

On June 4, the remaining eleven unhatched eggs were opened for examination of the contents. Two eggs contained fully formed dead chicks, another had been punctured by a bird's claw and was empty, another contained enough gas to blow up, and the remaining seven eggs were partially filled with solid yolk-like material or filled with liquid containing no noticeable embryos.

An observation of the speed and manner of hatching of a Ruffed Grouse egg was made. The egg was one and nine-sixteenths inches long. At 1:00 p.m., the bird made a hole about three-eighths of an inch from the tip of the large end of the egg. At 2:00 p.m. this had enlarged to a squarish hole one-quarter inch in diameter. The bird began to crack the egg by making bumps at one-quarter- to one-half-inch intervals, and after each bump, the intervening shell would crack. This continued in a circular pattern going clockwise, looking from the small end of the egg. By 3:00 p.m. the egg was cracked half-way around, and at 3:10 p.m. the bird broke out of its shell by cracking most of the remaining half of the shell in one push. The cracking appeared to be accomplished by turning only the head, while the body of the chick remained stationary.

It was found that the young pheasants and Ruffed Grouse preferred insects to grain (chicken mash), at least for the first week or more. They ate field-caught insects such as hairless caterpillars, adult moths and butterflies, mosquitoes and other flies, spiders, and plant bugs, especially mirids. They cared less for earthworms, ants, and hairy caterpillars and would not eat tent caterpillars, stink bugs, and hard, adult beetles.—E. E. KENAGA, M. A. WOLF, and A. E. DOTY, *Midland, Michigan*.

A Western North Atlantic Record for the Frigate Petrel (*Pelagodroma marina hypoleuca*).—A Frigate Petrel or White-faced Storm Petrel (*Pelagodroma marina*) was noted by the writer in a group of Wilson's Petrels (*Oceanites oceanicus*) approximately 60 miles SSE of Block Island, Rhode Island, at about 11:00 A.M. on August 18, 1953. The specimen was collected by Dr. Richard H. Backus, of the Woods Hole Oceanographic Institution, at about 12:00 noon (ship's position at this time 39° 48' N., 71° 02' W.). The bird was photographed and preserved in formalin and has since been presented to the American Museum of Natural History.

Dr. Robert C. Murphy of the American Museum has very kindly measured the bird and identified it subspecifically. His conclusions are as follows (*in litt.*): "Comparison and measurements show that this specimen is typical of the eastern North Atlantic or Cape Verde Island race (*P. m. hypoleuca*). . . . Weight, after removal from formalin, 56.4 gm.; wing expanse 414 mm.; wing 158 mm.; tail 70.6 mm.; culmen 19.4 mm.; tarsus 44.4 mm.; toe and claw 36.9 mm." Further information on the species may be found in Murphy and Irving (*Amer. Mus. Novit.*, No. 1506: 17 pp., 1951).

Reference to the four editions, and all supplements, of the A.O.U. Check-list has revealed only one other western North Atlantic record for this species (and subspecies)—400 miles off the coast of New Jersey (40° 34' 18" N., 66° 09' W.), September 2, 1885, by Robert Ridgway.

This record has also brought up a minor problem, namely, how are the offshore limits of the Check-List area constituted? No defining statements in this regard have been found in any of the material referred to.

To remedy this situation, the following is suggested: no natural hydrographic boundary that would hold for all coasts of North America being available, it is proposed that only those birds collected between a line on the sea-surface corresponding to the 1000-fathom contour of water depth and shore be included in the Check-List. The 1000-fathom curve is generally very near the point at which the continen-

tal slopes end and the deep ocean basins begin, hence is a good indicator of the physical boundaries of the continent.

On this basis, the present record is the first for *Pelagodroma marina* for the Check-List area, Ridgway's specimen having been taken beyond the 1000-fathom contour.

The writer's thanks are due Commander David C. Nutt, USNR, owner and master of the *Blue Dolphin* (the research vessel from which the observation was made), for having made the writer's presence on the vessel possible. Dr. Charles G. Sibley and Messrs. Walter Bock, William C. Dilger, Richard E. Harrison, John T. Nichols, and Richard H. Pough have all very kindly given their opinions in regard to the above definition.—MALCOLM S. GORDON, *Department of Conservation, Cornell University, Ithaca, New York.*

Sandhill Cranes in Yellowstone Park.—The distribution records for the Greater Sandhill Crane (*Grus canadensis tabida*) as outlined by Walkinshaw (The Sandhill Cranes, 1949, Cranbrook Inst. of Science Bull. 29), include five observations in Yellowstone National Park, Wyoming. These were recorded during the period 1925 through 1941. Observations made during the summer of 1953 in conjunction with a research project approved by the National Park Service indicate that this bird may be using that wildlife sanctuary as a nesting ground to an extent greater than is generally known.

Census.—The area surveyed is that portion of Hayden Valley, Yellowstone Park, which is inclosed between the Yellowstone River and the park highway connecting Canyon Junction to Dragon's Mouth Spring. This seven-mile strip does not exceed three-quarters of a mile in width, is generally treeless, and supports a vegetative cover of sagebrush on the knolls and sedge-rush in the lowlands. Elevation is approximately 7750 feet. Late afternoon counts were made from nine good vantage points along the highway. Six counts were made on separate days between May 29 and June 21, and the numbers of these birds observed per day were four, seven, five, eight, nine, eight. These were seen singly or in pairs from five of the vantage points; cranes were not seen from the other four points. Park records of 1953 indicate that the Sandhill Crane was also resident in the meadows bordering Fairy Creek, Sentinel Creek, Nez Perce Creek, and in the Fountain Flats area. In addition, they were reported from Gibbon Meadows, the Nymph-Twin Lake area, and Elk Park, all within Yellowstone Park.

Nesting.—Two crane nests were discovered on May 31, in the Hayden Valley study plot. Both were located in river-front marshes which supported a luxuriant growth of rushes, and these plants were the only building material utilized. One nest had base diameters of 95 × 106 cm., top diameters of 77 × 83 cm., and was cupped 2 cm. The height above water level was 17 cm.; the water depth, 5 cm. Both nests contained two smooth, ovate, olive-colored eggs on which lavender spots were so concentrated at the larger ends as to form nearly complete caps. Measurements of two eggs from the same nest averaged 60.2 × 92.7 mm., conforming closely to the averages of those measurements recorded for this subspecies by Walkinshaw (1949) in Michigan and Canada. No egg weights were taken. On June 1 one of the nests was found empty, and no clue could be found which might suggest the fate of the eggs. Hatching dates of the eggs in the other nest were June 7 and June 9.

Defensive Behavior.—The behavior patterns exhibited by one of these pairs of cranes, when alarmed, were so at variance with those described by Walkinshaw (1949) in his extensive study that some pertinent description seems worthwhile. It is probable that the frequency of my almost daily visits somewhat modified their reactions, particularly since I always approached rather slowly over the same route.