

**The Wood Duck in New Mexico.**—On October 19, 1947, Hugh B. Woodward, H. H. Drum, and Walter Bellman brought in a bag of ducks taken on a marsh one mile south of Bernardo, Socorro County, New Mexico. In this bag were two Wood Ducks (*Aix sponsa*), a male and a female, both immature and both molting heavily. I saved these as specimens; the female is now in the collection of the University of Michigan Museum of Zoology, the male in Dr. Max M. Peet's collection (also housed in the Museum). So far as I can learn, no New Mexican specimen has previously been preserved, nor have any sight records been published since 1928.

W. W. Cooke (in F. M. Bailey's "Birds of New Mexico," 1928, p. 131) quotes Thomas C. Henry on the status of the Wood Duck in New Mexico: "but two or three were ever met with, and only on the Rio Mimbres." (Henry was stationed at Fort Webster, east of Silver City, on the Rio Mimbres from December 1852 to early 1854.) Cooke also notes one sight record made by William H. Emory near Las Palomas (south of Hot Springs) on October 12, 1846.

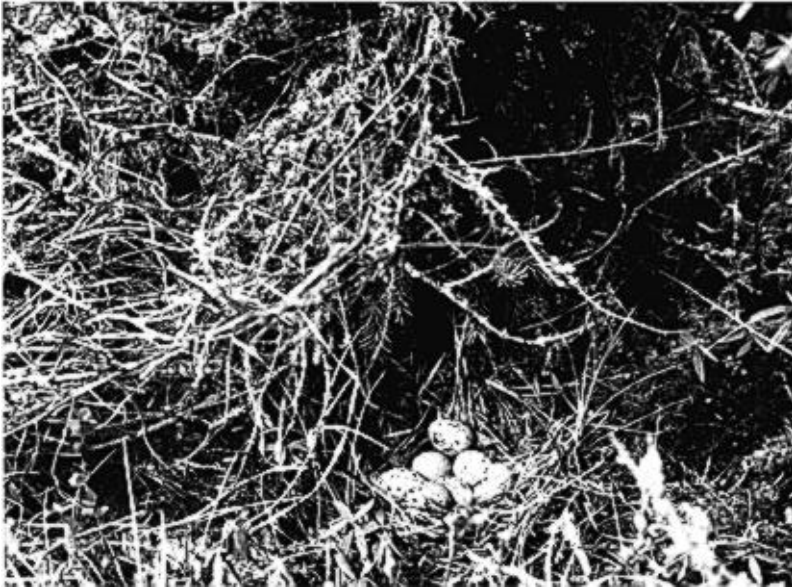
Recent observations of the Wood Duck in New Mexico are as follows: John C. Knox, of the U. S. Fish and Wildlife Service, examined a Wood Duck taken by a hunter at San Marcial, Socorro County, during the open duck season in 1944. During the open season in 1945, Knox examined a second Wood Duck killed by a hunter at San Marcial and also saw one in flight at the same location. In 1946 Knox observed one adult male Wood Duck on a pond in Tingley Park, Albuquerque, Bernalillo County. Thomas G. Cornish killed a male Wood Duck in December 1946 on the Rio Grande 10 miles north of Albuquerque, and on December 22, 1947, he saw another one at the same location. On January 7, 1948, Roger Tory Peterson and I observed two male Wood Ducks in prime plumage on a pond in Tingley Park, Albuquerque. They were tame enough for close observation though they did not join other ducks and geese in taking food thrown to them. I observed a male Wood Duck on the same pond on February 25, 1948.

Charles T. Vorhies (1947. *Condor*, 49:245) has outlined a remarkably similar story of the Wood Duck in Arizona.—A. E. BORELL, *Soil Conservation Service, Albuquerque, New Mexico*.

**Unusual consumption of fish by three species of birds.**—On September 2, 1947, I noted a large concentration of birds of several species on the Souris River below the spillway downstream from Lake Darling, an artificial lake on the Upper Souris National Wildlife Refuge in North Dakota. The birds appeared to be feeding almost exclusively—if not entirely—upon small fish. This was particularly noticeable in the tailrace below the spillway, where the water was black with a tremendous concentration of fingerlings. The tailrace was about 15 feet by 25 feet in surface area, deep, and without shallow margins, so that all birds feeding there were swimming. Two Greater Yellow-legs (*Totanus melanoleucus*), three Blue-winged Teal (*Anas discors*), and two Franklin's Gulls (*Larus pipixcan*) were noted swimming in the water and feeding voraciously upon the fingerlings, which averaged perhaps scarcely more than an inch in length. The fish seemed to be invariably swallowed head first, and consisted mainly of small chubs, shiners, and sticklebacks.

