

>> GLOBALLY THREATENED BIRD BLACK-THIGHED PUFFLEG

Notes on Black-thighed Puffleg

Eriocnemis derbyi

in northern Ecuador

Juan F. Freile and Luis A. Mazariegos

Black-thighed Puffleg *Eriocnemis derbyi* is one of the most distinctive pufflegs, being characterised by the black leg puffs of males (greyish white in females)^{7,8}. Endemic to the North Central Andes Endemic Bird Area¹⁰, it occurs from the Central Andes of Colombia, in dptos. Risaralda and Tolima, south to northern Ecuador, in northern prov. Imbabura^{7,8}. Two subspecies are recognised, *longirostris* in north-central Colombia, and *derbyi* in southern Colombia and Ecuador⁸. Schuchmann *et al.*⁸ suggested that *E. derbyi* is the sister taxon of a large group formed by the 'typical' *Eriocnemis* pufflegs (excluding Colourful *E. mirabilis* and Emerald Pufflegs *E. alinae*).

In Ecuador *E. derbyi* has been recorded at less than ten localities⁴ (F. Cuesta, N. Krabbe unpubl.; JFF pers. obs.) south to the Volcán Cotacachi area, near Atuntaqui⁸. It occurs on the inter-Andean slopes of both cordilleras in a narrow altitudinal belt (3,000–3,500 m), wherein it inhabits humid montane forest, forest borders and dense regenerating scrub^{5,7}. There is an old specimen record from Pacto, on the western slope of Pichincha province, reported by Schuchmann *et al.*⁸; due to the altitude, habitat and distance between Pacto and the current range of *E. derbyi* we consider this erroneous (mislabelled?).

In a study conducted at Guandera Biological Station, Carchi province, north-east Ecuador, Cresswell *et al.*^{2,3} found *E. derbyi* to be a fairly common breeder in both pristine and secondary forests, with a density of 0.9 individuals/ha in primary forest, 0.6 individuals/ha in secondary forest, and 0.2 individuals/ha in forest borders to farmland. At Guandera, *E. derbyi* has been observed feeding on six plant species with tubular and colourful flowers (observations by M. Hughes in July–September 1997 and JFF in February and April 2002). *Centropogon* sp. (Campanulaceae) was the most commonly used, followed by

Epidendrum sp. (Orchidaceae), *Macleania coccoloboides* (Ericaceae), *Bomarea* sp. (Alstroemeriaceae), *Miconia* sp. (Melastomataceae) and an unidentified Rubiaceae.

One of the birds photographed here (Fig. 1) was mist-netted along with four others, in April 2002, in secondary ridge scrub with a mean canopy height below 5 m and very dense understorey dominated by *Weinmannia brachystachia* (Cunoniaceae), *Blechnum* ferns (Blechnaceae), *Diplostegium* sp. (Asteraceae), several Ericaceae, and in smaller numbers, *Miconia* and other melastomes, *Brunellia* cf. *parviflora* (Brunelliaceae), *Ilex* sp. (Aquifoliaceae) and *Oreopanax* and other Araliaceae^{2,3} (JFF pers. obs.). *E. derbyi* occurs sympatrically with three other pufflegs: Sapphire-vented *E. luciani*, Glowing *E. vestitus*, and Golden-breasted *E. mosquera*^{2,3} (JFF pers. obs.), with *E. derbyi* and *E. mosquera* being most abundant³. The extent to which these four *Eriocnemis* overlap in breeding and feeding areas and how they segregate needs further investigation.

E. derbyi has been ranked as globally Near Threatened¹. In a recent assessment of the conservation status of birds in Ecuador, it was considered Data Deficient because of the few records and poor knowledge of its natural history⁵. Although *E. derbyi* is not well known, the few data from Ecuador and Colombia suggest that it can inhabit regenerating areas and forest edges^{2,3}. Nevertheless, its small range and rates of complete forest loss, primarily due to agricultural expansion, within this range support categorisation as Near Threatened.

