

Description of the nest and eggs of White-lored Tyrannulet *Ornithion inerme* in north-east Brazil, with notes on reproductive behaviour

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O ninho e o ovo de *Ornithion inerme* são descritos pela primeira vez. O material foi coletado no município de Camaragibe, Pernambuco, Brasil. O casal estava presente na construção do ninho, o qual se localizava em uma folha seca de embaúba (*Cecropia* sp.), na borda de um fragmento de mata atlântica. O ninho mede 11,0 × 9,5 × 8,6 cm, e o ovo mede 15,0 × 11,9 mm. O ninho de *O. inerme* é similar ao ninho descrito para *O. semiflavum*, e diferente do descrito para *O. brunneicapillum*.

White-lored Tyrannulet *Ornithion inerme* is a small, canopy-living flycatcher that occurs throughout most of Amazonia, and in the Brazilian Atlantic Forest, from Paraíba to Rio de Janeiro^{1,10}, and has been recorded only recently in Pernambuco¹⁰. Despite being common over most of its range¹¹, very little is known concerning the species' breeding biology, and its nest and eggs are undescribed⁵. Even available data on the only congeners, Brown-capped Tyrannulet *O. brunneicapillum* and Yellow-bellied Tyrannulet *O. semiflavum*, are based on uncertain or unpublished sightings (J. W. Fitzpatrick *in litt.* 2004). Here, we describe, the nest and eggs of *O. inerme* and present observations made at the nest.

Methods

Our work was conducted at km 17 of the Estrada de Aldeia, at Camaragibe, Pernambuco, Brazil (07°54'S 35°03'W)⁴. With an estimated 3,000 ha of forest, the site represents one of the largest fragments of Atlantic Forest near Recife⁴. The forest is second growth, with a mean canopy height of 15–25 m. We observed the nesting pair, using binoculars, for a total of 5.5 hours, during which we noted adult behaviour and timed nest visitation. Our observations were made on 15, 20 and 28 November, and on 4 December 2004. The nest and one egg were collected on 4 December 2004 and deposited at the Museu Nacional do Rio de Janeiro (accession number 5456).

Results

At c.09h30 on 15 November 2004, we observed a pair of *Ornithion inerme* at a *Cecropia* tree, one constructing a nest. The nest was placed within a dead *Cecropia* leaf c.6 m above ground, at the forest edge near a small stream (Fig. 1). One bird perched on the bottom of the leaf, and its mate nearby carrying dry plant matter in its bill. The pair frequently vocalised and remained in the *Cecropia* tree even when one of us briefly stood directly below the nest.

On 20 November we observed the nest between 06h20 and 10h15. The nest was in an advanced stage of construction. One bird arrived at the *Cecropia* at 06h30 carrying some white plant 'wool'. The bird entered the nest briefly and then departed. Five minutes later, one individual returned to the nest for another brief visit. We observed the nest continually until 08h45, but neither bird returned during this period. Following a 40-minute break in observations, we again observed an adult visit the nest briefly, at 09h25. At 09h35, both birds arrived at the *Cecropia*, one carrying more white plant 'wool'. Both visited the nest simultaneously, only to depart five minutes later. At 09h55, the pair returned, but only one bird entered the nest, and both soon departed. At 10h02, one returned, but left the tree five minutes later, without entering the nest.

On 28 November, we observed the nest from 16h10 until 17h40. Some of the dry dead leaves near that containing the nest had fallen since our last visit, and no nest-building activities were observed. One bird arrived at the tree at 16h18, emitted a two-note call and then entered the nest. It disappeared completely inside the nest, occasionally peering from the entrance, but did not depart the nest during the remainder of the observation period, and the other bird was not seen at this time.

We returned on 4 December, but the leaf with the nest had fallen, perhaps due to heavy rains the previous day. One egg was inside the nest, but there was no sign of additional eggs. The pair was not seen. The nest and an egg were collected, but the egg was broken while we attempted to empty its contents.

