

# Bird Conservation

September 2005

The Magazine of American Bird Conservancy



# HUMMINGBIRDS

# BIRD'S EYE VIEW



Buff-tailed Coronet/Paul Salaman

Eleven years ago when we began American Bird Conservancy, we envisioned a small organization nimble and speedy enough to quickly act on important opportunities, bold enough to undertake tough issues where other groups might hesitate, bright and colorful in its conservation approaches, and active in saving birds across the Western Hemisphere – an aggressive “whatever it takes” attitude. What better bird, we wondered, to represent our organization than a hummingbird?

So, this issue of *Bird Conservation* featuring hummingbirds is special for us. It is also special since a disproportionate amount of our conservation in Latin America has benefited hummers, including our flagship program in the High Andes which protects many species including the incredible Marvelous Spatuletail (see story by ABC staffers Hugo Arnal and Mike Parr, page 7). ABC support has also just enabled ProAves Colombia to protect the only site for the Dusky Starfrontlet (story, page 5), and assist in the protection of other hummingbirds ranging from Honduras to Chile (pages 12-13).

But hummingbirds are not the whole conservation story in this issue. For example, readers requesting more stories (and conservation) for North American species, please read about the brand new Cerulean Warbler Bird Reserve, the first protected area in South America created to protect a North American migrant! (page 6). This story is written by our new international program director, Paul Salaman. The Cerulean Warbler is perhaps our neotropical migrant most deserving of conservation action.

So, now more than a decade of conservation action later, the question for you to answer is: Is ABC living up to its original, “hummingbirdesque” vision? And, by the way, what hummingbird species do you think is depicted in our logo? I would be delighted to hear your views.

Last month, ABC also undertook its first membership survey. We wanted to find out what you thought of our magazine and newsletter, and see if any course corrections were needed. To keep costs low, and to save time and paper, we set up a web-based questionnaire, and sent an e-mail to the 2,500 ABC members who have provided use with their e-mail addresses. Thank you for replying! The many suggestions are of immense help, and we truly appreciate all your thoughts, ideas, compliments, and constructive criticisms.



The Blossomcrown, a Colombian hummingbird species, is considered globally threatened. A major threat to this species is agricultural expansion on the Andean slopes where it occurs. Photo/Fundación ProAves, [www.proaves.org](http://www.proaves.org).

We'd still very much like to hear from our members who do not have e-mail, or who have not yet provided us with their e-mail addresses. If you would like to complete the survey, please go to: [www.abcbirds.org/survey.htm](http://www.abcbirds.org/survey.htm). It should take less than ten minutes, and is completely anonymous (if you do not have web access, please call us on 202-234-7181 and we'll be happy to mail you a copy).

The results of the poll will be used as a basis for designing our publications program for 2006 and beyond. We are currently compiling and analyzing the results and look forward to reporting on them in a future issue.

Thanks for your help in protecting American birds!



George H. Fenwick  
President, American Bird Conservancy



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Violet-crowned Woodnymphs/Fundación ProAves, www.proaves.org.

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Cerulean Warbler/Robert Roysse  
www.royssephotos.com



Juan Fernández Firecrown/  
Peter Hodum



Colorful Puffleg/Luis Mazariegos

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Illustration of Stresemann's Bristlefront courtesy of Lyn Wells/BirdLife International.

**COVER PHOTO:** Booted Racket-tail duel/Kathie Kinnie. The Booted Racket-tail is a spectacular but fairly common and widespread South American species occurring from Colombia into Peru.

*ABC's Bird Conservation magazine brings you the best in all bird conservation news and features. For more information on American Bird Conservancy, please visit our website at [www.abcbirds.org](http://www.abcbirds.org) or call 1-888-BIRD-MAG.*



# ON THE WIRE

## New Population Located for One of Brazil's Rarest Birds

A project sponsored by American Bird Conservancy's William Belton Small Grants Program has resulted in the discovery of a new population of one of South America's most elusive birds—one that has disappeared for decades at a time. Known only from the type specimen collected in the 1830s, and one subsequent specimen taken in 1945, Stresemann's Bristlefront is among the most critically endangered bird species found in Brazil's disappearing Atlantic Forest, and is also an Alliance for Zero Extinction species (see [www.zeroextinction.org](http://www.zeroextinction.org)).

In 1995, the discovery of a small population near the Una Biological Reserve in Bahia was big news among birders and bird conservationists—but despite repeated searches, the species could not be relocated there again.

This year, as the result of a project to conduct ornithological surveys of forest fragments around the Jequitinhonha and Murcuri River valleys, a new population was found at a site further inland and at a considerably higher altitude (2,300-2,625 feet) than the species had been recorded at previously.

Conservation of the area is critical, as logging continues nearby. Most humid forest in Bahia has been cleared or converted to cacao plantations, and remaining patches are disappearing very rapidly. The best preserved part of the forest tract where the survey team found Stresemann's Bristlefront is in Macarani County. The owner of the property and some of his family are interested in declaring the area a Private Natural Heritage Reserve, which would protect the bristlefront and its habitat.

Continuing survey work, supported by a number of partners, is directed by Professor Rômulo Ribon of the Universidade Federal de Ouro Preto, with the participation of Mrs. Geraldo T. Mattos and biologist Edson Ribeiro Luiz.



