Nest and egg of the Tyrannine Woodcreeper Dendrocincla tyrannina

Dendrocincla are robust, stoutbilled woodcreepers, with six species distributed from Middle America though central South America to southern Brazil². The nesting biology of all but one species has been studied, some of them fairly extensively^{1,3-8}. The most montane species, Tyrannine Woodcreeper D. tyrannina, is the least known and nothing has been published concerning its breeding biology².



Figure I. Adult Tyrannine Woodcreeper *Dendrocincla tyrannina* preparing to enter its nest hole, Yanayacu Biological Station, prov. Napo, Ecuador (Murray Cooper)

On 5 October 2007, we found a nest of Tyrannine Woodcreeper at the Yanayacu Biological Station & Center for Creative Studies (00°35'S 77°54'W), 5 km west of Cosanga, prov. Napo, Ecuador, at 2.000 m. The nest was in swampy. mature forest on level ground, with a canopy height of 15-25 m. It was located within a vertically oriented cavity, in a 20 m-tall, living Erythrina edulis (Leguminaceae) tree. The cavity appeared to be created by rotting of the tree core at the spot of a broken-off fork (Fig 1). The cavity entrance was 1.8 m above ground, slightly oblong, and was 9 cm wide by 12 cm tall. The nest was 35 cm below the entrance. The nest itself filled the bottom of the cavity and was a c.13 cm wide by 3 cm-thick pad of loosely piled materials. When removed after fledging, the nest did not appear to possess a well-defined cup. Even given the disturbance caused by the nestling, it was probably never well formed due to the loose nature of its materials, which were not interwoven but rather piled into the cavity bottom. We dried the nest for three months, separated the various materials and weighed them to the nearest 0.1 g. The nest was composed of: chips of lichen (23.0 g), short sticks (3.9 g), dead leaf and bark fragments (3.3 g), dark rootlets and flexible fibres (2.4 g), and moss (1.9 g).

The nest contained a single egg when discovered, and no further eggs were laid before hatching, sometime between 27 and 29 October. The egg was immaculate white and measured 35.2×27.7 mm. On 6 October it weighed 8.392 g, and on 11 October it weighed 8.207 g, reflecting a loss of mass at a rate of 0.5% of its original mass / day. The egg was completely undeveloped when we first examined it, so we consider that it had been very recently laid. It was unpipped on 26 October and, as most passerine eggs at this field site pip c.2 days before hatching (HFG pers. obs.), the egg probably hatched on 29 October, giving an incubation period of at least 22 days and likely around 24

days. This is only slightly longer than the 20–21-day period described for Tawny-winged Woodcreeper *D. anabatina*⁶, the only congener for which the incubation period is known.

We removed the nestling for the first time on 2 November (i.e., when 4-6 days old). At this time it weighed 16.2 g and the eyes were still closed. It was dark pinkskinned, with sparse dark grey down on the dorsum and none of the contour feather pins had broken through the skin. The bill was still predominantly fleshcoloured, with a black tip and white egg tooth. The rictal flanges were pale yellow and the mouth lining was whitish pink. Subsequently, we weighed the nestling on 11 November (13-15 days old), when it weighed 47.2 g. By this time, the wing pin feather sheaths had just begun to break, while the tail pin feathers were unbroken. Contour feathers were emerging from their sheaths, a warm olive-brown colour like that of adults. The bill was now mostly dark, the rictal flanges had become almost white, and the egg tooth remained. The nestling was last examined (though not removed from the cavity) on 26 November (28-30 days old). At this time it appeared fully feathered, and would probably have departed the nest if we had disturbed it. The nestling disappeared sometime between 27 November and 3 December, giving a nestling period of at least 29 days, probably close to the actual due to its readiness to fledge upon our last visit.

As we visited the nest infrequently, we learned little concerning adult behaviour. When entering the nest, the adult(s) would land on the trunk below the nest, then hop warily to the cavity edge before backing down into the hole. On our approach, the adult would move to the cavity entrance while we were still 5-10 m away. It would freeze, with just its head protruding from the cavity, until we were within 2-3 m, at which point it would flush silently from view. There appears to be quite some variation in nest materials used within and between species of Dendrocincla². Thus, as all species are cavity nesters, more information on nest contents is required before we can provide a thorough comparison of nest architectures.

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Harold F. Greeney, Oscar German Manzaba-B. and Kimberly S. Sheldon

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

Tadeusz Stawarczyk

Museum of Natural History, Wroclaw University, Sienkiewicza 21, 50-335, Wroclaw, Poland.

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