
The hummingbirds of Nariño, Colombia

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El departamento de Nariño en el sur de Colombia expande seis Areas de Aves Endemicas y contiene una extraordinaria concentración de zonas de vida. En años recientes, el 10% de la avifauna mundial ha sido registrada en Nariño (similar al tamaño de Belgica) aunque ha recibido poca atención ornitológica. Ninguna familia ejemplifica más la diversidad Nariñense como los colibríes, con 100 especies registradas en siete sitios de fácil acceso en Nariño y zonas adyacentes del Putumayo. Cinco nuevas especies de colibríes para Colombia son presentadas (*Campylopterus villaviscensio*, *Heliangelus strophianus*, *Oreotrochilus chimborazo*, *Patagona gigas*, y *Acestrura bombus*), junto con notas de especies pobrementemente conocidas y varias extensiones de rango. Una estabilidad regional y buena infraestructura vial hacen de Nariño un “El Dorado” para observadores de aves y ornitólogos.

Introduction

Colombia's southern Department of Nariño covers c.33,270 km² (similar in size to Belgium or one quarter the size of New York state) from the Pacific coast to lowland Amazonia and spans the Nudo de los Pastos massif at 4,760 m⁵. Six Endemic Bird Areas (EBAs 39–44)⁹ and a diverse range of life zones, from arid tropical forest to the wettest forests in the world, are easily accessible. Several researchers, student expeditions and birders have visited Nariño and adjacent areas of Putumayo since 1991, making several notable ornithological discoveries including a new species—Chocó Vireo *Vireo masteri*⁶—and the rediscovery of several others, e.g. Plumbeous Forest-falcon *Micrastur plumbeus*, Banded Ground-cuckoo *Neomorphus radiolosus* and Tumaco Seed-eater *Sporophila insulata*⁷. In recent years, 950 bird species have been recorded in Nariño⁷. Over 1,200 of the 1,865 bird species known from Colombia⁷ occur in Nariño based on historical records and distributional data^{2,3}.

No group typifies Nariñense avian diversity more than hummingbirds, with no less than 100 species recorded in the region (Appendix 1), although 10 species have not been recorded in the past two decades. This paper summarises this diversity at seven localities in Nariño and adjacent border areas of Putumayo (see Fig. 1) as an example of general avian richness in the department.

Hummingbird distributions

Commencing on the Pacific coast, a recently completed highway links the port of Tumaco with Pasto and Ipiales in the Andes, and passes through many outstanding ecosystems. Humboldt's Sapphire *Hylocharis humboldtii*—recently elevated to species status⁴—is restricted to coastal mangroves around Tumaco and isolated from Blue-headed Sapphire *H. grayi* of the arid highland intermontane valleys of Cauca and Nariño (EBA 039), and northern Ecuador.

Between the Pacific coast and wet foothill forest at El Diviso, at 660 m (km 100 on the highway), 16 species of hummingbird have been recorded. At km 92 (01°25'N 78°14'W, at 583 m) a trail leaves the roadside for Pueblo Nuevo village, transecting a mosaic of secondary and primary forest. Species here include: Green Thorntail *Popelairia conversii*, Blue-chested Hummingbird *Amazilia amabilis*, Purple-chested Hummingbird *A. rosenbergi* (an altitudinal extension of 380 m), Green-crowned Brilliant *Heliodoxa jacula* (range extension within the Colombian Pacific), and Tooth-billed Hummingbird *Androdon aequatorialis*. This bizarre species is commonly seen flycatching in small clearings in primary forest at 500 m.

At 1,100–1,500 m, the Reserva Natural Río Ñambí (reserve cabin at 01°17'N 78°04'W, at 1,400 m) is 130 km from Tumaco and encompasses some of the world's wettest pluvial premontane forest with 7,000 mm rainfall per annum⁵. Much primary forest is still standing in the Río Ñambí watershed and an exceptional 27 species of hummingbird