Brazilian Atlantic Forest habitat where the Stresemann's Bristlefront was found. Photo/Rômulo Ribon. Illustration of Stresemann's Bristlefront (inset) courtesy of Lyn Wells/BirdLife International.

## Hummingbird Project Involves Students Across the Americas



Ruby-throated Hummingbird  
Ross Hawkins/The Hummingbird Society

Started in 1999, "Operation RubyThroat: The Hummingbird Project" is an international cross-disciplinary education, research, and conservation initiative of Hilton Pond Center for Piedmont Natural History in South Carolina: [www.hiltonpond.org](http://www.hiltonpond.org).

The project is designed primarily for K-12 teachers and their students from public and private schools across North and Central America.

Although students are the primary audience, Operation RubyThroat is open to anyone interested in hummingbirds. Participants include home-schooled students, nature centers, summer camps, and scout troops. Adults can also get involved as "citizen scientists."

Through Operation RubyThroat, participants observe Ruby-throated Hummingbirds in their home countries and then share their observations with peers from the U.S., Canada, Mexico, and all

seven Central American countries. Data collected about hummingbird behavior, migration, and distribution are submitted to a central clearinghouse, analyzed, and made available through Operation RubyThroat's web site. Participants learn about the natural history of hummingbirds, and also reinforce skills in math, writing, geography, foreign language, art, drama, and other disciplines.

Another important goal of the project is to foster a deeper understanding of the need for environmental cooperation among the people of the Americas.

Principal investigator for Operation Rubythroat is Bill Hilton Jr., who has been studying and banding hummingbirds for more than two decades.

To learn more about the project—and for information about attracting and identifying hummingbirds—visit [www.rubythroat.org](http://www.rubythroat.org).

# Dusky Starfrontlet Rediscovered in the Western Andes

When top Andean ornithologist, Dr Niels Krabbe of the University of Copenhagen beams from ear to ear and boasts it was the best two weeks birding of his life... you know he's been to a very special place for birds. He had just returned from Páramo Frontino in northwest Colombia—the largest untouched highland grassland area on the 680 mile long Western Cordillera of the Andes.

Back in 1951, ornithologist Melbourne Carriker collected a new species of hummingbird from Páramo Frontino and named it the Dusky Starfrontlet, but it promptly fell into obscurity, and in 1988 scientists suggested that it was not a full species. No ornithologists visited the area for more than 50 years, until August 2004, when ABC's Colombian partner, Fundación ProAves, launched an expedition there led by Niels Krabbe. They immediately observed, caught, and photographed a Dusky Starfrontlet and proved that this bird was not only a valid species, but is very distinctive!

The Dusky Starfrontlet was not the only surprise...of a further 154 bird species seen, researchers recorded the globally threatened Rusty-faced Parrot (first record for the Western Cordillera), Moustached Antpitta, and Chestnut-bellied Flower-piercer. Two bird species new to science were also discovered, and will be described in future publications.

Páramo Frontino is wholly unprotected and privately owned, and has already suffered considerable habitat conversion in recent years. The area also contains dense high-grade gold, zinc, and copper deposits that have attracted the attention of mining companies.

The range of the Dusky Starfrontlet may encompass no more than 1,000 acres, and ABC has recently purchased the core part of its range to help protect the species. Additional areas need to be acquired however, and funds are still urgently needed to set up infrastructure for a Dusky Starfrontlet Bird Reserve, and to help long-term management of the site.

To learn more about this area or to make a donation, contact Paul Salaman at American Bird Conservancy, [psalaman@abcbirds.org](mailto:psalaman@abcbirds.org) or 540-253-5780.



(Above) Portrait of a Dusky Starfrontlet; (Below) Páramo Frontino in northwest Colombia, habitat of the newly-rediscovered Dusky Starfrontlet. Photos/Fundación ProAves, [www.proaves.org](http://www.proaves.org).



## Hummingbird Society Supporting Conservation Projects

The Hummingbird Society is a non-profit organization dedicated exclusively to hummingbird education, research, and conservation. The Society is working to support projects to protect hummingbirds such as the Juan Fernández Firecrown and the Honduran Emerald (see Hummingbird Appeal on page 13 of this issue).

The Society publishes a quarterly journal, *The Hummingbird Connection*, and maintains an extensive website with hummingbird information, merchandise, and a stunning gallery of photographs. Both scientific and conservation advisory boards at the Society work to develop cooperative programs with other conservation organizations, and also award small grants to scientists.

The Hummingbird Society selected the Juan Fernández Firecrown as its first major conservation target. This critically endangered hummingbird species, which is found only on Isla Robinson Crusoe off the coast of Chile, has a population of less than 200 birds. Working with American Bird



Honduran Emerald/Vincente Murphy

Conservancy and the Juan Fernández Islands Conservancy, the Society hopes to raise funds to improve education and outreach efforts for the Firecrown on its home island.

For information on the Hummingbird Society, visit their website at [www.hummingbirdsociety.org](http://www.hummingbirdsociety.org).



# Latin Welcome for the Cerulean Warbler

*Paul Salaman, ABC's Director of International Programs,  
explores a new protected area recently established in Colombia.*

Of the 70 North American bird species that migrate to South America each fall, the striking Cerulean Warbler is by far the most threatened. Until now, this species' conservation has been hampered by a lack of knowledge concerning its key wintering and migration stop-over areas outside the United States.

