

Appendix. Museum specimens (study skins) of Scrub Nightjar *Caprimulgus anthonyi* collected in Ecuador.

Museum	Age	Sex	Date	Locality	Province	Collector	Notes
AMNH 116785	Adult	Male	3 September 1920	near Portovelo	El Oro	G. K. Cherrie	Holotype
AMNH 477258	Immature	Female	3 September 1901	near Vacquería	Esmeraldas	R. Miketta	
ANSP 181510	Adult	Female	25 August 1989	5 km N of Santa Rosa	El Oro	K. Merg	sea level
ANSP 181511	Immature?	Male	25 August 1990	5 km N of Santa Rosa	El Oro	K. Merg	sea level
ANSP 181512	Adult	Female	25 August 1991	5 km N of Santa Rosa	El Oro	K. Merg	sea level
ANSP 185144	Immature?	Female	17 August 1992	c.10 km E of Mangaurco	Loja	T. J. Davis	750 m
ANSP 185145	Adult	Female	18 August 1992	c.10 km E of Mangaurco	Loja	F. Sornoza	750 m
ANSP 185146	Adult	Female	15 August 1992	c.10 km E of Mangaurco	Loja	F. Sornoza	625 m
ANSP 185147	Adult	Male	20 June 1992	near Represa Jorge Velásquez	Guayas	T. J. Davis	50 m
ANSP 185148	Adult	Male	24 June 1992	c.2 km S of Machalilla	Manabí	F. Sornoza	sea level
ANSP 185149	Adult	Male	24 June 1992	c.2 km S of Machalilla	Manabí	F. Sornoza	sea level
ANSP 185975	Adult	Male	21 June 1992	Represa Jorge Velásquez	Guayas	F. Sornoza	50m
ANSP 186121	Adult	Male	28 January 1993	c.3 km S of Atacames	Esmeraldas	F. Sornoza	sea level
MECN 6012	?	Male	5 March 1992	Puerto López, Machalilla	Manabí	?	150 m
MECN 6305	?	Male	22 June 1992	Represa Jorge Velásquez	Guayas	?	50 m
MECN 6886	?	Male	19 May 1994	5 km N of Punta Carnero	Guayas	?	
MVZ 160492	Adult	Male	2 March 1970	near San Antonio	Guayas	F. I. Ortiz-Crespo	
MNHN CG 1937.114	Adult	Male	19 September 1936	San Mateo	Esmeraldas	C. Ollala	
MNHN 527847	Immature	Female	21 September 1976	Puerto Nuevo	Los Ríos	R. G. Mclean	

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Received 28 March 2005; final revision accepted 15 May 2005

**A Blue-crowned Manakin  
*Lepidothrix coronata* successfully defends its nest from  
*Labidus* army ants**

Nest failure due to several species of ants is frequently reported from temperate areas<sup>1,2,4,6,9</sup>, and army ants (*Ecitoninae*) have occasionally been reported attacking nests of a variety of Neotropical birds<sup>5,7,8,11,12</sup>. Here I report an observation of a female Blue-crowned Manakin *Lepidothrix coronata* successfully defending its clutch from a swarm of *Labidus* army ants in Amazonian Ecuador.

On 22 January 2003 at La Selva Lodge (00°29'S 76°22'W, 250 m) in north-east Ecuador, I encountered a female Blue-crowned Manakin incubating a single egg (18.4 × 13.4 mm) in a nest typical of the species<sup>3,10</sup>, located 30 cm up in the horizontal fork of a small sapling. I videotaped the nest from 13h45 to 17h45, and transcribed the video at a later date. Two hours after commencing filming, the female had not arrived and *Labidus* army ants began crawling onto the nest, traversing the narrow supporting branch. Shortly afterwards, the

female arrived and began pecking ants from the nest lining and surface of the egg whilst repeatedly uttering a soft *zreep!* It was unclear whether the female was eating the ants or flicking them from the nest. She removed 14 ants before settling onto the nest. During the next 30 minutes the female removed 72 ants from the support branch and rim of the nest. During this time she also snapped repeatedly, and occasionally caught and ate, some of the many flying insects often associated with these ant swarms.

Whilst it is unlikely that the ants could have destroyed the manakin's egg, the female's willingness and ability to defend the nest from the swarm suggests that raiding swarms may not always destroy nests they encounter. Nests escaping predation by ants have been noted previously<sup>6,11</sup>. Skutch<sup>12</sup> reported a Streak-chested Antpitta *Hyllopezus perspicillatus* successfully defending its nest by consuming at least a dozen ants as they approached the nest in a similar manner to the Blue-crowned Manakin (perching on the nest and consuming ants). This suggests that successful nest defence against army ants may be more widespread than currently understood, but further observations are needed to determine the

relative importance of army ants as Neotropical nest predators.

**Acknowledgements**

This work was funded in part by a Rufford Small Grant and a Pamela & Alexander F. Skutch Award. I also acknowledge John V. & the late Ruth Ann Moore, the Hertzberg Family Foundation, Shiripuno Research Station and Cabañas San Isidro for their support. This is publication no. 37 of the Yanayacu Natural History Research Group and was further supported by the PBNHS.

