

for about 5 years. Fertility was low and the soil acid. Vegetation tended to be rank although somewhat spotty.

At approximately 17:30 on 24 March 1967 fire was set around and through the field in a crude grid pattern with fire lines at approximate 100-foot intervals. There was little or no wind, dew was condensing on the vegetation, and the temperature was 50 to 55°F. Because of these conditions, and the somewhat scattered nature of the vegetation, burning proceeded slowly.

Shortly after the fire was set, about a dozen Mourning Doves, primarily in pairs, began to fly over the burning field and land on recently burned spots. The doves flew only 10 to 20 feet above the fire and landed that close to the flames, on the still warm ashes.

Three Bobwhites were heard giving covey calls, one east, one south, and one northwest, within 200-300 yards of the burning field. Two single and one pair of quail were observed to fly directly to the burning field and land within a few feet of the flames.

Earlier in the afternoon, on a different part of the study area, a covey of about 16 quail had been observed to flush less than 6 feet ahead of an earlier fire. When flushed, they flew approximately 80 yards and landed as a covey. There was neither covey disorganization nor calling behavior to indicate either alarm or fright exhibited by these birds. The following morning a covey, presumably the same one, was again flushed from this earlier burn; three more coveys were flushed from other new burns that morning. From these and other observations, we conclude that Bobwhites typically respond very quickly to burning and to newly burned fields.

Just before dark, when the 2-acre field first mentioned was about three-fourths burned, a single woodcock "peented" and made a song-flight from some brushy cover about 100 yards northeast of the field. He landed in the approximate area where he was first heard, "peented" again, and flew again. This time he flew directly to the burning field, circled once at an altitude of about 25 feet, and landed abruptly on a burned spot within 15 to 20 feet of flames which reached 2 to 3 feet into the air. After landing on the burn, he immediately initiated apparently normal courtship behavior, alternately peenting and making song-flights from the still burning field; he was still continuing these acts when we left the area at approximately 19:00.

The significance of these observations is that these three avian species appeared to respond positively rather than negatively to fire in their environment. These observations are in agreement with Komarek's hypothesis (Proc. Sixth Annual Tall Timbers Fire Ecology Conference, 6:143, 1967) that certain of our fauna may be fire adapted.

The study was partially supported by Federal Aid Project W-66-R, the Illinois Department of Conservation, the U.S. Bureau of Sport Fisheries and Wildlife, and the Illinois Natural History Survey, cooperating.—WILLIAM R. EDWARDS AND JACK A. ELLIS, *Illinois Natural History Survey, Urbana, 20 April 1958.*

Functional gonads in Peregrines.—Certain falconiform birds are considered to differ in their reproductive organs from birds of other orders in that the female may possess paired ovaries and reproductive tracts rather than the usual single left ovary (Van Tyne and Berger, *Fundamentals of ornithology*, Wiley and Sons, New York, 1959; A. J. Marshall, Ed., *Biology and comparative physiology of birds*, Vol. II, Academic Press, New York, 1961.). Van Tyne and Berger (op. cit.: 38) state that double ovaries is the usual condition in about 50 per cent of the individuals in the genera *Accipiter*, *Circus*, and *Falco*. Wood (*Auk*, 59:463, 1932) mentions some of the variability in the

paired ovary condition in members of the Accipitridae and Falconidae. The two Peregrine Falcons (*Falco peregrinus*) he reported on had unpaired ovaries. Gunn (Proc. Zool. Soc. London, 1912:63-79) reported on one three-year-old adult Peregrine which had a left ovary about four times larger than the right; his plate shows enlarged follicles only in the left ovary. Fitzpatrick (Wilson Bull., 64:19, 1934) cited a case of one adult female with two ovaries and stated that in this case the right could be called vestigial. Finally, Storer (Auk, 83:423, 1966) pointed out that in *Accipiter* paired ovaries are the usual condition and that specimens, especially Goshawks (*Accipiter gentilis*), are not infrequently mis-sexed as a result of the collectors mistaking paired ovaries for testes. Of some 1200 museum specimens of Peregrines examined by me to date, I have found less than 4 per cent mis-sexed. Those that have been are usually immatures.

In the course of two somewhat independent studies, a biosystematic study of Peregrines and a study of pesticide residue concentrations in Peregrines, I have welcomed and sought out the opportunity to critically examine carcasses including those of captives owned by falconers as well as the occasional adult taken for pesticide studies from far northern breeding grounds. The data reported here come from 11 male and 17 female specimens taken in May, June, and early July 1961 to 1967. To obtain an index to the size of testes, both width and length were used. Of the 11 males in breeding condition only one had a right testis slightly larger than the left, two had testes approximately equal in size, while the remaining eight had the left testis slightly to significantly larger than the right. Data from the literature, where length and width of testes are recorded, also indicate the left testis indeed tends to be larger. Assuming that size is indicative of the relative degree of active spermatogenesis, the left testis would appear to be the more functional of the two.

Of the 17 females, all in breeding condition, 12 or 70 per cent possessed only a single left ovary. Four specimens had double ovaries of which three had the left larger than the right. In one case both were essentially equal in size. In a female from the Colville River, Alaska, obtained on 14 June 1964 the left ovary was markedly atrophied and appeared never to have been functional. The right ovary had five enlarged follicles about 2.5 mm in diameter and two visible ovarian scars from which follicles had ruptured. In an additional nine winter-taken females examined, only the left ovary was evident in 6 or 66 per cent while three possessed both ovaries. It appears from these data that the usual condition in the North American Peregrines is the possession of a single ovary with only about 30-35 per cent of the individuals having double ovaries. This is opposed to the usual (50 per cent or greater) paired condition in the genera *Accipiter*, *Circus* and perhaps other members of *Falco*. Although two ovaries may be present only one appears to be functional in egg production in any one season or perhaps throughout the life of the bird.—CLAYTON M. WHITE, *Department of Zoology, University of Utah, Salt Lake City, Utah 84112. (Present address: Section of Ecology and Systematics, Cornell University, Ithaca, New York), 22 May 1968.*

Insecticide residues in Least Bittern eggs.—The Least Bittern (*Ixobrychus exilis*) is sometimes found nesting in rice fields of southern Louisiana. Egg samples were taken from three nests in rice fields on the Louisiana State University Rice Experiment station in Crowley, Louisiana. One sample was collected in June, 1965 and two others in June, 1966.

These eggs were analyzed for chlorinated hydrocarbon insecticide residues at the Harry D. Wilson Laboratories, Louisiana State University, using electron capture gas