The Cerulean Warbler Working Group, of which ABC is a member, is continuously collating and interpreting data to better understand this enigmatic species. Although originally assumed to occur at low densities across the Northern Andes, new information from ABC's Colombian partner, Fundación ProAves, shows that Ceruleans actually occur at very high densities in their favored habitat. Surveys show that close to one Cerulean Warbler can be found per two to three acres in the narrow belt of subtropical forest that lies between 3,600 and 5,700 feet in the sheltered inter-Andean valleys of northern Colombia. Two key wintering areas with exceptional population densities of Cerulean Warblers are in southwestern Antioquia and in the Rio Chucurí basin of Santander department.

Field work supported by the U.S. Fish and Wildlife Service under a Neotropical Migratory Bird Conservation Act grant through Conservation International, and by the Colombian Environmental Action Fund, discovered that the Cerulean Warbler is much more ecologically specialized than was previously assumed, and that its wintering habitat has been severely altered by forest clearance and development. Shade coffee plantations, which once dominated the warbler's preferred climatic and elevational belt, are being rapidly converted to sun

coffee following the collapse of coffee prices in recent years. Logging in the area has also threatened suitable Cerulean habitat.

In response to our emergency request, British conservationist Robert Giles and other donors supported the acquisition of 500 acres of subtropical forest in the Rio Chucurí basin in Santander. This area is one of the last natural remnant forest fragments in the region where the Cerulean Warbler is concentrated. The site also contains three critically endangered bird species: the Gorgeted Wood-quail (the reserve is considered to be the global population stronghold), the Colombian Mountain Grackle, and Chestnut-bellied Hummingbird. There are many other threatened and endemic bird species on the reserve, making it not only a key site for the Cerulean Warbler, but also an Alliance for Zero Extinction site (see [www.zeroextinction.org](http://www.zeroextinction.org)). The reserve also boasts an ancient indigenous stone path, six feet wide and 30 miles long, that winds through the reserve's subtropical forests.

The "Cerulean Warbler Bird Reserve" now represents the first protected area in South America created for a neotropical migrant. Although it only occupies a limited area to date, it will form the central core of a regional Cerulean Warbler conservation campaign.



Photos from top: Gorgeted Wood-quail; Isabella Salaman with cocoa tree/Fundación ProAves, [www.proaves.org](http://www.proaves.org); Black Inca/Luis Mazariegos; Indigenous stone path in the reserve/Fundación ProAves, [www.proaves.org](http://www.proaves.org).

# CONSERVATION

in the **EASTERN ANDES** of PERU

*ABC's Hugo Arnal and Mike Parr report on how a grant from the Gordon and Betty Moore Foundation is helping hummingbirds and other endangered species in northern Peru.*

The Andean region is among the most biologically diverse areas on the planet. From a bird conservationist's perspective however, it isn't just the mega-diversity that is important, but how that diversity changes from one mountain to the next, and from one altitude to another. The vast array of habitat niches is vital to the endemic birds that have evolved there, some of which are confined to individual mountains.

One area that has become a special focus for ABC is the headwaters of the Imaza and Nieva Rivers, adjacent to the Alto Mayo (high Mayo) region. These forested slopes lie on the eastern flank of the Andes in northern Peru, and are characterized by rich but shallow soils and abundant rain, every drop of which is eventually carried nearly two thousand miles across the South American continent to flow into the Atlantic Ocean at the mouth of the Amazon River.

The Alto Mayo is home to more than 300 bird species, of which 23 are considered globally threatened, including the Long-whiskered Owlet, an enigmatic, endangered species that is the only known member of its genus. Other threatened species in the area include the Ochre-fronted Antpitta, a retiring micro-endemic confined to the region; and the endangered and grandly-named Royal Sunangel, a spectacular, iridescent-violet hummingbird with a deeply forked tail.

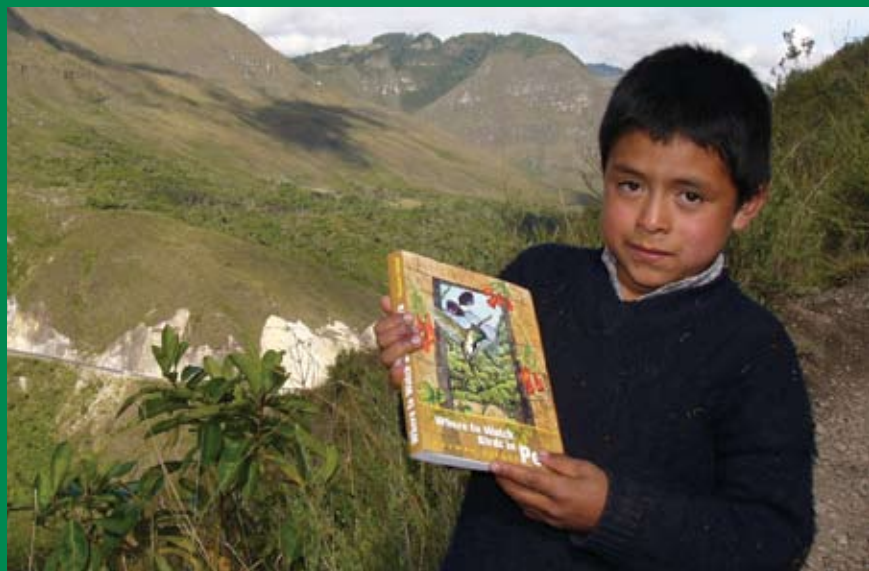
Another species of particular conservation interest is the endangered Ash-throated Antwren *Herpsilochmus parkeri*, named for the famous neotropical ornithologist Ted Parker.

