

OBSERVATIONS ON A NEST OF THE BEARDED TACHURI (*POLYSTICTUS PECTORALIS*)

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Observaciones sobre un nido del Tachuri Canela (*Polystictus pectoralis*).

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The Bearded Tachuri (*Polystictus pectoralis*) is a widely distributed small Neotropical tyrant flycatcher (Tyrannidae) that inhabits open grasslands, often with shrubs near wetlands (Collar & Wege 1995, Fitzpatrick 2004). Three subspecies are recognized forming a disjunct distribution: *P. p. bogotensis* (highlands of Colombia), *P. p. brevipennis* (E Colombia, S Venezuela, Guyana, Surinam and N Brazil) and *P. p. pectoralis* (E Bolivia, S Brazil, Paraguay, Uruguay and N Argentina) (Fitzpatrick 2004). The Bearded Tachuri currently has the IUCN status near-threatened, mainly owing to habitat loss through fires, overgrazing and agriculture (BirdLife International 2007), and one of its three subspecies (*P. p. bogotensis*) is probably extinct (Fitzpatrick 2004).

Little is known about the breeding biology of the Bearded Tachuri. Descriptions of nests mention clutches of three cream-colored eggs placed in open cup-nests at

low heights, but further details, such as the duration of incubation and nestling periods, are unknown (Fitzpatrick 2004). Moreover, some observations suggest that males are polygynous and that females take care of the chicks on their own (Parker & Willis 1997), although this needs confirmation (Fitzpatrick 2004). Polygyny is an uncommon breeding system among tyrant flycatchers, as most species seem to be socially monogamous with males and females sharing the bulk of chick provisioning (Fitzpatrick 2004). Here we report observations on one nest of this species (nominate subspecies based on distribution) in the southernmost end of its distribution range, near Bahía Blanca, Argentina.

On 19 December 2006 a nest with three eggs was found on a shrub on the slopes of the Napostá stream (478 m from the stream) valley, 38°35.301'S; 62°04.687' W, 108 m a.s.l., 25 km from the city of Bahía Blanca, in the south of the province of Buenos Aires,

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FIG. 1. (A) Nest and eggs of the Bearded Tachuri (*Polystictus pectoralis*). Note that the third egg is hidden behind the nest wall; (B) Three-day old nestling; (C) Fourteen-day old nestling; (D) Female and fledgling. Photos by M. Carrizo.

Argentina. Two tachuris had been already observed within 60 m of the nest on 17 December 2006. This nest constitutes the southernmost breeding record for the species. Other nests in Argentina have been found in the provinces of Entre Ríos (Pronunciamento), Buenos Aires (Ea. Santa Elena, Berisso, Saladillo, and Zelaya), and Córdoba (Calamuchita) (summarized in Collar & Wege 1995, Narosky & Salvador 1998). The habitat surrounding the nest site consisted of dry grasslands with low shrubs (mainly *Prosopidastrum globosum*, but also *Condalia mycrophylla*,

Discaria longispinna). The area is used regularly for cattle grazing, but cattle were not present at the time of our observations. The climate is semi-arid with an average of 600 mm of precipitation per year (Paoloni *et al.* 1988).

On 22 December 2006 the nest and the eggs were measured using measuring tape and calipers. The nest was positioned at 64 cm from the ground in a *Prosopidastrum globosum* shrub. It was a small open cup made of thin grass mixed with thistledown (Fig. 1A), and its dimensions (cm) were: height: 6.5, depth: 4.5, external diameter: 5, and internal diame-

ter: 3.5. The three uniformly cream-colored ovoid eggs were (lengthxwidth in mm): 17.3 x 12.5, 17.0 x 12.2, 17.2 x 12.8. These measurements are broadly in agreement with other nests and clutches of the species reported in the literature (Narosky & Salvador 1998), although our egg measurements seem slightly larger.

