quick Response Biodiversity Fund, Sandy Komito, and an anonymous donor.

Milwaukee Bucks Open the World's First Bird-friendly Arena

A professional basketball team with an eye on the environment, the Milwaukee Bucks designed their new arena, Fiserv Forum, to be the world's first certified-bird-friendly sports and entertainment venue. Fiserv Forum is registered with the certification goal of LEED Silver®, a designation that will reflect meeting the third most difficult LEED standard level.

Although the full application is currently pending, the 17,500-seat arena has been approved for the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program Bird Collision Deterrence credit (SSpc55), which was created in partnership with ABC. The Bucks' design uses nonreflective glass that is visible to birds, programmed lighting that turns off overnight during migration, and includes a plan to monitor the arena for window collisions in partnership with the Wisconsin Humane Society.

Bucks' ownership took other steps to reduce the arena's environmental footprint, including landscaping with native plants, starting a composting program, and not dispensing plastic straws and other petroleum products. A number of organizations played critical roles in the process, including Bucks' leadership, Populous, CAA ICON, Eppstein Uhen, Mortenson, M-E Engineers, HNTB, France Sustainable Solutions, Bird City Wisconsin, and ABC.

Window collisions at homes and low rise buildings — which account for the majority of U.S. bird collisions — can be prevented.

To learn how you can inexpensively apply attractive treatments to your windows to minimize the threat to birds, visit **birdsmartglass.org**

Milwaukee Bucks/Kenny Yoo

Paul B. Jones

Cliff and Cactus Bird: **Red-fronted Macaw**

Scientific Name: *Ara rubrogenys*

Population: Approximately 1,000

IUCN Status: Endangered

Trend: Stable

Habitat: Subtropical dry scrub in dry inter-Andean valleys in south-central Bolivia

Like other macaws, Red-fronteds are large, loud, and beautiful. Although mostly green, in flight, this species flashes orange below its wings and blue above. In the right spot, it's possible to see flocks of Red-fronted Macaws stream overhead from riverside cliffs where they nest and roost.

Red-fronted Macaws eat seeds and fruit, particularly cactus fruits, which provide nourishment and moisture in their arid habitat. In turn, the macaws serve as effective seed dispersers for cacti, many of which are unique to the region.

Unfortunately, native food sources, including the seeds of five declining inter-Andean tree species, are now scarce, and the birds frequently feed in farm fields, especially those planted with corn. This sometimes puts them literally under the gun.

Local Pride — and Prejudice

One of the most localized macaws, the Red-fronted Macaw faces many dangers, including persecution as a crop pest by farmers, and for the pet trade by wildlife traffickers. Habitat loss from agriculture, livestock grazing, and firewood collection results in increasingly scarce nesting and food resources — made worse by severe drought in recent years. Pesticides sprayed on fields where they feed also harm the birds.

To counter these threats, ABC and our Bolivian partner Asociación Armonía (Armonía) launched an awareness campaign with local communities to spark regional pride in this Bolivian endemic, and to soften resentment felt by farmers when the birds visit their corn fields. In addition, Armonía has helped farmers grow drought-resistant papayas, which don't attract the birds. ABC and Armonía also searched for new colonies and monitored those that are known.

Better public awareness of the macaw's plight, better enforcement of wildlife laws, and increased conservation tourism have led to a reduction in the number of birds captured for the pet trade. The macaw's image now graces government buildings and vehicles, and inspired a large statue in one regional city.

More Promising Developments

Experts now believe the once-declining population is stable, and new and ongoing initiatives will keep this positive momentum going. Since 2009, the largest known Red-fronted Macaw breeding site has been protected, a joint effort among Armonía and three local communities. In 2019, ABC and March Conservation Fund will support further tourism development for the Red-fronted Macaw Reserve.

In addition, ABC and Armonía plan to work with local communities to start a nursery of important macaw food trees that will provide the birds with more feeding and nesting opportunities, away from farm fields. ABC and Armonía also plan to continue searching for colonies and monitoring nesting success, and to work with municipal and national governments to prevent further illegal capture of the birds.

To see how you can visit and see the macaws: **conservationbirding.org/redfrontedmacaw.htm**

YOU CAN CHANGE THE STORY FOR BIRDS

With YOU in our corner, fighting alongside us, birds can come back from the brink. Habitats can be restored, and we can change the story in favor of birds … if YOU take action.

PLEASE help us raise $1 million for birds by December 31, 2018.

We are up against some tough challenges. Birds such as Brazil's Blue-eyed Ground-Dove number as few as 20 individuals. The Wood Thrush and other familiar birds are 50 percent less common today than they were 50 years ago. Habitat is disappearing, wind turbine-related bird mortality is rising, the Endangered Species Act is under attack…and now we are learning that the overall number of birds that we have lost since 1970 is staggering: a net loss of 2 billion birds from the North American breeding population.

But with YOU in our corner, fighting alongside us, birds can come back from the brink. Habitats can be restored, and we can change the story in favor of birds … if YOU take action.

PLEASE help us raise $1 million for birds by December 31, 2018.

Thanks to several generous major donors, we already anticipate raising $500,000 by December 31. We are asking you to step up to a 1:1 match. Together, we can double this amount to reach our goal of $1 million by year's end.

Will you give a generous gift today?

You have been right there with us, every step of the way — with every bird species we save, every acre we purchase, and every tree we plant. We do a lot together, but we can do so much more.

ABC is the organization that gets results for birds, and you can make the difference between…

…another bird lost forever, like the Great Auk…or a success story like the Bald Eagle.

…the disappearance of Brazil's Atlantic Forest…or restoring and protecting endangered birds like the Gray-breasted Parakeet.

…a reflective glass skyscraper that draws hundreds of birds to their deaths…or a bird-friendly building designed by an architect educated by ABC.

Be bold. Give big. Help us reach our $1 million goal, and we can write a *better* story for birds.

Please use the enclosed envelope to make a gift, or give online at **abcbirds.org/story.**

TOP: Long-billed Curlew by Dennis W. Donohue, Shutterstock
LEFT: Varied Thrush by Tim Zurowski, Shutterstock

BIRDS in BRIEF

Harpy Eagle Guitar Benefits ABC's Brazil Conservation Efforts

A one-of-a-kind "Harpy Eagle guitar" was auctioned online in October. The guitar, the product of a collaboration between ABC supporter Michael Reid, PRS Guitars, and world-renowned bird carver Floyd Scholz, fetched $13,100, all of which was donated to ABC's Brazil program. Made of native Brazilian *Peroba-do-campo* wood recovered from 19th-century Brazilian ranch houses, the guitar sports a striking Harpy Eagle carving.

Photo courtesy of PRS Guitars

Whooping Crane and chick by Scott Nelson, Shutterstock

Record Number of Whooping Cranes Hatch in Louisiana

In 2011, a satellite Whooping Crane population was established in Louisiana as a hedge against extinction for the only wild, migratory flock, which winters in Texas. The first successful Louisiana hatching occurred in 2016, but 2018 was a record year, with five birds hatched on private property. Landowners worked with state conservationists to ensure the birds' safety. Prior to this reintroduction, wild Whooping Cranes had not inhabited Louisiana since the 1940s.

Wading Bird Rebound Fuels Everglades Restoration Hopes

In 2017 and 2018, unusually heavy rains soaked South Florida, creating ideal nesting conditions for many water birds. A 2017 South Florida Water Management District report tallied more than 3,800 nests of the Threatened Wood Stork, almost twice the ten-year average.

Cheered by bumper crops of storks, ibises, and egrets, conservationists point out that this anomaly could become the norm if Everglades restoration efforts can garner enough funding and support in the years ahead. For decades, canals and other development have restricted Everglades water flow, resulting in water levels chronically lower than in the past.