occur, including a rich assemblage of lowland

and premontane taxa, e.g. White-whiskered *Phaethornis yaruqui* and Tawny-bellied Hermits *P. syrmatorphorus* are sympatric at c.1,200 m. Significantly, five of the 10 hummingbird endemics to EBA 041 are resident at Río Ñambí: Purple-bibbed Whitetip *Urosticte benjamini*, Empress Brilliant *Heliodoxa imperatrix*, Brown Inca *Coeligena wilsoni*, Velvet-purple Coronet *Boissonneaua jardini* and Violet-tailed Sylph *Agelaiocercus coelestis*. The last-named species is the most common interior forest species from mist-net samples, representing 12% of almost 7,000 captures during 18 months. In addition to resident species, a number of others are present seasonally, particularly in December–June, including Tyrian Metaltail *Metallura tyrianthina* (1,150 m), Hoary Puffleg *Haplophaedia lugens* (a small influx in remote primary forest at 1,500 m in April 1996), White-booted Racket-tail *Ocreatus underwoodii* and Purple-throated Woodstar *Philodice mitchellii*. *Androdon aequatorialis* ascends to these cooler premontane forests in August–November, when it has been found at 1,200 m.

Occasional sightings at Río Ñambí have included Wedge-billed Hummingbird *Augastes geoffroyi* (five records

at 1,250 m), Andean Emerald *Amazilia franciae* (range extension³) and Violet-headed Hummingbird *Klais guimeti* (once near Junín³). However, the most significant record was a female Little Woodstar *Acestrura bombus*, present from 2–4 July 1996 (coinciding with the start of the dry season) at 1,400 m by the reserve cabin. The *bombus* was accompanied by an abnormally high concentration of resident species and seasonal visitors such as *Philodice mitchellii*, *Ocreatus underwoodii* and *Popelairia conversii*, all feeding on *Miconia pilgeriana* (Melastomataceae) bushes in full flower along the forest edge. Louise Augustine obtained prolonged views of this tiny woodstar over three days as it frequently fed within 10 m of the cabin balcony. It was often seen near the noticeably larger and distinctive female of *Philodice mitchellii*, although the size difference was accentuated by the extremely short rounded tail of *A. bombus*, which is not cocked in flight as in *mitchellii*. The flight action of *A. bombus* is distinctive, being characteristically slower and the bird almost appearing to drift aimlessly between flowers versus the decisive manoeuvring of *mitchellii*. The plumage characteristics conformed to *A. bombus*, with rich cinnamon-buff flanks fading on the belly and chest, unlike the white underparts of Esmeraldas Woodstar *A. berlepschi*, which is endemic to lowland western Ecuador, and without the rufous rump band of Gorgeted Woodstar *A. heliodor*^{2,3} found on the eastern slope of the Andes. This detailed sighting of *A. bombus* is the first record for Colombia, and an important northerly range extension for this threatened species, previously known only from north Ecuador south to north-west Peru.

The wet upper premontane and lower montane cloud forests of Reserva Natural La Planada, which range from 1,700–2,250 m (reserve headquarters at 01°09'N 77°58'W, at 1,860 m) are easily accessible from Ricaurte on the Tumaco–Ipiales highway. Here 26 species have been recorded with the hummingbird fauna containing characteristics of the montane zone, and 10 additional species including three violetears *Colibri* spp., Buff-tailed Coronet *Boissonneaua flavescens* and Green-throated Sylph *Agelaiocercus emmae* (considered a separate species from east Andean slope *kingi*). Several unconfirmed sightings of Gorgeted Sunangel *Heliangelus strophianus* exist from the site. Significantly, the abundance levels of many species recorded on both reserves are inversely related, e.g. EBA 041 endemics found commonly at Río Nambi, such as *Boissonneaua jardini* and *Heliodoxa imperatrix*, are infrequent at La Planada. The most characteristic species of La Planada is *Haplophaedia lugens*, which, along with *Ocreatus underwoodii*, is one of the commonest hummingbirds in secondary scrub and forest around the La Planada reserve cabins. *Haplophaedia lugens* is restricted to a small range straddling the border of south-west Colombia and adjacent Ecuador at 1,100–2,250 m¹. However, despite its confiding behaviour, the dull and almost nondescript plumage of *H. lugens* easily confuses observers and the species is probably frequently overlooked.

Above La Planada the paved highway to Ipiales passes largely deforested areas as it ascends the Pacific slope of Nudo de los Pastos, where a typical selection of highland trochilids occurs (24 species). Giant Hummingbird *Patagona gigas* is a seasonal visitor during December–January, frequenting gardens 2 km south of Ipiales at Hosteria Mayasquer, Rumichaca (00°54'N 77°37'W, at 2,900 m) on the Ecuadorian border. Repeated sight observations in 1989, 1991, 1994 and 1996, and a documented individual photographed on 4 January 1996 by LAMH are the first records of the species in Colombia. There are two previous unconfirmed reports 580 km north-east of here on Páramo de Chingaza, in 1981⁹. *Patagona gigas* is suspected to be seasonally regular in southern Nariño, as the introduced *Agave americana* (Agavaceae), an important food source for this species, is common in this area.