Several protected areas in Colombia, including Los Nevados National Park, Puracé National Park, Ucumari Regional Park⁶, and Volcán Galeras Sanctuary (C. D. Cadena pers. comm.) hold populations of this species, but in Ecuador the

only officially protected area within its range is El Ángel Ecological Reserve^{4,7}. As noted above, numbers in the private Guandera reserve are seemingly healthy. It probably also occurs in the north of Cotacachi-Cayapas Ecological Reserve. We concur with the assessment made for Colombia that *E. derbyi* be considered Near Threatened⁶, but more information on its natural history and distribution, especially its status in protected areas is required to better understand its current conservation status.

ACKNOWLEDGEMENTS

Thanks to W. Cresswell and R. Mellanby for permitting publication of data from the Guandera 1997 expedition (see Cresswell *et al.*^{2,3}). Thanks to T. B. Smith and J. Karubian for permission to use information from field work by the Center for Tropical Research (UCLA), S. León-Yáñez (Herbario QCA) for help with plant identification, C. D. Cadena for data from Colombia, F. Cuesta and N. Krabbe for distributional data, T. Santander and P. Salaman for reviewing the note, and J. C. Robles for communication assistance.

REFERENCES

1. BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, UK: BirdLife International.
2. Cresswell, W., Mellanby, R., Bright, S., Catry, P., Chaves, J., Freile, J., Gabela, A., Hughes, M., Martineau, H., MacLeod, R., McPhee, F., Anderson, N., Holt, S., Barabas, S., Chapel, C. & Sánchez, T. (1999) Birds of the Guandera Biological Reserve, Carchi province, north-east Ecuador. *Cotinga* 11: 55–63.
3. Cresswell, W., Hughes, M., Mellanby, R., Bright, S., Catry, P., Chaves, J., Freile, J., Gabela, A., Martineau, H., MacLeod, R., McPhee, F., Anderson, N., Holt, S., Barabas, S., Chapel, C. & Sánchez, T. (1999) Densities and habitat preferences of Andean cloud-forest birds in pristine and degraded habitats in north-eastern Ecuador. *Bird Conserv. Intern.* 9: 129–145.
4. Freile, J. F. & Santander, T. (2005) Áreas importantes para la conservación de las aves en Ecuador. In: Boyla, K. & Estrada, A. (eds.) *Áreas importantes para la conservación de las aves en los Andes tropicales. Sitios prioritarios para la conservación de la biodiversidad*. Quito: BirdLife International (Conserv. Ser. 14).
5. Matheus, J. C. (2002) Zamarrito Muslinegro, *Eriocnemis derbyi*. In: Granizo, T., Pacheco, C., Ribadeneira, M. B., Guerrero, M. & Suárez, L. (eds.) *Libro Rojo de las aves del Ecuador*. Quito: Simbioe, Conservation International, EcoCiencia, Ministerio del Ambiente & UICN.
6. Renjifo, L. M., Franco-Maya, A. M., Amaya-Espinel, J. D., Kattán, G. H. & López-Lanús, B. (eds.) (2002) *Libro Rojo de aves de Colombia*. Bogotá: Instituto de Investigaciones de Recursos Biológicos Alexander von Humboldt & Ministerio de Medio Ambiente.
7. Ridgely, R. S. & Greenfield, P. J. (2001) *Birds of Ecuador*. Ithaca, NY: Cornell University Press.
8. Schuchmann, K. L., Weller, A.-A. & Heynen, I. (2001) Systematics and biogeography of the Andean genus *Eriocnemis* (Aves: Trochilidae). *J. Orn.* 142: 433–481.
9. Sierra, R. (1999) *Vegetación remanente del Ecuador continental. Circa 1996. 1: 1'000.000*. Quito: Proyecto INEFAN/GEF-BIRF, Wildlife Conservation Society & EcoCiencia.
10. 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 (Conserv. Ser. 9).