To assess general breeding parameters and the role of the male and female in reproduction, we undertook regular observations at the nest. The nest was not touched again after the egg measurements and we avoided repeatedly using the same path to approach it when visually examining its content. Behavioral observations were made 12 m away from the nest with a 15–48x spotting scope, or by videotaping the nest from a distance of 5 m with a Samsung SC-D364 video camera. During observations and videotaping, the female was identified by her white-streaked throat, as opposed to the more uniformly dark throat of the male (Ridgely & Tudor 1994, Fitzpatrick 2004). The visits to the nest and observations can be summarized as follows:

27 December 2006: 3 eggs in the nest, male and female near by.

30 December 2006: 3 eggs, female close to the nest.

1 January 2007: female on the nest from 15:35 to 16:56. Occasionally it opened the bill to pant or closed its eyes. At 18:00 the male was observed 30–40 m from the nest.

2 January 2007: 2 newly hatched chicks and one egg. The chicks had pink-orange skin with white ocher-colored down on head, back, wings, and upper legs. The eyes were closed, the mouth was orange-colored with yellowish flanges, and the bill retained the egg tooth. The female was on the nest shading the chicks and egg, and occasionally also brooded

them. Twice she was fed at the nest by the male, who brought green caterpillars. Afterwards both fed the chicks but the nest was not left unattended for more than 2–3 min. On one occasion, the male came and fed the chicks something resembling a white larva. The male did not seem to brood or shade the chicks and left immediately afterwards. One individual (presumably the male) performed a display flight in the vicinity of the nest flying up, uttering a sharp whistle, and flying down with a “creek”. One bird was seen foraging c. 10 m from the nest, perching on low grass stems and catching insects on the ground.

3 January 2007: 3 chicks in the nest. Videotaping between 17:57 and 19:15 (78 min) revealed that the female spent 31 min brooding or shading the chicks. The female also fed the nestlings 11 times and removed faecal sacs (by eating them) on three occasions. The male tried to feed the chicks twice, once successfully and once unsuccessfully. In this latter case, the male appeared to have misjudged the size of the prey item (it was too big) and, after trying repeatedly to feed it to the chicks, he ate it himself.

5 January 2007: chicks in nest (Fig 1B).

7 January 2007: chicks in nest. The wing feather quills were visible under the skin. The female was seen brooding at 16:04.

9 January 2007: chicks in nest. The light-brown feathers had emerged from the feather shafts. The bill was dark with yellowish flanges.

12 January 2007: only 2 chicks in the nest (Fig. 1C). Videotaping between 17:03 and 17:47 (44 min) recorded the female shading the chicks for 26 min and feeding them on three occasions. The male also fed the nestlings three

times and removed a faecal sac once.

16 January 2007 (very windy day): 2 fledglings at the nest. The fledglings (Fig. 1D) were reddish-brown on the back, rump and breast and had buff-colored flanks and unstreaked buff throat. One fledgling attempted to fly and was blown off the nest shrub. The other sat on a branch near the nest. The female inspected the nest and sat near the remaining fledgling.

17 January 2007: empty nest. Male and female seen nearby followed by two fledglings.

After this date, the tachuris were not seen again despite regular visits to the field site (three more visits in January and visits every 1–2 days from the end of February until end of March).

CONCLUSIONS

From our nest visits we can conclude that incubation lasts probably more than 12 days and that chicks fledge 15 days after hatching. Our observations also suggest that the Bearded Tachuri male in the studied pair behaved in a way consistent with a socially monogamous mating system, as it performed parental duties such as feeding the brooding female and the chicks, but not incubating or brooding the clutch, which were functions performed solely by the female. This, however does not rule out the possibility that Bearded Tachuris may show a polygynous breeding system in other parts of their range where population density and/or resource availability is/are higher. In our case, it is likely that the male did not have many opportunities to attract more females, and thus to become polygynous, as this was the only pair we observed despite numerous visits to the area and surroundings between August 2006 and March 2007.

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