

The nest and eggs of Black-throated Flowerpiercer *Diglossa brunneiventris*

The breeding biology of *Diglossa* flowerpiercers is poorly known and the nests of eight of the 18 *Diglossa* species are unknown⁵. Black-throated Flowerpiercer *D. brunneiventris* belongs to a clade with Grey-bellied *D. carbonaria*, Mérida *D. gloriosa* and Black Flowerpiercers *D. humeralis*⁵ and, despite its local abundance, is among the least known of the genus. It occupies low-stature montane habitats, mostly at 2,400–4,300 m in Peru⁵. The nominate subspecies ranges from Peru through western Bolivia to northern Chile. It typically inhabits dry scrub but also occurs in smaller numbers in semi-humid and humid woodland borders, hedgerows and *Polylepis* stands⁵.

On 30 November 2011 we found a nest of nominate *D. brunneiventris* in the dense undergrowth of a regenerating *Eucalyptus* spp. plantation (13°36.468'S 72°49.855'W), 5 km

north-east of Abancay, Apurímac, Peru, at 3,400 m. At 07h45 we flushed an adult from a nest c.50 cm above ground adjacent to a narrow trail. The majority of the c.550-ha plantation comprised tall *Eucalyptus* with sparse grasses and herbs below, and little or no understorey, while several active pastures interspersed the forested parts. In the area immediately surrounding the nest, however, undergrowth was denser. The nearest relatively undisturbed native forest is 5 km to the west (Santuario Nacional de Ampay).

The nest was constructed amid tangled vegetation on a mossy bank, densely laden with ferns and other herbaceous plants, and supported by these plants. It was well concealed from most directions (for the purpose of photography we temporarily parted the vegetation). The external part of the cup-shaped nest (Fig. 1) comprised interwoven grass stems and moss, in roughly equal proportions, with moss predominant externally and

finer grass stems internally. The internal cup was densely lined with soft, pale green *Usnea* lichens (Parmeliaceae).

The nest held two pale blue eggs with fine cinnamon flecking and blotching, slightly heavier near the larger end. One was more heavily marked (Fig. 1). We were unable to measure the eggs or nest.

Comparing the photographs with unpublished (HFG) measurements of the nest of the similarly sized Bluish Flowerpiercer *D. caerulescens*, we estimate the following dimensions: 4–5 cm inner diameter; c.4 cm inner depth; 11–12 cm outer diameter.

When we first approached the nest an adult flushed directly into nearby undergrowth where it silently disappeared. No adult returned during the c.10 minutes we remained in the area to photograph the nest. Overall, during four days (42 hours of field work) in the area, we observed 15 Black-throated Flowerpiercers (2.3% of observed birds, $n = 652$). Black-throated Flowerpiercer (the only *Diglossa* in the area) was the 40th most common species of the 54 species observed.

The nests and eggs of *Diglossa* appear fairly uniform, based on this and previously published descriptions. Described nests are open, fairly bulky cups, with a loose outer portion of stick-like materials (e.g., pine needles, leaf petioles, twigs) and moss. Internally, egg cups are comparatively neat, generally fairly deep, and lined with soft materials. A lining of *Usnea* lichens is favoured by White-sided Flowerpiercer *D. albilatera* in north-east Ecuador (HFG unpubl.). Location varies, both between and within species, but all described nests have been placed either in low shrubs, supported by multiple branches or stems, or on other substrates like rock ledges, banks or mossy trunks. Likewise, there appears to be little variation in egg coloration. Eggs are uniformly described as pale blue or turquoise, with variable amounts of lavender or cinnamon markings. Published descriptions and unpublished observations by HFG of >50 nests



Figure 1. Nest and eggs of Black-throated Flowerpiercer *Diglossa brunneiventris*, near Abancay, Apurímac, Peru, 30 November 2011 (Tomáš Grim & Libor Vaicenbacher)

of *D. albilatera*, *D. caerulescens* and Masked Flowerpiercer *D. cyanea* in Ecuador suggest that the more heavily marked egg in Fig. 1 is slightly unusual in the degree of blotching (rather than fine flecking).

The number of nests described for all species of *Diglossa* is very few, but here we provide a brief review of nest and egg descriptions, from which the above general comparisons were made. Sclater & Salvin⁸ described the nests and eggs of *D. cyanea* (as *D. personata*; see Hellmayr⁴), *D. caerulescens* and *D. albilatera*. Subsequently, Goodfellow³ described the nest and eggs of *D. humeralis* (as *D. aterrima*; see Hellmayr⁴). Skutch⁹ provided the first such descriptions for Slaty Flowerpiercer *D. plumbea* and Cinnamon-bellied Flowerpiercer *D. baritula*, and Gilliard² the only description of the nest of Greater Flowerpiercer *D. major*, albeit involving inactive nests without confirmed ownership. The only description for *D. gloriosa* was also based on an inactive nest¹⁰, and both records require confirmation. Finally, although Nehr Korn⁶ and Ogilvie-Grant⁷ described the eggs of Rusty Flowerpiercer *D. sittoides* more than a century ago, it appears that the first nest description appeared in a grey literature publication¹. Finally, Hilty⁵ provided a description of the nest of Glossy Flowerpiercer *D. lafresnayii*, although his source is unclear. It is obvious that further nest descriptions are required

for *Diglossa*, including for those species whose nests are already known.

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Libor Vaicenbacher and Tomáš Grim

Dept. of Zoology and Laboratory of Ornithology, Palacký University, tř. 17. listopadu 50, CZ-771 46 Olomouc, Czech Republic. E-mails: libor.vaic@seznam.cz, tomas.grim@upol.cz.

Harold F. Greeney

Yanayacu Biological Station & Center for Creative Studies, Cosanga, Napo, Ecuador; c/o 721 Foch y Amazonas, Quito, Ecuador. E-mail: revmmoss@yahoo.com.

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