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NOTA

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Nest description and parental care of Scaled Piculet (*Picumnus albosquamatus*) and Little Woodpecker (*Veniliornis passerinus*)

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RESUMO: Descrição do ninho e cuidado parental do pica-pau-anão-escamado (*Picumnus albosquamatus*) e do picapauzinho-anão (*Veniliornis passerinus*). Dados sobre a reprodução de *Picumnus albosquamatus* e *Veniliornis passerinus* são bastante escassos na literatura. Sabe-se que ambos nidificam em cavidades de árvores, porém não existem dados morfométricos de seus ninhos e são raros os dados sobre o cuidado parental nessas espécies, sendo estes os principais aspectos abordados neste estudo. No município de Rio Claro (SP, Brasil) foi localizado um ninho de *P. albosquamatus* e um de *V. passerinus*. Ambos os ninhos eram do tipo cavidade/com túnel vertical/simples/desnudo e continham dois filhotes. Nos dois casos, os filhotes foram alimentados por ambos os adultos, principalmente pela fêmea. No caso de *P. albosquamatus,* ambos os adultos retiraram sacos fecais do interior do ninho, sendo a fêmea a principal responsável por esta tarefa. Seus filhotes permaneceram no ninho por pelo menos 11 dias, enquanto que os do picapauzinho-anão permaneceram ao menos 13 dias no ninho. Diferentemente do observado por outros autores, a fêmea de *V. passerinus* pode atuar como a principal responsável pela alimentação da prole. Adicionalmente, foram observados três eventos onde o macho do picapauzinho-anão pernoitou com os filhotes dentro do oco, comportamento comum dentre os picídeos brasileiros.

PALAVRAS-CHAVE: Picidae, ninhos, ovos, morfometria, biologia reprodutiva.

KEY-WORDS: Picidae, nest, eggs, morphometry, reproductive biology.

The Scaled Piculet *Picumnus albosquamatus* and the Little Woodpecker *Veniliornis passerinus* are two small Picidae species, mainly inhabitants of central Brazil (Sick 1997, Sigrist 2005). As most woodpeckers, they eat mainly arthropods (Sick 1997, Winkler and Christie 2002, Sigrist 2005). The Little Woodpecker builds its nest in tree hollows, palm trees or bamboo sticks, between 2.5 and 13 m above the ground (Short 1982, de la Peña 1988, Sigrist 2005, Guaraldo and Gussoni 2009). In Argentina, Short (1988) recorded nests of this species with nestlings in October and saw a male feeding two nestlings in the nest at this same month. According to de la Peña (1988), in Argentina this species lays three white eggs sizing about 19.2 x 14.4 mm, and apparently only the male is responsible for parental care (Winkler and Christie 2002). These authors also found a Scaled Piculet nest in Pantanal, being built in a fence post, with an opening of about 3 cm diameter. However, the reproductive biology of these two species remains poorly known, especially regarding the morphometry of their nests and parental behavior which are the main objectives of this study.

METHODS

Scaled Piculet

One nest of this species was found in 13 July 2008. During 11 days, a total of 10:20 h of observation were made to record some parental care data (*e.g.* nestlings feeding frequency, time between feeding events, male and female activities towards the nestlings and other relevant behaviors). In October 2008, a second reproductive event was carried on in this same nest and new observations were made to collect additional behavioral data. After the fledglings left the nest, and once the nest's branch felt off after a storm, the nest structures were all measured with a caliper.

Little Woodpecker

One nest of this species was found on 5 May 2008. During 13 days, 25 h of observations were made to record information about the parental care. Additional

observations were made until after the sunset to verify if the adults stayed overnight in the nest on 5, 8 and 16 May. The nest measurements were made after the birds had left the nest. In this case, the nest branch was cut to a better description of the internal structures. Both nests were classified according to the standardization proposed by Simon and Pacheco (2005).

RESULTS

Scaled Piculet

Nest description

The nest was found inside the UNESP – Universidade Estadual Paulista, campus in Rio Claro, São Paulo, Brazil (22°23'45.7"S; 47°32'38.3"W). The Scaled Piculet excavated the nest in a fallen tree branch which remained hanged in some lianas (Araceae). The nests were type cavity/with vertical tunnel/simple/unlined and its dimensions are on Table 1.

TABLE 1: Scaled Piculet nest dimensions.

Structures	Dimensions
Height above the ground	5.0 m
Opening diameter	25.6 x 24.4 mm
Tunnel length	108.5 mm
Tunnel diameter	49.6 mm
Branch perimeter at the opening	260.0 mm

TABLE 2: Dimensions of the nest of the Little Woodpecker and of the other cavity located above it.

