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 unknown. Black-throated Flowerpiercer D. brunneiventris belongs to a clade with Grey-bellied D. carbonaria, Mérida D. gloriosa and Black Flowerpiercers D. humeralis 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 Peru. 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 stands.

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 understory, 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 Comparing the photographs with unpublished (HFG) measurements of the nest of the similarly sized Bluish Flowerpiercer D. caeruleus, we estimate the following dimensions: 4–5 cm inner diameter; c.4 cm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.
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. Slater & Salvin\(^8\) described the nests and eggs of *D. cyanea* (as *D. personata*; see Hellmayr\(^4\)), *D. caerulescens* and *D. albilatera*. Subsequently, Goodfellow\(^3\) described the nest and eggs of *D. humeralis* (as *D. aterrima*; see Hellmayr\(^4\)). Skutch\(^9\) provided the first such descriptions for Slaty Flowerpiercer *D. plumbea* and Cinnamon-bellied Flowerpiercer *D. baritula*, and Gilliard\(^2\) 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 nest\(^10\), and both records require confirmation. Finally, although Nehrkorn\(^6\) and Ogilvie-Grant\(^7\) 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 publication\(^1\). Finally, Hilty\(^6\) provided a description of the nest of Glossy Flowerpiercer *D. lafresnayii*, although its source is unclear. It is obvious that further nest descriptions are required for *Diglossa*, including for those species whose nests are already known.

**Acknowledgements**

LV & TG are grateful for financial support from the Ministry of Education of the Czech Republic, grant no. MSM6198959212. HFG thanks E. Miller, K. Zyskowski and N. Heming for help with literature, and Matt Kaplan and John V. Moore for continued support. We thank G. Servat, S. L. Hilty and J. Freile for suggested improvements to earlier versions of the manuscript.

**References**


**Libor Vaicenbacher and Tomáš Grim**  
Dept. of Zoology and Laboratory of Ornithology, Palacký University, tr. 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 Poch y Amazonas, Quito, Ecuador. E-mail: revmmoss@yahoo.com.

Received 4 February 2013; final revision accepted 20 October 2013; published online 10 March 2014