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## FIRST REPORTED NESTS OF THE BLACK-BREASTED WOOD-QUAIL (*ODONTOPHORUS LEUCOLAEMUS*)<sup>1</sup>

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The Black-breasted Wood-Quail (*Odontophorus leucolaemus*) occurs at middle elevations from northern Costa Rica to western Panama (AOU 1983, Stiles and Skutch 1989). We report here the discovery of two nests in Monteverde, Puntarenas Province, Costa Rica (10°18'N, 84°48'W); this is apparently the first published nest record for the species. In Costa Rica, *O. leucolaemus* occurs mainly on the Caribbean slope, but reaches the Pacific slope in the northern mountain ranges (Stiles and Skutch 1989). It is a common resident at Monteverde, where loud morning choruses are heard more often than the birds are seen. Skutch (1947) described the nest, eggs, and incubation behavior of the Marbled Wood-Quail (*Odontophorus gujanensis*).

Both nests were on steep stream banks in secondary forest (lower montane moist forest life zone, Holdridge 1966) on a dairy farm that lies between 1,300 and 1,400 m. Both nest sites were heavily shaded. The nests were ellipsoid hollows fashioned in deep leaf litter. Leaf litter in the vicinity contained twigs (Fig. 1), such that the nest appeared to have been fashioned without addi-

tional materials simply by burrowing into the litter. The entrance was tunnel-like. The first nest was approximately 5 m above the bed of a permanent stream, while the second was 3 m from a dry stream bed that runs intermittently during the rainy season. The hollow of the second nest measured approximately 24 × 13 cm; the entrance faced the stream bed (Fig. 1).

The first nest contained five eggs when it was discovered on 9 June 1985. It also contained five eggs on 10 June and 14 June. The fate of this nest was not known.

The second nest was discovered on 10 June 1988, when an adult quail flushed from the bank near an empty nest. We checked the nest periodically between 12:00 and 17:20 for the next 11 days with the following results: 11 June (one egg), 13 and 15 June (two eggs), 16 and 17 June (three eggs), 18 and 20 June (four eggs), 21 June through 6 July (five eggs). The eggs were white when fresh, but soon became partly discolored with brown mud or leaf stains. As eggs appeared on successive nest checks, they were numbered, measured with a vernier dial caliper, and weighed with a 50-g Pesola® spring scale to the nearest 0.5 g. The mean length was 44.5 mm (range = 43.1-48.5, SD = 2.3, n = 5). Mean width was 28.7 mm (range = 28.5-28.8, SD = 0.1, n = 5). Mean fresh egg weight was 18.6 g (range = 18.0-19.5, SD = 0.7 g, n = 5).

On 8 July the nest contained an unhatched egg and

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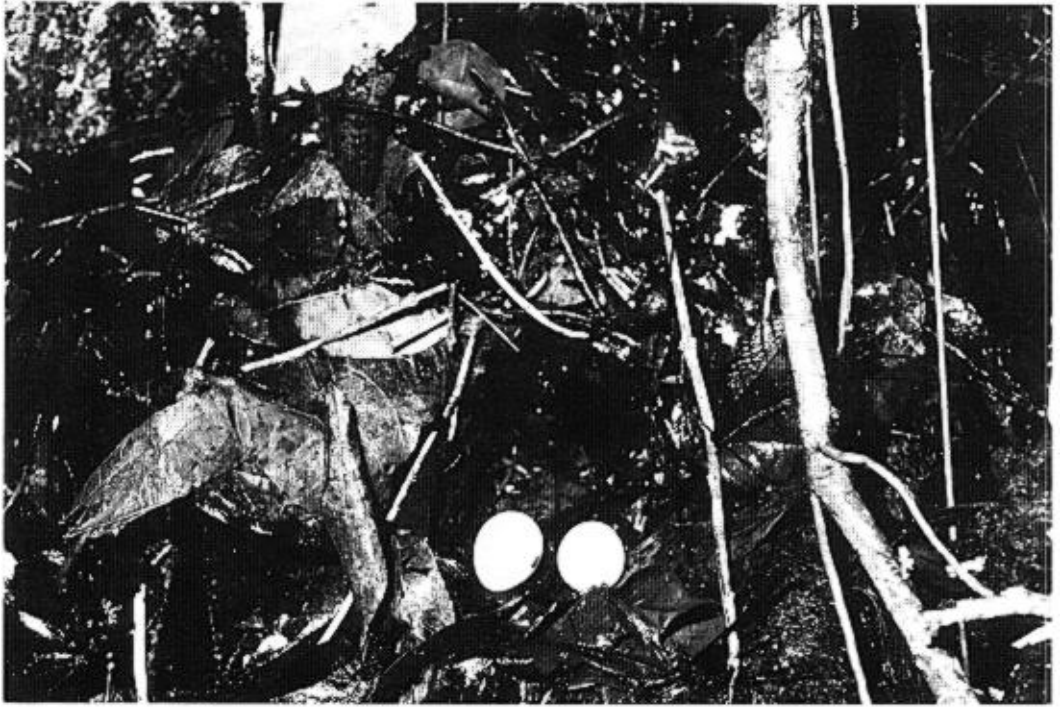


FIGURE 1. Nest of Black-breasted Wood-Quail at Monteverde, Costa Rica. The eggs were moved forward to the nest entrance so as to be more visible in the photograph.

shell fragments with dried inner membrane that appeared to represent normal hatch rather than a predation event. Thus, 10 days elapsed between the laying of the first egg and clutch completion, with laying intervals of 2 or 3 days. The unhatched egg was collected on 15 July and prepared by F. G. Stiles (no. 2697/1-5) for deposition in the Western Foundation of Vertebrate Zoology. If the other four eggs hatched successfully, the period from clutch completion to hatching was 16–17 days. Of the 10 nest checks after completion of the clutch, an incubating bird was present on six occasions and the bird allowed close approach without flushing.

*Odontophorus leucolaemus* are noted for their individual variability in plumage (Ridgway and Friedmann 1946). Based on a sketch of the pattern of scattered white feathers on the face, the first author determined that the same individual was incubating during at least five of six nest checks that an incubator was present, including one 2-hr watch. On at least three occasions, however, two or more other quail, in addition to the incubator, were within 3 m of the nest when we approached. During a 2-hr watch on 18 June, a group of three quail passed within 20 m of the nest and across the stream. One of the birds assumed a sentinel position on a fallen log. The group did not approach the incubating bird nor did the incubator move or vocalize during their stay. Stiles and Skutch (1989) note that *O. leucolaemus* “vigorously defend

group territories”; our limited observations suggest that groups of three or more may also be involved in vigilance at the nest, but not in incubation.

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