BIRD CONSERVATION

The Magazine of American Bird Conservancy

Summer 2013

"Reverse Magic" for Migratory Birds

Many years ago, I had the great, good fortune to conduct some of my dissertation work under the eminent Patuxent Wildlife Research Center scientist, Fran Uhler, and he took the trouble to introduce me around to the many storied researchers there. One day, Fran dropped me off in the office of Brooke Meanley—scientist, natural historian, and author of wonderful books on birds and habitats that I frequented around the mid-Atlantic region.

When he heard my name, he said, "Fenwick, eh? Where are you from?" and spun around to his bookshelf. He pulled down a large book and out slid an old, black-and-white photograph of an Upland Sandpiper (then called Upland Plover) on a grassy nest. On the back, written in faded pencil, "Incubating Upland Plover, Fenwick property, Worthington Valley, Baltimore Co., Md., May 1936." A little more conversation and I learned that this—the last known Upland Sandpiper nest in Maryland's Piedmont—was on my grandmother's farm.

The last known Upland Sandpiper in Maryland's Piedmont was photographed on Fenwick family property in 1936. Photo by Brooke Meanley

Through stories such as these, the decline of migratory birds becomes personal to us: the first time we saw a new species, the last time we saw a rare species, the best warbler day. We accumulate these stories over a lifetime. It is a narrative of disappearing magic, fantastic memories of beautiful animals living incredible lives, moments and memories now denied our children. Worse, for following generations, is the fact that you cannot really miss what you never knew.

For more than 20 years, thousands of America's best scientists, conservationists, and educators have labored to understand, address, and enlighten us about the disappearance of migratory birds under the proud banner of Partners in Flight. These are my favorite people. And this August, in Utah, many will gather under this banner to make business plans whose implementation will bring migratory birds back to us: reverse magic. ABC hosts this conference, and we are determined that it signal the beginning of a new, unified activism for birds. (See page 13 for more information.)

Everyone knows the slopes before us are long and steep. Our scientists have much more to learn; our conservationists have much to save; and our educators have many to enlist in our effort. But we have a just cause, the amazing resilience of nature, and a lot of good people on our side. We will not fail.

Enough talking about what was; it is time to focus on what we will have again. Together, we are bringing back the migratory birds. I hope you will join us!

George H. Fenwick
President, ABC

COVER PHOTO: Prairie Warbler by Jim Zipp

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BIRD CONSERVATION

Scarlet Tanager by Alfred Yan

SUMMER 2013

Saving Our Shared Birds

Species in Focus

Cerulean Warbler by Dave Spier

Rufous Hummingbird by David Allen Sibley

DEPARTMENTS

We are grateful to David Allen Sibley for the use of his species illustrations.

Maps on species account pages courtesy of BirdLife International and NatureServe (2012): Bird species distribution maps of the world. *BirdLife International, Cambridge, UK and NatureServe, Arlington, USA.*

Second Season of Black-capped Petrel Monitoring Underway

Black-capped Petrel chick in nest burrow. Photo courtesy of Grupo Jaragua

On the Caribbean island of Hispañiola, ABC's Dominican partner Grupo Jaragua (GJ) is monitoring 35 nests of the critically endangered Black-capped Petrel, whose nighttime habitats and eerie mating call earned it the local name *diablotín*, or "Little Devil." The monitoring work has increased since last year, when GJ located 30 nests built by this elusive seabird that spends most of its life at sea.

The Black-capped Petrel burrows now being monitored are located in Hispañiola's rugged mountains. They went undiscovered until 2012, when radar surveys conducted by Environmental Protection in the Caribbean (EPIC) and GJ identified the nocturnal flight paths of birds returning from sea to their nesting areas. Afterward, a GJ field team climbed into the mountainous nesting grounds, listening for the birds' distinctive calls.

They also used night-vision scopes to spot flying "devil birds" and follow them to their nesting areas. To find the active burrows, field researchers snaked long, thin camera probes down into holes and crevices. Motion-sensitive cameras deployed near some of the burrow entrances captured photographs of adult petrels, as well as juvenile petrels exercising their wings to build muscle prior to fledging. Combining these photos with repeat visits to track the status of active nests, biologists were able to build a timeline of the bird's reproductive cycle, from the adults' return to the island in November through the chicks' fledging in July.

Cameras were also used to track visitors, some unwelcome, to petrel burrows, including native birds such as the La Selle Thrush and non-native mammals such as black rats. Despite the presence of rats, which are known to prey on nesting seabirds and their eggs and young, chicks fledged successfully from all but seven of the 30 nests monitored in 2012.

In January and February 2013, EPIC returned to Hispañiola to conduct more radar surveys with GJ and Société Audubon Haiti. The groups located other flight paths to potential nesting areas in both the Dominican Republic and Haiti. In addition to monitoring active nests, GJ is following up on the new leads to more potential nesting areas. Grupo Jaragua's petrel work is supported by ABC through a grant from the U.S. Fish and Wildlife Service.

A sequence of photo captures shows a Black-capped Petrel chick exercising its wings outside of its nest burrow (left and middle), and a rat investigating the entrance of the same burrow. Photos courtesy of Grupo Jaragua

Little Woodstar by Daniel J. Lebbin, ABC

Cloud Forests, Rare Birds, and Water Resources Protected in Peru

The communities of Miraflores, Chido, and San Lorenzo in northern Peru have formally agreed to protect more than 900 acres of important cloud forest and the headwaters of the Río Chido. Water from this river helps sustain the three towns and the larger community of San Lucas de Pomacochas, downstream. By protecting both the forests and the watershed, the communities help secure their land from squatters as well as commercial interests.

In return for helping to protect its water supply, the community of Pomacochas has agreed to extend the 96-acre Marvelous Spatuletail Ecological Easement (also known as the Huembo Reserve) by an additional 89 acres, nearly doubling the popular reserve's size.

These conservation measures were facilitated by Asociación Ecosistemas Andinos (ECOAN), ABC's Peruvian partner.

"This is a truly innovative project that benefits multiple communities by securing their rights to land and water resources," said Tino Aucca, President of ECOAN.

The forests of the Río Chido watershed support several threatened and endemic bird species, including the Russet-mantled Softtail, Pale-billed Antpitta, Rusty-tinged Antpitta, Johnson's Tody-Tyrant, and Rufous-browed Hemispingus. The drier forests of the expanded easement at Huembo support two threatened hummingbird species: the Marvelous Spatuletail and the Little Woodstar.

These newly protected community lands are just part of the recent success achieved in northern Peru. Earlier this year, ECOAN and ABC purchased three properties spanning

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Help Me Get Home!

Join Our Spring Fundraising Challenge

Prairie Warbler by Frode Jacobsen

One-third of bird species in the United States are declining as their habitats are lost or degraded. Help us turn the tide in our top ten bird habitats, from the native forests of Hawai'i to eastern deciduous forests.

Your gift today will provide twice as much funding for habitat projects happening right now, thanks to a generous dollar-for-dollar match up to $100,000 offered by renowned author Jon Franzen and investment banker Bob Wilson. The match is good only through July 31, so please act now!

Visit www.abcbirds.org, or use the enclosed envelope to make a donation today.

Study Proves Feral Cats Killing Endangered Hawaiian Petrels

A recent study from the University of Hawai'i, National Park Service (NPS), and U.S. Geological Survey has provided the first photographic evidence of feral cats preying upon endangered Hawaiian Petrels, which number only about 15,000 distributed in isolated breeding colonies. The study confirms anecdotal evidence that feral cats are an important factor in population declines of the species, and provides additional information on the behavior of cats at petrel burrows.

Federal and university scientists reached that conclusion after monitoring 14 Hawaiian Petrel burrows with digital infrared video cameras during 2007 and 2008. While reviewing 819 videos and 89 photographs collected at petrel nesting areas on Mauna Loa, Hawai'i, the researchers detected feral cats at eight petrel burrows.

