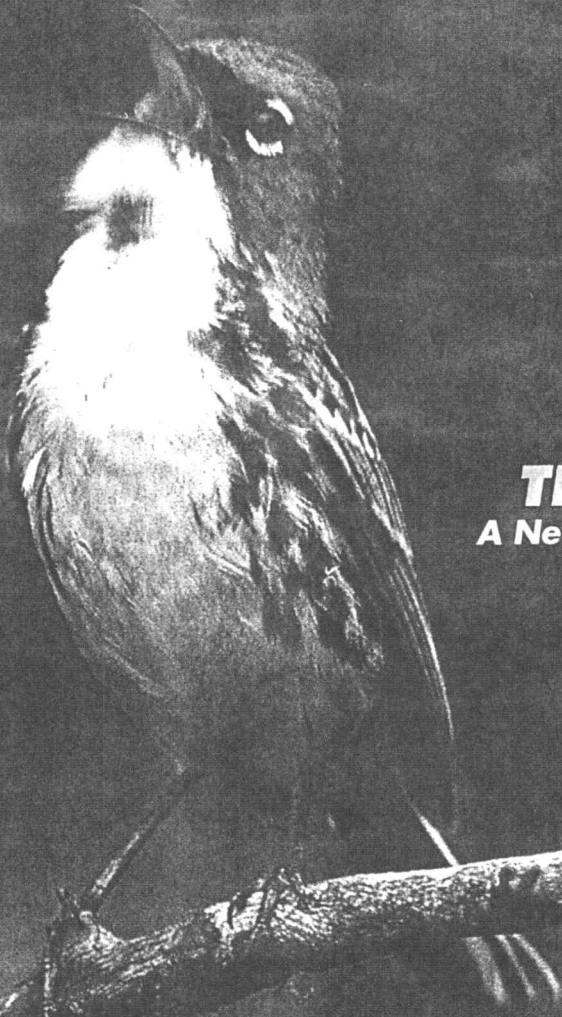


MARCH/APRIL 1997

Nature Conservancy



WINGS OF THE AMERICAS

*A New Protection Program...
for the Birds*

VOLUNTARILY COMMITTED

*You Don't Have to Be Crazy
to Volunteer, But It Helps*

BEYOND THE ARK

Conservation's Passage to the Future

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Wings OF THE AMERICAS

BY WILLIAM STOLZENBURG

On August 16, from the south shore of Long Island, osprey X5 took flight. She, a boldly black-and-white fishing eagle—who would tuck and plummet like a feathered anvil to snare big fish with ratcheting talons—had felt the summer waning and was heading south for better fishing. And she was being watched.

Biologists had radio receivers in hand and a small transmitter tied to the back of X5 as she departed. They had followed her summer season centered around a nest above the shores of The Nature Conservancy's Mashomack Preserve. They would now see where the rest of her year's living was made.

X5 went south and stayed to the coast; 10 days into the trip the satellite spied her in Sapelo Island, Georgia. Three days later, she was leaving Key West behind, striking off across the Straits of Florida. By September 2, she was over the shores of Haiti; a week later she had crossed the Caribbean, onto the South American continent via Venezuela. From there she

headed over land, through the heart of Amazonia, over the world's greatest river and most fecund forest, and came finally to rest in the flooded land of Brazil's Pantanal, the largest freshwater wetland in the Southern Hemisphere.

On unblinking instinct and a current of air, osprey X5 had traversed continents, oceans, climates and cultures, gathering more than 4,000 linear miles of the Western Hemisphere under her wings. It was not a particularly unusual feat as the osprey goes, nor for more than 200 other species of birds summering in the temperate North and wintering in the tropical South. But from close attention to this particular trip came a timely reminder of the task now facing a group of conservationists.

Though the osprey itself has become a symbol of success, its North American population recovering spectacularly from a past era of pesticide-induced declines, an inordinate portion of the Americas' birds are nonetheless in prolonged and steepening decline. Used to dealing in rare species whose defense is fought over falling acres of forest or spreading limits of cities, the birds' champions are facing



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a battlefield that spans continents, a bewildering scale of protection so graphically outlined by X5's flight.

