

## The Black-capped Piprites *Piprites pileata* builds a spherical moss nest

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El Bailarín Castaño *Piprites pileata* se incluía tradicionalmente en la familia Pipridae, pero recientemente ha sido postulado como Tyrannidae. Describimos el primer nido de esta especie. Era una esfera de musgos *Neckeropsis undulata* y *Orthostichella versicolor*, entretrejida de manera laxa, y tapizada en su interior con hifas del hongo *Marasmius* sp. El nido estaba apoyado a 8 m de altura en la horqueta principal de un laurel layana *Ocotea pulchella*, en la selva de ribera del arroyo Paraíso, en el proyectado Parque Provincial Caá Yará, Misiones, Argentina. Solo la hembra participó de la construcción; el macho la acompañaba siempre, batiendo las alas en un despliegue. El nido de *P. pileata* es muy distinto a las típicas tacitas construidas por los integrantes de la familia Pipridae, reforzando su remoción de esta familia. También es muy distinto al nido en hueco mencionado para el Bailarín Verde *P. chloris*, cuestionando el emparentamiento de estas dos especies.

Black-capped Piprites *Piprites pileata* is a globally Vulnerable species endemic to the Atlantic Forest of south-east Brazil<sup>2,4,11</sup>, which was recently rediscovered in Argentina following a 47-year gap without records<sup>6,7</sup>. Until recently, the genus *Piprites* was included in the manakins (Pipridae)<sup>10,12</sup>, however, morphological and DNA evidence suggests it is not a manakin<sup>8</sup>, and may be more closely related to tyrant flycatchers (Tyrannidae)<sup>5</sup>. Little is known concerning the natural history of *Piprites*, and questions have also been raised about intra-generic

relationships<sup>9</sup>. Until now, the only published evidence of breeding for *P. pileata* was a courtship display observed on 25 September 1972 at Fazenda das Amoreiras, Rio Grande do Sul, Brazil, and a male with enlarged testes, collected the same day<sup>1,11</sup>.

On 12 October 2006, we discovered a nest in construction at the site of the projected Parque Provincial Caá Yará, (lot 58, ex-IPS, 5,000 ha; 26°52'S 54°13'W; 500 m), dpto. Guaraní, prov. Misiones, Argentina. The nest probably belonged to

the same individuals reported by Maders *et al.*<sup>6</sup>. The site lies at the western edge of the 232,000-ha Yabotí Biosphere Reserve, in Atlantic Forest classified as mixed forest with laurel (*Ocotea* spp. and *Nectandra* spp.), *Balfourodendron riedelianum* and *Araucaria angustifolia*<sup>3</sup>. We followed the nest for a total of three hours 39 minutes of observation on six different days, until 24 October. On 31 October, we found the nest on the ground after a storm. It has been preserved and deposited at the Museo de La Plata (La Plata, Argentina).

### Nest description

The nest was a loosely constructed sphere, placed 8 m above ground in a fork in the trunk of a laurel *Ocotea pulchella* (Fig. 1). It measured 15 cm tall × 14 cm wide × 13 cm deep, and had a side entrance that measured 4 cm tall × 3 cm wide. The nest was constructed of at least two species of moss: *Neckeropsis undulata* (Hedw.) Reichardt, and *Orthostichella versicolor* (Müll. Hal.) B. H. Allen & W. R. Buck (S. B. Vilas Bôas-Bastos *in litt.* 2007). It also included a few tiny roots. On 24 October, the floor and interior walls were carpeted with strands of *Marasmius* sp. fungus, a nest material used by many bird species in the Atlantic Forest<sup>9</sup>.

The nest was c.200 m from the arroyo Paraiso, where the land sloped toward the creek. The forest was 15–20 m high, dominated by *Ocotea pulchella*, *Ilex paraguariensis*, various myrtles (Myrtaceae) and *Parapiptadenia rigida* in the canopy, and dead *Merostachys clausenii* bamboo in the understorey. The canopy and midstorey also contained araucarias.

### Breeding behaviour

During construction, the pair arrived at the nest at c.06h30. We observed the female carrying nest material on 18 occasions on 11–17 October 2006, clinging to tree trunks to pull moss from the bark, and, once, collecting moss from within 50 cm of the

ground. She collected fine roots, up to 15 cm long, from the ground. Most material was collected within 20 m of the nest, but twice the female flew c.60 m to collect material, probably *Marasmius* fungus. The male accompanied the female but was never observed carrying material or entering the nest. He constantly fanned his wings and tail in a display (similar to a fledgling begging, but with bill closed and body in normal position, rather than head up). On each occasion the female was observed entering the nest, the male flew to a branch c.50 cm away, from which he made a short, circular, vertical flight in front of the nest, returning to the same perch.

A second pair was observed for 2.5 hours on 11 November 2006, at a site 3 km to the south (also within the projected Parque Provincial Caá Yari). The female was observed collecting moss, but, unlike the other female, did not appear to make frequent visits with nest material. The male conducted the same wing-fanning display described above. At one point (08h40) the male made a circular vertical flight. Between 09h07 and 09h21 the female disappeared and the male was stationary on a branch; the only time we saw a Black-capped Piprites remain stationary for such a long period.



Figure 1 (A–B). Nest of *Piprites pileata* at the projected Parque Provincial Caá Yari, Yabotí Biosphere Reserve, Misiones, Argentina (Proyecto Selva de Pino Paraná)

## Discussion

This nest, the first described for *Piprites pileata*, supports the exclusion of the species from the Pipridae<sup>5</sup>. Whilst species of Pipridae construct cup nests, *P. pileata* constructed a moss sphere. Our nest also contrasts with the only other nest described for the genus: a nest of Wing-barred Piprites *Piprites chloris*, 'in a cavity, with no suspended nest structure'<sup>11</sup>, thus calling into question not only the family status of *Piprites* but also the relationship between *P. pileata*, *P. chloris* and the third member of the genus, *P. griseiceps*, whose nest is undescribed. Unfortunately, we are unable to trace the primary source of the nest data for *P. chloris*, despite correspondence with D. W. Snow, author of the quotation above. We encourage field workers to search for the nests of *P. chloris* and *P. griseiceps*, to shed light on this interesting question.

Our nest observation also proves that *P. pileata* breeds in Argentina, where, until April 2006, it was known from just one record, in 1959. The rediscovery of *P. pileata* in Caá Yari<sup>6</sup>, and the evidence of breeding there, demonstrate the importance of preserving Argentina's remaining Atlantic Forest, including selectively logged forest, which probably harbours more individuals of the species and many other threatened birds, as yet undiscovered.

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