Wood Storks by Brian Lasenby, Shutterstock

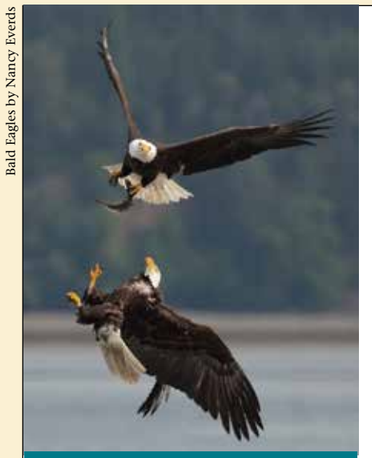
'Akikiki by Robby Kohley

First Hatching of Rare Hawaiian Bird in Captivity

Conservationists are hailing the first-ever successful captive breeding of the Endangered 'Akikiki, a small, ash-backed, white-bellied songbird found only in remote forests on Kaua'i.

The captive-breeding program began in 2015 and is a joint effort of the Kaua'i Forest Bird Recovery Project, State of Hawai'i Department of Land and Natural Resources, U.S. Fish and Wildlife Service, and San Diego Zoo Global.

Forest loss, introduced avian malaria, and non-native mammals such as rats have contributed to steep declines in this Hawaiian honeycreeper and the island's other native birds.



Bald Eagles by Nancy Everds

Eastern Black Rail and Black-capped Petrel Receive ESA Decisions

In October, the U.S. Fish and Wildlife Service (USFWS) announced that the Eastern Black Rail should be considered for Endangered status and the Black-capped Petrel for Threatened status, initiating a year-long listing decision process.

"ABC welcomes the decision to consider listing the Eastern Black Rail and is committed to working with the USFWS to restore habitats to bring back rail populations under the Endangered Species Act," said Steve Holmer, Vice President of Policy for ABC. "The Black-capped Petrel merits greater protection — Endangered status that protects it from all sources of harm is needed to halt its population slide."

Black Rail by Brian Small

Chilean Woodstar by Jorge Herreros

Chilean Woodstar Gets Reserve

The Chilean Government approved the Chilean Woodstar Natural Monument at Chaco in October. The new protected area, part of Chile's national system of protected areas, is small, just 27 acres, but provides important nesting and feeding habitat for this Critically Endangered hummingbird. The woodstar's population hovers dangerously close to extinction: An estimated 300 remain — down from 1,500 in 2002.

The Chilean Woodstar was found in just four northern Chilean valleys, but has disappeared from two of these due to habitat loss and competition with the Peruvian Sheartail, a hummingbird that has been expanding its range into the area.

Local Community Protects Nearly 40,000 Acres of Peruvian Cloud Forest

In October, the community of Yambrasbamba in northern Peru, working with Asociación Ecosistemas Andinos (ECOAN), ABC, and the Andes Amazon Fund, established a large new reserve protecting 39,915 acres of cloud forest and wetland.

Ochre-fronted Antpitta by Sam Woods, Tropical Birding

Called the Monte Puyo (Bosque de Nubes) Private Conservation Area (PCA), the reserve will be managed by the community. It has been recognized by the Peruvian national government as part of the country's protected area system. More than 500 bird species live inside the new PCA, including the Endangered Ochre-fronted Antpitta.

Securing a Rare Bird's NEST EGG

A new Bolivian reserve protects key nesting areas for the Critically Endangered Blue-throated Macaw

By Meredith Swett Walker

Rare bird lost, rare bird found, rare bird gone forever.... Until recently, many feared this was the Blue-throated Macaw's tale. Although first described in the early 1800s, this almost-three-foot-long, turquoise-and-yellow parrot was thought by some to be extinct in the wild. Then, in 1992, it was found again.

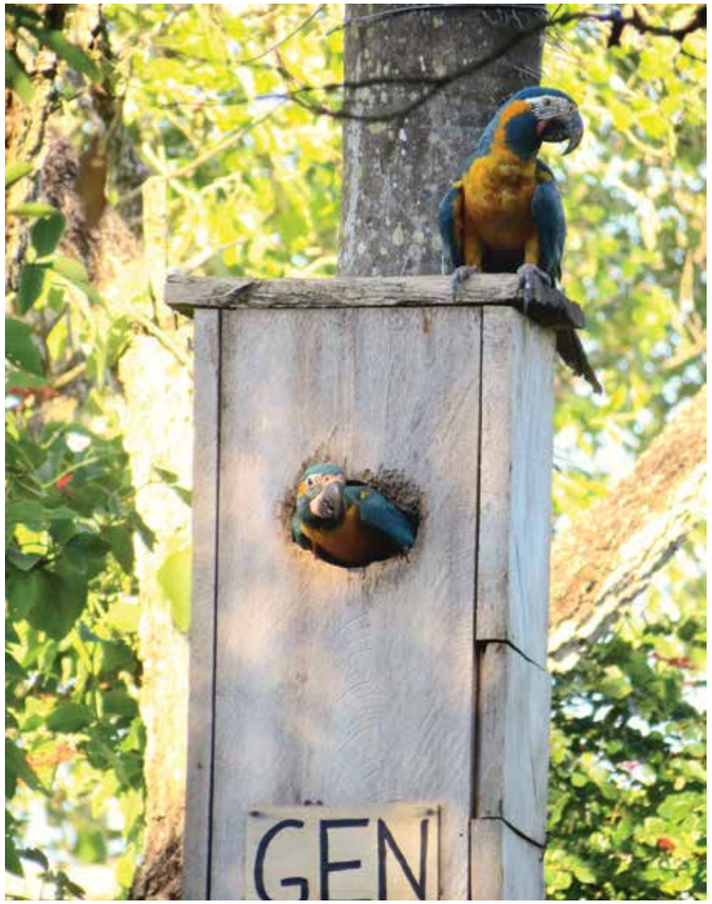
Thanks to decades of work by passionate scientists, conservation organizations, macaw lovers, and local people, the Blue-throated Macaw's odds of survival are increasing. Some dangers facing the bird have diminished, and protection measures helped boost the wild population to more than 400 individuals. The August 2018 creation of the Laney Rickman Blue-throated Macaw Reserve in Bolivia was the next milestone, protecting the bird's largest known nesting population.

"Securing the most important breeding site for this Critically Endangered species ... is key to the long-term recovery of the species that began in 1998," says Rodrigo Soria, Executive Director of the Bolivian conservation organization Asociación Armonía (Armonía), an ABC partner. "We are now witnessing the achievements from 20 years of hard work."

LEFT: A nest box for Blue-throated Macaws in a palm grove at the new Laney Rickman Reserve. Photo by Tjalle Boorsma. BELOW: The Nido Adoptivo nest box program has fledged dozens of young macaws. Photo by Asociación Armonía

From Cattle Ranch to Conserved

The Blue-throated Macaw only lives in one very specific, and relatively impassable, place — the Beni Savanna in north-central Bolivia. The Beni is an expansive tropical grassland dotted here and there with palm-dominated "forest islands" defined by seasonal patterns of flooding and a severe dry season. On these slightly raised forest islands, the Blue-throated Macaw roosts, nests, and feeds on motacú palm and other fruits.



In Beni Department, many people work in the cattle ranching industry, with cows outnumbering people almost four to one. Many Beni residents still get around on horseback, as less than five percent of the roads are paved in the department's 82,458 square miles (an area a bit larger than Kansas).

The new Laney Rickman Blue-throated Macaw Reserve spans 1,680 acres of savanna and tropical forest. The land was purchased by Armonía in a joint effort with ABC, the International Conservation Fund of Canada, IUCN Netherlands, and the World Land Trust.