By now their troubles have become public knowledge. In North America, the birds' favored habitats of deep forest, grassland, river's edge and scrub are being cut into inadequate parcels, more easily devastated by storms and fires, more easily hunted by myriad predators and parasites adapted to suburbia. In the tropics, a hungry, burgeoning human populace is replacing the birds' lush landscapes with eroding pastures and plantations.

Boiling down the bewildering array of bird censuses, their essence eventually conveys one message: More than a random few species of birds of the Americas are growing

noticeably scarcer with time. Songbirds, shorebirds, raptors and waterfowl—all have representatives on the watch lists. One quarter of the roughly 4,000 species residing in the Americas are in decline or dangerously scarce.

The good news is that the defense is already in motion. Groups including the multi-agency Partners in Flight have been monitoring the birds, deciphering their life histories, identifying their most important habitats and publicizing their plight, all aiming to halt the downward spirals. And as of June 1996, The Nature Conservancy officially entered its forces, with a science-based strategy conceived by conservation biologist Roberto Roca, called Wings of the Americas: Saving Habitat for Birds.

The Conservancy—whose forte for the past 45 years has been to protect the habitat of rare species—has amassed more than 1,600 preserves in the United States and Canada (the largest private system of nature sanctuaries in the world) and helps manage more than 60 conservation sites in 22 countries of Latin America and the Caribbean, the whole of them spreading over 84 million acres. On this foundation of habitat, declares Roca, "Wings of the Americas plans to build the first intercontinental network of refuges for the birds."

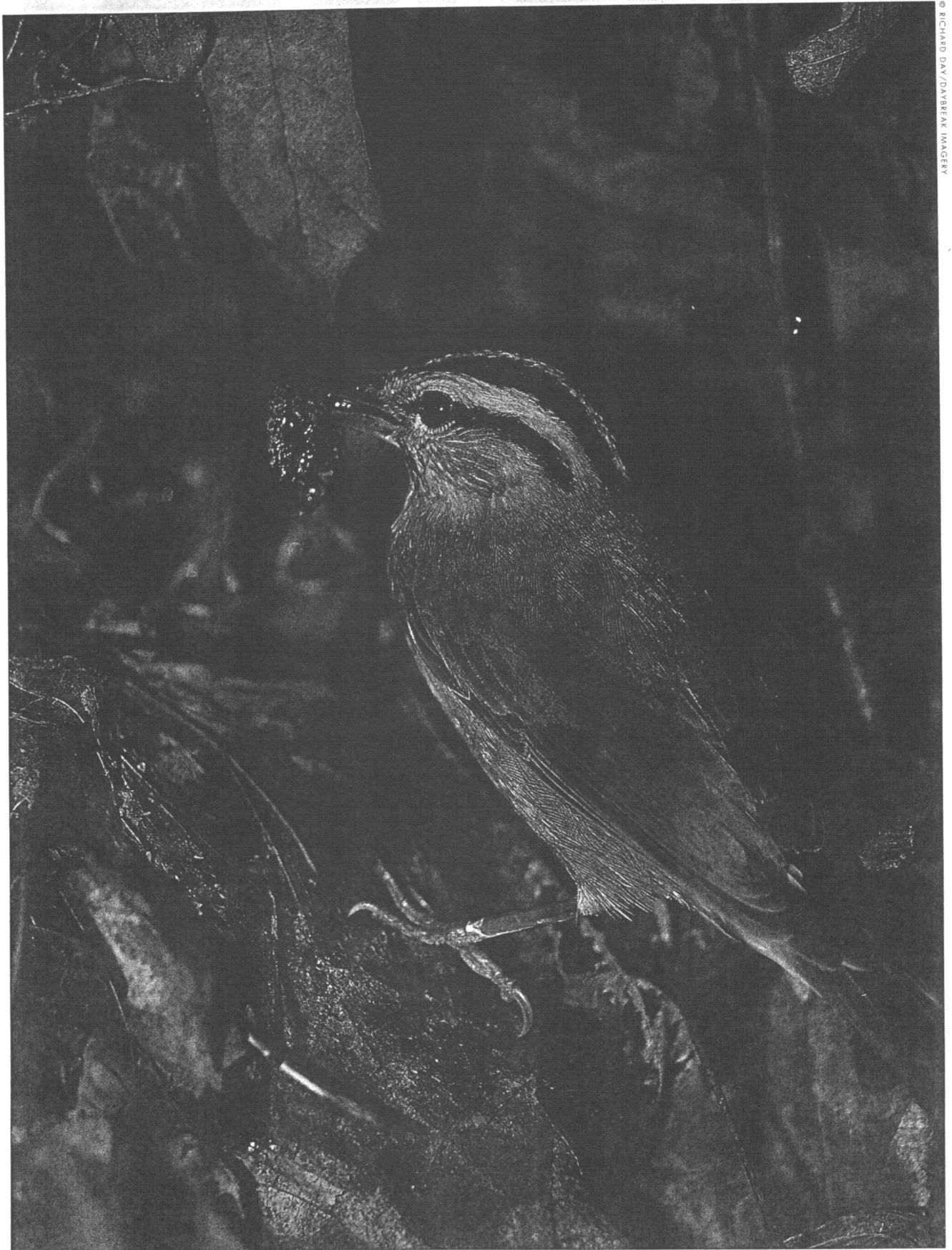
Conservancy scientists and their conservation partners are compiling bird information across their system of sanctuaries, from Alaska to Peru, charting the birds' whereabouts, relative security and varying richness of species. From thousands of data points, clusters have begun to emerge, flagging the hottest spots for birds. Their targets sighted, the Conservancy is mobilizing the ground troops.