The nest is a globular, domed structure with a side entrance (Fig. 2) placed within a curled, dead *Cecropia* leaf such that the dome and one side are visible. The nest was 11.0 cm in height, 9.5 cm wide and 8.6 cm front to back. The entrance was 2.2 cm wide × 1.7 cm tall. The nest was wider at the bottom than at the top. It was constructed mainly of white plant fibre, woven to form a compact structure, with



Figure 1. Nest site of White-lored Tyrannulet *Ornithion inerme*, Mata de Aldeia, Camaragibe, Pernambuco, Brazil. The circle indicates the *Cecropia* leaf where the nest was placed (S. Dantas)



Figure 2. Nest of White-lored Tyrannulet *Ornithion inerme* (Gilmar Farias)

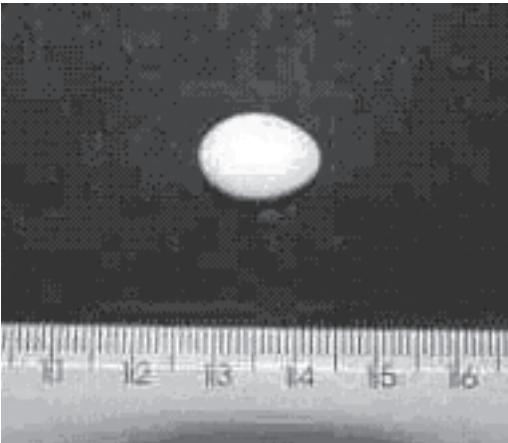


Figure 3. Egg of White-lored Tyrannulet *Ornithion inerme* (Gilmar Farias)

a breeding chamber 7.0 cm deep. The nest was entirely covered by small dry leaf petioles, leaves, moss, grass and flowers on the outside, forming a distinct layer from the plant fibre. The concentration of leaf petioles was greatest at the sides of the

entrance and at the bottom of the nest, and the nest sides were covered mainly by dry flowers and moss. The interior was completely covered with white plant fibre. The egg was entirely white and measured 15.0 mm × 11.9 mm. It was fertile and had begun to develop, with a small spot of blood in its interior.

Discussion

Both pair members were present during the nest construction period, but it is unclear if both partake in building, as only one bird was observed carrying materials and entering in the nest at any time. Only one was observed at the nest following its completion, but the limited observation time was insufficient to determine if one or both adults share in incubation and parental care.

Nest construction of *Ornithion inerme* appears similar to that of *O. semiflavum* of Central America, which has been suggested to build a globular nest within a dead *Cecropia* leaf or a clump of bromeliads⁵. Dead *Cecropia* leaves are used as nest sites by other birds, e.g. *Euphonia chlorotica* (C. Albano pers. comm.), *Dendroica angela*, *Pyrrhomyias cinnamomea* and *Iridophanes pulcherrima* (H. F. Greeney *in litt.* 2005), despite

the risk of the nest collapsing, as in the present case and in that of *P. cinnamomea*, suggesting that *Cecropia* leaves are an important substrate for nesting birds. Concealing a nest in a dead *Cecropia* leaf may reduce risk of predation. We only noticed the present nest because of the movements of the adult, and its placement below canopy level is similar to that described for *Ornithion brunneicapillum*, in which nests are placed 3.5–12.0 m above ground in an understorey tree⁵.

The nest of *O. inerme* is similar to that of species of *Camptostoma*, which also construct globular nests of dry fibres and leaves, and lined with white plant 'wool' and fibres^{6,8,12,13}. In contrast, *O. brunneicapillum* builds an untidy flat saucer of fine twigs, leaf petioles and bark, much like the nest of *Phyllomyias fasciatus*^{3,12}. However, data on nesting in *Ornithion* are uncertain and not definitive (J. W. Fitzpatrick *in litt.* 2004), making it difficult to speculate as to possible intra-generic differences in nesting habits.

The clutch observed here was of a single egg, but as the nest fell early in the breeding cycle we cannot be sure if it was complete or if other eggs fell from the nest.

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