Formerly a cattle ranch, the reserve is home to diverse wildlife, including Giant Anteaters, Crab-eating Foxes, and birds such as the White Monjita and Red-billed Scythebill. However, unlike these more widespread species, the reserve's namesake is found in few other locations.

"Owning" Macaws ... Without Owning Them

Its small range and limited population made the Blue-throated Macaw particularly vulnerable to population declines caused by capture for the illegal pet trade. This trade was once the main threat to the species. Poverty rates are high in the Beni, and the macaw was a tempting prize. A ranch worker who captured a macaw could sell it for a high price. Often, the bird would then be smuggled out of the country and sold to buyers in Europe and other parts of the world.

"Before CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), the Blue-throated Macaw had a higher price tag than any other macaw in Bolivia," says Bennett Hennessey, Development Director for Armonía and ABC's Brazil Program Coordinator.

Today, thanks to stricter laws, better enforcement, and a sustained and effective public education program launched by Armonía, illegal trade in Blue-throated Macaws has largely ceased. The education program set out to give Bolivians a feeling of national pride about their endemic macaw, a creature unknown to many people in the country, and also focused at the local level, emphasizing how the *paraba barba azul* (Spanish for "blue-beard macaw") is found only in the Beni Savanna, that it belongs to the people of Beni, and that they have the power to protect it. In 2015, the Bolivian government designated the Blue-throated Macaw a national heritage species. All in all, the change in public attitude has been striking, and occasional attempts to trade the bird are met with condemnation by local townspeople. According to Hennessey, the people in Beni now say, "Leave that bird alone. That's our bird."

With illegal trade greatly reduced, the biggest threat to the Blue-throated Macaw is now habitat loss. Cattle ranching is the main industry in much of the bird's range. Ranches bring people; those people need firewood and building materials, so they head to the forest islands to cut down large trees. Sometimes ranchers burn the savanna to produce better grass for grazing. These fires can threaten macaw nests and prevent new trees from growing. In addition, cattle often chew young palms to the ground.

LEFT: Luis Miguel Ortega, Assistant Coordinator at the Barba Azul Nature Reserve, monitoring Blue-throated Macaw nest boxes. Photo by Aidan Maccormick, Asociación Armonía

The design and placement of the nest boxes has been fine-tuned to make them as attractive as possible to Blue-throated Macaws. In the last 12 years, 76 young macaws have fledged from the nest boxes.

Blue-throated Macaw chicks in nest box, Laney Rickman Reserve. Photo by Aidan Maccormick, Asociación Armonía

With fewer trees, especially palms, the Blue-throated Macaws have less fruit to eat and, more critically, fewer nest sites. Since the macaws nest in large cavities in large trees, a low number of available cavities limits their reproduction. Also, the macaws must compete for cavities with toucans, more plentiful Blue-and-yellow Macaws, and even honey bees. For these reasons, finding a way to increase the number of nest cavities available to Blue-throated Macaws has become a priority.

The Nest-Best Thing

In 2005, Armonía experimented with providing artificial nest boxes for breeding macaws on Esperancita, a privately owned cattle ranch whose owner wanted to help conserve the bird. With a grant from the Loro Parque Foundation, a biodiversity conservation organization based in Spain's Canary Islands, Armonía put up 20 boxes to see what would happen. Blue-and-yellow Macaws, Black-bellied Whistling-Ducks, and other birds used the boxes, but two were soon occupied by pairs of Blue-throated Macaws, and one of those pairs fledged a chick.

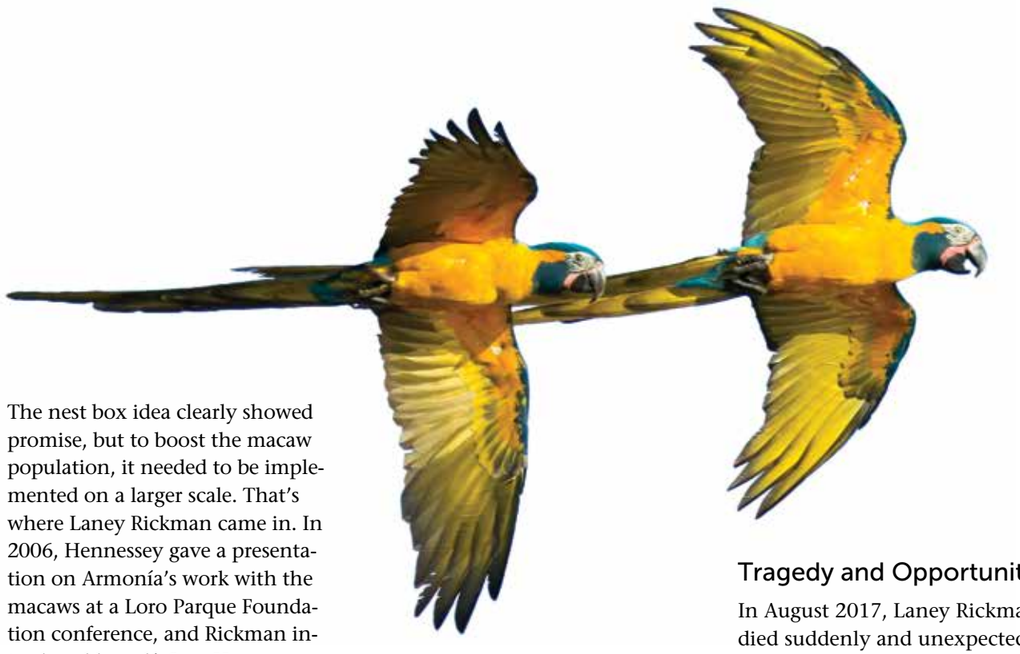
Macaw Conservation Meets Tourism

In 2008, ABC helped Bolivian partner Asociación Armonía create the Barba Azul Nature Reserve to reverse the decline of the macaw and to restore its habitat. In 2014, ABC and other supporters helped to double the reserve's size.

Together, the Laney Rickman and Barba Azul reserves now protect 28,862 acres of Blue-throated Macaw habitat in the Beni. Visitors can now stay at Barba Azul and see Blue-throated Macaw conservation in action, while supporting conservation efforts.

See how you can visit the wild Blue-throated Macaws: **conservationbirding.org/aboutbarbaazul.html**

Visitor cabin at the Barba Azul Nature Reserve. Photo by Oscar Yabeta, Asociación Armonía



The nest box idea clearly showed promise, but to boost the macaw population, it needed to be implemented on a larger scale. That's where Laney Rickman came in. In 2006, Hennessey gave a presentation on Armonía's work with the macaws at a Loro Parque Foundation conference, and Rickman introduced herself. Says Hennessey, "Laney came to me and said, 'I really want to help Blue-throated Macaws. What can we do to help?'"

Rickman, a former newspaper executive, had fallen in love with parrots, given up the corporate life, and become a passionate and pioneering aviculturist. In 1998, she founded Bird Endowment, a Texas-based nonprofit organization dedicated to preserving the Blue-throated Macaw in captivity, with a special focus on allowing macaw parents to rear their own young.

But Rickman wanted to help wild Blue-throated Macaws as well. So, Hennessey, Rickman, and other conservationists had a series of huddles and came up with the idea for the "Nido Adoptivo" or "Foster Nest" program. For $250, donors could sponsor a nest box; the funds paid for the box as well as the staff to install and monitor it.

The group didn't start with grand ambitions. "I remember Laney saying, 'Maybe we'll sell ten boxes,'" recalled aviculturist Katie Secor at a recent American Federation of Aviculture meeting. But thanks to Rickman's hard work and dedication, they signed on 31 nest-box sponsors in the first year. The project took off from there.

