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ROOSTING AND NESTING OF THE BURNISHED-BUFF TANAGER (TANGARA CAYANA) IN SOUTHEASTERN BRAZIL

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Local de dormida e nidificação da Saíra-cabocla (Tangara cayana) no sudeste do Brasil.

Key words: Burnished-buff Tanager, nesting, roosting, Tangara cayana.

The Burnished-buff Tanager (*Tangara cayana*) is common at wooded borders around South America, from Colombia to the Guianas and eastern Brazil to Argentina and the Andes, being one of the few species of this large genus in semi-open or dry areas (Isler & Isler 1987). Groups of up to 15 (Mitchell 1957) visit fruit and flower trees or eat insects and flying termites, but pairs are more common as in the family Thraupidae in general (Skutch & Gardner 1989). EOW noted pairs eating petals of *Cassia* sp. on the Rio Claro University campus, 24 April 2001, and getting insects on limbs of a dead mango tree by our house near the city center, 5 June to 24 November 2001.

Roosting behavior is seldom recorded for tanagers (Oniki & Willis 2002), and nesting is little studied in this common species (below). Here we record roosting and nesting on the campus of the Universidade Estadual Paulista (22°23'S, 47°33'W, 620 m elevation) in Rio Claro, São Paulo State, Brazil, August– November 2001.

Roosting. On cloudy and rainy 24 August 2001, about 17:30, EOW saw a pair arriving near a

"coqueiro-de-vênus" (*Dracaena fragrans* Ker-Gowl., Liliaceae) sapling above the east entrance of the biology building. The female quickly entered a dense tuft of leaves 10 m up to roost while the male wandered about, eventually flying off. Sayaca Tanagers (*Thran-pis sayaca*) are different, for the male roosts with the female (Oniki & Willis 2002).

The next eve, under clear sky, we noted the pair arriving at 17:42, flitting the wings; the male went to the leaf tuft but soon left before she entered and stayed. He wandered about, to a eucalyptus 15 m E and back, off N, returned 17:53, wandered near, and finally left NE. On 27 and 28 August, we and two students watched roosting again. After the pair arrived, the female entered the roost and the male wandered about, on the 27th scared off from palm (Archontophoenix cunninghami Wendl. & Drude, Aracaceae) fruit by a pair of Sayaca Tanagers, before leaving off north or northeast. The weather was cloudy again on the 28th. On sunny 29 August, the female entered later (Table 1).

On 30 August at 17:52, the male gave a long song near the roost tree and came down

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Date	Observations	Female enters roost	Male leaves
24 August 2001	17:30-17:55	17:31	17:50
25	17:00-18:20	17:43	17:55
27	17:20-18:15	17:48	18:01
28	17:15-18:03	17:37	17:48
29	17:20-18:15	17:51	17:59
30	17:15-18:15	17:56	17:55
31	17:30-18:05	17:58	17:59

TABLE 1. Activities of Burnished-buff Tanagers (Tangara cayana) near the roosting tree.

to 4 m, wiping his bill several times, while the female was 0.5 m below him wiping her bill, fluffing body feathers, then turned 180° and stayed to 17:55, when the male flew away. At 17:56 she went slowly up the tree, taking 30 sec to find her regular "entrance" to roost between the leaves. On 27 and 30 August, the female entered to roost but came out again for a few minutes to return to the roost site without the presence of the male. Activities of a pair of Sayaca Tanagers foraging nearby on the ripe palm fruits may have disturbed her.

On 31 August, EOW was near the tree by 06:00 to watch the female leave. At 06:12 she darted out east across the road to 5 m up in a dense tree 20 m off and preened. A few minutes later the pair was wandering about with a few visits to eucalyptus where they pecked in the flowers, either for nectar or insects. That evening the pair arrived below at 17:56, wiping their beaks and looking about. The male sallied to near the roost site at 17:58 but dropped, the female went to roost, and he soon flew off north.

On 5 and 6 September, the pair in the area no longer went near the roost, disappearing before dark. Perhaps they were nesting, as this or another pair had young in a nest 300 m SW from 13 September on (reported below).

Nesting. Eggs are reported by Allen (1891),

Ihering (1900), Hellebrekers (1942), Darrieu & Camperi (1994), nests or nesting season by J. Caetano Sobrinho (in Santos 1940), Schäfer & Phelps (1954), Haverschmidt (1955, photograph; 1975), Sick (1957), Ramo & Busto (1984), Thomas (1993) and Sanaiotti & Cintra (2001). EOW noted nests 6 m atop a *Cecropia* in Ituberá, Bahia 17 November 1974, and 4.5 m in a 5 m bush of cerrado edge in the Parque Nacional de Brasília on 3 December 1983. In both cases, the females brought nest material and the males followed them about. A female visited a nest 6.5 m in a conifer in the Praça da Matriz, central Rio Claro, 8 March 1985, then flew off to join the male.

A large young out of the nest was fed on 28 November 1983 (Fazenda Água Limpa, Brasília); two ate bananas at the headquarters of Nova Lombardia Reserve, Espírito Santo, on 28 December 1995; a large young was with a pair at Corumbataí, SP on 27 April 1997; and another gave "wikis" notes with a pair at Barão Geraldo, SP on 13 February 1999. Nests above also were mostly in spring, but some were late summer or fall.