From Rumichaca, a road runs along the Ecuadorian side of the frontier to Tufiño, and then crosses into Colombia to the town of Chiles. From the border, a track ascends the northern (Colombian) slope of Volcán Chiles for 4 km to a pass at 3,750 m, before descending towards the Pacific lowlands along the partially forested Río Blanco valley. Four km below the pass near El Tambo village at 3,350 m (00°52'N 77°58'W), there are several large *Polylepis* woodland patches in páramo dominated by *Espeletia* spp. and *Puya* spp. Here 20 hummingbird species have been recorded including Buff-winged Starfrontlet *Coeligena lutetiae*, Mountain Avocetbill *Opisthoprora euryptera*, Viridian Metaltail *Metallura williami*, Rainbow-bearded Thornbill *Chalcostigma herrani* and Purple-backed Thornbill *Ramphomicron microrhynchum*. Páramo above 3,700 m on Volcán Chiles has not been thoroughly investigated, but is strongly suspected to hold Blue-mantled Thornbill *Chalcostigma stanleyi*, following sightings just over the Ecuadorian border, on Páramo El Angel in 1982⁴, and is a potential addition to the Colombian bird list.

On 12 July 1991, a pair of Ecuadorian Hillstar *Oreotrochilus chimborazo jamesoni* was observed feeding on the locally common *Chuquiragua insignis*, which is found throughout the páramo and mixed shrubby slopes from 3,450 m above El Tambo⁵. The next day a male and female were mist-netted and photographed (slides catalogued at VIREO: s 50/1/016, 019, 018, 020). The female was in breeding condition and nearby nesting was suggested by the vascularised brood-patch. This pair was released and subsequently repeatedly observed in patches of *Chuquiragua insignis*. The species was considered endemic to Ecuador, where the northernmost locality is the Cerro Cotacachi/Cerro Yana Urco de Piñán in Imbabura, where it was observed in 1975 and 1980⁴, and just 3 km south of the Colombian border in 1997⁹.

Continuing beyond El Tambo, the rough track descends into montane forest which, although heavily cut for

firewood by local people, still possesses a typical highland hummingbird fauna. Ten km below El Tambo, at 2,300 m, a trail enters a steep forested valley from San Felipé (00°52'N 77°58'W) where *Heliangelus strophianus* is fairly common. This species was formerly considered to be endemic to humid premontane and montane forest (at 1,200–2,800 m) in EBA 041 of western Ecuador, to within 20 km of the Colombian border. It was tentatively known in Colombia from two “Bogotá” skins, suspected to be from Nariño³, as well as unconfirmed sightings at Reserva Natural La Planada⁷. On 24 August 1992 a pair was seen copulating on the ground with separate observations in humid cloud forest dominated by *Chusquea* sp. bamboo tickets. Four birds were mist-netted and photographed (slides catalogued at VIREO: s 50/1/017) on 27 August 1992 providing confirmation of the species’ presence in Colombia.

Returning to Ipiales, the Pan-American Highway heads north to Pasto through steep arid intermontane valleys, part of the Río Patia drainage, where Turquoise-throated Puffleg *Eriocnemis godini* might occur, based on two 19th century “Bogotá” skins and four specimens from adjacent Ecuador¹. However, very little natural habitat remains, its specialised range being intensively farmed.

