

## NEST AND BREEDING BEHAVIOR OF THE BLACK-TAILED LEAFTOSSER *SCLERURUS CAUDACUTUS* (FURNARIIDAE)

Matthew D. Denton<sup>1</sup> & Jason R. Blue-Smith

Wasai Lodge and Expeditions, Guillermo Billinghurst s/n Plaza Grau,  
 Puerto Maldonado, Peru.

Stanford University, P.O. Box 2483, Stanford, CA 94309.

*Key words:* Furnariidae, furnariids, Black-tailed Leaf-tosser, *Sclerurus caudacutus*, breeding habits, parental care, nestlings.

The genus *Sclerurus* consists of six species that are uniform morphologically (excluding bill length and width) and have similar ecology and behavior (Vaurie 1980). The range of *Sclerurus* extends from Mexico and Central America to Bolivia and eastern Brazil (Vaurie 1980, Ridgely & Tudor 1994). Typically found in humid forest, these dark brown furnariids are almost entirely terrestrial, using their bill to toss or flip fallen and decaying leaves while foraging for insects and small animals (Skutch 1969, Vaurie 1980, Ridgely & Tudor 1994). The breeding habits of five of the six species of *Sclerurus* have been described, based on the accounts for *S. guatemalensis* (Skutch 1969, Monroe 1968), *S. albigularis* (Belcher & Smooker 1934–37), *S. scansor* (Goeldi 1896, Narosky *et al.* 1983) and *S. caudacutus* (Pinto 1953). Nests are made of leaf rachises and placed at the end of a long tunnel, dug by the birds in the earth bank of a road, trail or stream (Vaurie 1980). Rowley (1984) describes the egg of *S. mexicanus*. Breeding has

not been described for the remaining species in the genus, *S. rufigularis* (Vaurie 1980, Kiff 1996).

Although Pinto (1953) provides a description of the nest and eggs of *S. caudacutus pallidus* from eastern Brazil on the basis of museum specimens, knowledge of breeding behavior in the genus *Sclerurus* and for Neotropical birds in general is lacking. Observations of *Sclerurus* nestlings and their care is available for a single species in the genus, *S. guatemalensis* (Skutch 1969). We report here on observations made on the floor of a mature, lowland floodplain forest of the Tambopata Reserve Zone in the department of Madre de Dios, Peru (13°00'S, 69°26'W).

On 9 June 1998, while walking on a regularly used forest trail, we flushed a bird from a depression adjacent to the trail, and the bird promptly flew low over the forest floor out of sight. A bird had been flushed from this same depression three weeks prior (Jorge Martinez, pers. comm.). We again flushed a bird from the depression on 13 June allowing us to locate a burrow and nest which held two nest-

<sup>1</sup>Present address: D1425 Box 025216, Miami, FL 33102, USA.

lings. The nestlings were 2 to 3 days old and had closed eyes, bare skin, yellow gapes, and body length measuring approximately 4 cm. We returned later that afternoon and caught one of the parents using a butterfly net as it flew out of the burrow. The captured parent showed all of the field marks for *S. caudacutus* (Ridgely & Tudor 1994). This is the only *Sclerurus* species known for a nearby locality on the Río Tambopata (Foster *et al.* 1994). The captured parent did not have a brood patch and was molting the fifth primary on both wings as well as the fifth and sixth tail rectrice.

The nest was an unlined, loosely interwoven mat of dry, slightly curved leaf rachises placed flatly in an enlarged chamber at the end of a burrow. The nest measured 12.5 cm across, with the shallow nest cup interior 5 cm in width and 1.75 cm in height. The straight, undeviating burrow was 50 cm in length with an entrance tunnel 5 cm high and 13 cm wide. The burrow was horizontally excavated in the vertical wall of a depression. The depression measured 1.05 m deep and .97 m wide and was 1.5 m from the trail. Distance from the burrow opening to level ground at the top of the depression was 20 cm. The nest and burrow of Peruvian *S. caudacutus brunneus* appear identical to those described and illustrated by Pinto (1953) for *S. caudacutus pallidus* of Brazil.