A newly paved two-lane highway winds up to the Alto Mayo from the arid valley of the Marañon River to the west, passing through a maze of cultivated valleys. Some 45 minutes drive before reaching the Alto Mayo, in the upper watershed of the Utcubamba River, lies the global

Marvelous Spatuletail/Heinz Plenge



Nine-year-old Solomon Ortiz-Perez from the Chido community helps birders find the Marvelous Spatuletail/Mike Parr





epicenter of the world's Marvelous Spatuletail population. The Spatuletail is often thought of as the world's most spectacular hummingbird, with its super-attenuated tail-streamers and spatules. It is certainly one of the world's most confusing birds to look at, as its body and two great tail spoons seem to move independently of each other as it hovers. Far from being impractical—as they first appear—the spatules may serve to confuse potential predators.

After passing through a series of severe switchbacks and deep gorges, the road reaches an area of dense cloud forest interspersed by great swaths of wax palms, and dotted with small farms, whose owners have begun to clear grazing pastures along the highway. At its high point, the road enters the Alto Mayo protected forest. A stunning vista of precipitous drops and thickly vegetated valleys fall steeply towards Aguas Verdes, where according to Tino Auca, the president of ABC's Peruvian partner group, Asociación Ecosistemas Andinos (ECOAN), Andean Cock-of-the-Rocks are "as common as chickens."

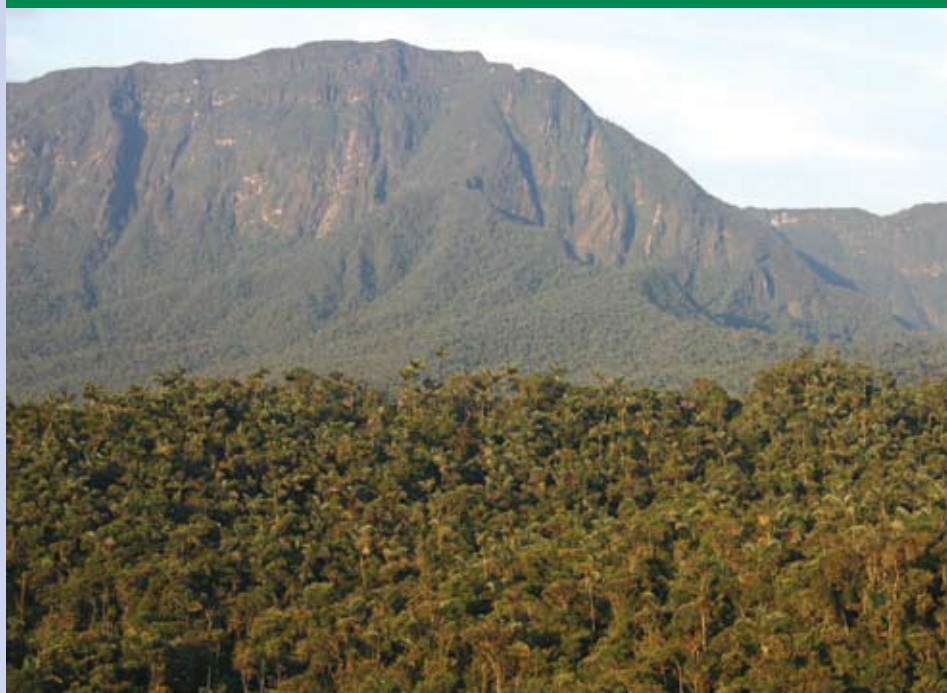
Aguas Verdes lies close to the edge of the half million acre protected area, that like slopes to the west, is pock-marked with small dwellings and farmed plots where settlers have set up camp—in this case, illegally.

This final forested stretch of road leading up to the overlook has become known to birders as Abra Patricia. It has now also become the target of a major new bird conservation project operated jointly by ABC and ECOAN with the support of a major three year grant from the Gordon and Betty Moore Foundation. The grant also includes significant components for conservation in southern Ecuador and for the development of an Andes-wide program to protect high-altitude, *Polylepis* forests. These additional aspects will be covered separately in future issues of *Bird Conservation*.

The Alto Mayo region is part of the Peruvian Yungas ecoregion, which is characterized by mid and upper-altitude tropical forests and high species diversity. The region is estimated to contain between 7,000

and 10,000 plant species, or nearly 50% of Peru's plant diversity, in only 20% of its territory (and close to half the plant diversity of all North America, which is many times larger). Several protected areas have been established to protect the vast richness of the Yungas, but insufficient resources currently exist to manage them, and some key sites, such as Abra Patricia are not included in the protected areas network. In fact, all the highest-priority bird species of the region are known to occur only outside the main protected area, in the Abra Patricia zone. The Marvelous Spatuletail too is absent from any current protected area, and its entire global population is extremely vulnerable, as most birds occur in tiny habitat patches within a matrix of cultivated lands.

ABC and ECOAN are working rapidly to remedy the situation, however. With the assistance of the Moore grant, the two partner groups are working to establish a network of strategically situated private reserves that will protect key sites within a broader conservation corridor that



(Left) Montane cloud forest at Abra Patricia. The forest in the front is part of the recently acquired property. (Above, from left to right) ECOAN's Tino Auca and Juvenal Silva, and ABC's Hugo Arnal, examine a map of the Abra Patricia area. All photos/Mike Parr.