JUAN F. FREILE

Fundación Numashir para la Conservación de Ecosistemas Amenazados, Casilla Postal 17–12–122, Quito, Ecuador. E-mail: jfreile@numashir.org

LUIS A. MAZARIEGOS

E-mail: lumaz@aol.com



Figure 1. Male Black-thighed Puffleg *Eriocnemis derbyi derbyi* in secondary ridge scrub, Guandera Biological Station, Carchi province, north-east Ecuador, April 2002 (Juan F. Freile)

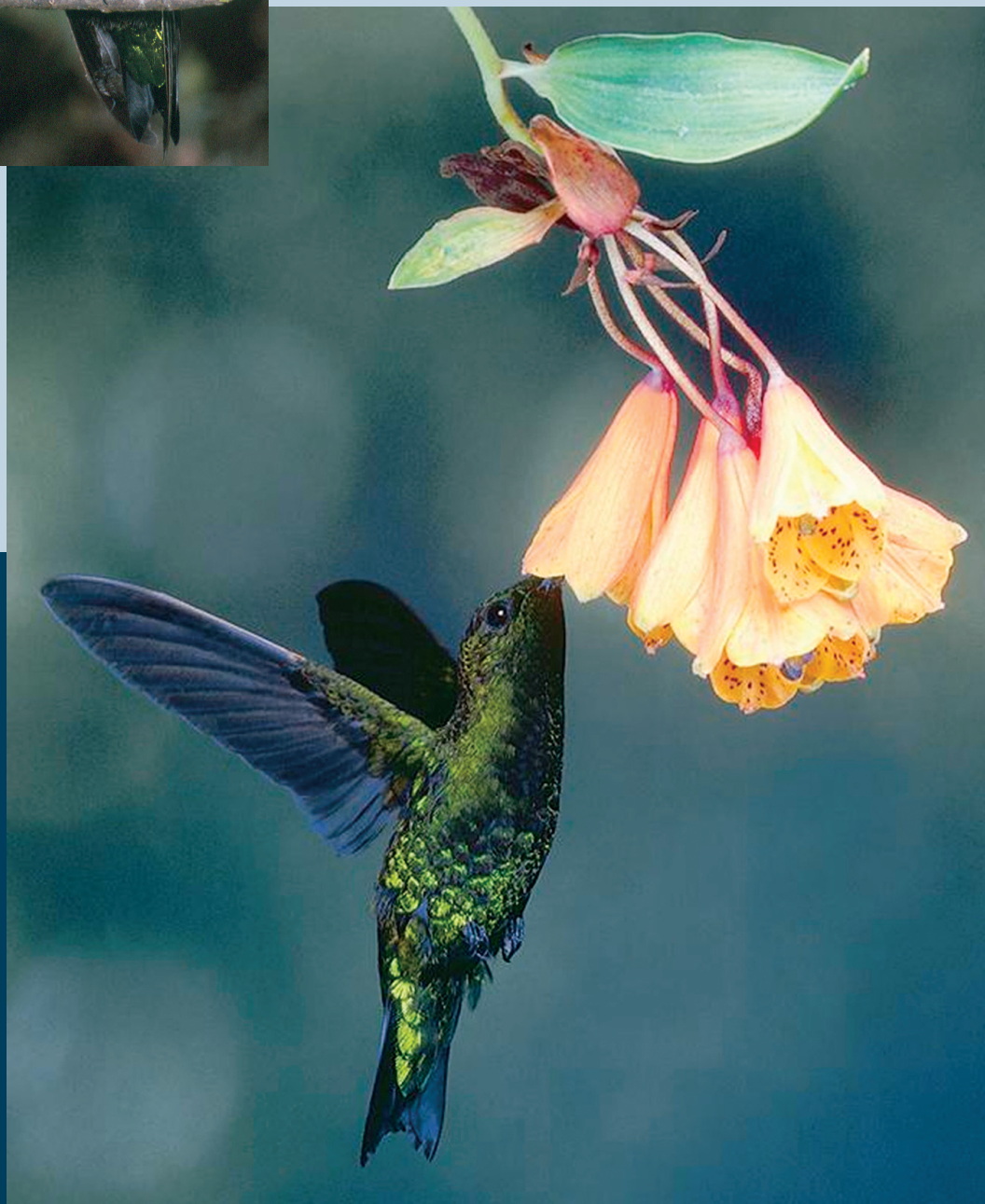


Figure 2. Male Black-thighed Puffleg *Eriocnemis derbyi longirostris* feeding at *Bomarea* sp., El Dequite, dpto. Caldas, Central Andes, Colombia, July 1998 (Luis A. Mazariegos)