SKUTCH, A. F. 1961. Helpers among birds. Condor 63:198–226.
STUTCHBURY, B. J. AND R. J. ROBERTSON. 1987. Signaling subordinate and female status: two hypotheses for the adaptive significance of subadult plumage in female Tree Swallows. Auk 104:717–723.
WILLIAMS, G. C. 1966. Adaptation and natural selection. Princeton Univ. Press, Princeton, New Jersey.
YOERG, S. I. AND J. O'HALLORAN. 1991. Dipper nestlings fed by a Gray Wagtail. Auk 108: 427–429.

WALLACE B. RENDELL, *Behavioral Ecology Research Group, Dept. of Biological Sciences, Simon Fraser Univ., Burnaby, British Columbia V5A 1S6, Canada.* *Received 17 Oct. 1991, accepted 29 April 1992.*

Wilson Bull., 104(4), 1992, pp. 759–760

A nest and egg of the Rufous Antpitta in Ecuador.—The nesting habits of *Grallaria* antpittas are poorly known owing to the dense understory vegetation frequented by most of the species and the generally secretive nature of the birds. This note provides the first description of the nest and egg of one of the common species, the Rufous Antpitta (*Grallaria rufula*). On 25 March 1990 I found a nest of a Rufous Antpitta at about 2700 m in the valley of the Rio Chalpi Grande approximately 9 km by road east of (below) the town of Papallacta (0°22′S, 78°08′W; Paynter and Traylor, Ornithological gazeteer of Ecuador; Cambridge, Massachusetts, Harvard Univ. Press; 1977) on the east slope of the Andes in Napo province, Ecuador. The river valley and surrounding region is heavily forested although some large patches of forest have been cleared along the road and on nearby mountain slopes. The nest was situated in lightly disturbed forest (many of the largest trees had been removed) with a dense, woody understory dominated in places by *Chusquea* sp. bamboo (although bamboo was not dense at the nest site). Walking along a trail contouring a steep slope about 30 vertical m above the rushing river, I first noticed the motion of a bird sneaking away downslope through the undergrowth. On inspection, I found a Rufous Antpitta sitting quietly on a thin horizontal branch about 1 m above the ground. The bird sat motionless for more than 2 min only about 6 m from me, and I suspected that it had a nest nearby. After some searching, I located the nest in the side of a large, moss-covered stump about 1.5 m tall, well hidden from outside view by dense surrounding vegetation. The nest appeared to be sunken into a shallow hollow in the side of the stump, about 0.75 m above the ground. A part of the stump formed an overhang above the nest, and small herbaceous plants about 15 cm tall growing out of or immediately beside the rim of the nest, one on either side, concealed the nest even at close range.

I did not have a ruler with me at the time, but from marks made on a piece of paper and later measured, the nest was about 9 cm wide from rim to rim across the cup, and the cup was steep-sided and about 5 cm deep in the middle. The rim of the nest consisted entirely of thin, yellowish grass stems and the cup was lined with what appeared to be 30–40 yellowish mammal hairs, each about 4 cm long. The bottom of the cup was visible through the lining, and seemed to be made of dark, damp leaves. The nest held one egg. It was an even, turquoise color, close to the color of a typical egg of the American Robin (*Turdus migratorius*), but slightly duller, thus similar to the color of the few known eggs of other species of *Grallaria* described to date, with the notable exception of *G. ruficapilla,* which has buffy eggs with rufous blotches (Wiedenfeld, Wilson Bull. 94:580–582, 1982). I did not measure

the egg, but estimated that it was a little less than 2.5 cm (1 inch) long and noted that the small end was rather rounded and not much smaller than the large end. I left the nest undisturbed. When I passed by again about an hour later the bird flushed from the nest as before, by quietly sneaking away on thin limbs within 1 m of the ground to stop a few m downslope. I was not able to make further observations on the nest until 1 April, when I found that the adult Rufous Antpitta was still incubating and the nest still held only one egg. Wiedenfeld (1982) reported that the normal clutch size in Grallariinae (sensu Lowery and O'Neill, Auk 86:1–12, 1969) is two. In light of the fact that the bird had been actively incubating for at least a week without laying a second egg, my observation appears to represent a single-egg clutch. Although it is possible that another egg had been laid in the last week of March followed by the disappearance of one by 1 April without causing nest abandonment, this seems an unlikely set of circumstances.

Although there are no other direct observations of breeding behavior of *G. rufula,* Hilty and Brown (A guide to the birds of Colombia; Princeton, New Jersey, Princeton Univ. Press; 1986) reported that five birds collected March to May in the Perija and Santa Marta mountains of northeastern Colombia were in "breeding condition." Of seven specimens (5 males, 2 females) collected 13–23 Mar 1992 in Carchi Province, Ecuador (3100 m on the west slope of the Andes) by the Academy of Natural Sciences Philadelphia, are all in breeding condition (M. Robbins, pers. comm.). Size of the largest ovum of these females (1 mm and 2 mm, which is considered small) indicated to Robbins that the birds had either recently laid eggs or were just coming into breeding condition, although he suspected the former, stating that it is not possible to determine for sure without knowing the size of the oviduct (M. Robbins, pers. comm.). These data correspond well with my observations. Data on size and condition of gonads of numerous specimens from the northern half of Peru collected between June and October (no specimens available for other times of year; G. Graves, pers. comm.) suggest that breeding activities commence around early to mid-September in that part of the species' range.

I thank Thomas S. Schulenberg of the Field Museum of Natural History, Steven W. Cardiff and J. V. Remsen of the Museum of Natural Science, Louisiana State University, Mark B. Robbins of the Academy of Natural Sciences Philadelphia, and Gary R. Graves of the United States National Museum of Natural History for information on specimens of *Grallaria rufula* in their care. I also thank David A. Wiedenfeld and Morton and Phyllis Isler for their helpful comments on the manuscript.

BRET M. WHITNEY, *Field Guides Incorporated, P.O. Box 160723, Austin, Texas 78716-0723.* *Received 12 Feb. 1992, accepted 1 June 1992.*