## Royal Sunangel and Long-whiskered Owlet are two endangered bird species found at the Abra Patricia reserve.

Royal Sunangel/Thomas H. Valqui  
Long-whiskered Owlet/J.P. O'Neill/VIREO



will eventually expand to encompass all critical bird sites between the Mayo and Marañon rivers. The project is being implemented in cooperation with the Peruvian government's Instituto Nacional de Recursos Naturales, local communities, and other Peruvian conservation groups such as Asociación Peruana para la Naturaleza, which is working to support conservation efforts within the region's existing protected areas.

In the first phase of the project, the most important properties in the Abra Patricia area were identified. ECOAN staff then worked with the Peruvian national land tenure agency to map the boundaries of those properties lying along the road from Abra Patricia to the boundary of the Alto Mayo protected area. ECOAN also talked to landowners, and soon approached the title holders of the most important properties to begin negotiating purchases. During this process, ECOAN learned that logging companies were also attempting to buy timber rights in the area, but six local landowners decided they would prefer to see the land protected, and elected to sell to ECOAN. By July 2005, these properties comprised the Abra Patricia Bird Reserve, with an

initial area of 1,200 acres. Five additional properties are currently under negotiation, and three of them will likely be acquired by the time you read this article, adding an additional 2,700 acres to the reserve.

Although the extent of the reserve may seem comparatively small, its strategic location alongside the road, and adjacent to a large protected area, means that its conservation significance is of huge importance. To the northeast of the road lies an unbroken wilderness of untouched Yungas forest that stretches towards the Amazon basin. This huge tract would have inevitably succumbed to land clearance within a decade or two should settlers along the road have continued to open up the forest for grazing and crops. Instead, it is now buffered from development by this strategically critical conservation investment. The next and perhaps

most exciting challenge will be to explore these areas, and with any luck, we will discover that Long-whiskered Owlets are "as common as chickens".

Looking to the future, our next priority will be to expand the reserve. We hope to negotiate a management concession with the Peruvian Government to protect the narrow isthmus of public land that still separates the new private reserve from the boundary of the official Alto Mayo protected area. Plans are also underway to establish a small lodge for birders and ecotourists that can help generate income to pay forest guards and researchers. Work to establish a private reserve for the Spatuletail is also moving forward, and we have begun to map key sites further west throughout the Mayo-Marañon Corridor, which will become the focus of direct conservation efforts in 2006 and 2007.

If you would like to learn more, or make a donation to this project, please contact Hugo Arnal, ABC's Tropical Andes Program Coordinator at: [harnal@abcbirds.org](mailto:harnal@abcbirds.org).



Andean Cock-of-the-Rock is a common species in the Aguas Verdes area/Fundación ProAves, [www.proaves.org](http://www.proaves.org).





# A Diversity of HUMMINGBIRDS

*Hummingbird researcher Jessica Hardesty, of the Alliance for Zero Extinction, provides an overview of this specialized bird family.*

**T**he ancient Mayans believed that hummingbirds were fashioned from tiny scraps left over from the making of larger birds. I read that with indignation because I have worked with hummingbirds and admire them, despite their seeming to have abandoned their avian roots in hopes of becoming insects.

Hummingbirds comprise a unique avian family, *Trochilidae*, which is represented by more than 300 species. The family is found only in the New World, and is especially well-represented in Central and South America.

Hummingbirds are most closely related to swifts, and like swifts, live most of their lives on the wing. Their short legs

and tiny feet are weak, and used only for perching. Extremes in size are represented by the Giant Hummingbird of the Andes, which is more than eight inches long, and the tiny Bee Hummingbird of Cuba, which is only two to three inches long. Most species are between two and five inches, and many weigh only as little as a penny.





Hummingbirds comprise a unique avian family, Trochilidae, which is represented by more than 300 species found only in the New World.

**(Left) Rufous Hummingbird feeding.** Hummingbirds must feed constantly to fuel their high metabolisms. Photo by Dr. Lloyd Glenn Ingles © 1999 California Academy of Sciences. **(Top) Purple-backed Thornbill.** The thornbills have the shortest bills of all the *Trochilidae*. Photo by Fundación ProAves, [www.proaves.org](http://www.proaves.org). **(Bottom center) The Sword-billed Hummingbird** of the high Andes has a specialized bill up to 4.1 inches long, which allows it to feed on exceptionally long tubular flowers. Photo by C.H. Greenewalt/VIREO. **(Bottom right) Female Ruby-throated Hummingbird** on a cup-shaped nest held together with spider webs, typical of this family. Photo by Ross Hawkins.

Specialized cup-and-ball shoulder sockets permit hummingbird wings to rotate almost 180°. This allows the flattened figure eight motion necessary for hovering and other aerobatics such as flying backwards (a feat unique to hummingbirds among birds).

Hummingbirds lose heat rapidly because they are so small, and expend an enormous amount of energy each day relative to their size. If a hummingbird were the size of a 150-pound person, it would require approximately 100,000 calories per day, or about 40 times a normal human diet. Incredibly, hummingbirds are found from sea level all the way to the freezing Andean mountain tops, just below the snowline. This means they must use energy extremely efficiently. To minimize the energy used at rest, many hummingbirds (except females during breeding) enter a sluggish, hibernation-like state called torpor each night, and at times throughout the day, where they lower their metabolism and body temperature significantly.