Hawaiian Petrel by Brenda Zaun, USFWS

The authors of the study pointed out that while the loss of Hawaiian Petrel chicks to cats may limit the recruitment of chicks into the population, the killing of adult petrels may have even more severe consequences—because the species has delayed sexual maturity, low reproductive potential, and a high degree of mate fidelity.

The authors also noted that of the many Hawaiian Petrel carcasses found in the study area, most were adult birds. Presumably these birds were either actively breeding or seeking mates.

NPS, with support from ABC and the U.S. Fish and Wildlife Service, is working on a fencing project that will protect an estimated 45 active petrel nesting sites by enclosing 640 acres of prime nesting habitat.

PERU, *continued from page 5*

412 acres to expand the Abra Patricia Reserve. This area is recognized by the Alliance for Zero Extinction (AZE) as a critical site for both the Long-whiskered Owlet and Ochre-fronted Antpitta.

Reforestation work continues in the area, with 89,000 trees and coffee bushes planted or scheduled for planting in the coming months in communities surrounding the Huembo and Abra Patricia reserves. ECOAN and ABC have also completed a tree nursery, which can produce 13,000 saplings annually, at the community of La Union, just north of Abra Patricia.

Pale-billed Antpitta by Fabio Olmos

Long-billed Curlews by Michael L. Baird, flickr.bairdphotos.com

The Migratory Bird Decline:
A Status Report

For a generation now, the effort to conserve declining migratory birds in the Americas has helped define both the science of ornithology and the art of bird conservation. In this issue, we provide a look at the history of this effort and a status report on how neotropical migrants are faring—along with a closer look at eight remarkable species.

Saving Our Shared Birds:

By John Nielsen, Senior Writer/Editor for ABC

It has been more than 30 years since scientific bird counts drew attention to a rumor long embraced by older birdwatchers: that bad things were happening to migratory birds found in the Western Hemisphere.

Migrating Dunlin, Delaware Bay, by Mike Parr, ABC

The Story So Far

Analyses of data from the North American Breeding Bird Survey (BBS) seemed to show that counts of well-known songbirds such as warblers and thrushes had been falling steadily for decades. Early tracking studies seemed to strengthen that conclusion by suggesting that the "radar clouds" of birds crossing the Gulf of Mexico had shrunk by half in roughly 20 years.

The data were not conclusive, but the trend lines looked disturbing, at the least. "There is a sickness in the woods," wrote ecologist John Terborgh in 1989, in an influential book entitled *Where Have All the Birds Gone?* Terborgh, now an Emeritus Professor at the Center for Tropical Conservation at Duke University, added that in recent years the eastern woodlands near his home had seemed unusually quiet.

"The accustomed sounds of Black-and-white Warblers, Redstarts, and Kentucky Warblers have been missing," he wrote. "There are woodpeckers, chickadees, Carolina

Blackburnian Warbler by Greg Lavaty, www.texastargetbirds.com

Before the 1980s, migratory birds were rarely studied in their winter habitats, even though it was well known that forests in or near the tropics were being logged at record rates.

Wrens, and others, but the species that are so conspicuously absent, without exception, are tropical migrants."

The change that Terborgh wrote of was not limited to migrants found in eastern forests. Later BBS work seemed to show that shorebirds such as sandpipers and plovers were in more trouble than the songbirds in the eastern forests, and that grassland migrants including Short-eared Owls, Baird's Sparrows, and Sprague's Pipits were in even more trouble than that.

Tracking the Decline

Before the 1980s, migratory birds were rarely studied in their winter habitats, even though it was well known that forests in or near the tropics were being logged at record rates. To cite just one example, 99 percent of the dry forests that once lined the Pacific Coast of Central America were gone by then.

Meantime, on the breeding grounds, important wild lands were being cut into ever-smaller pieces, even though preliminary research seemed to show that fragmentation threatened migratory birds. According to the U.S. Fish and Wildlife Service, most of the woodlands in the eastern United States were less than 100 acres in size, which made it much easier for predators and parasites to get to the nests of migratory birds.

ABOVE: A range of data and initiatives is needed to understand and conserve migratory birds. Left to right: Geolocator tracking device on a Painted Bunting (by The Migratory Connectivity Project). Habitat fragmentation, an increasing threat to many birds (by Mike Parr). Community members plant seedlings at a tree nursery in Peru (by ECOAN). Staff monitor seasonal changes in bird populations at Golden Gate National Recreational Area (by USFWS).

Funding for research on the both the breeding and wintering grounds was very hard to find back then. This was true in part because the state and federal agencies in charge of vital habitats were focused on maximizing fish and game. By most accounts, these agencies were doing exactly what they had been told to do. As a result, before the 1980s, few if any of these agencies employed biologists who studied migratory birds.

"We knew enough to recognize that this was a potential crisis," says David Pashley, Vice President for U.S. Conservation Partnerships at ABC. "But the list of things we did not know was so long it was scary. For example, we knew very little about where particular species of birds spent the nonbreeding season. We knew even less about the routes these migrants followed, or the threats they faced along the way. Generally speaking, we knew next to nothing about why the migrants were declining, or about what we could do to help them."

Scientific interest in this problem rose sharply in 1989, when researchers who had been studying the broad decline shared their fears and theories at a meeting at the Manomet Center for Conservation Science in Massachusetts. Public interest grew as mainstream magazines and newspapers ran articles with headlines such as "Silent Spring Revisited," "Future Shock for Birders," "Empty Skies," and "Birds Over Troubled Forests."

Launching a Response

Questions about whether all of this interest would produce a broad response continued until 1990, when the initiative known as Partners in Flight (PIF) was launched at a meeting hosted by the USDA Forest Service and the National Fish and Wildlife Foundation in Atlanta, Georgia. The model for this program was the 1986 *North American Waterfowl Management Plan*, which organized a large-scale effort to locate and conserve key waterfowl habitats in Canada, Mexico, and the United States.

Scott K. Robinson, Professor of Ecosystem Conservation at the Florida Museum of Natural History, says Partners in Flight turned out to be one of the most ambitious and comprehensive wildlife conservation efforts ever, for several reasons. First, he says, it was proactive. "Laws like the (U.S.) Endangered Species Act do not take effect until a plant or animal is in danger of disappearing," says Robinson. "But when PIF was set up nearly all of the declining migrants were still relatively common."

Robinson, who studies the effects of forest fragmentation on birds in Illinois, adds that PIF was also good at connecting groups that had not interacted much in the past, including migratory bird experts and managers of state and federal wild lands.

"I had never worked with managers before," says Robinson. "What I learned was that they often needed answers quickly, and on a small scale. For example, they might have a week to buy a certain patch of forest and they'd ask me whether it would help the migrants. Usually the best that I could do was offer them an educated guess. Part of what I've learned is that those kinds of answers can be vitally important when it's time to implement solutions."

ABC's David Pashley adds that PIF also triggered a broad change inside state and federal agencies. "Gradually they began to hire researchers and managers who paid attention to the needs of migratory birds," he says. "That was a tremendously important change that has continued to this day."

One thing PIF could not provide was a dedicated funding mechanism, such as the Pittman-Robertson Act of 1937, which sends a portion of the millions spent on hunting and fishing licenses to fish and game programs. Even so, research into the problems faced by migratory birds became a lot more common after PIF was founded.

ABOVE: Efforts in both the north and south are critical to conserving our shared birds. Left to right: Las Tangaras Reserve in Colombia, which protects some of the most diverse rainforest on earth (by Fundación ProAves, March 2012). Coffee plants, an important crop for people and birds when raised in traditional shade coffee farms (by Fundación ProAves). Monitoring health of ponderosa pine stands in Idaho (by Dan Casey).

Even so, research into the problems faced by migratory birds became much more common after PIF was founded, and governments, nonprofit groups, and private entities began to support this kind of work. That increase in funding allowed field teams to collect badly needed baseline data by doing things such as finding nests, counting eggs, and estimating survival rates. Such research makes it easier to quantify the damage done to habitats by logging, farming, grazing, urban growth, invasive species, and so on.