In November, representatives from the Conservancy and conservation partners from seven Latin American countries met in Panama—a landmark gathering that identified for the first time the birds' most critical habitats and species of concern, and proposed a regional strategy for their protection. What emerged was an action plan assigning local ornithologists to scout and monitor the target areas for their birds; government liaisons to nurture more bird-friendly policies; and economic specialists to explore bird-based tourism as a means of putting money in the pockets and pride in the minds of the birds' local protectors. And all was designed with the bird's-eye view: As they are linked by the wanderings of their birds—as in the links of a chain—so the refuges shall be treated by their respective conservationists. No refuge shall remain an island.

"It's a different approach for TNC," say Nancy Jo Craig, director of Wings of the Americas, "because we're usually looking at areas for their plant communities. But if you're looking at migratory species, you have to look at backyards and what those people do in their backyards. You have to

► Bird banding and satellite telemetry are used to track the birds' migration routes. ► Found near water, ospreys usually nest near the top of large trees.





try to link up those actual sites, link up those people.”

“Backyard,” as Craig defines it, is a term of many scales. An hour’s car drive, or crow’s flight, from Manhattan lies a 10-square-mile backyard of unbroken deciduous forest in southwest Connecticut, centered by the Conservancy’s Devil’s Den Preserve. In the Den’s wooded slopes and ravines lives, among many other bird species, the worm-eating warbler, a spunky little songbird who forages low to the ground and boldly builds its cup nest beneath a bush or sapling. It is dangerous business for a little bird near the ground, but the warbler wears its camouflage well, and at the Devil’s Den there is a nesting pair of worm-eaters for every five acres, one of the thickest populations known.

Beyond the Den, however, life turns harsh for the warbler. From the steady division of its forests, the warbler’s regional numbers have been dropping enough to give biologists growing concerns for its future. What the nesting birds need, beyond a steep and shady place to hide, is big unbroken forest in which to do it. Lots of little cut-up forests don’t add up for the worm-eating warblers.

Even at the Den, warbler life is increasingly precarious. After five years of study, the Den’s stewards, Lise Hanners and Steve Patton, have found the reproducing warblers barely holding their own. “They’re actually pretty close to the edge,” says Hanners. “Which is really very serious. If they aren’t doing well here, what does that say to the long-term survival of the species?”

