

FIRST NESTING DATA FOR CERULEAN-CAPPED MANAKIN (*LEPIDOTHRIX COERULEOCAPILLA*) FROM SOUTHEAST PERU

Guy M. Kirwan¹, Alex Durand², David Beadle³, & Hadoram Shirihai⁴

¹Research Associate, Field Museum of Natural History, 1400 South Lakeshore Drive, Chicago, IL 60605, USA. *E-mail*: GMKirwan@aol.com

²Asc. Cruz Verde Quehuarpay 2.17 BLT.7, Av. El Sol 138 Of. 2, Cusco, Peru.

³4 Yarmouth Gardens, Toronto, Ontario M6G 1W4, Canada.

⁴Ausserdorfstraße 6, 8052 Zurich, Switzerland.

Primer registro de nidificación de Saltarín Coroniceleste (*Lepidothrix coeruleocapilla*) del sureste del Perú.

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Manakins (family Pipridae) are small understory frugivores well known for their lek-mating systems. Because of their unique reproductive biology (lekking), males contribute only gametes leaving females entirely responsible for nest building and parental care of the eggs and young. The genus *Lepidothrix* C. L. Bonaparte, 1854, is generally considered to comprise eight species of small manakins, and is widely distributed throughout the Neotropics. Of the eight, descriptions of the nest and/or eggs are available for the Blue-crowned Manakin (*L. coronata*; comparatively well known, especially from studies in Costa Rica and Ecuador: e.g., Skutch 1969, Hidalgo *et al.* 2008, Kirwan & Green 2011), Snow-capped Manakin (*L. nattereri*; nest and eggs recently described from eastern Amazonian Brazil: Whittaker *et al.* 2010), Golden-crowned Manakin (*L. vilasboasi*; nest and

eggs described: Sick 1959), Opal-crowned Manakin (*L. iris*; egg alone described: Pinto 1953), and White-fronted Manakin (*L. serena*; several nests with eggs reported in the literature: Tostain 1988). In contrast, other than broad indications of seasonality (based on gonadal data from specimens), virtually nothing is known concerning the breeding biology (e.g., nest and egg descriptions, parental care, etc.) of the other three species: Blue-rumped Manakin (*L. isidorei*), Cerulean-capped Manakin (*L. coeruleocapilla*), and Orange-bellied Manakin (*L. suavisima*) (cf. Snow 2004, Kirwan & Green 2011). Here we report the first nest of the Cerulean-capped Manakin, based on brief observations in southeast Peru.

The Cerulean-capped Manakin is endemic to the east slope of the Andes in Peru, where it occurs from depto. Huánuco south as far as

depto. Puno; it is largely confined to elevations of 700 to 1600 m a.s.l. (Ridgely & Tudor 2009). Virtually nothing is known about its life history, and the species is arguably even more poorly known than either of the only two Pipridae considered to be globally threatened, Golden-crowned Manakin and Araripe Manakin *Antilophia bokermanni* (Kirwan & Green 2011). Lekking behavior is unknown (Walker & Fjelds  2002), and nothing has been published concerning any other aspects of the species' breeding behavior or biology (Snow 2004). Based on the long series of specimens held at the Field Museum of Natural History (Chicago), it seems that the breeding season commences in October in deptos. Cuzco and Madre de Dios (southeast Peru) as females with a yolking ovum have been collected in the second week of November, and with a brood patch at the end of the same month.

STUDY AREA

During 3 to 10 November 2010, DB, HS, AD, and Mar a San Rom n were conducting ornithological fieldwork along the Manu road, in depto. Cuzco, southeast Peru. The Cerulean-capped Manakin nest reported here was found below Cock-of-the-Rock Lodge (13 06'16"S, 71 32'42"W; 1300 m a.s.l.) within a matrix of primary (with canopy height of up to 30 m) and secondary forests, as well as small plots of cultivation, at a forest edge close to the Pilcopata road.

RESULTS AND DISCUSSION

In the mid morning of 10 November 2010, the same four observers discovered an active nest of the Cerulean-capped Manakin, at which the female was obviously incubating eggs, based on its behavior. The female was originally observed feeding on small, unidentified fruits and was very approachable,

before it was seen returning to the nest. The nest was sited on a steep, 70  slope, very close above a road cut, and in an area of relatively open understory within an apparently natural light gap in the forest. Nearby was a small, fast-flowing stream. It was a small, cup-like structure (typical of the Pipridae) constructed of brown rootlets and sited in the two-way fork among the lowest branches of a small, understory, flowering Urticaceae tree (perhaps belonging to either the genus *Pilea* or *Urrera*) which was c. 4 m in height. The nest was < 1 m from the tree's main stem, and was situated c. 1.7 m above the ground (Fig. 1). It conformed to the low cup/fork category of Simon & Pacheco (2005), and was attached to the branches of the tree using live material from the nest support tree and spider webs as fastening materials. Live vegetation and some dead leaves hanging from the support branches provided a natural 'cloak' that largely or partially obscured the nest from view from several angles (Fig. 1). Additionally, many filaments of live material, also from the nest support tree hung below the nest, forming a 'tail' disguising its outline. While no detailed measurements were taken of the nest, from the photographs (Fig. 1) it can be seen that the live material hanging below it is up to 4.5 times longer than the nest is deep. Given that the Cerulean-capped Manakin typically measures 8.5–9.0 cm in length (Kirwan & Green 2011), it would seem that the nest's external dimensions were probably similar to, or slightly larger than, those of the Blue-crowned Manakin in Amazonian Ecuador (Hidalgo *et al.* 2008).