**References**

- Dickinson, V. M. (1995) Red imported fire ant predation on Crested Caracara nestlings in south Texas. *Wilson Bull.* 107: 761–762.
- Drees, B. M. (1994) Red imported fire ant predation on nestlings of colonial waterbirds. *Southwest Entomologist* 19: 355–359.
- Greeney, H. F. (2005) *Lepidothrix coronata*, Blue-crowned Manakin. In: Greeney, H. F., Dobbs, R. C. & Martin, P. R. (eds.) Natural history of Ecuador's mainland avifauna. <http://depts.washington.edu/nhr/nhema>.
- Klimstra, W. D. (1950) Red ant predation on Bob-white,

- Colinus virginianus*, chicks. *Auk* 67: 512–513.
5. Lancaster, D. A. (1964) Life history of the Boucard Tinamou in British Honduras Part I: distribution and general behavior. *Condor* 66: 165–181.
  6. Parker, J. W. (1976) Mortality of nestling Mississippi Kites by ants. *Wilson Bull.* 89: 176.
  7. Pizo, M. A. (2000) Attack on Chestnut-bellied Euphonia nestlings by army ants. *Wilson Bull.* 112: 422–424.
  8. Robinson, W. D. & Robinson, T. R. (2001) Observations of predation events at birds nests in central Panama. *J. Field Orn.* 72: 43–48.
  9. Sikes, P. J. & Arnold, K. A. (1986) Red imported fire ant (*Solenopsis invicta*) predation on Cliff Swallow (*Hirundo pyrrhonota*) nestlings in east-central Texas. *Southwestern Naturalist* 31: 105–106.
  10. Skutch, A. F. (1969) *Life histories of Central American birds*, 3. Pacific Coast Avifauna 35. Berkeley, CA: Cooper Orn. Soc.
  11. Skutch, A. F. (1977) *A bird watcher's adventures in tropical America*. Austin: University of Texas Press.
  12. Skutch, A. F. (1981) *New studies of tropical American birds*. Publ. Nuttall Orn. Club 19. Cambridge, MA: Nuttall Ornithological Club.

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Received 28 March 2005; final revision accepted 7 November 2005

### Two nests of Grass-green Tanager *Chlorornis riefferii* on the ground

More than a century ago, Sclater & Salvin<sup>3</sup>, quoting T. K. Salmon, described the nest of Grass-green Tanager *Chlorornis riefferii* from Colombia as '...of considerable size, made of green moss, lined thickly within, and on the outside prettily

ornamented with long tapering green ferns.' Since then, nothing has been added to our knowledge of the breeding biology of this attractive species. Here we report observations at two nests beside the road (00°01'S 78°41'W; 2,250 m) above Bellavista Cloud Forest Reserve, near Tandyapa, Pichincha province, Ecuador.

On 5 July 2004 HFG observed a pair of Grass-green Tanagers carrying moss to an uncompleted nest, 3 m up a 7 m-high bank covered in second growth. Both adults were present, but only one was observed approaching the nest with moss in its bill. Upon HFG's return on 24 August, the nest held a single nestling, with wing-pin feathers having broken their sheaths. Only one egg had been laid by 24 July. The nest was a bulky cup constructed on the ground within an existing clump of moss, such that the latter formed a protective dome over the cup (Fig. 4, p.80). The nest measured 17 cm wide by 15 cm tall on the outside, and the inner cup 9.5 cm wide by 6 cm deep. Both adults fed the nestling. On 11 September 2005 HFG visited a second nest, situated similarly, only 2 m from the first, and 2.1 m above the road. It contained a single nestling, with wing-pin feathers protruding from their sheaths by 5–10 mm. This nest had been found previously by RAG, at which time it had a single egg. On HFG's return, three days later, the nest was empty and adult breast feathers were scattered over the area, suggesting depredation. This nest was 21 cm wide by 12.5 cm tall outside, with inner cup measurements of 9 cm wide by 6.5 cm deep. Both nests were composed primarily of moss, with some fern fronds and black rootlets woven throughout, and both were thickly lined with soft, red-brown tree fern scales. For additional photographs of the nest and nestlings of Grass-green Tanager, see Greeney<sup>1</sup>.

Whilst some genera of tanagers (especially *Chlorospingus*) have been

reported nesting on the ground<sup>2</sup>, this appears exceptional rather than the rule within the Thraupidae. The clutch size of one egg, observed in both nests here, agrees with that given by T. K. Salmon<sup>3</sup>, although he gave no sample size. The small distance between the two nests, between years, suggests that they were built by the same pair of adults, and thus implies high nest-site fidelity by this species.

### Acknowledgements

We thank John V. & the late Ruth Ann Moore and the Hertzberg Family Foundation for their generosity. The study was funded in part by a Rufford Small Grant and a Pamela & Alexander F. Skutch Award. We thank Mort & Phyllis Isler for thoughtful comments on the manuscript. The PBNHS continues its support of our natural history work. This is publication no. 93 of the Yanayacu Natural History Research Group.

### References

1. Greeney, H. F. (2005) *Chlorornis riefferii*, Grass-green Tanager. In: Greeney, H. F., Dobbs, R. C., & Martin, P. R. (eds.) *Natural history of Ecuador's mainland avifauna*. <http://depts.washington.edu/nhr/nhema.html>.
2. Isler, M. L. & Isler, P. R. (1999) *The tanagers*. Second edn. Washington DC: Smithsonian Institution Press.
3. Sclater, P. L. & Salvin, O. (1879) On the birds collected by the late Mr. T. K. Salmon in the state of Antioquia, United States of Colombia. *Proc. Zool. Soc. Lond.* 1879: 486–550.

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Received 31 October 2005; final revision accepted 13 November 2005