The nest was observed from a distance of 12 meters during the hours of 0700-1000 on 16, 19, 21 June for a total of nine hours. During the observation periods the nest and chicks were never left unattended by the parents for more than 20 min. Although the parents were unmarked, it was apparent that both individuals were involved in feeding the chicks; one adult stayed inside the burrow until the other adult returned with a food item. Twice we observed the parents in the burrow together for a period of 1–2 minutes. To approach the nest, the parents always flew

low over the ground from a place on the forest floor 5–10 m away, quickly disappearing into the nest. Occasionally, before entering the nest, one parent would cling to a root or the base of a sapling near the nest uttering a sharp monosyllabic call at which time the other parent would fly from the nest to forage. The parents brought insects to the nestlings almost exclusively. On two separate occasions the parents brought a fallen fruit and an annelid to the nestlings.

Single fecal sacs were seen on the burrow floor on the 22 and 25 June and were removed on the following days (23 and 26 June). After 26 June we no longer found the parents to be attending the nest and suspected the nest to be abandoned. By 26 June the nestlings were approximately 15 days old yet were weak and unresponsive with closed eyes. Nestlings had brown down feathers over most of body, flight feathers in pin and lacked tail retrices. One of the nestlings was absent from the nest on 28 June, and the remaining nestling appeared dead. On 2 July the nest was vacant indicating possible depredation.

Skutch (1969) found the incubation period for a clutch of *S. guatemalensis* eggs to be 21 days and the post hatching developmental period of *S. guatemalensis* nestlings to be 15 days. An estimate of the post-hatching developmental period for *S. caudacutus* would not be accurate due to the unsuccessful fledging attempt of our observed nest. Estimates of post-hatching developmental periods for congeners within *Sclerurus* are not available. The behavior we observed in *S. caudacutus* is similar to that observed by Skutch (1969) for *S. guatemalensis*. Breeding habits are assumed to be similar within *Sclerurus* (Vaurie 1980). Further observations of color banded adult *Sclerurus* at a nest would reveal the division of labor among the male and female during incubation and while caring for nestlings.

## REFERENCES

- Belcher, C., & G. D. Smooker. 1934–1937. On the birds of the colony of Trinidad and Tobago. Pt. 4. *Ibis* 6: 792–813.
- Foster, R. B., T. A. Parker, III, A. H. Gentry, L. H. Emmons, A. Chiccón, T. Schulenberg, L. Rodríguez, G. Lamas, H. Ortega, J. Icochea, W. Wust, M. Romo, J. A. Castillo, O. Phillips, C. Reynel, A. Kratter, P. K. Donahue, & L. J. Barkely. 1994. The Tambopata-Candamo reserved zone of southeastern Perú: a biological assessment. RAP working papers 6. Conservation International, Washington, D.C.
- Kiff, L. 1996. Egg color in the genus *Sclerurus* (Furnariidae). *Ornitol. Neotrop.* 7: 153–154.
- Monroe, B. L., Jr. 1968. A distributional survey of the birds of Honduras. *Ornithol. Monogr.* 7: 1–458.
- Narosky, S., Fraga, R., & M. de la Peña. 1983. Nidificación de las aves Argentinas. (Dendrocolapidae y Furnariidae). Asociación Ornitológica del Plata, Buenos Aires.
- Pinto, O. 1953. Sobre a coleção Carolos Estevo de peles, ninhos e ovos das aves de Belem (Para). *Pap. Avulsos Dep. Zool. (Sao Paulo)* 11: 111–222.
- Ridgely, R., & G. Tudor. 1994. The birds of South America, Volume 2. Univ. of Texas Press, Austin, Texas.
- Skutch, A. F. 1969. Life histories of Central American birds, Volume 3. Pacific Coast Avifauna (Cooper Ornithol. Soc.) No. 35, Berkeley, California.
- Vaurie, C. 1980. Taxonomy and geographical distribution of the Furnariidae (Aves, Passeriformes). *Bull. Am. Mus. Nat. Hist.* 166: 1–157.

*Accepted 8 June 1999.*