Structures	Nest dimensions	Dimensions of the cavity above the nest
Opening height above the ground	4.8 m	5.9 m
Opening diameter	45.5 x 37.0 mm	35.2 mm
Wall width at the opening	40.0 mm	20.0 mm
Tunnel length	170.0 mm	70.0 mm
Tunnel diameter at the oological chamber	60.9 mm	—
Tunnel diameter at the opening	65.0 mm	60.0 mm
Branch perimeter at the opening	415.0 mm	330.0 mm
Branch perimeter at the oological chamber	410.0 mm	—

Parental care

During the observations, the Scale Piculet nestlings were fed by the male and female with larvae and other unidentified items. A total of 101 nestlings feeding events were recorded, with mean frequency of 9.7 events/h. Feeding by the male had a mean frequency of 3.6 events/h (36,6% of total), while the female fed them about 6.2 times/h (63,4% of total). The mean interval between the feeding events was 4:45 min, ranging from 6 s to 24:45 min (n = 92). Sometimes the nestlings put their heads out of the nest, allowing us to define that the clutch was made of two nestlings. On 22 July, during one of the longest intervals between feeding events (22 min), one of the nestlings captured its own preys at the surroundings of the nest opening. Both relatives were seen removing faecal sacs from inside the nest (n = 21), with a mean frequency of 2.0 events/h. Most of these events were made by the female (81.0%; mean: 1.6 events/h; male mean: 0.4 event/h). On 24 July, both fledgling flew away from the nest, after about 11 days inside it.

Little Woodpecker

Nest description

The studied nest was located nearby the Scaled Piculet nest, in a cinnamon (*Melia azedarach,* Meliaceae), and was found due to the continuous begging of the nestlings inside it. Its dimensions are in Table 2, and it could be classified as the same type of the Scaled Piculet nest (cavity/with vertical tunnel/simple/unlined). Below the internal chamber there was a layer of sawdust with about seven centimeters in height, which was very wet and had a putrid smell. Among this layer there were lots of light colored egg shell fragments and uncountable dipteran larvae and pupae. In another branch of the same tree – about 1.10 m above the nest – there was another cavity which was also used during the reproduction.

Nestlings observations

From 13 May (day 9) on the nestlings started vocalizing with their head outside the nest, sometimes very similar to the adults. Because of that, we noticed that the nestlings had a red mark on the front of their head, like male adults but lighter. On 16 May one of the nestlings has got out of the nest and into the cavity located above it. After sometime, he took of and kept foraging on the nest tree for about seven minutes and then went back to the nest. During all this activity the other nestling remained with his head outside the nest opening and no other bird was listened inside the nest. Due to this fact it was possible to safely assume that in nest there were two nestlings.

Parental care

Both Little Woodpecker male and female brought food to the nestlings, with a mean frequency of 5.2

events/h. Mean feeding frequency by the male and female was, respectively, 2.2 and 2.9 events/h. Additionally, these events were made in very similar proportion by both parents (43% of total events made by the male and 57% by the female). Intervals between nestlings feeding ranged from 14 s to 1:52:09 h (mean 8:25 min; n = 106). During the largest interval, one of the nestlings caught his own preys around the nest opening. Among the preys brought by the parents 27% were larvae of insect. Most of the items could not be identified due to their small size, except for some Coleoptera larvae. To forage for preys the parents eventually used the nest tree, and sometimes had flown more than 50 m away. All observations made at the end of the day show that the male stayed inside the nest overnight with the nestlings. On 17 May, the fledgling left the nest, indicating that they had stayed in the nest for at least 13 days. On 18 May, both parents were saw feeding the fledgling nearby the cinnamon.

DISCUSSION

Detailed data on Scaled Piculet nest present in this study are the first ever published. The same is true for the Little Woodpecker nest, except for its height above the ground and clutch size, which are similar to preexistent data (Short 1982, de la Peña 1988, Sigrist 2005, Guaraldo and Gussoni 2009). The behavioral observations revealed that the female Scaled Piculet was the main responsible for feeding the nestlings and for removing their faecal sacs from the nest. However, both male and female took care of the nestlings, being the female even more active than the male, different of what Winkler and Christie (2002) recorded for this species. Coincidently or not, the nestlings of both species of woodpeckers captured their own preys during the largest interval between feedings by the adults. Also, the nestlings presented vocalizations similar of adults, something common in Picidae (Sick 1997). As in other Brazilian Picidae species, Little Woodpecker males stays overnight in the nest with its nestlings (Sick 1997). The nestlings of Scaled Piculet stayed in the nest for at least 11 days, while the nestlings of Little Woodpecker stayed for at least 13 days. In both cases, both nestlings left the nest at the same day and had very like plumage development. This fact may indicate that eggs laying and hatching must occur in a much reduced interval.

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