Hummingbirds also meet their energy needs by constantly feeding on high-calorie nectar. The flowers hummingbirds favor are not always red, but tubular red flowers are the most typical hummingbird-pollinated plants. Many of these plants are specialized to rely on hummingbirds as pollinators, and sometimes their nectar is only available to a hummingbird's specifically shaped bill and extendable tongue, which is divided into two fringe-edged tubes. Protein-rich insects also account for a significant percentage of the diet in some species.

Hummingbirds must feed from flowers more than one thousand times a day. Some tropical foothills offer quantities of flowers year round, but many birds make

altitudinal migrations or substantial local movements in search of food. A few species even undertake long-distance migrations. For example, Ruby-throated Hummingbirds fly more than 500 miles across the Gulf of Mexico. Flying at approximately 60 miles per hour, it takes this tiny hummingbird eight hours of continuous flight to make the crossing. The birds need to nearly double their weight to fuel this migration.

Male hummingbirds compete vigorously for exclusive territories through fighting and aerial displays. In most species, the male mates with several females and does not help to raise the young, except by allowing access to rich flowers on his feeding territory. Ruby-throated females, for instance, lay two eggs and spend 85-90% of their time incubating for more than two weeks, so they need quick access to rich food when they are off the nest. When the nestlings hatch, the female only works harder, securing food for the growing young and keeping them warm until they mature.

Hummingbirds face a variety of human-induced threats. Habitat loss, due to agricultural growth and logging, is probably the most significant factor affecting hummingbird populations. Insecticide use introduces toxic chemicals into the hummingbird food chain, since small insects are a major source of protein for many species. Invasive, alien plant species pose problems as well, since hummingbirds' lives are so tightly coupled with their native food plants. Despite these threats, many hummingbird species are still thriving. Others, due to restricted ranges or specialized habitat requirements, need urgent conservation action to survive (see article next page).

## Black-breasted Puffleg ECUADOR

With ABC support, Fundación Jocotoco created and currently manages a 2,300 acre sanctuary for the critically endangered Black-breasted Puffleg at the Yanacocha Reserve. This reserve lies on the slopes of Volcan Pichincha, north-west of the Ecuadorian capital of Quito. The reserve is an Alliance for Zero Extinction site, encompassing the known world range of this hummingbird species, whose population is estimated at fewer than 250 birds.

The reserve includes high-altitude elfin forest used seasonally by the Black-breasted Puffleg, which is an altitudinal migrant, moving up and down the slopes of the volcano according to season. It is usually found at Yanacocha between March and July. Its whereabouts during the rest of the year remain a mystery, but it is suspected that it moves to steep, currently inaccessible areas downslope.

In August 2004, a fire threatened to destroy part of the reserve, but the forest was saved through the efforts of reserve staff.

Ecotourism groups visiting Yanacocha for a glimpse of this rare hummingbird also help generate income to maintain the reserve, pay on-site staff, and fund habitat improvement projects.



Black-breasted Puffleg/Steve Blain  
Yanacocha, Ecuador/Richard W. Moore



# Conserving Endangered Hummingbirds

## HELP STOP HUMMINGBIRD EXTINCTIONS!

ABC is developing a comprehensive program to prevent the extinction of hummingbird species in the Americas. Please consider making a donation to ABC's HUMMINGBIRD APPEAL. Every dollar will go directly toward on-the-ground conservation work aimed at protecting the world's most endangered hummingbirds.

To contribute, please send your check in the attached envelope. Updates on these projects will appear in future issues of this magazine, and on ABC's web site. To make a donation online, go to [www.abcbirds.org/hummingbirds.htm](http://www.abcbirds.org/hummingbirds.htm).

