

### A Wing-barred Piprites *Piprites chloris* nest in Mato Grosso, Brazil

Wing-barred Piprites *Piprites chloris* is the most widespread member of its genus, ranging discontinuously from Colombia to north-east Argentina<sup>2,3,7</sup>. The genus has previously been included in the manakins (Pipridae)<sup>8,9</sup> but is currently classified as *incertae sedis* by SACC<sup>6</sup>, whereas it is included in the tyrant flycatchers (Tyrannidae) by Tello *et al.*<sup>10</sup> and the IOC<sup>2</sup>. Recently, Ohlson *et al.*<sup>4</sup> proposed family rank (Pipritidae) for this genus.

Wing-barred Piprites and its two congeners represent some of the least known of Neotropical birds. Data on natural history and breeding ecology can aid in resolving taxonomic uncertainties. Details of the nesting of *P. chloris* are essentially unknown, despite a reference to a nest 'in a cavity, with no suspended nest structure'<sup>7</sup>, which reference lacks a primary source<sup>1,3</sup>. In contrast, a nest reported from south-east Brazil was described as an open cup supported by a narrow branch below a bank<sup>3</sup>. Thus, the precise nest structure is controversial. The nest of the closely related, but allopatric, Grey-headed Piprites *P.*

*griseiceps* is unknown<sup>3</sup>. Only the nest of Black-capped Piprites *P. pileata* has been fully described; a sphere of moss supported by the fork of a trunk<sup>1</sup>.

We describe a Wing-barred Piprites nest under construction in the Rio Cristalino Private Natural Heritage Preserve (09°41'S 55°54'W), 40 km north-east of Alta Floresta, Mato Grosso, Brazil. The species is fairly common to uncommon in tall *terra firme* forest in the reserve, and often joins mixed-species flocks. While easily detected by voice, it is infrequently seen and tends to remain in the upper subcanopy, where it often remains still when vocalising (pers. obs.).

During mid morning of 25 May 2013, along a trail skirting a treefall gap in *terra firme* forest on the east bank of the rio Cristalino, while observing a mixed-species flock, we spotted a Wing-barred Piprites perched on a horizontal branch c.7 m above ground. The bird was carrying nesting material and remained motionless long enough to permit observation through a 32 × 60 telescope. We confirmed the identification based on the bird's small size, two prominent wingbars, short tail, stubby bill, distinct eye-ring, and

faint yellow wash to the vent and throat<sup>5</sup>. The unique combination of bill shape, wingbars, big eyes and large-headed appearance eliminated any superficially similar Tyrannidae species. The presumed resident subspecies *P. c. griseiceps* is overall greyish with the least amount of yellow on the underparts<sup>2</sup>. We followed the bird as it flew to a shallow cavity in a tree trunk, where it deposited the material, and sat on it briefly as if shaping a nest cup. The bird was clearly visible the entire time it was in the cavity. It then flew off, disappearing from view and we made no further observations that day. During the entire observation we saw just one individual.

Some moss was visible at the entrance to the cavity and we photographed the nest site. We made no further observations of the bird during subsequent visits to the nest on 26, 30, 31 May and 3 and 7 June. By 30 May, the structure had been significantly enlarged, with a mossy cup clearly visible in the cavity (Fig. 1), but a check of the nest's contents on 31 May revealed it to be empty. The structure appeared undisturbed during a check through a telescope on 3 June, but on 7 June, when climbing the tree again, we found the nest destroyed with all of the material pulled from the hollow and some moss on nearby branches. During the following days we heard the species singing in the vicinity, but made no further direct observations.

The nest was placed c.7 m above ground in the shallow cavity of an *Aspidosperma carapanauba*, a fairly common and widespread tree in the study area. The irregularly shaped boles of *A. carapanauba* trees provide many small cavities. The nest consisted of moss shaped into a cup and placed solidly on the floor of the cavity, not suspended, filling the entire hole. The cavity had a vertical depth of c.12 cm and horizontal depth of 7 cm. A large proportion of the nest was visible at the entrance, which measured 4 cm wide × 20 cm tall. The nest had a total depth of 15 cm with the cup measuring 5 cm deep and 4 cm wide. The material



Figure 1. Wing-barred Piprites *Piprites chloris* nest, possibly still under construction, in a cavity formed by the irregularly shaped bole of an *Aspidosperma carapanauba*, Cristalino Jungle Lodge, Mato Grosso, Brazil, 3 June 2013 (Stephan Lorenz)

appeared to consist exclusively of moss with no discernible lining, indicating that the nest may still have been under construction on 31 May. It is possible that the bird was in the process of constructing a spherical nest, similar to that of Black-capped Piprites<sup>1</sup>. After the nest had been destroyed, presumably by a predator or competitor, all of the material had been removed from the cavity. We are unsure if eggs were present at the time it was destroyed or whether an incubating bird would have been visible from the ground on 3 June. We speculate that a predator discovered the eggs immediately after they had been laid or pulled the nest material from the cavity searching for eggs.

We encourage future field workers to search for Wing-barred Piprites nests and gather additional data on natural history and breeding behaviour. Our observation provides further clues into nest construction and placement, and may direct future work concerning possible nest location and phenology. Our observation supports the reference to the species nesting in a cavity<sup>7</sup>, but contrasts with the description of an open cup on a branch<sup>3</sup>. In addition, placement in a cavity differs from the only known Black-capped Piprites nest, a loosely constructed sphere of moss in a tree fork<sup>1</sup>. Piprites may be flexible in terms of nest site and construction, making it of interest to locate additional nests of all three species.

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