With autumn, the warblers of Devil’s Den head south. They stream down the Atlantic corridor, off the Florida peninsula, heading for Cuba, the Greater Antilles and in particular, one large beacon of forested rock jutting 8,000 feet from the Caribbean, marking the Blue and John Crow Mountains National Park of Jamaica. How the warblers fare here has much to do with how many worm-eating warblers return to raise young at Devil’s Den.

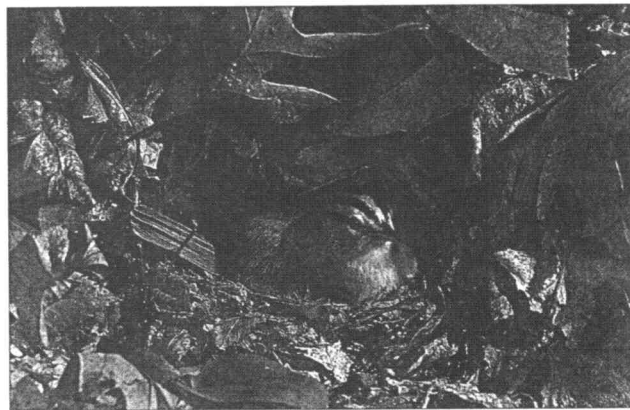
Wings of the Americas has declared both Devil’s Den and the Jamaican park one of its prototypes for international bird conservation. In 1994, the Conservancy helped Jamaicans establish the forested mountains as a national park, a showcase for an island of more than 800 flowering plants and 26 bird species found nowhere else. For millennia the mountains have been a magnet for birds and, more recently, for bird-watchers. Confoundingly little, though, can yet be said about how and where worm-eating warblers and many of their cohorts spend their time in Jamaica. Saving Jamaican habitat for birds is still a shot in the dark.

“A lot of researchers have been coming through here, but you never hear what they find,” says Dan Campbell, head of the Conservancy’s Jamaica efforts. “So we’re trying to pull together information on all the birds, the U.S.

migrants and Jamaica residents, to create a network using birds as a unifying principle.” With grants from the Orvis Company and the National Fish and Wildlife Foundation, Conservancy and Jamaican scientists are now gearing up to census the Jamaican birds and their habitats, to pinpoint where the mountains and worm-eating warblers meet.

None of which will matter much if the habitat destruction continues. The fertile slopes of the park are being cut for coffee and timber. In answer, the Conservancy and the Jamaica Conservation and Development Trust are bolstering the park’s corps of patrols and encouraging a local economy of bird tourism, using native guides. Where agriculture is a must, bird-friendly methods are being explored.

Though North America’s long-distance migrants have received the bulk of the conservation attention, there remains a largely unheeded cast of troubled, tropical birds whose lives revolve year-round within a day’s flight—some within 200 meters—of the nest. These are birds dedicated to such places as Brazil’s Atlantic Forest and Mexico’s Madrean Highlands, and to such habitats as tropical lowland forest and arid mountain scrub. These are the birds whose numbers are most rapidly being squeezed as the human population of Latin America leaps by 2 percent per year. Of the nearly 1,200 imperiled bird species of Latin America, more than 800 have staked their



lot within a single ecological region or type of habitat. For too many birds, all eggs are now lying in one basket.

Conservationists concede that the people will keep on coming. What they do not concede is that the ecological impact must be devastating. Above the Caribbean shores of southeastern Costa Rica, on the lower slopes of the towering Talamanca Cordillera, grow moist, evergreen forests festooned with colorful frogs and flowers, and singing with motmots and manakins, toucans and trogons, orioles, jacamars, parrots and hummingbirds—a

◀ The worm-eating warbler’s numbers are declining. Many winter in Jamaica but nest each spring on the forest floor ▼ at Connecticut’s Devil’s Den Preserve.

birdwatcher's mecca and, likely as not, a farmer's plantation. What often appears to tourists—and apparently to many birds, too—as virgin tropical forest is actually a lucrative crop of cacao, the seed of all chocolate.