While these data points were being gathered, other research teams were studying the migratory process itself, hoping to find out where certain migrants went, what routes they took, and where they stopped along the way. That work started taking off in the 1990s, as the tracking systems used to follow migratory birds became smaller and more powerful. This change helped researchers follow birds like Whimbrels as they flew through tropical storms, and track a Red Knot as it flew nonstop from Brazil to North Carolina. Smaller birds like warblers would eventually be fitted with tiny "geolocators" that recorded the movements of the birds for a year or so.

Andrew Rothman, Director of the Migratory Bird Program at ABC, says these new technologies are making it easier to find out where breeding birds spend the winter—and vice-versa. He adds that this has helped researchers find out more about the ways in which conditions on the wintering grounds—or on the migratory flight itself—affect the birds when they come north to breed. Does a drought down south mean fewer eggs up north? Does a tough migration mean a shorter lifespan?

Rothman says these are the kinds of questions being asked by researchers who study what is known as "migratory connectivity." He says, "It's the kind of research that could help us understand exactly why a species is declining…the kind we will see much more of in the years to come."

Does a drought down south mean fewer eggs up north? Does a tough migration mean a shorter lifespan? ABC's Andrew Rothman says these are the kinds of questions being asked by researchers who study what is known as "migratory connectivity."

Creating a Blueprint for Conservation Action

By all accounts, the effort to discover what's been causing these declines is nowhere near completion, partly because there is still a huge amount of basic research that needs to be done, and partly because important habitats in the both the north and south are still at risk. But that hasn't stopped a wide range of entities—including ABC—from implementing on-the-ground solutions.

Some of these solutions involve the creation and expansion of protected zones for migratory birds. A spectacular example of how this approach can work is now in place in Canada's vast boreal forest, where huge swaths of habitat required by migratory birds have been protected.

A different attempt to help declining migrants is now taking shape in places like the Appalachian Mountains, where managers, biologists, and landowners have started restoring diversity to unnaturally even-aged forests, creating forest openings much like the ones once made by busy

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Partners in Flight V: Changing the Course of Conservation for Migratory Birds

By David Younkman, Vice President for Conservation, ABC

There are few times in history when prominent scientists and conservationists have come together and significantly changed the course of conservation. One of those times was in 1917, when Victor Shelford gathered scientists and formed the Ecological Society of America, leading to the publication of *The Naturalist's Guide to the Americas* (1926) and launching the modern conservation movement in the United States.

Another example came in 1985, when research showed that waterfowl populations had plummeted to record lows. Concerned groups and individuals came together to create the *North American Waterfowl Management Plan*, recognized by both the United States and Canada in 1986 and later joined by Mexico. That plan has generated more than $5.3 billion to purchase and enhance waterfowl habitat on more than 20 million acres in these three countries—a remarkable legacy of coordinated public-private action.

This year will provide another moment to shape the future of conservation, this time aimed at improving the plight of America's migratory birds. Partners in Flight (PIF) was formed as a collaboration of hundreds of groups and agencies in 1990, in response to growing concerns about the decline of many of our land birds, especially neotropical migrants. At PIF's fifth partner-wide meeting, from August 25-28, 2013, participants from across the Americas will work together to produce conservation business plans that identify the most critical actions needed to halt the continuing decline of America's migratory birds.

Teams are now being formed for nine different ecological regions, geographically linking north and south to cover wintering, breeding, and transit areas. At PIF V, these teams and conference attendees will develop specific sets of programs and projects to address the most pressing threats for these regions and their migratory birds. The result: a "conservation blueprint" for our most imperiled migratory species.

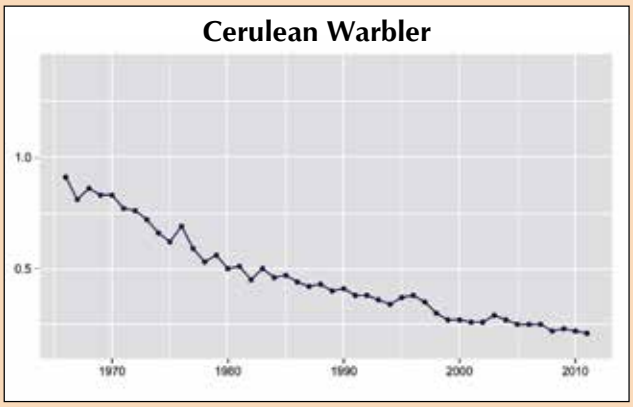
PIF V is being organized by ABC in close coordination with agencies and organizations from across the Americas. All who are concerned about birds and their conservation are encouraged to attend, participate, and contribute. It is an opportunity that rarely repeats itself, and will produce a lasting legacy for conservation.

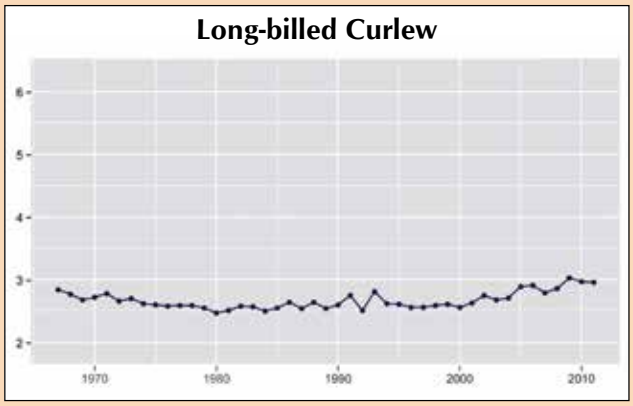
For more information, see **www.pifv.org**.

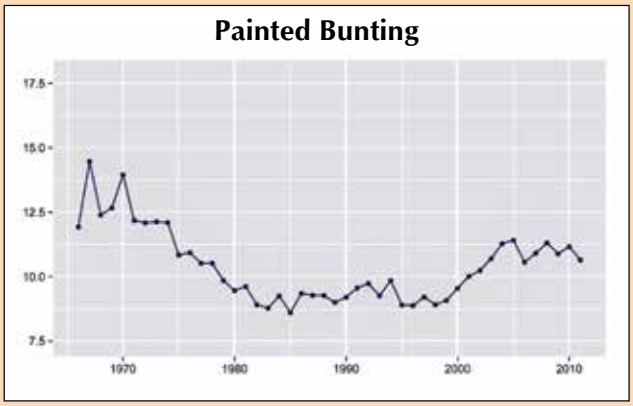
David Younkman is Vice President for Conservation at ABC. He worked for two decades at The Nature Conservancy, beginning as the Ohio State Director and leaving as Vice President for Resources of the Latin America and Caribbean Program. An avid sailor, he has a Masters of Science in Landscape Architecture and Environmental Design from University of Wisconsin-Madison.

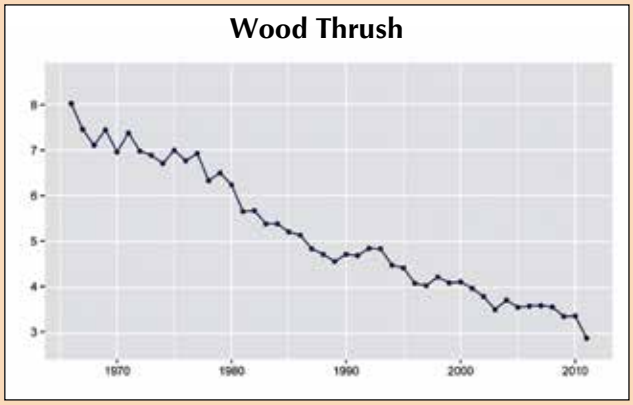
American Redstart by Ted Ardley

North American Breeding Bird Survey:
Changes in Species Sightings Over Time









Since 1966, experienced observers in the North American Breeding Bird Survey have been monitoring more than 400 avian species along nearly 2,000 randomly chosen roadside routes. The charts above show the change in the average number of individual birds detected along BBS routes within the range of these four species. *Data courtesy Paul J. Hurtado of The Ohio State University. The North American Breeding Bird Survey is a cooperative effort between the U.S. Geological Survey's Patuxent Wildlife Research Center and Environment Canada's Canadian Wildlife Service.*

beavers and unsuppressed wildfires. These teams hope to increase crucial breeding habitat for birds including Golden-winged, Chestnut-sided, and Cerulean warblers; Red-eyed Vireo; Indigo Bunting; Yellow-breasted Chat; and American Redstart.