Based on careful observation and experimentation by Armonía's staff in the field, the design and placement of the nest boxes has been fine-tuned to make them as attractive as possible to Blue-throated Macaws. In the last 12 years, 76 young macaws have fledged from the Nido Adoptivo nest boxes.

In 2017, two birds that had fledged from nest boxes mated and returned to nest in the Nido Adoptivo boxes. This was an important milestone. "Macaws are very smart birds, so a lot of the behavior is learned as opposed to innate. And so they'll have a local culture," says Hennessey. Raised in artificial nest boxes, these pioneering macaws were more likely to accept them as nest sites when they reached breeding age.

Tragedy and Opportunity

In August 2017, Laney Rickman died suddenly and unexpectedly at the age of 65. Her death was a major blow to her family, friends, and fellow conservationists — including the Nido Adoptivo project. In addition, the Esperancita ranch, where many of the program's nest boxes were located, had recently gone up for sale. The property was critical for the project and the species. Of Nido Adoptivo's 76 fledglings, 51 came from nest boxes located there.

TOP: Blue-throated Macaws in flight by Paul B. Jones; BELOW: Aerial view of the Laney Rickman Reserve, May 2018. Photo by Tjalle Boorsma

With support from ABC and other partners, Armonía bought the ranch, which became the Laney Rickman Blue-throated Macaw Reserve, in honor of Rickman's dedication to the birds and her tireless work with the Nido Adoptivo project. Dorothy Paterson, her sister, says Rickman likely would be a little embarrassed by the honor, as she wasn't someone who sought the limelight. But her family is grateful. "It's truly remarkable what one person, with her dedicated, passionate heart, made happen," says Paterson. "It makes us all deeply proud to have this reserve named after her. It eases the grief of losing her in knowing that her legacy lives on."

The Laney Rickman Blue-throated Macaw Reserve secures critical breeding habitat for the species and also allows researchers to closely study the macaw's breeding biology, acquiring knowledge that will help ensure the species survives.

"Now we're really trying to think about sustainability," says Hennessey. To help sustain the reserve and the important work being done there, Rickman's family, Bird Endowment, Armonía, and ABC established the Laney Rickman Blue-throated Macaw Fund. Donations will be used to maintain the reserve and continue the Nido Adoptivo program. Firebreaks and fences to control cattle must be installed and maintained, nest boxes need monitoring and repairs. Protecting the reserve requires sustained funding and also dedication, a quality Laney Rickman exemplified.

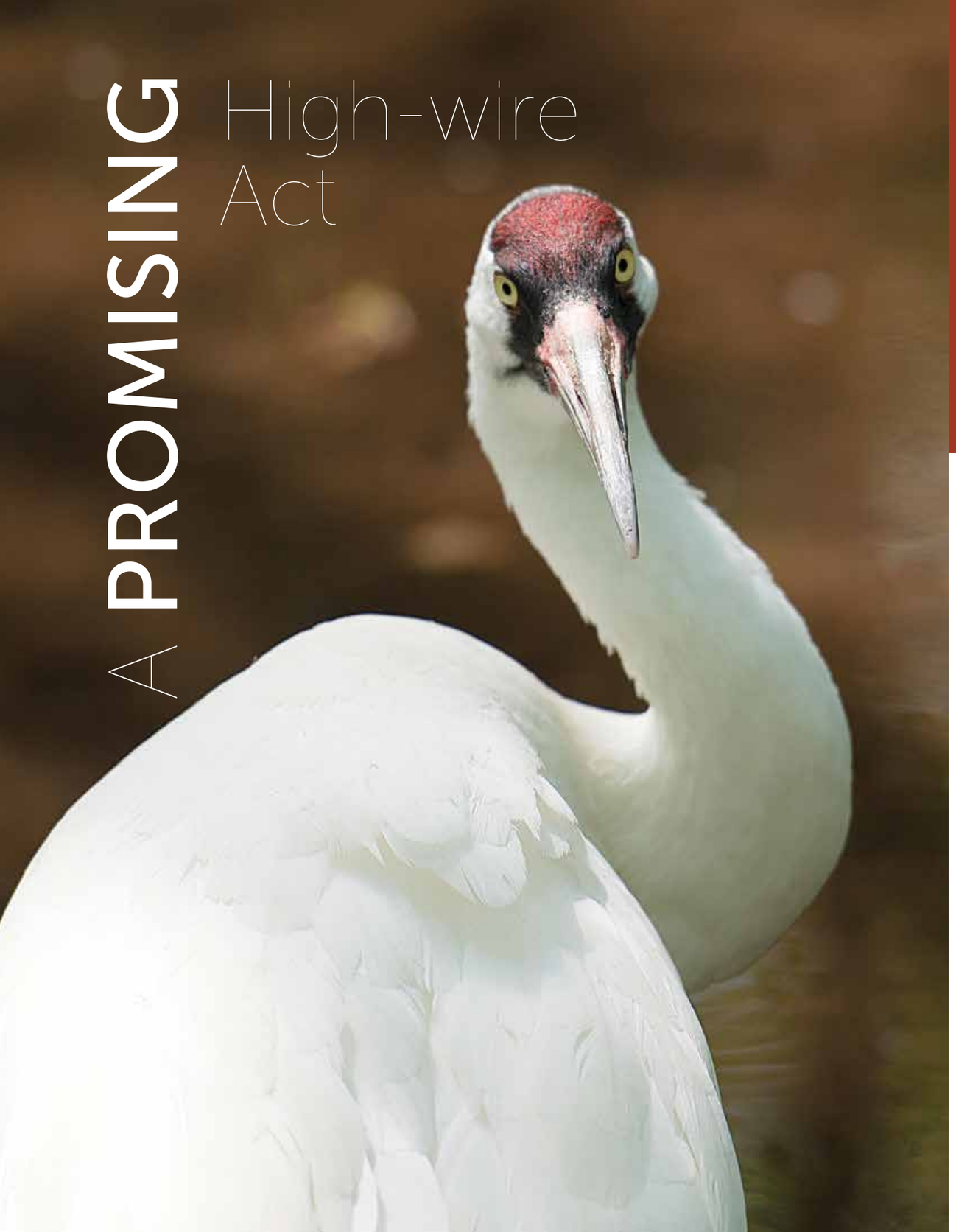
The IUCN (International Union for Conservation of Nature) still lists the Blue-throated Macaw as Critically Endangered, but thanks to work by conservation organizations including ABC and Armonía, engaged local people, and passionate bird-lovers like Rickman, this striking bird seems to be flying toward a brighter future.

ABC is grateful for the generous support of David and Patricia Davidson, the Gulf Coast Bird Observatory-Tropical Forest Forever Fund, March Conservation Fund, the Robert W. Wilson Charitable Trust, and an anonymous donor, who helped make the purchase of the new reserve possible.

To donate: **abcbirds.org/rickman-memorial-fund**

Meredith Swett Walker is a science writer based in western Colorado.

A PROMISING High-wire Act



Kansas Power Companies Join Forces to Prevent Crane-Powerline Collisions

By Rebecca Heisman

The Whooping Crane is a bird of distinction. North America's tallest bird and one of its most endangered species, this gleaming-white, 15-pound wetland denizen almost became as mythical as the now-extinct Passenger Pigeon. In the early 1940s, only 15 remained.

Thanks to years of hard-fought conservation gains, the one remaining self-sustaining migratory Whooping Crane flock now numbers more than 500 individuals. Every year, they fly from breeding grounds in Canada's remote Wood Buffalo National Park to winter on the Texas coast, before heading back north again. This annual journey — 2,500 miles each way — takes the birds through the heartland of North America. There, they rely on wetlands in the Great Plains to rest and refuel. Over the years, two key areas in Kansas — Quivira National Wildlife Refuge and a collection of preserves known as Cheyenne Bottoms — have provided safe haven for Whooping Cranes passing through the state.