Like coffee, cacao's heritage is that of an inconspicuous little jungle tree of the understory, originally grown in shady, pesticide-free plantations beneath the native canopy. A true child of the rain forest, cacao shuns direct sun; it depends on forest insects to pollinate its flowers; its seeds are often spread by monkeys and other animals of the trees. Growing cacao may be the closest thing to growing virgin forest.

Ornithologists have indications that traditional plantations of cacao harbor a richness of birds surpassed only by the purest of tropical forests. Economists suspect that these same plantations offer the monetary foundation for healthy and lasting communities of people. Lately hailed by U.S. markets, Talamanca chocolate and other organic fruits of the rain forest are now adding \$500,000 annually to the rural Caribbean populace of Costa Rica.

Wings of the Americas has targeted the Talamanca as both a hotbed for birds and a case study in eco-based economies. The program is funding a formal study of traditional cacao's attractiveness to birds. It is exploring a Talamanca avitourism industry, featuring home grown birds pointed out by home grown guides, with tourists treated to tropical fare from the Talamanca cacao gardens.

The resurrection of Talamanca's traditional cacao farms represents one of Wings of the Americas' wide-angle approaches, an attempt to shelter a bevy of both visiting migrants and Costa Rican residents and rarities in a single blanket. But there are some species for which such scatter-shot tactics are too late, for which a laser focus and emergency attention are the only care now seriously considered. Kirtland's warbler is a yellow-breasted, tail-wagging songbird, known by its strict demands for nesting only in young stands of jack pine in Michigan, and for its dubious ranking as perhaps the rarest songbird of North America. It now numbers more than 1,000 adult birds, representing a relative boom in the species' numbers. The warbler's demise has been hastened by a scarcity of proper-sized pines to suit its nesting needs, and by onslaughts of brown-headed cowbirds—parasitic nest invaders of fragmented forests. In a 1972 sample of 29 Kirtland's nests, 70 percent hosted young cowbird intruders, leaving all of two warblers to fledge.

Kirtland's warbler today breeds by the grace of a team of defenders who repel the cowbirds and nurture proper forests of jack pine—a noble effort that nonetheless leaves

an eight-month gap in the birds' safety net. By autumn, the whole of the Kirtland's population heads out over water to the Bahamas, gathering in places about which biologists yet have little clue.

"One group believes they use coastal scrub, another believes pine," says David Ewert, ecologist with the Conservancy's Michigan chapter and advisor to Wings. "We'd like to resolve this difference of opinion."

Ewert is trying to assemble a team of Kirtland's experts from Michigan to train Bahamians in how to seek and identify the birds in their habitats of choice. Ewert would hope to find Kirtland's foraging among the Bahamas' own pineland specialties: the brown-headed nuthatch, yellow tyrant, the West Indian woodpecker, Bahama swallow and woodstar hummingbird. He would hope to save many birds with one home.

