

candlepower spotlight while being observed through  $7 \times 50$  binoculars. It flew to a fence post and was again approached with a spotlight before departing to dense forest. On 14 November 1972 I found a Screech Owl standing on a road; it allowed close approach while being illuminated by the headlights. Both sightings were in a sparsely inhabited area northeast of Frederiksted.

In July 1972 I observed a Turkey Vulture (*Cathartes aura*) feeding on a dead mongoose (*Herpestes auropunctatus*) on a rural road near Annaly Bay. I made 2 additional sightings on 21 and 22 April 1975 of a Turkey Vulture soaring above Davis Bay. Both sightings were from a steep hill overlooking the bay which allowed close views of the vulture.

Ospreys (*Pandion haliaetus*) have not been recorded nesting on St. Croix, but Leck (op. cit.) records a summer pair. In May 1974 I saw a pair of Ospreys building a nest in a mahogany tree (*Swietenia* sp.) at the top of a hill near the sea west of Christiansted. I heard much calling at 2 other sites within 0.5 km but did not confirm additional nests or pairs.—DAVID W. NELLIS, *Virgin Islands Dept. Conservation and Cultural Affairs, St. Thomas, U.S. Virgin Is. 00801. Accepted 30 Jan. 1978.*

*Wilson Bull.*, 91(1), 1979, pp. 149–150

**Chestnut-colored Woodpeckers feeding as a pair on ants.**—The Chestnut-colored Woodpecker (*Celeus castaneus*), which Slud (Bull. Am. Mus. Nat. Hist. 128:1–430, 1964) describes as a “seldom-seen” bird, is difficult to follow for any length of time in Caribbean lowlands of Central America. When I succeeded in watching 1 individual for 30 min on 9 January 1977 at Tikal, Peten, Guatemala, it made rapid glancing blows on a branch, nearly all of them too weak to be audible. The woodpecker seemed to find much to feed on in some places, and I noticed that all of the trees that it worked on had termite tunnels running up them. The same was true on other days when I had briefer views. At no time did I have a clear view of what the woodpecker was feeding on nor have I been able to find any accounts in the literature.

On 7 January I noticed 2 of these woodpeckers feeding on a palm tree 8 m above the ground. One bird pecked at the dry, loose dead bracts at the base of an arching stem from which hung a large flower. As it pulled fluffy material from among the bracts, small black ants, more than it could consume with rapid feeding motions of bill and tongue, ran or fell down onto the flower cluster. Here they were picked up by the second Chestnut-colored Woodpecker perched 30 cm below the 1st one. The ants were clearly seen with an  $8 \times 40$  field glass and I watched for 15 min.

An interesting feature of the feeding was the way 1 woodpecker took advantage of the other's pecking and disturbing the ants in the bracts above, the 2 being thus enabled to feed together. Feeding as a pair has been noted for *C. brachyurus*, an Asian species, by Short (Bull. Am. Mus. Nat. Hist. 152: 292, 1973).

Although he gives no accounts of feeding habits, Wetmore (Smithson. Misc. Coll. 150(2):541, 1968) states of *C. castaneus* that “The salivary glands—were large, extending the full length of the mandibular rami. As I skinned the heads the mucous secretion adhered like a gum to my fingers.” Secretions of this type would seem to place *C. castaneus* in a group with other ant-eating species such as the Common Flicker (*Colaptes auratus*) and the European Green Woodpecker (*Picus viridis*) that have

large salivary glands providing an insect-holding or formic acid-neutralizing film (Welty, *The Life of Birds*, Saunders, New York, 1962).

There are areas of lower trees and thicker vegetation in the forest at Tikal and it was in one of these that I observed the Chestnut-colored Woodpecker. The species is sexually dimorphic. In poor light, however, I could not be sure whether the birds observed were male and female, even though both appeared to be adults. I thank Lester L. Short for reading and commenting on this note.—LAWRENCE KILHAM, *Dept. of Microbiology, Dartmouth Medical School, Hanover, NH 03755. Accepted 20 Dec. 1977.*

*Wilson Bull.*, 91(1), 1979, pp. 150–151

**Off-lek copulation in Sharp-tailed Grouse.**—The Sharp-tailed Grouse (*Pedioecetes phasianellus*) is a lek species (Hjorth, *Viltrevy* 7:184–596, 1970). While males typically gather in morning and evening at specific sites to establish territories and display, some have been reported displaying as solitary birds (Hammerstrom, *Wilson Bull.* 51:105–120, 1939; Amman, *Michigan Dept. Cons. Rept.*, 1957). There has previously been no evidence that lone males copulate successfully with females at these sites. I observed a copulation at such a site at 19:52 on 2 June 1976.

A solitary male Sharp-tailed Grouse was seen displaying on a trail 5 km south of Chatfield, Manitoba (50° 47' N, 97° 34' W). A female grouse walked onto the trail 3 min later and the male intensified his display. The second grouse remained at the trail edge for 12 min before walking to the center where it crouched in a precopulatory position. The male mounted this bird and after copulating successfully continued to display. The female ruffled her feathers, preened, and walked off the trail 4 min after copulation. The male continued displaying until I flushed it 22 min later. I checked the next morning and saw 1 non-displaying Sharp-tailed Grouse within 50 m of the above site. On subsequent checks no grouse were observed at this location.

From studies of grouse since 1969 in the Chatfield area (McKay and Carmichael, *Manitoba Dept. Mines and Nat. Res. MS Rept.*, 1970) I was familiar with the locations of known past and present leks. The site described above was not an established lek and had not been used before or during 1976 or 1977. Two nearby leks (500 m and 800 m), with 16 and 22 males, were active (audible from site) when the observed copulation occurred.

Hamerstrom (Ph.D. Thesis, Univ. of Wisconsin, 1941) and Peterle (Ph.D. Thesis, Univ. of Michigan, 1957) observed solitary males “dancing” and attracting females but saw no copulation at these sites. Others have suggested that mating does sometimes occur off the lek (Lehmann, *North Am. Fauna* 57, 1941; Symington and Harper, *Saskatchewan Dept. Nat. Res. Cons. Bull. No. 4*, 1957). Hjorth (op. cit.) reported “solo” displaying male Black Grouse (*Lyrurus tetrix*) and concluded many, if not most, copulations occur away from leks. Kruijt et al. (*Proc. XV Int. Ornithol. Congr.* 399–423, 1970) studied male Black Grouse that displayed solitarily at fixed sites and found these males often copulated successfully. My observation provides evidence that similar behavior occurs in North American lekking grouse.

Rippin and Boag (*J. Wildl. Manage.* 38:616–621, 1974) found nonterritorial males in a population of Sharp-tailed Grouse and suggested that since they did not attend a lek they were a nonreproductive element in the population. Robel (*J. Wildl. Manage.* 34:306–312, 1970) found a similar situation with Greater Prairie Chicken (*Tympanuchus*