**Thank you for your support!**





## Honduran Emerald HONDURAS

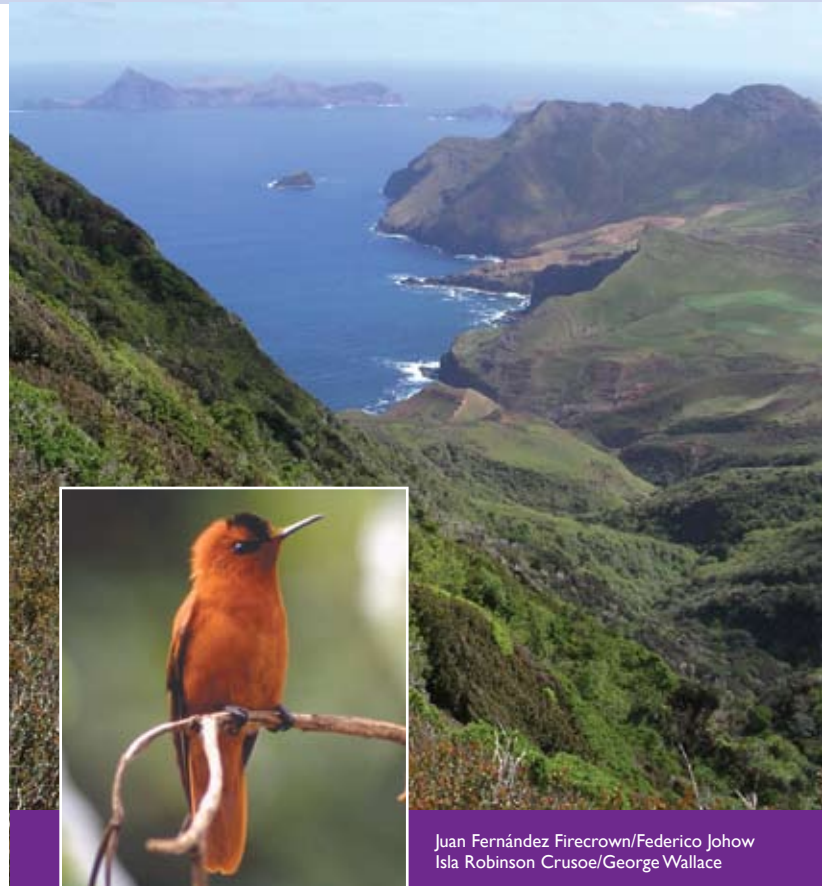
The critically endangered Honduran Emerald is the rarest bird in Central America, and the only bird species restricted to Honduras. ABC is working with Fundación Parque Nacional Pico Bonito (FUPNAPIB) to establish a protected area for the species in the Aguán Valley of northern Honduras, with support from the Global Conservation Fund at Conservation International. The project has already successfully called for the designation of an Honduran Air Force property, known as the “Polígono”, as a protected area for the species. The plan is now to expand this core area with the inclusion of surrounding private land to ultimately create a 7,500 acre thorn forest reserve. Due to extensive fragmentation and the variety of land owners, the ultimate protected area will likely blend different approaches to conservation, ranging from government-designated and private reserves to easements. Several land owners have already volunteered small areas of land to become part of the reserve.

Under an agreement with the Air Force and the Honduran transport agency, FUPNAPIB has already assumed management responsibility for the Polígono. They have two park guards on the ground, and with World Bank funding, the area has been fenced to keep out cattle. A small visitor center is also planned.

Support is needed to help purchase additional land, to fence more areas to prevent damage by grazing livestock, and to continue outreach with local landowners.



Honduran Emerald and habitat/  
Vincente Murphy



Juan Fernández Firecrown/Federico Johow  
Isla Robinson Crusoe/George Wallace

## Juan Fernández Firecrown CHILE

The Juan Fernández Firecrown is a spectacular, critically endangered hummingbird that occurs only on Isla Robinson Crusoe in the Juan Fernández Islands. It is threatened by loss of native habitat to invasive plants and predation by free-roaming cats. Conservation on the island is being led by the Juan Fernández Islands Conservancy, with support from ABC, the Jeniam Foundation, Conservation International, the Royal Society for the Protection of Birds, and the Hummingbird Society.

Conservation action for the Firecrown has made significant progress over the past year, with an ever-growing group of Chilean specialists becoming involved. The Juan Fernández Island Conservancy and government staff have also developed census techniques to evaluate the impact of management actions on the Firecrown population.

Vegetation control in one of the key nesting areas has already shown promising results. Nest monitoring indicates that the number of nesting Firecrowns has increased in areas where exotic vegetation was removed the previous year. A cat control program is also being launched, and outreach with local communities is helping to engage residents in the conservation program.

Support is urgently needed to expand the successful vegetation control program, as well as to build on our outreach campaign, and expand cat control efforts.

# Hummingbirds AT HOME

*ABC's Dr. Robert Chipley spotlights the most vulnerable hummingbirds of the United States.*

**E**ach of these North American hummingbird species is on American Bird Conservancy's Green List which contains all the highest priority birds for conservation in the continental United States, and builds on the species assessments conducted by Partners in Flight.



Photo/William Zittrich

## Costa's Hummingbird

Costa's Hummingbird inhabits hot deserts and other dry habitats in the southwestern U.S. and northwestern Mexico. Resident in much of its range, it withdraws from the northern and eastern portions in winter, and moves south along the Pacific coast of Mexico. Costa's is common in much of its range, but its original coastal scrub habitat in California has nearly been eliminated. It has shown some ability to adapt to agriculture and urban development in southern California, nesting and wintering in orchards and coastal suburbs, but in general, alteration of its natural habitats is a major concern. The clearing of desert

scrub and thorn forest, and the planting of buffelgrass, an exotic species from South Africa, is a threat to the species; this grass is very fire-prone and repeated fires can eliminate native plants, such as red penstemon, on which the Costa's depends. In Mexico, cattle-grazing in dry habitats is often intensive, and degrades habitat for the species. Though use of hummingbird feeders and the planting of exotic plants can be beneficial for hummingbirds in general, it may not be for the Costa's in particular, as they often also draw other hummingbird species such as the Anna's, to which Costa's often loses interspecific confrontations. The species could benefit from the control of buffelgrass and the restoration of native habitats.

## Rufous Hummingbird

The Rufous Hummingbird is the most widespread hummingbird in the western U.S., breeding as far north as southeastern Alaska, and wintering south to southern Mexico. Small numbers are also increasingly turning up in the eastern United States during the winter.

The Rufous Hummingbird breeds primarily in secondary vegetation and forest openings, and in forested and brushy habitats, where it nests in colonies of up to 20 pairs that may occur within a few yards of each other.