Similar restoration efforts are now underway in the Central Hardwood forests in the United States. Meantime, on the wintering grounds, groups including ABC are reconnecting forest fragments by restoring forest corridors with help from local landowners. ABC and other groups are also working with ranchers on grazing practices that benefit both cattle and migratory birds.

By all accounts, a large part of the job ahead involves finding ways to make these programs work on a landscape scale, both ecologically and economically. A grand attempt to move in this direction is expected to take place when ABC hosts the next meeting of Partners in Flight, which will take place in Utah in late August. (See page 13 for more information).

There, diverse groups of experts will develop large-scale "conservation business plans" for key nonbreeding habitats. "We plan to create a blueprint for future conservation action," says David Younkman, ABC's Vice President for Conservation.

What does it all add up to? At this point it's hard to say, primarily because it will be years before the impact of the work that has been done on behalf of declining migratory birds starts to show up in the data collected by the North American Breeding Bird Survey and other research.

"The best thing we can say right now is that these birds might well have been a lot worse off if we had not done anything," says David Wilcove, a Professor of Ecology at Princeton University.

But Wilcove says there's still cause for optimism here. "The technology is trending upward," he says, "as are on-the-ground solutions. I think public interest in this subject has been trending upward too. The bird counts continue to trend downward, but you need to remember that most of these species are still relatively common. This fight isn't over yet. We've still got time."

Editor's Note:

Many partners and friends collaborated with us to produce this special report. In addition to experts at American Bird Conservancy, we extend our thanks to John Faaborg and the University of Missouri-Columbia, Scott K. Robinson at the Florida Museum of Natural History, Bridget Stutchbury at York University, David Wilcove at Princeton University, and the authors of a wide range of entries in The Birds of North America, *from the Cornell Lab of Ornithology and the American Ornithologists' Union.*

John Nielsen is Senior Writer and Editor at ABC and the author of *Condor: To The Brink and Back/ The Life and Times of One Giant Bird*. Before joining ABC, he was an Environment Correspondent at National Public Radio and a Journalist in Residence at WWF-US.

A large part of the job ahead involves finding ways to make conservation programs work on a landscape scale, both ecologically and economically.

Chestnut-sided Warbler by Greg Lavaty, www.texastargetbirds.com

Wood Thrush

Many know the Wood Thrush for its haunting song. Fewer know that this song is enabled by the bird's ability to harmonize with itself. With two independent sets of vocal chords, Wood Thrushes can strike two different notes at once. The ethereal result is what moved Henry David Thoreau to call this bird "the genius of the woods" and its song a declaration of "the immortal health and vigor of the forest."

Now, unhappily, the species has a different distinction. The Wood Thrush has become a symbol of the broad decline of neotropical migratory birds. According to data from the North American Breeding Bird Survey, its population has fallen from 13 million in the 1960s to 5 million today.

Like many other songbirds thought to be declining—for example, Blue-winged, Swainson's, and Kentucky warblers—Wood Thrushes migrate back and forth between forests in eastern North America and lowland tropical forests found on the Caribbean slope of Mexico and Central America. The main problem faced by these birds is that the forests at both ends of their migratory routes have been badly degraded.

In its northern haunts, the Wood Thrush in particular has suffered, as the larger forests where it breeds have been cut into ever-smaller pieces. That has made it easier for predators to find the nests and eggs of birds that, like the Wood Thrush, used to hide in the forest interior. Among the leading thrush-hunters are rat snakes, raccoons, skunks, Blue Jays, free-roaming house cats, and particularly Brown-headed Cowbirds, brood parasites that lay eggs in Wood Thrush nests, to the detriment of their chicks.

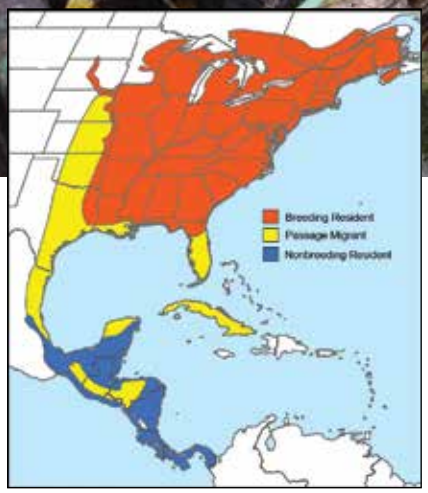
Wood Thrushes leave those forest fragments in the fall and migrate southward. Recent tracking work appears to show that even though their migratory routes vary widely from one year to the next, many of the birds return to the same patch of trees in the lowland forests found on the coastal plains of Mexico and Central America. The tracking studies also seem to show that roughly half of migrating Wood Thrushes spend the nonbreeding season in forests in Nicaragua and Honduras. Unfortunately, those forests are now being logged at what researchers call "alarming" rates, and then replaced by rapidly expanding farms and ranches. Less intensive logging of lowland coastal forests is also a problem in Mexico and the rest of Central America.

Experts on the Wood Thrush are encouraging the farmers in its wintering range to grow more crops like coffee and cacao in cultivated "shade forests" used by the thrushes and other songbirds. They are also working to locate and save Wood Thrush "hotspots" on the wintering and breeding grounds, and along the migratory pathways that connect them—in order to save one of the Americas' best-known songsters.

Belize forests by Neil Rogers, www.fcdbelize.org

"genius of the woods"

Wood Thrush by Greg Homel, Natural Elements Productions

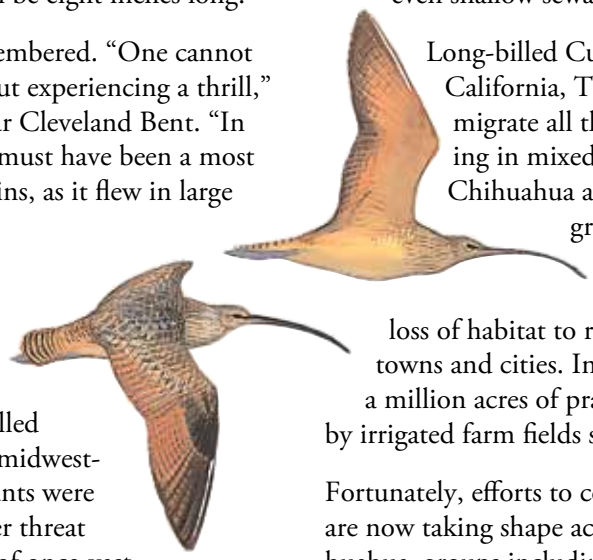


Tracking studies seem to show that roughly half of Wood Thrushes overwinter in Nicaragua and Honduras.

Long-billed Curlew

Long-billed Curlews are often used to draw attention to the plight of grassland migrants. Yes, it is a shorebird, but it breeds and winters in North American prairies. It is also nearly two feet tall—and very loud when it is bothered. Then there is the dark, thin, downward-curving bill, which can be eight inches long.

It's the kind of bird that gets remembered. "One cannot see this magnificent species without experiencing a thrill," wrote the bird life historian Arthur Cleveland Bent. "In its former abundance this species must have been a most striking feature of the western plains, as it flew in large wedge-shaped flocks in full cry."



Until the late 1800s, Long-billed Curlews ranged from the Rocky Mountains east to the Atlantic Ocean. Then market hunters wiped them out in the east and killed them by the tens of thousands in midwestern grasslands. By the time the hunts were banned in the early 1900s, another threat had emerged: the transformation of once-vast prairies into ranches, farms, towns, and cities. Eventually those kinds of changes would turn prairies all over North America into what has been described as one of the world's most threatened ecosystems. The small amount of grassland that remains has been fragmented, fouled by pesticides, or overrun by invasive plants.