Compared to the best-known species of *Lepidothrix*, the Blue-crowned Manakin, the sole nest of the Cerulean-capped Manakin is fundamentally quite similar in position, though slightly higher than average above the ground (usually < 2 m off the ground in *L. coronata*; Skutch 1969, Stiles & Skutch 1989,



FIG. 1. Female Cerulean-capped Manakin *Lepidothrix coeruleocapilla*, Manu road, depto. Cuzco, southeast Peru, November 2010 (Hadoram Shirihai/The Photographic Handbook to the Birds of the World; Jorvall & Shirihai in prep.).

Snow 2004, Greeney 2006, Hidalgo *et al.* 2008), and in having green moss or similar material covering the outer rim and hanging below it. The nest of the White-fronted Manakin too has the exterior partially camouflaged using long filaments of moss, some of which trail up to 27 cm below the nest, to disguise its shape, and this species' nests are usually placed 1–2 m above the ground (Tostain 1988). In contrast, Whittaker *et al.* (2010)

mentioned that the only nest of the Snow-capped Manakin found to date had the outer walls and base of the nest constructed using several large dead leaves attached using spider webs, and below the cup there was a 'tail' formed by a dead leaf, which disguised the nest's shape. For the Golden-crowned Manakin, Sick (1959) did not mention any 'tail' below the nest, or the presence of live mosses, but this nest too was placed close to

the ground, at about 1 m. As reported by Hidalgo *et al.* (2008), it appears that there is quite some degree of spatial segregation within Pipridae in their selection of nest sites, at least in localities where multiple species occur, with *Lepidothrix* (often amongst the smallest species) usually selecting sites closest to ground level. In other areas, however, where *Lepidothrix* species are absent, e.g. along the Río Caura, Bolívar, southern Venezuela, it is possible that *Machaeropterus* (in this case the Fiery-capped Manakin *M. pyrocephalus pallidiceps*) fill the same niche, nesting closest to ground level (Bradshaw & Kirwan 1995). The nest of the Cerulean-capped Manakin reported here conforms to this and to the pattern, noted for the Blue-crowned Manakin and the White-fronted Manakin, of including live material in the nest's structure, and the 'tail' hanging below it, although the latter character is not a feature of all nests of *L. coronata* (Hidalgo *et al.* 2008).

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REFERENCES

- Bradshaw, C. G., & G. M. Kirwan. 1995. A description of the nest of Fiery-capped Manakin *Machaeropterus pyrocephalus* from Bolívar, Venezuela. *Cotinga* 4: 30–31.
- Greeney, H. F. 2006. A Blue-crowned Manakin *Lepidothrix coronata* successfully defends its nest from *Labidus* army ants. *Cotinga* 25: 85–86.
- Hidalgo, J., T. B. Ryder, W. P. Tori, R. Durães, J. G. Blake, & B. A. Loiselle. 2008. Nest architecture and placement of three manakin species in lowland Ecuador. *Cotinga* 29: 57–61.
- Kirwan, G. M., & G. Green. 2011. *Cotingas and manakins*. Christopher Helm, London, UK.
- Pinto, O. M. O. 1953. Sobre a coleção Carlos Estevão de peles, ninhos e ovos das aves de Belém (Pará). *Pap. Avuls. Dept. Zool., São Paulo* 11: 113–224.
- Ridgely, R. S., & G. Tudor. 2009. *Birds of South America: passerines*. Christopher Helm, London, UK.
- Sick, H. 1959. Zur Entdeckung von *Pipra vilasboasi*. *J. Ornithol.* 100: 404–412.
- Simon, J. E., & S. Pacheco. 2005. On the standardization of nest descriptions of Neotropical birds. *Rev. Bras. Ornitol.* 13: 143–154.
- Skutch, A. F. 1969. Life histories of Central American birds, III. *Pacific Coast Avifauna* 35: 1–580.
- Snow, D. W. 2004. Family Pipridae (manakins). Pp. 110–169 in del Hoyo, J., A. Elliott, & D. A. Christie (eds). *Handbook of the birds of the world. Volume 9: Cotingas to pipits and wagtails*. Lynx Edicions, Barcelona, Spain.
- Stiles, F. G., & A. F. Skutch. 1989. *A guide to the birds of Costa Rica*. Cornell Univ. Press, Ithaca, New York, USA.
- Tostain, O. 1988. Le nid et la ponte de *Perissocephalus tricolor*, Cotingidae, en Guyane française: *Pipra pipra*, *P. serena*, *P. aureola* et *P. erythrocephala*. *Alauda* 56: 153–158.
- Walker, B., & J. Fjeldså. 2002. *Field guide to the birds of Machu Picchu, Peru*. 2nd ed. PROFO-NANPE & The Machu Picchu Program, Lima & Cusco, Peru.
- Whittaker, A., G. M. Kirwan, & J. C. Thompson. 2010. First nest descriptions for Hoffmanns's Woodcreeper *Dendrocolaptes hoffmannsi* and Snow-capped Manakin *Lepidothrix nattereri*. *Cotinga* 32: 162–164.

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