Migration can be an especially vulnerable time, as travel-weary birds set down in relatively unfamiliar places. In the past, hunters were a major problem. Occasionally, a protected crane is still shot by accident or intentionally, but these days, a far more pervasive danger looms large over the flat landscapes these birds navigate: powerlines. Especially in the poor visibility of dawn, dusk, or fog, birds frequently collide with them. Each year in the United States, as many as 25 million birds die after colliding with powerlines. And a 2008 report by researchers from the U.S. Fish and Wildlife Service (USFWS) and Texas State University found that powerline collisions are the number-one known cause of mortality for recently fledged migratory Whooping Cranes.

LEFT: Whooping Crane by Rejean Bedard, Shutterstock; RIGHT: Whooping Crane by Michael J. Parr

Fortunately, since the 1980s, a group of forward-looking power company representatives called the Avian Power Line Interaction Committee (APLIC) has been developing methods to reduce both collisions and electrocutions of birds. The challenge is to try to keep run-ins between cranes and lines to an absolute minimum.

Kansas utilities are now working with conservationists to ensure a brighter future for Whooping Cranes and other birds. Nearing completion, their efforts to make powerlines more crane-friendly provide a heartening example of how the private, public, and nonprofit sectors can come together to do good for birds.

Working to Safeguard Weary Whoopers

In 2010, the USFWS issued guidance for how power companies in the region should address the risk of Whooping Crane collisions with powerlines. Ideally, the guidance document advised, new lines constructed within the cranes' migratory corridor should be buried underground. In many cases, however, burying lines isn't feasible, so the USFWS also proposed an alternative: Utilities could opt to "mark" their lines, outfitting them with devices to make them more visible to birds in flight.

Many of Kansas' power companies are small co-ops. Eric Johnson of Westar Energy, one of the state's larger utilities, describes a typical outfit as "maybe one executive director and a crew of five linemen." Lacking on-staff biologists and other resources, small companies would have had trouble implementing the new USFWS recommendations on their own. The solution? Kansas' electrical utilities formed a flock. The first step was simply identifying which lines were the highest priority for marking — that is, which ones most likely hung in the path of travel-weary cranes.

"Most people look at a map of the lower 48 states and they see an arrow where a migration corridor is, and then they see powerlines cutting across that, and they get worried," says Anne Lacy, a researcher with the Wisconsin-based International Crane Foundation. "But it's okay if a bird is flying 2 miles above that powerline — that's perfectly safe. But those stopover areas

Utilities can opt to "mark" their lines, outfitting them with devices to make them more visible to birds in flight.

are really critical. The cranes are in an unknown place, they're tired because they've just flown several hundred miles, and they maybe aren't as aware of their surroundings. They're coming in low, it might be evening when there's low light, and that's where it's critical to either not have those powerlines at all, or if they are there, to have them marked."

Starting within a 5-mile radius around Quivira and Cheyenne Bottoms, the Kansas utilities worked with environmental consultants on an assessment that considered factors such as lines' proximity to crane roosting and feeding sites. The USFWS guidance instructed that when new lines were installed in sensitive areas, not only should new lines be marked — additional stretches of line elsewhere should be marked as well, with this additional step aimed at further offsetting the risks posed by new construction. Small companies may not own additional lines in high-priority areas, however, so the utilities pooled their resources, each contributing money to a fund held by a nonprofit to be used by whomever did have high-priority lines to mark. An advisory group including representatives from nonprofits such as The Nature Conservancy and the Kansas Ornithological Society, government agencies, and power companies was formed to provide additional guidance for the project.

"It's been encouraging to see everybody come together for one very specific purpose," says the Kansas Ornithological Society's Chuck Otte, who was an early recruit to the advisory group. "The representatives from the power companies, they're learning about how birds behave and about our concerns as birdwatchers. And as a birdwatcher, I've learned more about different kinds of insulators and powerlines than I ever thought possible. All of that stuff has been absolutely fascinating to me."

It's All About Being Seen

"There are a lot of different line-marking products out there on the market," says Westar's Eric Johnson. "Some of them have had scientific studies done on how effective they are, others haven't, but when it comes down to it, anything that

TOP: Marking a power line. Photo by Jay Scott/Westar. LEFT: Whooping Cranes by Richard Seeley, Shutterstock

In Wisconsin, Watching Out for Commuting Sandhills

Cranes and powerlines aren't just a Kansas issue. Three states away, in Wisconsin, the Aldo Leopold Foundation, the International Crane Foundation, and the Wisconsin Bird Conservation Initiative have been working together to reduce the collision risk faced by the Whooping Crane's close relative, the Sandhill Crane.

In 2010, the American Transmission Company (ATC) began planning the construction of a new transmission line that would pass along the edge of the Leopold-Pine Island Important Bird Area, a key staging site for Sandhill Cranes during fall migration. Each year, 10,000 cranes gather in the area as they prepare to head south. The line's proposed route cut directly through the cranes' daily "commute" between the agricultural fields where they forage and the Wisconsin River sandbars where they roost.

ATC's original application to Wisconsin's Public Service Commission didn't include bird-safety concessions. However, conservation organizations intervened and requested several mitigation measures for the full 11-mile stretch where the line would be adjacent to key crane habitat. They asked for not only line-marking devices, but also for shorter towers and a one-level instead of multi-level arrangement of wires that creates a smaller collision hazard. The Public Service Commission, the regulatory agency responsible for the state's public utilities, ultimately sided with the birds, requiring these measures when they granted approval for the new line in 2015.

Although it won't go into operation until other sections are completed, construction of the segment of line in question is now finished, and the bird-friendly mitigation measures are in place. And the Sandhill Cranes? "We have witnessed two collisions of cranes with the powerline since it was constructed," says the Aldo Leopold Foundation's Steve Swenson. "But these mitigation measures are about reducing collisions, not eliminating them."

Ideally, no birds would be harmed following new powerline installations. Ensuring that human development does the least harm possible to cranes and other birds is a never-ending process of refinement. (See box next page.) But in Kansas, Wisconsin, and elsewhere, people are coming together to figure it out.

TOP: Sandhill Cranes by Sarah Jessup, Shutterstock

The Kansas line-marking project provides reason to hope that cranes and people can coexist along the birds' migration routes.

makes the line more noticeable or larger in diameter will do something for birds. Some of them are just a spiral of pre-formed plastic that wraps around the line and makes it more obvious, and then there are others that are a little more active. You can clip them on the line and they spin with the wind." Some of these devices can be installed from the ground, but on the largest cross-country lines the work needs to be done from above via helicopter. In these cases, a highly trained lineman sits outside the helicopter while it hovers alongside the line, then reaches out and clips on the device by hand.

The work began in 2015. So far, 160 miles of the identified high-priority lines have been marked in and around the two protected areas. According to Johnson, all 113 miles of high-priority lines at Cheyenne Bottoms will be completed by the end of 2019, as well as 90 miles of the total of 130 at Quivira.

Otte acknowledges that it's impossible to completely eliminate the risk of Whooping Crane collisions with powerlines, but he says the work makes a difference. "These are things that aren't just going to protect Whooping Cranes, they're going to protect Sandhill Cranes, they're going to protect ducks and geese, they're going to help all sorts of birds. So that in and of itself is a success. I mean, we all want to have electricity, but how can we provide electricity to the people of this country while minimizing the potential negative impact for the wildlife? To me, that's what this is all about."

