NOTES ON THE NUPTIAL DISPLAY OF THE SPOTTED WOOD-QUAIL (ODONTOPHORUS GUTTATUS)

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At 17:04 h on 17 January 1997, as we rounded a bend in the "Logger's Trail" at Chan Chich Reserve, Orange Walk District, Belize, Central America, we encountered a pair of Spotted Wood-Quail, Odontophorus guttatus, crouched motionlessly in the middle of the trail. After a few seconds this pair moved off of the trail and into the undergrowth of a dense canopied "Mesic Upland Broad-leafed Forest" on our right. This forest was a mixed hardwood community growing on deep, moist but well-drained, fertile soils formed on a calcareous substrate (R. Wilson, pers. comm.). Cohune palm, Orbignya cohune, was characteristic of this forest type. Almost immediately a second pair ran across the trail at the same location. Other quail could be heard rustling in the leaves to the left of the trail. The first pair then came into view again to our right and moved in a semicircle within 4-5 m of our position. The birds were approximately 1 m apart and scratching in the litter, when one bird raised its body upright from a foraging stance and slowly but deliberately raised its crest three times while uttering a soft clucking sound, barely audible from our close position. The crest at full extension was fan-shaped and the orange proximal end sharply contrasted with the black spot at the distal end. Immediately following this display, what we presume was the female assumed a copulatory posture, crouching flat on her belly. The male then moved quickly to her and mounted briefly. Both birds gave the soft clucks during the entire bout. Following the copulation, both birds moved quietly into the undergrowth and deeper into the forest. The second pair of birds could be heard calling beyond the first pair. By 17:15 h we no longer heard the birds.

The genus Odontophorus contains the largest number of species within the Odontophoridae (Sibley & Ahlquist 1990), yet relatively little is known about their natural history (Johnsgard 1973, 1988). To our knowledge nuptial displays of the Spotted Wood-Quail, or any other Odontophorus quail, have not been described. This is due, in part, to their secretive behavior and the dense foliage characterizing their habitats (Leopold 1959). Skutch (1947) and Howell & Webb (1995) report that both Spotted and Marbled (Odontophorus gujanensis) Wood-Quails raise their crests occasionally while foraging in the presence of observers. This suggests that the crest is raised when the birds are excited (Johnsgard 1988). In the case of the Spotted Wood-Quail we only observed the male to raise his crest indicating that he either initiated the copulation or responded to some subtle cue of receptiveness by the female. Thus, the erectile crest serves at least the following display functions in these quail: general excitement and as a sexual signal prior to copulation. Although the birds we observed were foraging, they did not appear to be engaged in courtship feeding as described in other Galliformes (Stokes & Williams 1971).

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REFERENCES

- Howell, S. N. G., & S. Webb. 1995. A guide to the birds of Mexico and northern Central America. New York.
- Johnsgard, P. A. 1973. Grouse and quails of North America. Omaha.

- Johnsgard, P. A. 1988. Quails, partridges, and francolins of the world. New York.
- Leopold, A. S. 1959. The wildlife of Mexico. Berkeley. Sibley, C. G., & J. E. Ahlquist. 1990. Phylogeny and classification of birds: A study in molecular evolution. New Haven.
- Skutch, A. F. 1947. Life history of the Marbled Wood-Quail. Condor 49: 217-232.
- Stokes, A. W., & H. W. Williams. 1971. Courtship feeding in gallinaceous birds. Auk 88: 543-559.

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