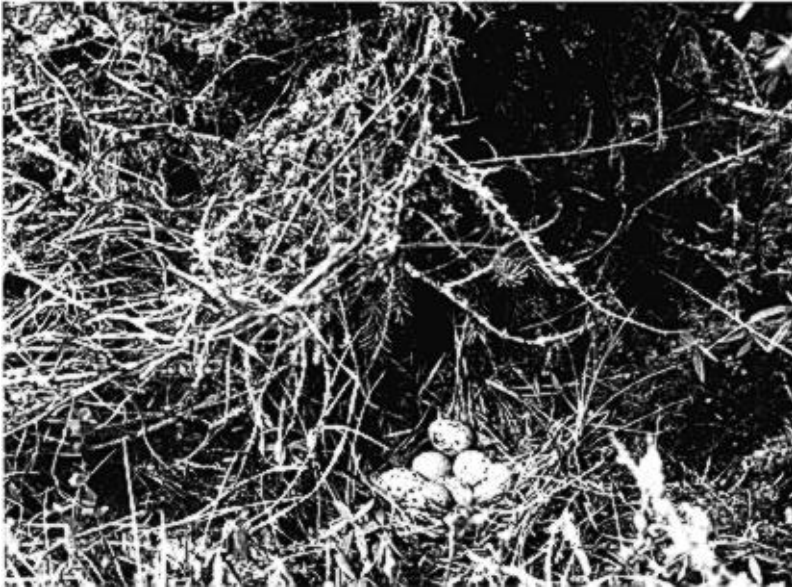
While yellow-legs not infrequently consume small fish in shallow water as a part of a meal, they are rarely found swimming, and only occasionally do they consume fish in large numbers. They frequent shallow margins and marshes, and it is rare for them to forage for food in deep water. It is also extremely rare for teal, or any species of river duck, to consume fish in appreciable quantity. They are primarily vegetable feeders and are most at home in shallow waters and mud flats. On this occasion, because of the great concentration of these small fish

PLATE 3



*Spruce Grouse nest and eggs. Near Fishing Lake, east-central Saskatchewan,  
June 7, 1947.*

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*Spruce Grouse nest and eggs. Near Fishing Lake, east-central Saskatchewan,  
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PLATE 4



*Female Spruce Grouse, incubating. Near Fishing Lake, east-central Saskatchewan, June 7, 1947.*

spruce tree only a short distance away. He allowed me to approach within 50 feet, then flew. I did not see him again. On June 7 I found the female on the nest at 10:00 a.m. and at 3:30 p.m.; at 5:17 p.m. she was still on the nest, and I watched her from then until dark. It was a cold cloudy day with a moderate northeast wind. At 8:43 p.m., in the dusk, the female suddenly flew directly from the nest, disappearing into a thick spruce-tamarack swamp. At 9:06 p.m. she again landed on the little spruce stump above the nest and dropped onto the eggs after looking carefully about her. It was nearly dark then because of the heavy clouds but was not entirely dark until 10:30 p.m. On June 9 I was back at the nest at 4:00 a.m., shortly after daybreak; the female had probably left and returned earlier, for she remained on the nest during the next eight hours. During two visits in the afternoon on the same day and two mid day visits on the following day (June 10), she was on the eggs. Thus during 12 hours' observation, she incubated for 11 hours and 37 minutes and fed 23 minutes on June 8 and 9, the 23 minutes being just before dark. She always sat on the nest facing out from the stump.

Female Spruce Grouse were observed along the roadway near our cabin on June 8 at 2 p.m. and June 9 at 1:30 p.m. They were dusting in some sand in the roadway.

Other birds in close proximity to the nest were Greater Yellow-legs (*Totanus melanoleucus*), Richardson's Owl (*Aegolius funereus*), Nighthawk (*Chordeiles minor*), Canada Jay (*Perisoreus canadensis*), Ruby-crowned Kinglet (*Regulus calendula*), and Myrtle Warbler (*Dendroica coronata*). On June 9 the Canada Jays landed only two feet in front of the Spruce Grouse on her nest, but she did not move; they hopped about her for several minutes. Red squirrels ran about her on numerous occasions, and two snowshoe hares scampered up and down the roadway at times, but she showed no sign of disturbance.—LAWRENCE H. WALKINSHAW, 1703 Central National Tower, Battle Creek, Michigan.

**A female Bob-white in male plumage.**—On June 3, 1944, F. W. Buchanan collected a Bob-white, *Colinus virginianus*, in the valley of Elkhorn Creek, Lee Township, Carroll County, eastern Ohio. In all outward appearances, the bird was a typical male, but upon dissection, the specimen proved to have a somewhat enlarged and apparently functional ovary. The carcass was unfortunately not preserved; the skin (C.U.21567) has been deposited in the Louis Agassiz Fuertes Memorial Collection at Cornell University.

Mr. Herbert L. Stoddard informs us (*in litt.*) that in all of his experience with the Bob-white he has never collected an individual exhibiting such a condition, although on two or three occasions he has seen Bob-whites in the field whose behavior seemed to indicate a reversal of sex characters.

Two similar cases in wild birds of other species have come to our attention: one in the Spurred Towhee, *Pipilo maculatus montanus*, reported by Bergtold (1916. *Auk*, 33:439), and one in the Bay-breasted Warbler, *Dendroica castanea*, reported by Stoddard (1921. *Auk*, 38:117). In both cases, the birds, although wearing male plumage, possessed apparently normal, undiseased ovaries, with ova in various stages of development.

The plumage-determining mechanisms have been studied most thoroughly, as would be expected, in the domestic fowl. Whereas the results may not be applicable to birds in general, they are probably valid for a galliform species such as the Bob-white. Professor F. B. Hutt, of the Department of Poultry Husbandry, Cornell University, kindly directed our attention to the pertinent literature.

It is now well established that the secondary sexual characters, including plumage characters, of female birds are determined by a hormonal secretion of the ovary, which acts as an inhibitor to male secondary sexual characters. In