The Pasto to Mocoa road heads east across the Cuchilla el Tábano at 3,310 m (scrub and patchy páramo with *Ramphomicron microrhynchum*), then descends the eastern flank of the Nudo de los Pastos to the Amazonian lowlands. The total length of this road is 148 km. Little natural habitat remains except beyond Sibundoy town (in Putumayo department). The road climbs another pass to km 86 (01°08'N 76°50'W, at 2,787 m), before a breathtaking 44 km descent through the forested Río Putumayo valley to the Amazonian lowlands. Brief trips have yielded 22 hummingbird species and the area has much potential for future ornithological discoveries. The best area on which to concentrate is between the small pass at km 113 (01°04'N 76°44'W, at 2,247 m) and km 130 at 1,164 m. Below km 113, Green Violetear *Colibri thalassinus*, Chestnut-breasted Coronet *Boissonneaua matthewsii*, Emerald-bellied Puffleg *Eriocnemis alinae* (range extension for southernmost Colombia) and White-bellied Woodstar *Acestrura mulsant* occur, as well as Fawn-breasted *Heliodoxa rubinoides* and Violet-fronted Brilliants *H. leadbeateri*. Flowering trees at km 127 (1,427 m) attracted a swarm of small hummers including Wire-crested Thorntail *Popelairia popelairii* (altitudinal extension), Rufous-vented Whitetip *Urosticte ruficrissa* and Buff-booted Racket-tail *Ocreatus (underwoodii) addae* in March 1998. The road continues into the largely deforested Amazonian foothills and lowlands. Green-fronted *Doryfera ludoviciae* and Blue-fronted Lancebills *D. johannae* overlap in altitudinal range along the road at c.1,000–1,400 m, and are range extensions for the eastern Andean slope of southern Colombia.

The petroleum town of Orito (at 380 m), 123 km south-west of Mocoa, has several large and accessible Andean foothill and Amazonian forest patches with 24 hummingbird species. It is an excellent base from which to explore the interesting intergrade between the two avifaunas within 20 km of the Nariño border. The Amazonian hummingbird community is dominated by hermits *Phaethornis* (five species) and includes such notable species as Buff-tailed Sicklebill *Eutoxeres condamini* and Gould’s Jewelfront *Heliodoxa aurescens*. East beyond Orito airport, a road follows the trans-Andean oil pipeline for 21 km to Estación de Bombeo Guamués (pipeline pumping station) and a military checkpoint (00°38'N 77°02'W, at 780 m). From the checkpoint the road continues 2 km to the Rio Guamués (at 663 m) with patches of secondary forest near the road. This tall secondary forest intermixed with coca plantations contains a number of interesting species, notably Grey-chinned Hermit *Phaethornis griseogularis*, *Doryfera johannae* (very common), Golden-tailed Sapphire *Chrysuronia oenone*, Ecuadorian Piedtail *Phlogophilus hemileucurus*, Black-throated Brilliant *Heliodoxa schreibersii*, Pink-throated Brilliant *Heliodoxa gularis* and Long-billed Starthroat *Heliomaster longirostris* (range extension for the Andean foothills of southern Colombia). On 23 March 1998, two Grey-breasted Sabrewing *Campylopterus largipennis* fed sporadically on flowering Melastomataceae bushes and were joined by an adult male Napo Sabrewing *C. villaviscensio*. The latter was observed at very close quarters and photographed by LAMH. The species was formerly considered endemic to the Napo EBA of eastern Ecuador and adjacent north-east Peru (at 1,050–1,500 m). This record of *Campylopterus villaviscensio* represents the first record in Colombia and an altitudinal extension down to 780 m.

Discussion

As a measure of general avian richness 100 hummingbird species (of 159 species known in Colombia⁵) illustrates the enormous potential Nariño has to offer visiting birders. The five new species for Colombia recorded within this family in just one region (constituting 3% of Colombia’s land area) highlights the potential for additions to the Colombian avifauna. Ornithological field techniques such as photography, mist-netting and sound recording have reversed traditional dependence on collecting, yet Colombia has received very little attention from these approaches. Political instability throughout Colombia has greatly hindered ornithological research, although regions such as Nariño are considered stable and, provided visitors appreciate the local situation when travelling, birders should find themselves in no greater danger than in most other developing countries. Potential visitors to the area are welcome to contact the authors for further information on visiting any area of the country.