The campus nest, found by EOW 7 m on an inclined limb of a *Genipa americana* or "genipapo", on 13 September 2001, was visited by female and male, perhaps feeding small young. He studied the nest 18–29 September, it was empty 1 October, and on 23

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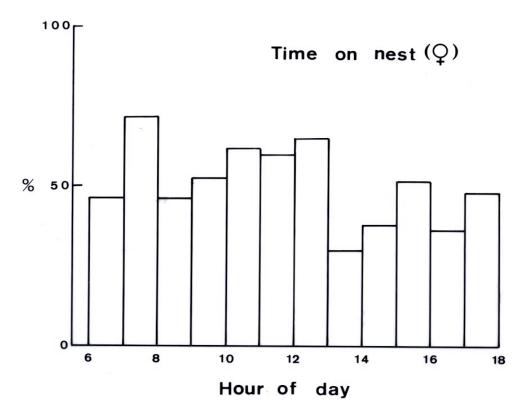


FIG. 1. Percent of time brooding by a female Burnished-buff Tanager during week 1 of study.

November a pair with two large fledglings were 100 m N (perhaps from this nest). One of a group of passing Smooth-billed Ani (*Crotophaga ani*) predators had visited the empty nest briefly on 1 October.

As other nests above (Caetano, and Ramo & Busto), it was a deep cup with dead leaves and rootlets outside, rather irregular in shape and resembling a pile of dead leaves; spider webs bind nests to limbs.

Observations at the nest for "week 1" (18–21 September 16:50/18:20, 14:36/16:40, 10:45/14:36, 5:40/10:45) totalled almost 1 day, and for "week 2" (24, 26 and 28–29 September 16:30/18:15, 12:15/16:30, 9:50/12:15, 5:30/9:50) another day. During week 2, the female only sat on the nest from 06:42 to 06:52 and 06:58 to 07:05 during a cold and

windy spell in the early morning; she had left in the dark before 05:50 (fed at 05:52) and had gone on the nest in the evening 18:05 (no food brought; she had fed at 17:54). During week 1, she had gone on at 18:10 without food (her last feeding was at 18:02, sitting to 18:05 near sundown) and left about 05:50 in the dark (she fed at 05:54). During week 1, she usually sat on the nest for a few minutes (2-25 min, mean 10.8) after feeding, except at dawn when busy feeding, and a few times in the warm afternoon. Late-day broodings were short (2-10 min, mean 5.6 from 16:00 on), early-day ones fairly short (3-14 min, mean 9.0 to 08:01), other ones longer (5-25 min, mean 14.2). Percent of time on the nest was high early, especially 07:00 to 08:00 after the burst of

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Weeks Sex Hours of day 5 8 9 10 11 12 13 18 6 7 14 15 16 17 1 Μ 3 3 3 1 2 2 2 1 3 1 _ 1 1 2 Μ 5 2 5 7 2 5 1 1 5 2 5 5 1 F 2 6 3 3 4 1 3 4 2 4 6 1 7 2 F 2 8 7 2 2 2 4 2 6 6 3 5 4 21 12 21 9 5 5 12 15 8 2 Total 18 15 16

TABLE 2. Hour of day-feedings by Burnished-buff Tanagers.

dawn feedings, and 10:00 to 13:00; after 13:00, she brooded less (Fig. 1).

Intervals off the nest in week 1 were 15 and 10 min near 06:30, 28 min near 08:15, 18 min near 10:15, 24 min at 13:00 and 37 at 14:00, and 14 min near 14:45 and 16:15; otherwise intervals off were short (1–11 min, mean 5.8). Probably the female was getting food for herself when she stayed off the nest for long periods, or preening (5 m W nest, 16:33/41 on 24 September, for instance).

The female fed the nestlings more than the male, 49 vs 23 times during week 1 and 56 vs 35 during week 2, or 68 % and 62 % of records (Table 2). He sang off 100 m W at dawn, in front of the math building, 05:42 to 06:05 on 21 September and 05:34 to 05:57 on 29 September, rather like dawn-singing male ant-tanagers. He fed only at 06:27 and 06:07 on these two days, and as late as 18:01 on the 21st and 17:46 on the 29th. He sang near the math building at 17:51 and 18:02 on 24 September, probably before sleeping there. He often sang high around the nest at other hours, or in directions other than west. The female often left the nest in his direction, at times with a faint cheep; or he wandered near the nest and she followed him off. Once she stayed on the nest, and either got the food he brought or let him feed the young under her.

Both fed more early in the day, from 06:00 to 10:00, and the female more from 14:00 on.

However, she fed less between 07:00 and 08:00, sitting 72 % of the hour on 21 September and away (wandering even near the nest at a windy, cool hour) 29 September. They came to feed together at times, the male or female feeding first and leaving quickly. He tended to climb up to the west side of the nest, she to descend to the north side.

Twice he chased a Sayaca Tanager off near the nest. On 29 September they mostly ignored a Picazuro Pigeon (Columba picazuro) breaking twigs off nearby limbs for a nest, but on 26 September the female had eaten a red berry near the nest and fled the pigeon several times; she fed young another berry. Both had watched the pigeon nearby for over an hour. Between 10:00 and 11:00 on the 28th ,they had frozen or circled instead of going to the nest because a Greater Kiskadee (Pitangus sulphuratus) was watching the just-cleared ground below the nest (the pair had ignored a worker there between 09:00 and 10:00). Both fed more from 11:00 to 12:00 after the kiskadee left. The male had watched a Pale-breasted Thrush (Turdus leucomelas) yelling at a Roadside Hawk (Buteo magnirostris) off E on 21 September. The pair preened and did not go to the nest as a Sayaca Tanager and Shiny Cowbird (Molothrus bonariensis) mixed flock passed 10:50-11:15 on the 20th. Pairs or families often join mixed flocks when foraging on the campus or in other

areas, but in this case seemed to avoid the flock.

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