

First description of the nest of Yellow-bellied Dacnis *Dacnis flaviventer*

Kimberly S. Sheldon and Harold F. Greeney

Received 12 July 2007; final revision accepted 3 September 2007

Cotinga 29 (2008): 78–79

Encontramos un nido de Dacnis Ventriamarillo *Dacnis flaviventer* en un bosque secundario de ribera fluvial cerca del puente de Chontayacu, en la vía Narupa–Loreto. El nido se ubicaba entre las ramas de un muérdago (Loranthaceae) a 6,5 m del suelo, y tenía forma de taza abierta, un poco oblonga. Dos adultos atendían el nido. Este nido se asemeja tanto en ubicación como en estructura a nidos de otros *Dacnis* descritos previamente.

Little is known concerning the natural history of the genus *Dacnis*, probably because they are primarily canopy-dwelling members of the Thraupidae, making observation difficult. In fact, nests of only two of the nine species of *Dacnis* have been described^{1,4}. Here we present the first description of the nest of Yellow-bellied Dacnis *D. flaviventer*, from north-east Ecuador.

D. flaviventer ranges at low elevations in Venezuela, south through the Amazonian lowlands of Colombia, Ecuador and Peru, and east through Amazonian Brazil¹. It inhabits forest edge, particularly near rivers and on river islands, *terra firme* forest and tall second growth¹. Scarce throughout much of its range, *D. flaviventer* is usually encountered in pairs travelling independently, but occasionally with mixed-species flocks, foraging from the midstorey to the crowns of trees¹.

On 6 December 2006 we discovered a nest containing two well-developed nestlings near Chontayacu Bridge, on the road between Narupa and Loreto, prov. Napo, north-east Ecuador (00°43'S 77°46'W; 1,125 m elevation). We observed a pair of adults foraging together in trees adjacent to the nest and then feeding the nestlings in swift succession. We returned to the nest on 7 December and found both nestlings still present. By 21 December the nest was empty and we collected it to analyse nest architecture and components.

The nest was in a 7-m Lauraceae tree c.5 m from a river and was placed 6.5 m above ground, nestled within mistletoe (Loranthaceae) sprouting in the upper branches of the substrate tree. The nest was 13.1 mm below the immediate crown of mistletoe and well concealed from all sides. Habitat in the environs was cut-over, being mostly second growth typical of river edges at this elevation (Fig. 1).

The nest was an open cup, slightly oblong in shape. Its outer diameter (at perpendicular angles) measured 61.3 by 70.4 mm, with corresponding inner measurements of 45.2 by 53.7 mm. The cup was 38.9 mm tall outside with an inner cup 30.1 mm deep. The nest was supported by five branches, one from the main substrate tree and four from the

surrounding mistletoe. The tree branch supporting the nest was 11.1 mm in diameter, whilst the considerably smaller mistletoe branches were 4.8, 2.9, 2.2 and 1.8 mm in diameter.

The nest was sparsely built, permitting light to pass through in some areas. Eighteen pieces of a vine-like fern, *Microgramma* sp. (Polypodiaceae), formed the external part of the nest, wrapping around the outside and passing around mistletoe branches at two attachment points (Fig. 2), which were further fortified by spiderwebs. The sparse lining of the cup comprised thin, pliable rootlets, dried grasses and mosses loosely woven in a circular fashion (Table 1). In addition, the nest contained one unidentified vine-like plant as well as additional spiderwebs.

The nest was similar in its placement within dense vegetation to those of Scarlet-thighed Dacnis *D. venusta* and Blue Dacnis *D. cayana* described from Costa Rica⁴. In fact, one nest of *D. venusta* was also placed within a parasitic plant. In addition to placement, the nest of *D. flaviventer* was also similar to other *Dacnis* nests in its architecture and components. For all three species, the nests are frail or sparse with nest materials woven around the substrate and supporting branches, and attachments are further strengthened with spiderwebs. Though Ihering² showed a nest of *D. cayana* from Brazil lined with seed down, this was not observed by Skutch⁴ in Costa Rica. Fibrous plant parts are used by all three species, and

Table 1. Nest contents of Yellow-bellied Dacnis *Dacnis flaviventer*. Both weight and length measurements are given for comparison.

Item	No. of items	Mean item length ± SD (mm)	Dry weight (g)	Total weight (%)
Rootlet	69	9.0 ± 4.2	0.990	28
Fern	18	11.4 ± 5.2	2.417	68
Grass	7	4.4 ± 1.5	0.026	<1
Moss	5	6.2 ± 5.5	0.023	<1
Unidentified plant	1	17.8	0.091	3

Skutch⁴ also described a predominance of fern parts in a nest of *D. venusta* in Costa Rica.

In Ecuador, *D. flaviventer* typically ranges up to 500 m elevation, with 'one exceptional report from as high as 1,050 m'³. The nest we found was at 1,125 m, suggesting that this species ranges and breeds at higher elevations than previously appreciated. In fact, *D. flaviventer* is regularly observed near the Chontayacu bridge (M. Lysinger pers. comm.). Because *D. flaviventer* is known to favour areas near water, it is unsurprising that the nest described here was constructed in riverside habitat.

Acknowledgements

KSS was funded by an NSF IGERT fellowship granted through the University of Washington and entitled 'Multinational Collaborations to Challenges in the Environment'. We thank J. Freile and J. Karubian for helpful comments on earlier versions of the manuscript. We are grateful to John V. & the late Ruth Ann Moore, the Hertzberg Family Foundation, Field Guides Inc., Matt Kaplan and the PBNHS for support. This is publication no. 125 of the Yanayacu Natural History Research Group.

References

1. Isler, M. L. & Isler, P. R. (1999) *The tanagers*. Washington DC: Smithsonian Institution Press.
2. Ihering, H. von (1900) Catálogo crítico-comparativo dos ninhos e ovos das aves do Brasil. *Rev. Mus. Paulista* 4: 191–300.
3. Ridgely, R. S. & Greenfield, P. J. (2001) *The birds of Ecuador*. Ithaca, NY: Cornell University Press.
4. Skutch A. F. (1962) Life histories of honeycreepers. *Condor* 64: 92–116.

Kimberly S. Sheldon and Harold F. Greeney

Dept. of Biology, University of Washington, Box 351800, 24 Kincaid Hall, Seattle, Washington 98195–1800, USA, and Yanayacu Biological Station & Center for Creative Studies, Cosanga, Napo, Ecuador; c/o 721 Foch y Amazonas, Quito, Ecuador. E-mail: ksheldon@u.washington.edu.



Figure 1. View of Yellow-bellied Dacnis *Dacnis flaviventer* nest tree, from the Chontayacu bridge on the road to Loreto, north-east Ecuador; the circle indicates the nest location (K. S. Sheldon)



Figure 2. Close-up of Yellow-bellied Dacnis *Dacnis flaviventer* nest: rootlets, grasses, and mosses are visible in the nest lining, whilst vine-like ferns can be seen wrapped around the outside of the nest (K. S. Sheldon)