Most of the remaining Long-billed Curlews breed in what is left of the short- and mixed-grass prairies that once covered the Great Plains and the Great Basin in the United States, and in parts of southwestern Canada. Some now breed in California.

But in the fall these birds still put on a show as they migrate south along the coast of the Pacific, flapping and then gliding and then flapping again, usually while calling out loudly. They make frequent stops to eat and rest on the wet part of beaches, tidal estuaries, rice fields, and even shallow sewage ponds.

Long-billed Curlews winter near the coasts of California, Texas, and Louisiana. Many others migrate all the way to northern Mexico, landing in mixed grasslands found in states such as Chihuahua and Nuevo Leon. There, like other grassland birds, they face the same threat that they face up north in the breeding grounds: rapid loss of habitat to ranchers, farmers, and expanding towns and cities. In Chihuahua, for example, at least a million acres of prairie grasslands have been replaced by irrigated farm fields since 2005.

Fortunately, efforts to conserve the Long-billed Curlew are now taking shape across its wintering range. In Chihuahua, groups including Pronatura Noreste, the Rocky Mountain Bird Observatory, and ABC are mapping out essential grasslands and working with ranchers to improve grazing practices in ways that will benefit cattle production and migrating birds. And on the northern breeding grounds, a range of groups and agencies, including ABC, are trying to steer landowners toward government programs that pay people to maintain natural grasslands on their property, along with other incentives to improve grassland nesting habitats.

Grasslands at La Soledad, Mexico. Photo by Pronatura Noreste

poster bird for grasslands

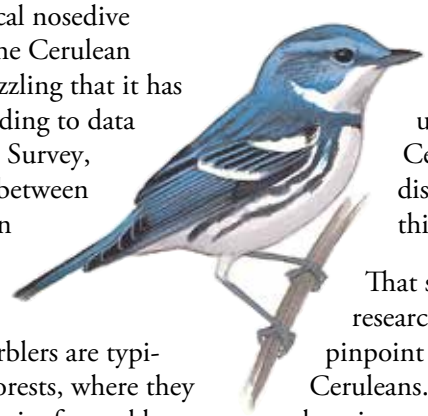
Long-billed Curlew by Judd Patterson

Many Long-billed Curlews migrate to northern Mexico, landing in mixed grasslands found in states such as Chihuahua and Nuevo Leon.

Cerulean Warbler

Millions of birds commute between the wet, green forests of the northern Andes and the hardwood and mixed forests found in much of eastern North America. Population counts for some of these birds—such as the Blackburnian Warbler—have barely changed over the years. But the counts for others, such as the Canada Warbler, have been diminishing for decades.

Then there is the migrant whose numerical nosedive makes the other downturns look tame: the Cerulean Warbler, a blue and white migrant so dazzling that it has been called a "flying piece of sky." According to data from the North American Breeding Bird Survey, this bird's population fell by 70 percent between 1966 and 1996. That makes the Cerulean the most rapidly declining warbler in the Americas.



In eastern North America, Cerulean Warblers are typically found in the interior of expansive forests, where they flit through openings in the uneven canopies formed by the tallest, oldest trees. Ceruleans seemed commonplace when forests of uneven ages were the norm in their North American breeding range. Now, however, many of those forests have turned into towns and cities, and many of the rest have been replaced by managed forests where the trees are all the same age and height, and where the canopies lack openings required by the warblers. In the Appalachians—long a stronghold for these birds—large amounts of prime Cerulean habitat have been destroyed by mountaintop removal mining practices.

These broad changes are among the reasons why far fewer Ceruleans fly south in the fall now—down the Mississippi and Ohio River valleys, and then out across the Gulf of Mexico to mountains in Belize, and from there over the top of Panama to montane forests on the east slope of the northern Andes, where they face another set of problems.

Research has established that the forests favored by wintering Ceruleans occur inside a narrow elevational band in the Andes, extending from roughly 2,000 to 3,900 feet above sea level. Unfortunately, forests at this altitude have been logged heavily for centuries, making way for new human uses of the land, from cities to ranches and farms. Some of the farms sell crops that can thrive under the canopies of shade trees that Ceruleans will use. But in many places, disconnected forest fragments are the only thing the birds have left.

That started changing several years ago, when researchers drafted detailed maps designed to pinpoint forest areas required by the wintering Ceruleans. Since then, wooded corridors connecting these important forests have been planted by organizations like Fundación ProAves and ABC. One of the results, in the Colombian Andes, is the Cerulean Warbler Conservation Corridor, which reconnects forests used by Ceruleans and many other migratory species, including Rose-breasted Grosbeak, Olive-sided Flycatcher, and Mourning, Canada, and Blackburnian warblers.

Complementary efforts to restore the northern forests that Cerulean Warblers breed in are now underway as well. In the Appalachian and the Central Hardwood forests of the United States, ABC and other groups are restoring vast tracts of unevenly aged woodlands, designed to benefit those dazzling blue and white pieces of "flying sky."

Highland forests (seen here in the distance) are being preserved and restored at the Cerulean Warbler Bird Reserve in Colombia. Photo by Fundación ProAves, www.proaves.org

"flying piece of sky"

Cerulean Warbler by Robert Royse

Forests favored by wintering Ceruleans occur in a narrow band in the Andes, roughly 2,000 to 3,900 feet above sea level.

Painted Bunting

With bright blue heads, green and yellow backs, and rumps once described as "dragon's-blood red," Painted Buntings are so colorful that they look—well, painted. "This bird, in its dazzling brilliance, seems hardly a creature of feathers at all," wrote one early observer. "Many people seeing it for the first time can scarcely credit their eyes, because nothing else approaches it."

But that's not the only thing that makes the Painted Bunting an unusual bird. There's the fact that there are two different populations of Painting Buntings in the Americas, with two separate breeding grounds, two separate nonbreeding grounds, and two different migratory strategies.

There is the eastern Painted Bunting, which breeds on a strip of the Atlantic Coast that stretches from North Carolina down to central Florida. Some of these birds spend the winter in southern Florida; many others migrate south to Cuba and the Bahamas. Then there is the western Painting Bunting, which breeds in Louisiana, Arkansas, Oklahoma, Texas, and northern Mexico. Nearly all of these birds winter in thorn forests found in western Mexico, but they don't fly there directly. First, they fly to an arid part of northwestern Mexico, arriving as the rainy season briefly makes the landscape green and buggy. Before moving on, these Painting Buntings lose their old feathers and replace them with new ones. Mid-migration molts such as these are uncommon.

One thing that Painted Bunting populations seem to have in common is a sharp decline that has lasted decades. No one knows exactly why it is happening, but there are some working theories. One is that in the Caribbean, Mexico, and Central America, huge numbers of Painted Buntings have been trapped and caged over the years—indeed, the centuries—and then kept as pets or sold on the black market for exotic wildlife. Another factor fueling this decline may be the speed with which the eastern Painted Bunting has been squeezed out of its coastal breeding habitat, as shrubby areas near the coast are cleared and developed.

Finally, there's the potential link to the destruction of large parts of the thorn forests found in western Mexico, where most of the western Painting Buntings spend the nonbreeding season. Towns, farms, and ranches are proliferating in this part of Mexico. Experts say this is a change that threatens a huge number of bird species, including Painted Bunting, Allen's Hummingbird, and Black-capped Vireo.

But there are some rays of hope. A conservation action plan designed to save wintering grounds for this and other species will be advanced at the August meeting of Partners in Flight. In eastern breeding grounds, key islands near the coasts are being used as Painted Bunting "safe zones." Finally, last year, an international team of law enforcement agencies launched what many hope will be the first in a series of crackdowns on the black market for caged birds, including this dazzlingly brilliant species.