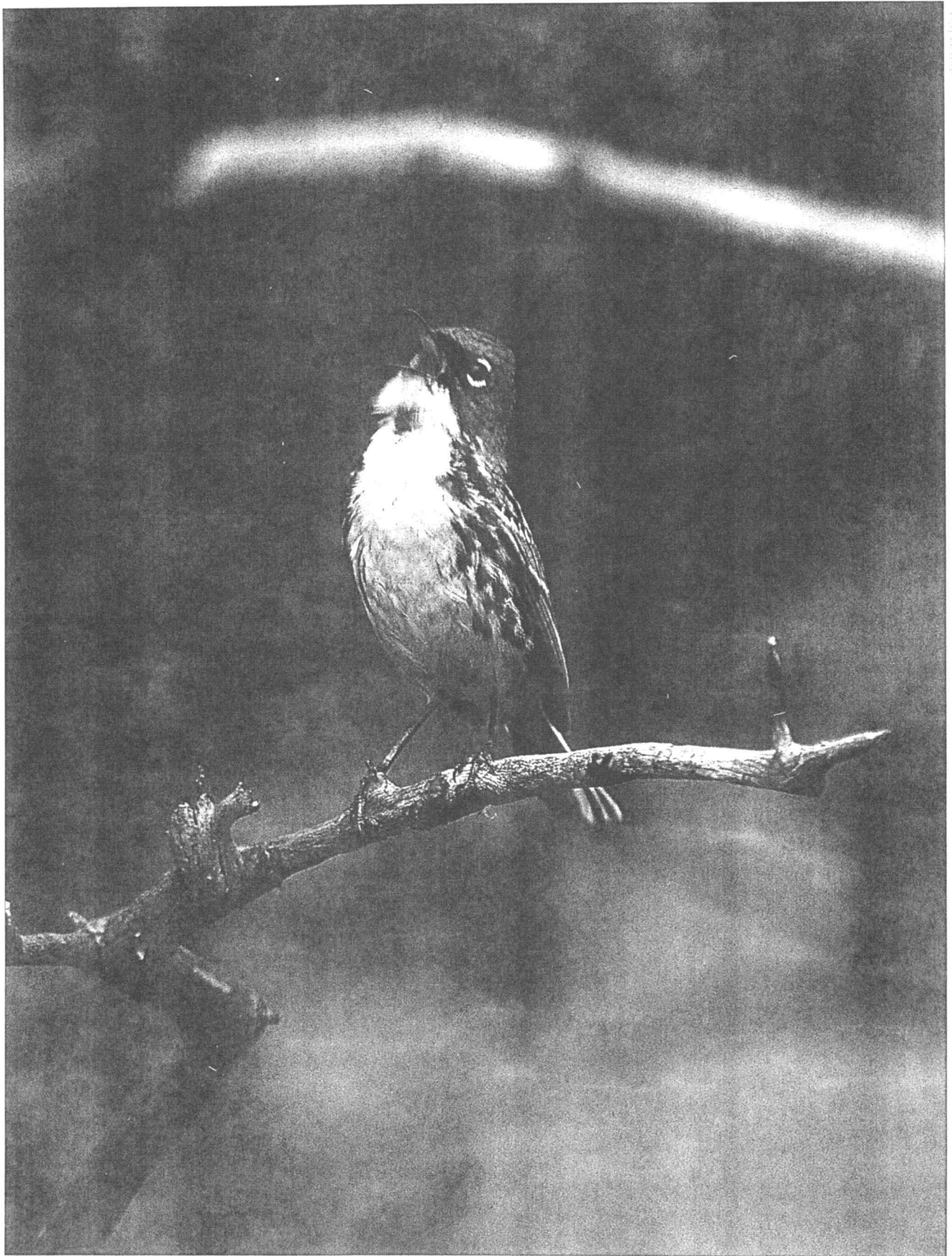
There has been no shortage of disappointing censuses and deforestation forecasts to darken many bird ecologists' horizons. But lately people are finding new cause for hope. "I think the story is very optimistic," says Nancy Jo Craig. "There's a problem, but it's also a way of connecting people. Birds connect us with a part of nature people really love. Birds need our help, but birds are helping us."

The journey of X5 has been one such flight of hope. Upon landing in the Pantanal, the Long Island osprey found herself again in friendly company, this time with The Nature Conservancy and Brazil's Ecotropical Foundation, which several years earlier had come to keep the Pantanal's wildness intact. Whether by the skill of conservation science or the grace of serendipity, conservationists had secured proper refuge for ospreys; X5 had done the rest. That, perhaps, is the payback offered by the Americas' troubled birds. They have shown road maps of nature needing to be saved and a willingness to get there as long as it remains. Their champions, with maps now in hand, are beginning to find the way. ■

WILLIAM STOLZENBURG is associate editor of Nature Conservancy.

When The Nature Conservancy made the commitment to launch the Wings of the Americas initiative, it turned to long-term conservation partners for assistance. Canon U.S.A. is providing support for Wings of the Americas, as it has for other science-based projects in the past. The Conservancy is grateful to Canon for its generosity and foresight.

► *The Kirtland's warbler nests only in young stands of jack pine in Michigan.*



Jeffrey M. ...