Decades of hard work have already gone into protecting and nurturing the world's remaining Whooping Cranes. The result has been one of the greatest bird comeback stories, and a shining example of two countries collaborating to save a species. Federal, state, and provincial agencies from both the United States and Canada, working with nonprofit groups as well as the private sector, continue to preserve and manage key habitat and closely monitor the cranes' nesting success. New technologies such as satellite tracking are enabling biologists to learn more than ever before about their behavior and annual migration. And now the Kansas line-marking project provides reason to hope that cranes and people can coexist along the migration routes.

Anne Lacy says she's "cautiously optimistic" about Whooping Cranes' future. "We're living on this landscape and we are having an impact, period, full stop. Now, how do we lessen that impact on the things that are living there already? That's probably a lesson that all of us can learn."

Rebecca Heisman is an environmental educator-turned-science writer and communicator.

Whooping Crane by Connie Barr, Shutterstock

In 2017, ABC and the International Crane Foundation published a mapping study that identifies potential areas of conflict between Whooping Cranes and wind turbines and associated powerlines and towers near the birds' migratory stopovers in the Central Flyway, which includes Kansas. This information will be reviewed by companies for inclusion in future line-marking efforts.

Lost Birds FOUND

By Daniel Lebbin

Following the mantra "never give up," ornithologists keep casting for "lost" species. Their hard work's been paying off.

Hurricane Matthew slammed into the Bahamas with a vengeance in early October 2016, crashing boats ashore, wrecking houses, and sending a storm surge of salt water that inundated and killed many pine trees, transforming large areas into ghost forests of leafless trunks. Grand Bahama island was but one island hit, but as luck would have it, it was the only home for a brown-capped passerine: the Bahama Nuthatch.

Before the hurricane hit, this species was last seen in June 2016. Despite multiple searches of its pineland habitat from 2017 into early 2018, the nuthatch was nowhere to be found. This past summer, ABC partnered with the Bahamas National Trust and Bahamian researchers to search for the lost bird. Another search team was dispatched, led by ornithologists from the University of East Anglia. Then in May, a field crew led by Zeko McKenzie, a researcher at the University of The Bahamas-North, photographed and videotaped a bird, documenting its continued survival. Shortly after, both teams had other sightings. So far, at least five individuals have been counted, and ABC is exploring the next actions to protect the Bahama Nuthatch and hopefully find more birds.

Bahama Nuthatch by Tom Benson

"Lost birds" are among the most intriguing ornithological mysteries. These are species in conservation status limbo, lacking any known populations living in the wild, but not yet classified as extinct. They present a unique challenge to conservationists because to protect birds on the brink, we must know where they live. And to know where lost birds live, we have to find them. As with the once-missing Bahama Nuthatch, rediscovery can be the best catalyst for emergency action designed to help bring a species back from the brink.

New Science, New Searches

Until recently, there were at least 36 "lost" bird species in the Americas. Six of these species, including the Socorro Dove and Spix's Macaw, survive in captivity, with conservationists planning reintroduction efforts. Eighteen others, such as the Eskimo Curlew, Jamaican Petrel, and Cryptic Treehunter, are almost certainly extinct but have not yet been formally declared so.

The remaining lost species fall into a few categories. The Kinglet Calyptura, Rio de Janeiro Antwren, and Turquoise-throated Puffleg have been the target of recent ABC-funded expeditions, but remain lost. Recent genetic research resulted in some species being dropped and others added to our list of lost birds. The Bogotá

"Lost" birds are species in conservation status limbo, lacking any known populations living in the wild, but not yet classified as extinct.

Sunangel and Hooded Seedeater, for instance, suffered from mistaken identities. Previously classified as distinct species, these two birds are no longer considered to be valid species. Meanwhile, new research elevated the Bahama Nuthatch and Guanacaste Hummingbird to species status. In part because of this classification change, ABC worked with partners to search for the nuthatch, which previously received less attention when it was considered a subspecies of the Brown-headed Nuthatch, a species common in much of the southeastern United States.

Searched and Found

The recent observation of wild Bahama Nuthatches joins other recent success stories of lost birds back from the abyss, in some cases after decades on the missing list.

In Brazil, a combination of skill and luck led to the 2015 rediscovery of the Blue-eyed Ground-Dove by researcher Rafael Bessa. As we reported in our last issue of *Bird Conservation*, the dove had been lost for 75 years, and the rediscovery launched a race to save the remaining population. ABC partner SAVE Brasil has been at the forefront of efforts to create a new reserve (along with Rainforest Trust) and state park (with Minas Gerais state government, the Critical Ecosystem Partnership Fund, and other partners). In 2018, ABC funded SAVE Brasil to lead a conservation planning workshop for this species.

Also in Brazil, even a very large bird awaited rediscovery. In 2016, three Belem Curassows were found in captivity. Then in 2017, scientists saw and photographed this turkey-sized, curly-crested bird in the wild for the first time in 40 years. The birds remain within the Gurupi Biological Reserve in northeastern Brazil, in one of Amazonia's most deforested regions.

In Venezuela, an ABC-supported search team found the Táchira Antpitta in 2016, roughly 60 years after it was last observed in the wild. Round-bodied and short-tailed, antpittas hop on long legs within dense tropical forests, seeking invertebrates under leaves and other debris. Antpittas' far-carrying songs are often the best way to locate these birds. ABC first reported the Táchira Antpitta finding in 2017, and a scientific paper containing full details of the rediscovery will soon be published. Now, with the knowledge of the bird's vocalizations, researcher Jhonathan Miranda and others hope to find more birds elsewhere in Venezuela and across the border in Colombia.

A Rare Bird Goes Missing Again

Named for the stiff bristles on its face, the Stresemann's Bristlefront is a unique Brazilian bird that nests in underground tunnels. It was not seen for 50 years, until researchers rediscovered the species in 1995. With ABC support, our partner Biodiversitas purchased land in the Atlantic Forest between 2007 and 2015 to create the Reserva Mata do Passarinho, now protecting all the known locations for the Stresemann's Bristlefront, as well as habitat for many other threatened bird species. While this reserve was being created and forest restoration projects initiated, conservationists believed that fewer than 15 individuals remained.

This region of eastern Brazil has suffered an unprecedented drought over the last five years, creating conditions that likely have had an adverse effect on bristlefront breeding, while making the habitat more vulnerable to fires. In 2016, fires set on neighboring ranches spread into the reserve and damaged important habitat. Reserve staff saw bristlefronts afterward, but additional searches in 2017 failed to detect the species within the reserve. Has this bird been lost again?

We are still hopeful. The reserve has a new manager, Alexander Zaidan, who is an expert on the species. ABC is supporting Biodiversitas as it conducts additional searches inside the reserve and in forest fragments in the region that may still harbor surviving populations.

What's Next to Rediscover?

There are a few other birds we still could find, as well as possible rediscoveries yet to be announced by researchers. In addition to the bristlefront, the Guanacaste Hummingbird — found around one Costa Rican volcano in 1895 but not relocated since — might be re-found with a strong search effort. Additional searches for the Ivory-billed Woodpecker are planned in eastern Cuba by Cuban researchers, and Global Wildlife Conservation is supporting ongoing searches for the Sinú Parakeet, which has not been seen within its range in northwestern Colombia since 1949.

After these species, the next-best prospects for rediscovery could be:

White-tailed Tityra: This is another recently recognized species, from southwestern Amazonia in Brazil. Might people be overlooking this bird or confusing it with other tityra species? The first specimen was collected in 1829, but a sight record came from the same area in

TOP LEFT: Spix's Macaws by Karmi Lindgren; RIGHT: Stresemann's Bristlefront by Ciro Albano

We hope that someday soon, the concept of a lost bird list itself will vanish, replaced instead by a checklist of birds lost then found.