Thorn forest habitat by Arturo Longoria

complicated flight plans

Female Painted Bunting by Owen Deutsch

Most western Painted Buntings spend the nonbreeding season in western Mexico's rapidly diminishing thorn forests.

Upland Sandpiper

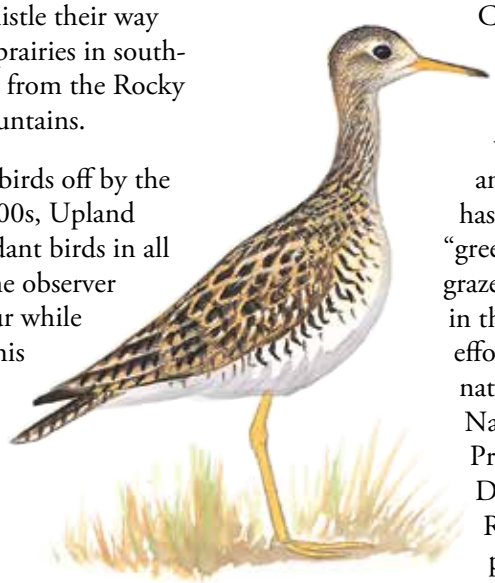
In Wisconsin, spring does not officially arrive until a foot-tall migratory bird with an unforgettable call flies north from the far side of the world. So wrote Aldo Leopold in *A Sand County Almanac* in 1949. To see this bird, wrote Leopold, come join him in the grasslands some night after the dandelions bloom in May:

"Sit down on a tussock. Cock your ears at the sky, dial out the bedlam of meadowlarks and the redwings and soon you may hear it, the flight song of the upland (sandpiper), back from the Argentine."

The otherworldly sound that Leopold refers to has been described as a "weird bubbling song resembling a wolf whistle in pitch and cadence." The birds that make this sound spend the nonbreeding season in the grasslands of Paraguay, northeastern Uruguay, southern Brazil, eastern Bolivia and—most commonly—Argentina. When the breeding season starts, they wolf-whistle their way several thousand miles to the north, to prairies in southern Canada and the central plains states from the Rocky Mountains east to the Appalachian Mountains.

Before commercial hunters killed these birds off by the trainload in the late 1800s and early 1900s, Upland Sandpipers were among the most abundant birds in all of North America. In the late 1800s, one observer wrote of standing awe-struck for an hour while a single group of "Uppies" passed over his head.

Sadly, that particular spectacle will never be repeated. By all accounts, this sandpiper is not only uncommon now, but imperiled by familiar threats across its migratory range.



In the north, continued fragmentation of key prairies has made it difficult for Upland Sandpipers to find the 40-acre grassland plots where they prefer to nest. As a result, in several states these birds now nest primarily near airport runways and on military bases, where large areas of grassland remain intact.

In the south, key wintering pampas grasslands have had problems of their own, including extensive cattle grazing, heavy use of pesticides, and conversion into irrigated farms. Other long-range migrants put at risk by these changes include Swainson's Hawk, American Golden-Plover, and Buff-breasted Sandpiper.

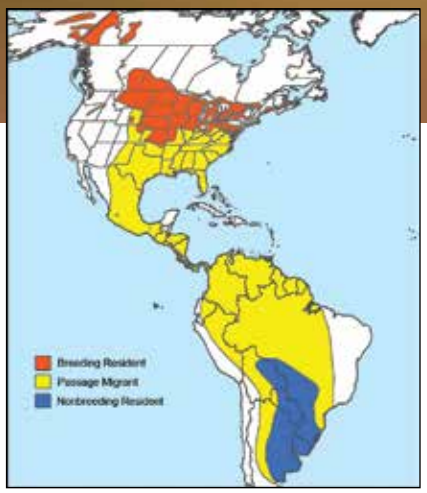
Tracking studies of the Upland Sandpiper are expected to reveal key rest stops used by the birds. Studies such as these could also help researchers find out how many migrating Uppies are shot each year by hunters based on Caribbean islands.

Other efforts to protect the Upland Sandpiper are already underway. In the birds' nonbreeding range, an array of groups and governments has been pushing a plan to add a special "green" label to beef produced by cattle grazed in bird-friendly ways. Meanwhile, in the North American breeding range, efforts to protect and expand fragmented natural grasslands—by groups like The Nature Conservancy, the American Prairie Foundation, and the U.S. Department of Agriculture's Natural Resources Conservation Service—are providing hope for the future.

Grasslands at the Barba Azul Reserve in Bolivia, where Upland Sandpipers are known to winter.
Photo by Daniel J. Lebbin, ABC

from the pampas to the prairies

Upland Sandpiper by Judd Patterson

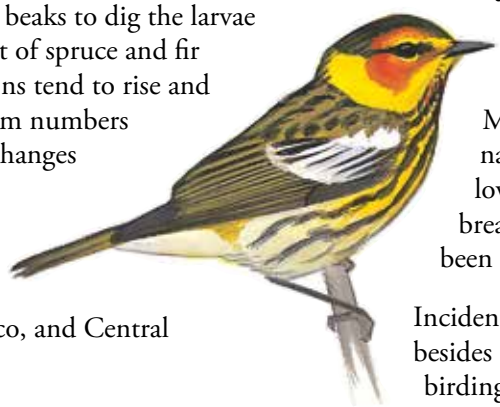


"Uppies" overwinter in the grasslands of several South American countries, most commonly in Argentina.

Cape May Warbler

Of all the warblers found in the Americas—118 species from 21 genera—only the Cape May Warbler has a forked tongue. It's curled and semitubular, like a tongue stolen from a hummingbird.

In the spring, when Cape May Warblers nest near the tops of very tall trees found primarily in Canada's boreal forest, their odd tongues seem all but useless. Though they sometimes use these tongues to sip up sap, the birds keep themselves alive by using their thin beaks to dig the larvae of tree-killing spruce budworms out of spruce and fir trees. Cape May Warbler populations tend to rise and fall in lockstep with spruce budworm numbers in the breeding grounds. But that changes radically in the fall, when the birds migrate south to their winter homes in the West Indies and—less frequently—the Florida Keys, the Bahamas, southern Mexico, and Central America.



This is the point where the forked tongue takes over. Rather than hunt larvae, Cape May Warblers use their tongues to puncture grapes and suck the juices out of them. They also drink the nectar found in a wide range of flowers. "It's a Jekyll-Hyde transformation," said one enthusiastic ornithologist. The description holds true on the wintering grounds, where the Cape May Warbler turns up almost any place where nectar-bearing plants are flowering.

Data from the North American Breeding Bird Survey suggest that Cape May Warblers have been steadily declining since the 1970s. This may be occurring because spruce budworm outbreaks have been relatively rare since then, but there are some other possibilities. In the north, selective logging of tall spruce and fir trees could be limiting the warbler's habitat. The islands where Cape May Warblers winter are being transformed by everything from urban sprawl to the loss of shade coffee plantations that the warblers use.

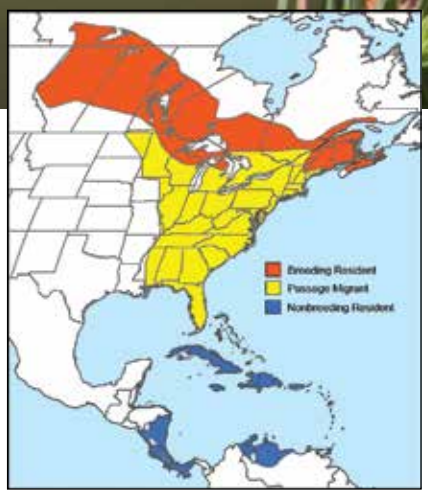
In the breeding season, male Cape May Warblers sport a blackish crown and nape, orange-brown cheeks, bright yellow neck patches, and a yellow throat and breast that's full of stark black stripes. It has been described as a tiny "flying tiger."

Incidentally, this small bird does not share much besides a common name with the world-famous birding site on the East Coast of the United States. That one link was forged in 1811, when ornithologist Alexander Wilson described and named an unfamiliar specimen of warbler collected near Cape May, New Jersey. It would be 100 years before a second Cape May Warbler would be recorded near that site.

