**A ground-nesting Wood Duck.**—While conducting a study of nesting Wood Ducks (*Aix sponsa*) at Great Swamp National Wildlife Refuge, Morris County, New Jersey, we found a female Wood Duck that incubated and eventually hatched a clutch in a grassy field approximately 10 m from a pond and 15 m from a small marsh.

The nest was discovered accidentally at noon on 29 May 1976 when Zipko came within one meter of the nest before the female flushed. While incubating she had apparently fashioned a makeshift roof from the surrounding vegetation. This remained essentially intact as she flew, without an alarm call or defecation, exposing 10 eggs with down in a ring.

At 0825 on 5 June, Zipko again approached within a meter of the nest before the female flushed, flapping her wings while running into the pond. She continued to feign injury for several seconds then flew, without a sound, to the marsh. The nest now contained 11 incubated eggs.

At 1045 on 9 June, Kennington came within 0.5 m and noted the characteristic white eye-ring and other plumage features as the female flushed, exposing 10 eggs with no sign as to the fate of one missing egg.

At 0840 on 24 June, Zipko found eggshell fragments, five chorioallantoic membranes, and one previously numbered egg, along with scattered grayish down feathers.

Although Roberts (1955, A manual for the identification of birds of Minnesota and neighboring states, Minneapolis, Univ. Minnesota Press p. 247) refers to second-hand reports of Wood Ducks nesting on the ground in western Minnesota, we found no other literature references to ground-nesting Wood Ducks.

Previous studies by Roscoe (MS) and Zipko (MS) have indicated a dense Wood Duck nesting population at Great Swamp relative to available nest boxes and natural nest sites. Perhaps the paucity of suitable nest sites caused this bird to select a ground nest site.—STEPHEN J. ZIPKO AND JOHN KENNINGTON, *Department of Biology, Randolph Intermediate School, Randolph, N. J. 07801.* Accepted 17 Sep. 76. (This paper was subsidized by grants to the senior author from the Society of the Sigma Xi, New Jersey Conservation Foundation, and the U.S. Fish and Wildlife Service in cooperation with Rutgers University Research Council.)

**Rio Grande turkey hens with leg spurs.**[1]—In January and February 1975 and 1976 we trapped, marked, and released 228 female wild turkeys (*Meleagris gallopavo intermedia*) in Brooks and Kenedy Counties, Texas, and collected 56 for necropsy from June 1968 through June 1976. We examined all externally for physical anomalies.

Well developed tarsometatarsal spurs were found on two of these birds. A mature hen captured in January 1975 had a single 12.5-mm spur on the right leg. She appeared normal otherwise. Another mature hen collected in February 1975 had a spur 4 mm long on each leg. Her ovary was developed normally, and no other anomaly was noted.

Although uncommon, Williams and Austin (1969, Auk 86: 561–562) estimated that more than 1% of the female wild turkeys (*M. g. osceola*) in the Palmdale region of southern Florida were spurred. It is unlikely that the incidence of this normally male characteristic exceeds 1% in Rio Grande turkeys. These birds have been trapped by biologists for transplanting and for numerous research projects for at least 30 years with no previous recording of the spur characteristic.—OLIVER H. PATTEE AND SAMUEL L. BEASOM, *Department of Wildlife and Fisheries Sciences, Texas A & M University, College Station, Texas 77843.* Accepted 2 Aug. 76. This paper was subsidized by the Department of Wildlife and Fisheries Sciences, Project 1825.

**An unusual Rock Dove nest.**—In early May 1976 a nest (Fig. 1) of a Rock Dove (*Columba livia*) was found 10 m above the ground on Building 489 in the Dow Chemical factory complex in Midland, Michigan. Workmen had noticed it 3 days before R. S. Nowland removed it. It contained a decaying 1–3-day-old squab.

Of the 1061 pieces of nest material, 896 (84%) were wire, mostly 1.5 mm in diameter. Plant material (141 pieces, 13%) was the next most abundant item in the nest with 24 pieces of plastic and wire insulation

[1] The Project under which this study was conducted was supported in part by the Caesar Kleberg Research Program in Wildlife Ecology and is published with approval of the Director, Texas Agricultural Experiment Station as TA 12739.