Sinú Parakeets by Rebecca Latham, lathamstudios.com

2006. Tityras are thick-set, white-and-black songbirds frequenting lowland forest edge.

Cayenne Nightjar: It is already difficult to search for cryptic nocturnal birds, but in this case, no one knows the bird's voice. Known from just one specimen taken in French Guiana in 1917, there have been a few other unsubstantiated reports in recent years. Despite prior searches, this species, which belongs to the family including the nighthawks and whip-poor-wills, remains a mystery lost in the night.

Glaucous Macaw: The last confirmed sighting of this greenish-blue, long-tailed parrot was in the 1960s. Since then, some unconfirmed sightings surfaced in Paraguay, which were never published or publicized. They may warrant follow-up expeditions to Mbaracayú Forest Biosphere Reserve and other sites. Although it seems unlikely that such a large and loud species could remain undetected


Cayenne Nightjar by Daniel Lebbin

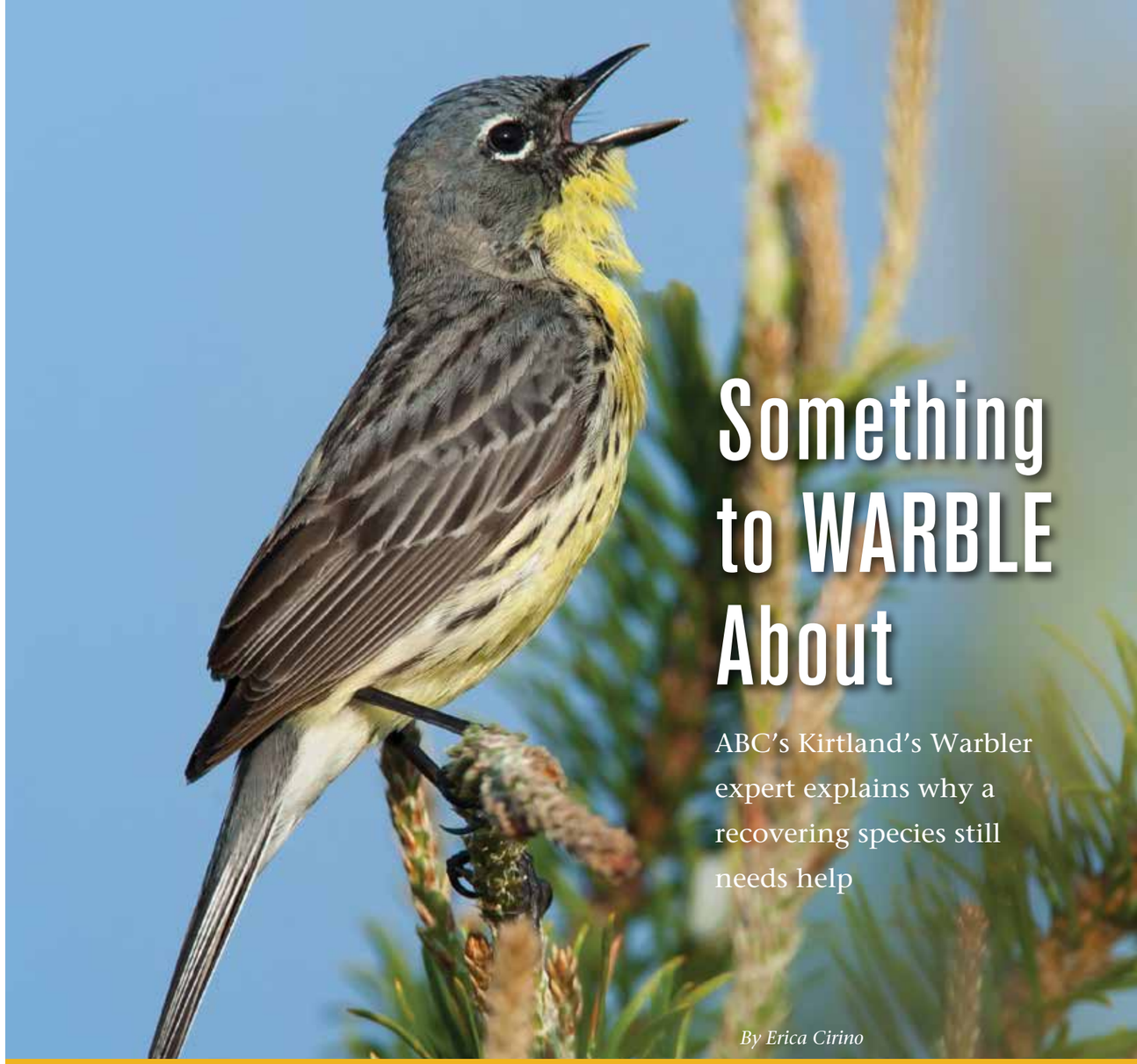

Glaucous Macaw by Daniel Lebbin

for so long, researchers have not adequately surveyed the entirety of this macaw's former range.

Lost species can resurface and inspire successful and sustained conservation efforts aimed at preventing extinction. ABC will continue to support searches for lost birds and work with our partners to take action for them when they are found. Through better awareness, more searches, and conservation action, we hope that someday soon, the concept of a lost bird list itself will vanish, replaced instead by a checklist of birds lost then found.

If you have an interest in searching for any of the species mentioned in this article, or supporting expeditions to look for them, please contact **Daniel Lebbin, dlebbin@abcbirds.org**

Daniel Lebbin is Vice President of Threatened Species for ABC.



Something to WARBLE About

ABC's Kirtland's Warbler expert explains why a recovering species still needs help

By Erica Cirino

Larger than most warblers, a male Kirtland's Warbler perches on a jack pine branch, bobs his tail, then belts out a distinctive, rich, and rising song: "trup trup chip chip chip cho-CHIRIBBIT!" Somewhere beneath the sun-drenched stand of young pines, his mate sits on their eggs in a grass nest on the shady ground.

Understated slate-gray above but bright lemon yellow below, the Kirtland's Warbler illustrates how each coin has two sides. A bird of the Great Lakes region; a bird of the Bahamas. A scarce and specialized bird — and a conservation success story.

Kirtland's Warbler by Brian E. Small

Bolstered Numbers … Yet Still a Worry

The Kirtland's Warbler is being considered for delisting from the endangered species list, after reaching a population more than double its recovery goal. While its population has recovered significantly, the Kirtland's Warbler is still among the rarest, most range-restricted migratory songbirds in North America, with only about 2,300 breeding pairs alive today. Within its limited breeding range, it occupies a very specialized habitat: short, early-succession jack pine forests.

This bird's rebound followed decades of international, multi-agency effort to restore habitat in the Great Lakes region and to study the bird on its wintering grounds, as well as programs that control the Brown-headed Cowbird, a brood parasite that lays its eggs in other birds' nests, to the detriment of the hosts' eggs and young. Without human intervention, the Kirtland's Warbler seemed doomed from the double-hit of habitat loss and cowbird parasitism. In the 1970s and 1980s, the population dipped as low as 167 singing males.

Most Kirtland's Warbler pairs nest in northern Michigan, in large blocks of young jack pine forest, many of which are now managed with the bird in mind. But in recent years, approximately 20 pairs have been nesting in Wisconsin as well, plus a few in Ontario. The birds winter almost exclusively in the Bahamas, where biologists including David Ewert, ABC's Kirtland's Warbler Program Director and Senior Conservation Scientist, have been studying their habits and distribution. Ewert works with Joseph Wunderle, a research scientist at the U.S. Forest Service's International Institute of Tropical Forestry in Puerto Rico.