Rufous Hummingbirds feed both on floral nectar, particularly from red tubular flowers, and on small insects. During migration, the Rufous Hummingbird frequents montane meadows and disturbed areas with many flowering plants, where it plays an important role in the pollination of native plant species. Along with several other

species of hummingbird, it is thought to have influenced speciation of flowers in California.

Breeding Bird Surveys between 1966 and 2001 show a significant decline of 2.7% per year in this species' population. Among the probable causes are habitat loss, increased use of pesticides, and the replacement of native plants by invasive, alien species. Land use changes on its Mexican wintering grounds may have also played a role in its decline.



Photo/William Zittrich



## Calliope Hummingbird

The smallest North American breeding bird, and the world's smallest long-distance migrant, the tiny Calliope Hummingbird travels 5,500 miles from its breeding to its wintering grounds and back. It ranges through western North America north to central British Columbia, and winters south to southwestern and south-central Mexico. Calliope also often turn up in winter in the south-central United States, as far east as Florida.

The Calliope is primarily a montane species during the breeding season, found at elevations between 4,000 and 11,000 feet. It often nests in early successional habitats 8-15 years after logging. Its winter range in Mexico includes a variety of habitats, from dry thorn forest to humid pine-oak forest.

Its numbers, as measured by the Breeding Bird Survey, have declined significantly at the limits of its breeding range, though hummingbird feeders may have bolstered populations of the species elsewhere.



Photo/Kathy Kinnie

Threats to the Calliope Hummingbird include habitat loss, pesticides, and invasive plants. Its small wintering range in Mexico also makes it vulnerable to major habitat changes there. The species needs further study, as there is a general lack of information on its conservation requirements.



Photo/Susan Beree

## Allen's Hummingbird

The Allen's Hummingbird has a very restricted breeding and wintering range, and breeds exclusively in the United States. This species is found in a narrow band along the Pacific Coast from southwestern Oregon to southern California, and occurs on several of the Channel Islands, where it is resident. The migratory population winters in a small area of central Mexico, but the non-breeding range is not generally well known. The Allen's migratory pattern is unusual: it arrives on its breeding grounds in the middle of winter, having departed Mexico as early as late fall, and males depart the breeding grounds as early as late spring.

Allen's is very similar to the closely-related Rufous Hummingbird (opposite), and the two species hybridize. Male Allen's are distinguished from male Rufous Hummingbirds by their green back and crown. Female and juvenile Allen's and Rufous Hummingbirds cannot be safely distinguished from one another in the field.

Breeding habitat occurs in the moist Pacific coastal belt. Outside the breeding season, its habitat includes forest edge, and scrub clearings with flowers. The Channel Islands contain a number of hummingbird-pollinated plants, including endemic species, that rely on the Allen's for pollination, as other hummingbirds are uncommon there. Males on territory have a complex and spectacular dive display, swinging back and forth in a symmetrical, pendulous arc, complete with pauses, shaking, and loud, metallic buzzes, and shrieks.

Human activity, particularly the planting of eucalyptus groves and other exotic trees, is benefiting this species. These trees serve as ample nectar supplies, and particularly benefit the non-migratory Channel Islands population. Plantings on the mainland have favored the Anna's Hummingbird, however, which has a competitive advantage over the Allen's, and may have depressed its numbers. Further research is needed to determine the species' conservation needs.

# SPECIES PROFILE: COLORFUL PUFFLEG

## Jewel of the Andes Saved with Swarovski Optik's Help

The Colorful Puffleg is surely one of the world's most enigmatic hummingbirds. Endemic to a tiny area in the northern Andes of Colombia, this resplendent hummingbird remained undiscovered until April 1967, when photographer John Dunning was mist-netting below Cerro Munchique, and caught what he described as a "miraculous" bird, and named it as such: *Eriocnemis mirabilis*, the Colorful Puffleg.

Unfortunately, the species disappeared again as quickly as it was discovered, and after years of unsuccessful searches, became an enigma. It was not until 1999 that ornithologists from ABC's Colombian partner, Fundación ProAves, finally managed to relocate the species.

The male Colorful Puffleg is a spectacular sight. It is a dark, shining green with a lighter green forehead and gorget, gleaming blue belly, and red and coppery-gold tail and tail coverts. Its white leg-puffs (found on both male and female) are fringed with cinnamon.

The site where the Colorful Puffleg occurs is Cerro Munchique, one of the highest peaks of the Western Cordillera, a branch of the northernmost Andes in Colombia. Cerro Munchique contains one of the world's wettest forests with more than 27 feet of rainfall per year, and perpetual mists enveloping the area. This cloud forest is also a little more than 24 miles from the Pacific Ocean, but rises to an altitude of 7,300 feet.



Colorful Puffleg: male (top) and female (bottom)  
Photos/Luis Mazariegos

Settlers have been invading the region where this species occurs to clear habitat for crops, cattle grazing, and illicit opium plantations. The Colorful Puffleg is considered critically endangered, and qualifies as an Alliance for Zero Extinction species, since it is found at only one site. Without immediate conservation action, the Colorful Puffleg could have faced a bleak future.

Fortunately, with a generous grant from Swarovski Optik, 5,000 acres of forest has been purchased to protect the species. A management plan has also been developed to ensure that the reserve is well protected in the long-term. Birders can also visit this reserve by arrangement with ProAves Colombia.


Thanks to effective, timely conservation action, this "most colorful jewel" of a hummingbird is safe for now, and can be appreciated by birders everywhere.

### BirdConservation

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