Nevis, West Indies by Marion Brenner

tiny flying tiger

Cape May Warbler with spruce budworm by Robert Royse



The West Indies are the primary home for Cape May Warblers in the winter, where they drink nectar like hummingbirds.

Rufous Hummingbird

Feisty Rufous Hummingbirds, described as "feathered balls of fire," undertake a staggering migration each year. It starts in the spring, when the three-inch birds with flaming red throat feathers leave their winter homes in scrubby mountain forests found primarily in western Mexico. Beating their wings approximately 3,600 times a minute and flying at an average speed of 25 miles per hour, they head north and west toward the coast of southern California. Then, hugging the coastline, they move north in segments, flying for as many as 650 miles before stopping to gorge themselves on nectar and small insects.

After resting for up to two weeks, these hummingbirds complete another segment of their journey, and then another, and another. This goes on until these birds get to their breeding grounds. For most of them, this means arriving in southern Alaska, more than 2,600 miles north of their scrubby winter homes in Mexico.

The Rufous Hummingbird's migration is among the longest in the world, relative to this bird's size. It is also vitally important to the nectar-bearing plants that these birds pollinate on their long journeys, including columbine, scarlet gila, Indian paintbush, fireweed, lilies, larkspur, and many more. Pollination experts note that plants like these can help anchor entire ecosystems. In Alaska, for example, brown bears depend upon the wild blueberries pollinated by these birds. Researchers are now trying to learn more about the "nectar trails" that Rufous Hummingbirds follow up the coast each spring, and the trails that lead them south through the Rocky Mountains and the Sierra Nevada each fall.

Birdwatchers have known for years that Rufous Hummingbirds are very good at showing up just as plants like the crimson-flowered currant are about to bloom: "At that time, every bush is alive with the darting hummers," wrote one observer. "It is one of the most brilliant bird and flower spectacles in the West."

It is estimated that 6.5 million Rufous Hummingbirds are alive today; in other words, they're common. But data from the North American Breeding Bird Survey suggest that Rufous Hummingbird numbers have been declining since at least the 1960s. Some suspect that this decline is happening because those "nectar corridors" are less connected and much smaller than they once were. Efforts to learn more about potential threats to these birds have been slowed by a dearth of studies on both wintering and breeding grounds.

And here's a twist: In recent years, surprising numbers of these birds have strayed far from their traditional migration routes. More and more of them seem to be spending the non-breeding season in the southeast, along the Gulf of Mexico. Whether a new migration route is taking shape here is an intriguing question—one with no answer, at least not yet. More research is needed to unlock the secrets of this bird's fantastic—and rapidly evolving—voyages.

Pine forests, northern Mexico by Mike Parr, ABC

fantastic voyagers

Rufous Hummingbird by Greg Lavaty, texastargetbirds.com

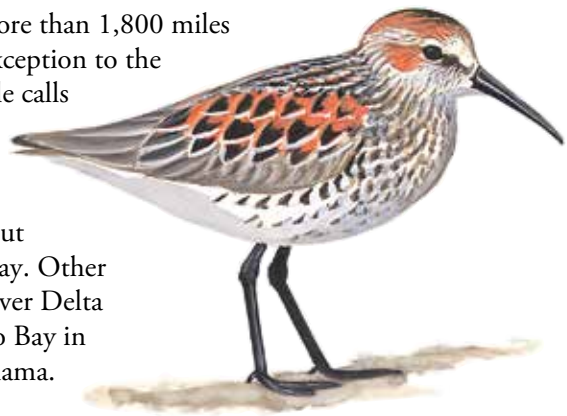
This tiny bird may have the longest migration in the world in terms of body length, often flying from Mexico to Alaska.

Western Sandpiper

To get a first-hand sense of just how awe-inspiring bird migrations can be, go to Alaska's Copper River Delta in the spring. If your timing's right, you'll see gigantic flocks of six- to seven-inch shorebirds with long downward-curving bills skitter back and forth across the delta, looking for food and making calls that sound like rolling whistles.

When Western Sandpipers are startled, they spring up off of the water all at once and fly in tightly coordinated twists and turns, as if the massive flock were a single living thing. Later, when they migrate north, more sandpipers take their places. This process repeats itself for several weeks each spring. In that time, millions of Western Sandpipers migrate northward to this delta, stopping in for a few days before flying on to their sub-arctic breeding range in northwestern Alaska, or to smaller breeding zones on the North Slope and the Siberian coast. And every fall, most of these shorebirds migrate southward along a string of key wetland stopover sites, en route to their wintering areas from California to Peru. A smaller population moves along the Gulf Coast, from Louisiana to Veracruz, Mexico.

Western Sandpipers can cover more than 1,800 miles in a single flight, but that's the exception to the migratory rule. The migratory rule calls for frequent stops at wetlands, estuaries, deltas, rice fields, and more. The single most-used rest stop is the Copper River Delta, but there are many more along the way. Other major stops include the Fraser River Delta in western Canada, San Francisco Bay in California, and Panama Bay, Panama.



Researchers say there are at least three million Western Sandpipers alive today, which makes them one of the most common shorebird migrants in the Americas. But sharp drops in long-term counts at a few of the rest stops have raised the possibility that they are in decline. That is one of several reasons why shorebird researchers keep a close eye on this migration. Another reason is that for many years, both rest stops and key wintering sites have been threatened by proposals to build everything from tract homes to fish farms in or near them. Other migratory sites have been damaged by pesticides and industrial emissions.

Ironically, these birds are also threatened by the very thing that makes their vast migrations so inspiring: their tendency to gather in great numbers at locations such as the Copper River Delta, which drains into Alaska's Prince William Sound—the site of the Exxon Valdes oil spill in 1989. If a spill like that were to foul this delta, it could be catastrophic for these birds. As a result, the most abundant shorebird in the Western Hemisphere has been identified as a "Species of High Concern" by the United States Shorebird Conservation Plan. Many groups and agencies are trying to protect its rest stops and wintering grounds, arguing in part that what is good for the Western Sandpiper is also good for the Marbled Godwit, Short-billed Dowitcher, Snowy Plover, and other species that use these stopover sites.

Panama Bay © Karl Kaufmann, CAVU

awe-inspiring migrations

Western Sandpiper by Gregg Thompson

Most Western Sandpipers migrate southward along a string of wetland stopover sites en route to wintering areas from California to Peru.

What's In Your Mug?

How Bird Friendly® Coffee Helps Migratory Birds

by Scott Weidensaul

Migratory birds—which must overcome so many natural challenges as they journey from one end of the globe to another—are having a much harder time overcoming the obstacles that humans have added to the mix: habitat loss, environmental contaminants, climate change, and a lot more.

Trying to reverse their declines is a huge, seemingly overwhelming task. But there is one thing that all of us can do, every day, to make a real and demonstrable difference for migratory birds.

It's as simple as what you put in your coffee mug.

For decades, we've known that traditional shade coffee farms in Latin America and the Caribbean—the kind that raise coffee the way it's been farmed for centuries there, below the canopy of intact, functioning forests—provide critical habitat for scores of migratory bird species.