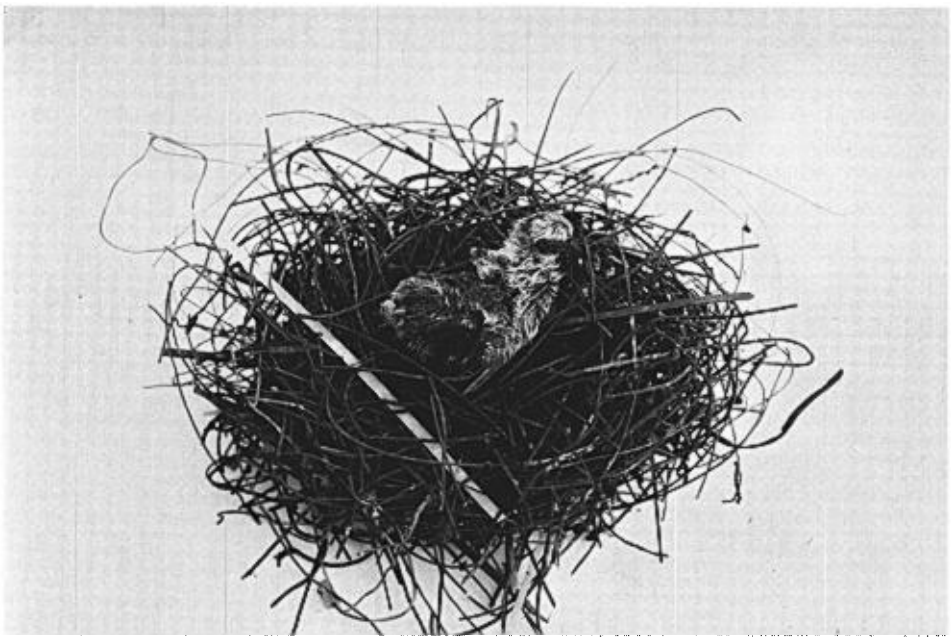

Fig. 1. Rock Dove nest constructed primarily of wire.

(3%), 1 pipe cleaner, and 3 feathers comprising the remainder. The plant material was mainly wood splinters. The nest was 12.0 cm high and 23.0 cm in diameter and weighed 617.5 g. In construction it was similar to other Rock Dove nests. Although material had been added one piece at a time and the nest was not well woven, it could be lifted without falling apart. The noncompressibility of the wire explains the nest's unusual height. The longer wire (> 16.0 cm) and plastic debris were at the base and sides of the nest, while smaller bits of wire (< 9.0 cm) and plant material comprised the center of the nest. According to Nowland (pers. comm.) many pieces of wire were scattered on the ground within several hundred meters of the nest site. The nearest vegetation was approximately 400 m away.

Bent (1948, U.S. Natl. Mus. Bull. 195) mentions that House Wrens (*Troglodytes aedon*) have been known to build nests exclusively of metal, but he does not discuss the success of these attempts. Possibly this nest failed because it provided no insulation to help retain the heat generated by the brooding adult, and any metabolic heat produced by the squab was probably drawn off via conduction. I thank R. S. Nowland and R. V. Dietrich, who found and donated the nest, respectively.—ROBERT L. PATERSON, JR., *Department of Biology, Central Michigan University, Mt. Pleasant, Michigan 48859.* Accepted 10 Oct. 76. This note was subsidized by Central Michigan University's Faculty Research and Creative Endeavors Grant #20-21315.

**Red-cockaded Woodpeckers and pine red heart disease.**—The Red-cockaded Woodpecker (*Picoides borealis*) is unusual for its consistent use of living pine trees as cavity sites. Steirly (1957) attributed the ability of these woodpeckers to use living pines to the presence of red heart disease (*Fomes pini*), a fungus that weakens the heartwood and thus facilitates excavation. Some authors (e.g. Steirly 1957; Ligon *in* Thompson 1971: 30) have maintained that red heart disease is necessary for the woodpeckers to excavate a cavity successfully while others (e.g. Beckett *in* Thompson 1971: 87) have suggested that the Red-cockaded Woodpeckers' use of pines with red heart disease is merely a function of the age of trees, rather than a requirement for excavation. The purpose of this paper is to present data on the incidence of red heart in Red-cockaded Woodpecker cavity trees and to clarify the relationship of the disease to tree use by the birds.

During 1972 and 1973 I located 265 Red-cockaded Woodpecker cavity trees on Noxubee National Wildlife Refuge and the Mississippi State University Forest in Noxubee, Winston, and Oktibbeha Counties in Mississippi. The upland forest there is second growth consisting of mixed pines and hardwood. The dominant pines are loblolly (*Pinus taeda*), with occasional scattered shortleaf pines (*Pinus echinata*). All but