Q&A with ABC's Kirtland's Warbler Expert

Recently, I spoke with Ewert to learn more about this unusual species' life history, continued conservation challenges, and how to best protect the Kirtland's Warbler in the future.

PHOTO PREVIOUS PAGE: Kirtland's Warbler by Brian Small
PHOTO THIS PAGE: Kirtland's Warbler at nest by Ron Austing

Erica Cirino: Where have you studied Kirtland's Warblers, and what have you observed?

David Ewert: I started researching the species in 2002 in the Bahamas, where it lives in broadleaf coppice forests — especially dense, shrubby habitat — on the central islands of Eleuthera, Long, Cat, and San Salvador. As on the summer nesting grounds, it selects dense, early-successional habitat. Kirtland's Warblers are most frequently seen where there are higher concentrations of certain fruiting shrubs such as wild sage, black torch, and snowberry, which the warblers prefer for feeding. During late winter, as it becomes drier, Kirtland's Warblers may concentrate in areas where water is close to the surface and where food, including fruit and arthropods, is relatively common.

EC: Are there any other niches in the Bahamas that Kirtland's Warblers occupy?

DE: Kirtland's Warblers are relatively frequent in active goat farms. The goats may sustain early succession habitat by browsing shrubs. Because goats require water, goat farms often sit in areas with a high water table. Such locations often support food production for the Kirtland's Warblers during the late winter dry period.

EC: What is the relationship between hurricanes and Kirtland's Warblers?

DE: Nathan Cooper, a post-doctoral student at the Smithsonian Migratory Bird Center, has shown that

Severe storms — including those of the last hurricane seasons — do not seem to have damaged the Kirtland's Warbler population.

Kirtland's Warblers don't leave their breeding grounds until late September or even early October. They often arrive in the Bahamas after a few hurricanes have already blown through. There could be some indirect benefits from rain associated with a hurricane, which stimulates plant growth, leading to more fruits and more insects. It's not clear exactly how much the warblers benefit from this added moisture, but severe storms — including those of the last hurricane seasons — do not seem to have damaged the Kirtland's Warbler population.

EC: Do Kirtland's Warblers face human-caused threats in the Bahamas? If so, what's being done to address them?

DE: As in the United States, development is a potential threat in the Bahamas. To ensure the warblers' survival in the long term, we need to map — especially in the central Bahamas — the most likely potential wintering habitat, anticipate potential effects of development and climate change, and work to create and preserve safe habitat in these areas. And of course we also need to ensure that sufficient habitat remains on their breeding grounds and along their migration route.

In March, I spoke to a manager of the Bahamas Electricity Corporation, asking to review management of electric transmission line rights-of-way across the four islands where Kirtland's Warblers are most common. In these areas, cutting vegetation minimizes the chances that trees will fall on power lines, but this activity also helps maintain fruiting shrubs preferred by the warblers. It is a win-win situation. We were pleased to know that herbicides are not used in managing the rights-of-way, as that could adversely affect the growth of fruiting shrubs. We have also been encouraged by goat farmers who have expressed interest in managing their goat pastures in ways beneficial to their goats and Kirtland's Warblers, and we will incorporate their input as we develop the strategy for protecting Kirtland's Warblers in the Bahamas.

EC: Any final thoughts on the Kirtland's Warbler?

DE: The scientific community continues to make great progress in understanding Kirtland's Warbler ecology and the challenges faced by these birds. Even though more research is needed, we will use the available information to identify where Kirtland's Warblers are most threatened and thus where conservation activities are most needed. That's where the newly formed Kirtland's Warbler Conservation Team and Kirtland's Warbler Alliance come into play.

The Conservation Team — made up of a wide range of stakeholders, including academic scientists and government and nongovernmental organizations, including ABC — is completing conservation plans that list actions needed to protect the birds throughout their life cycle, including socioeconomic factors. The Alliance, just in its initial stages of forming a nonprofit organization, is designed to raise funds supporting projects recommended by the Kirtland's Warbler Conservation Team as well as to create an endowment fund. The endowment fund will support activities that will lose federal funding if the species is delisted, perhaps as soon as 2019. ABC has initiated fundraising for both projects and the endowment.

ABC's work as part of the Kirtland's Warbler Conservation Team is made possible through the generosity of the Harry A. and Margaret D. Towsley Foundation.

If you are interested in contributing to ABC's efforts to support Kirtland's Warbler conservation, contact Dan Trudeau at **dtrudeau@abcbirds.org**.

You can read more about this bird and hear its song at **abcbirds.org/bird/kirtlands-warbler**

Erica Cirino is a freelance science writer and artist working in New York and internationally.

Native Birds and Plants: More than Footnotes in the Landscape

By Annie Novak

In the northeastern United States, where I farm and write, our native oak trees support 534 species of moths and butterflies. Hundreds more rely on Black Cherry, willow, birch, and poplar trees. Of our flowers, *Asclepias* (milkweed) supports the charismatic Monarch butterfly; *Monarda*, *Lobelia*, and *Phlox* are beloved by many species of bee. Native plants anchor broadly functional, biologically diverse, and sensual landscapes.

If you love birds, learn to recognize and use native plants. This starts at home. For centuries, gardeners favored exotic ornamentals. But as the biological wealth of the North American landscape buckles under the pressure of invasive plants (and their accompanying insects and pathogens), it is more important than ever to grow a local landscape. Homeowners across the United States raise 40 million acres of lawn. Imagine that grass transformed into bird-friendly ecosystems, instead.

"Take into account the habitat you live in, and make a garden utilizing plants found in that area," says Louise Zemaitis, an artist and naturalist living in Cape May, NJ. In 2000, she and her husband Michael O'Brien, both expert birders and guides for Victor Emanuel Nature Tours, planted their half-acre yard as a meadow and additionally installed five neatly organized beds of

If you love birds, learn to recognize and use native plants.

butterfly- and hummingbird-friendly plants. To date, their "yard list" includes an astonishing 282 bird species.

Ask Zemaitis her secret for attracting birds and she begins by talking about "bugs." With the knowledge that 95 percent of North American passerines, or songbirds, feed on insects, Zemaitis plants for caterpillars, knowing the birds will follow.

The property charms people as well. "Last week, I spotted a new neighbor taking photographs of my front yard," Zemaitis says. "He wants a garden just like it."

When I first learned to recognize the birds in the landscapes I loved, it was a kind of satori — a sudden enlightenment — that rang as clear as a bell. I've chased its echo ever since.

Unfortunately, truly native landscapes are increasingly hard to find. Over the winter, I went birding with a friend near his home in California, in an area I knew well from my work in agriculture. As we explored foothills filled with solar panels, vineyards, and olive groves, I felt my chest tighten with an unfamiliar anxiety. It was my first visit to these familiar places with birds' needs in mind. The human signature was evident everywhere, and its scrawl pushed birds to a footnote in the story of agriculture and development.

Yet in the areas where the right resources remained, an Acorn Woodpecker sought acorns in a small stand of California Scrub Oak. Below a giant rock cliff too sheer to farm, a Rock Wren appeared. A Greater Roadrunner ran alongside the road, through old cattle pasture reclaimed by California Sagebrush.

Following up on reports of an out-of-range Cassin's Kingbird, we continued slowly. I had never seen one, but recognized it straightaway. There, not five feet away, balanced on barbed wire, was our bird. My friend and I high-fived. In a sliver of appropriate habitat in an otherwise largely altered landscape, it was doing exactly what we expected: perching in the open, waiting for what came next.

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TOP: Ruby-throated Hummingbird feeding on *Lobelia cardinalis* (Cardinal Flower). Photo by David Byron Keener, Shutterstock

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