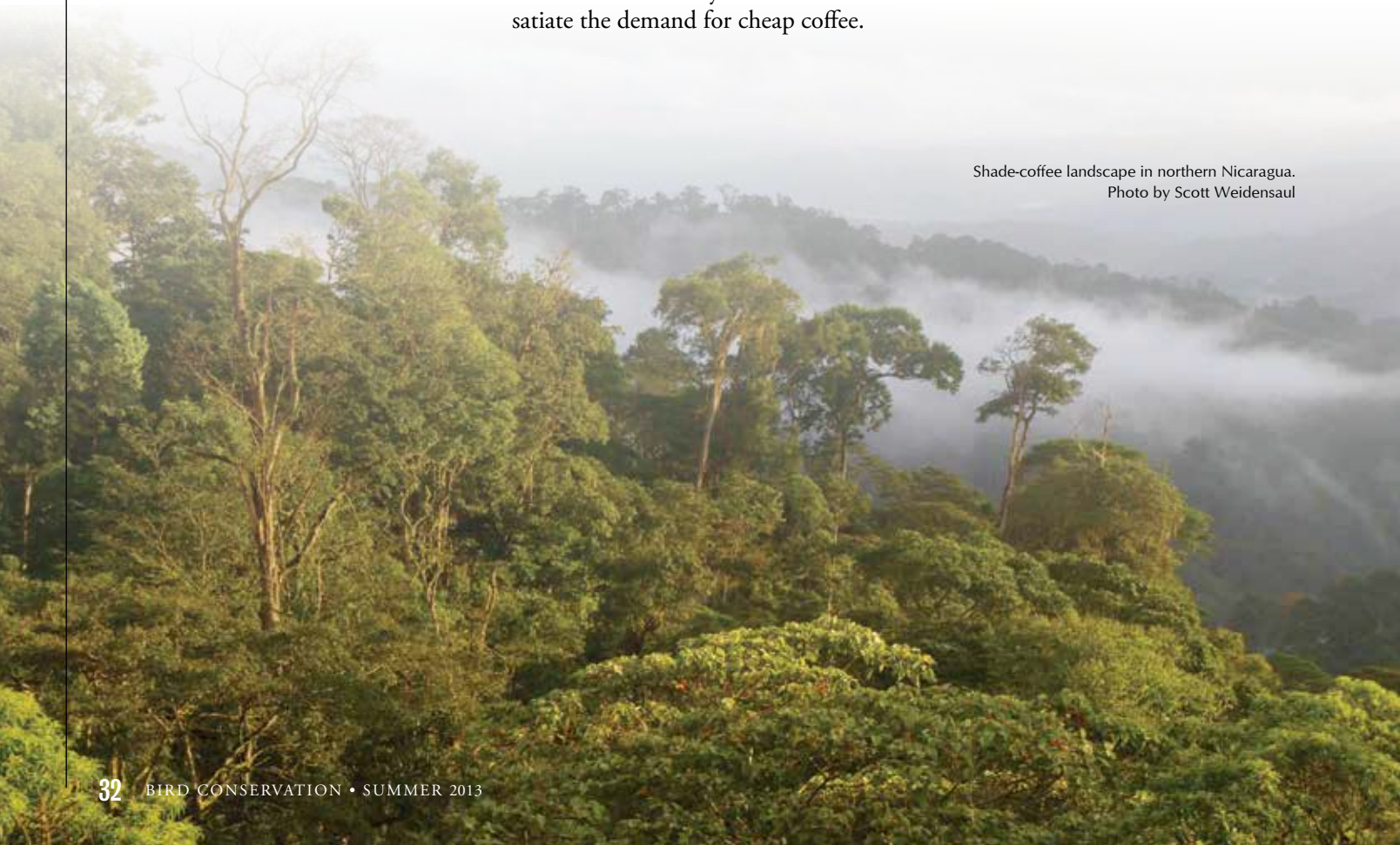
But increasingly, small shade coffee farms have been destroyed to make way for sun-tolerant coffee—an industrialized, chemical-dependent system that renders what had been prime bird habitat into the ecological equivalent of a parking lot. By some estimates, more than 40 percent of the shade coffee farms in Latin America have already been lost to satiate the demand for cheap coffee.

Gold Standard for Shade Coffee

Americans are the driving force behind this shift, drinking a third of the world's supply. The decisions we make at the supermarket or specialty shop have profound effects on birds.

In truth, though, there is no such thing as "cheap coffee." Throughout the tropics, inexpensive sun-grown varieties exact an enormous toll on biodiversity, not to mention rural families and small cooperatives steamrollered by large agribusinesses.

Fortunately, there is a surprisingly easy solution: Drink the right coffee.



Shade-coffee landscape in northern Nicaragua.
Photo by Scott Weidensaul

Yellow Warbler by Alfred Yan

Scientists at the Smithsonian Migratory Bird Center (SMBC) created the Bird Friendly® program to certify the very highest-quality shade coffee farms—the ones that provide the greatest benefit to migratory birds. By certifying this exceptional coffee, the SMBC program enables the product to command a premium price in the marketplace. This increased value creates a powerful incentive for farmers to keep shade coffee farms intact.

While there are other shade certification programs, Bird Friendly® is widely regarded as the gold standard. It requires USDA organic certification, and to qualify, farmers must meet a rigorous list of requirements, from canopy height and native tree diversity to pollution controls when the coffee is milled.

The result? Coffee that safeguards habitat for the birds we care about, provides an opportunity for farmers to receive a higher price for their crop—and, because it ripens slowly in the shade, tastes far richer and more complex in your cup.

Paradise for Birds

Last January, I had the opportunity to travel to the highlands of northern Nicaragua, one of the most important wintering areas for migrants like Wood Thrushes, and a stronghold for quality shade coffee.

In the village of San Juan del Río Coco—so remote that the road into town was only paved a few months earlier—I met with members of a cooperative of more than 400 small coffee producers who raise more than 2.5 million pounds of shade coffee every year, all of it certified USDA organic and almost all of it Bird Friendly®. They told me they plan to have the final few farms in the co-op certified by SMBC within two years.

Summer Tanager by Murray Cooper

The highlands were a paradise for birds. Everywhere we looked, there were migrants—Philadelphia, Warbling, and Yellow-throated vireos; Tennessee, Chestnut-sided, Wilson's, and Yellow warblers rolling through the understory in constant, flickering motion; Western Kingbirds and Western Wood-Pewees hawking insects in the treetops; Summer Tanagers and Rose-breasted Grosbeaks mixing with resident species like Black-headed Saltators and Clay-colored Robins.

Flocks of Baltimore Orioles descended on blossoming trees and plucked the brilliant yellow flowers, dropping showers of blooms as they drank the rich pockets of nectar they'd revealed.

Seen from space, though, the hills around San Juan del Río Coco are an island of fertile green surrounded by hundreds of square kilometers of land already converted to sun coffee, pasture, and grain fields.

We can protect this oasis and many more like it—the bugs, fruit, and nectar these healthy forests still produce, and the way of life that supports both rural families and migratory birds. All we have to do is choose Smithsonian-certified Bird Friendly® coffee. It may be the easiest and tastiest way to help migratory birds.

How to Find the Best Coffee for Birds

For the best benefits to birds, your coffee should be certified Bird Friendly®, which requires farmers hold to the highest standards — higher than certifications of shade-grown, organic, or fair trade.

At ABC, we're drinking Birds & Beans coffee. This company is the only one we know of that produces 100 percent Bird Friendly® coffee. Find out more about Birds & Beans: **www.birdsandbeans.com**

There are many other coffee brands that are good for birds, too. Be sure to look for the Bird Friendly® logo as well as "Smithsonian Migratory Bird Center (SMBC)."

Learn more about how to be Bird Friendly® at **http://nationalzoo.si.edu/scbi/migratorybirds/coffee/**

Scott Weidensaul is the author of more than two dozen books on natural history, including *Living on the Wind* and *Of a Feather*, as well as his newest, *The First Frontier*. He is also an active field researcher, specializing in the migration of owls and hummingbirds. Weidensaul lives in Pennsylvania.

Black Skimmer by Alan Wilson

Mike Parr, ABC

THIS BIRD –

THIS HABITAT–

YOUR LEGACY.

Owen Deutsch

Your bequest to American Bird Conservancy will help protect the birds of the Americas and their habitats for generations to come. Join ABC's Legacy Circle with an estate gift through your will, retirement plan, trust, or life insurance policy and help secure the future for birds. **If you would like more information**, or if you have already included ABC in your estate plans, please contact ABC Planned Giving Director, Jack Morrison, at 540-253-5780, or at jmorrison@abcbirds.org.

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Western Sandpipers by Gerrit Vyn