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References

- Collar, N. J., Crosby, M. J. & Stattersfield, A. J. (1994) *Birds to watch 2: the world list of threatened birds*. Cambridge, UK: BirdLife International (Conservation Series 4).
- Fjeldså, J. & Krabbe, N. (1990) *Birds of the high Andes*. Copenhagen: University of Copenhagen Zoological Museum & Svendborg: Apollo Books.
- Hilty, S. L. & Brown, W. L. (1986) *A guide to the birds of Colombia*. Princeton: Princeton University Press.
- Ridgely, R. S. & Greenfield, P. J. (in prep.) *The birds of Ecuador*.
- Salaman, P.G.W. (ed.) (1994) *Surveys and conservation of biodiversity in the Chocó, south-west Colombia*. Cambridge, UK: International Council for Bird Preservation (Study Report 61).
- Salaman, P. G. W. & Stiles, F. G. (1996) A distinctive new species of vireo (Passeriformes: Vireonidae) from the western Andes of Colombia. *Ibis* 138: 610–619.
- Salaman, P. G. W., Kaestner, P., Pearman, M. & Stiles, F. G. (in prep.) *Birding in Colombia: a birders site guide and field checklist*.
- Stattersfield, A. J., Crosby, M. J., Long, A. J. & Wege, D. C. (1998) *Endemic Bird Areas of the world: priorities for biodiversity conservation*. Cambridge, UK: BirdLife International (Conservation Series 7).
- Woods, S. F., Ortiz-Crespo, F. & Ramsay, P. M. (1998) Presence of Giant Hummingbird *Patagona gigas* and Ecuadorian Hillstar *Oreotrochilus chimborazo jamesoni* at the Ecuador–Colombia border. *Cotinga* 10: 21–24.

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Appendix 1. Checklist of the hummingbirds recorded from seven localities in Nariño and adjacent Putumayo.

Trochilidae of Nariño

	1	2	3	4	5	6	7	E	B	A
Bronzy Hermit <i>Glaucis aenea</i>		R								
Rufous-breasted Hermit <i>Glaucis hirsuta</i>								F		
Pale-tailed Barbthroat <i>Threnetes leucurus</i>									C	
Band-tailed Barbthroat <i>Threnetes ruckeri</i>	F	R								
White-whiskered Hermit <i>Phaethornis yaruqui</i>	C	C								
Green Hermit <i>Phaethornis guy</i>					X					
Tawny-bellied Hermit <i>Phaethornis symatophorus</i>	C	C							C	
Rusty-breasted Hermit <i>Phaethornis superciliosus</i>										U
White-bearded Hermit <i>Phaethornis hispidus</i>							F			
Straight-billed Hermit <i>Phaethornis bourcierii</i>								X		
Reddish Hermit <i>Phaethornis ruber</i>						R				
Grey-chinned Hermit <i>Phaethornis griseogularis</i>									F	
Little Hermit <i>Phaethornis longuemareus</i>	F	R								
Tooth-billed Hummingbird <i>Androdon aequatorialis</i>	U	S								
White-tipped Sicklebill <i>Eutoxeres aquila</i>	F	F	R							
Buff-tailed Sicklebill <i>Eutoxeres condamini</i>									X	
Blue-fronted Lancebill <i>Doryfera johannae</i>							F		C	
Green-fronted Lancebill <i>Doryfera ludoviciae</i>	F	F							F	
Grey-breasted Sabrewing <i>Campylopterus largipennis</i>										F
Napo Sabrewing <i>Campylopterus villaviscensio</i>								R		44
White-necked Jacobin <i>Florisuga mellivora</i>	C	U					F			
Brown Violetear <i>Colibri delphinae</i>		R								
Green Violetear <i>Colibri thalassinus</i>		R				C				
Sparkling Violetear <i>Colibri coruscans</i>	F	F	C							

White-bellied Woodstar <i>Acestrura mulsant</i>	R
Little Woodstar <i>Acestrura bombus</i>	S
Gorgeted Woodstar <i>Acestrura heliodor</i>	X

Total 16272624202324 16

Key to columns:

- 1 Tumaco to El Diviso (0–600 m)
- 2 Río Nambí Nature Reserve (1,000–1,500 m)
- 3 La Planada Nature Reserve (1,700–2,250 m)
- 4 Volcán Chiles area (2,250–3,700 m)
- 5 Ipiales area (2,600–3,000 m)
- 6 San Francisco–Mocoa road (1,400–3,300 m)
- 7 Orito area (380–800 m)

General abundance of an individual encountered:

- C common; detected on >90% of days
- F fairly common; detected on 50–90% of days
- u uncommon; detected on 10–50% of days
- R rare; detected on <10% of days
- S seasonal or temporal occurrence
- X unconfirmed presence at site although probably occurs

Key to Endemic Bird Areas*

- 039 Colombian inter-Andean valleys
- 040 Colombian inter-Andean slopes
- 041 Chocó
- 042 Northern Central Andes
- 043 Central Andean páramo
- 044 Ecuador–Peru East Andes