During the last two weeks, by which time the wings are well developed, the young exercise their wings vigorously. Bent says that the birds may leave the nest as early as July 26, but Yellowstone records indicate that the young may leave any time in August (there are no records of young Ospreys unable to fly after the last of that month). According to Skinner's records (Bent, page 375), October 7 is the latest date on which Ospreys have been recorded in Yellowstone; Condon noted one in the Park on October 7, 1946; he remarked, however, that Ospreys may have remained there much later.

On September 23, 1946, I saw young Ospreys in three nests on pinnacles in the Grand Canyon of the Yellowstone. In one of these nests the young bird was just beginning to emerge from the downy stage. In the other nests the primaries were about half developed. In two hours of observation I did not see the young exercise their wings, a fact which would suggest that they were far from ready to leave the nest. Their size, appearance, and habits indicated that the birds would require at least another two weeks before they could fly.

Other species also were known to nest late in Yellowstone in the summer of 1946. On September 22 and 23, 1946, I noted a female Barrow's Golden-eye (*Glaucionetta islandica*), with her brood of six downy young, on Yellowstone Lake near the "Thumb." The young appeared to be less than two weeks old.

In Yellowstone the mercury is low before the last of September, and snow almost invariably has covered the ground before that time. The cold wet spring of 1946 may have caused failure of the first nesting attempts of these birds, so that the young Ospreys and Golden-eyes noted on September 22 and 23 were probably the result of second nestings.—CLARENCE COTTAM, *Fish and Wildlife Service, Chicago 54, Illinois.*

Another atypical House Wren song.— Along the Greenbelt road near Branchville, Prince George's County, Maryland, on July 10, 1946, I heard a completely unfamiliar song given by a House Wren (*Troglodytes aëdon*). In its fullest version, the song was: three to five *chukka*'s, a *tsuh-swee* (the *swee* rough, yet musical, and rising in pitch), then a typical bubbly wren-song. Sometimes the *chukka*'s were omitted and the song began with the *tsuh-swee;* at other times the bubbly song was omitted and only the first two sections given—it was this version that led me to search the bird out and watch it sing, which I did at only a few yards' distance. Murray (1944. *Wils. Bull.,* 56:49) has reported atypical song by a House Wren in Virginia.—HERVEY BRACKBILL, *4608 Springdale Avenue, Baltimore 7, Maryland.*

Western Palm Warbler in Colorado.—The Western Palm Warbler (*Dendroica palmarum palmarum*) has been listed from Colorado on the basis of one observed by H. G. Smith in Denver on June 20, 1891. We now have a specimen (No. 25375) collected in the State, a female taken near Limon, Lincoln County, by Joseph Stephens, on May 13, 1947.—ALFRED M. BAILEY, *The Colorado Museum of Natural History, Denver.*

An Oven-bird incubates a record number of eggs.—On May 23, 1947, I found a nest containing one egg of the Oven-bird (*Seiurus aurocapillus*) and three eggs of the Cowbird (*Molothrus ater*) in a woods five miles southwest of Ann Arbor, Michigan, where I had previously studied the Oven-bird and the Cowbird (Hann, 1937; 1941. *Wils. Bull.,* 49:145–237; 53:209–221). On the following day, about 11 a.m., I revisited the nest and found the same Oven-bird egg (which I had marked) and four Cowbird eggs. (Three of the Cowbird eggs were quite similar in coloration, being finely mottled with brown, but the fourth was whiter and had larger markings, a possible indication that more than one Cowbird had laid

in the nest.) Since there was still only the one Oven-bird egg in the nest, I supposed that the nest had been deserted; but six days later, on May 30, I found the Oven-bird incubating four Oven-bird eggs and four Cowbird eggs. This was the largest number of eggs I had ever found in one Oven-bird nest. The time of the Oven-bird's laying and the beginning of incubation were, of course, uncertain, but in all probability the second egg was laid on the morning of May 24 (the day of my second visit to the nest) and was taken by a Cowbird before I arrived. If the regular pattern of laying and incubation was then followed, the remaining eggs were laid May 25, 26, and 27, and incubation was started on May 26. In the afternoon of June 8, the eight eggs were still present, and none was pipped. On the morning of June 11, two Cowbirds had hatched; one was about two days old, the other scarcely one day. The larger Cowbird had probably hatched on June 9, and the smaller late on June 10. If incubation began on schedule, the incubation period for these Cowbirds was about 14 and 15 days instead of the average 11.6 days. It is possible, however, that the regular habit of beginning incubation on the day before the laying of the last egg was disturbed by the presence of Cowbird eggs so that incubation was delayed for one or two days. During my later observations, however, the Oven-bird was very attentive and was on the nest three out of four times when I arrived.

On June 15, when the Cowbirds were presumably five and six days old, I took the unhatched eggs to the laboratory. Calculations by water displacement, checked by the volume formula used by Worth (1940. *Auk,* 57:44), showed that the four Oven-bird eggs and four Cowbird eggs had a volume about 1.8 times that of the regular 5-egg clutch of the Oven-bird. Upon opening the eggs, I found that the two Cowbird eggs and one Oven-bird egg had developed well toward the hatching stage, but the remaining three Oven-bird eggs had not gone beyond the early stages of development.

The position of the eight eggs in the nest is important in this connection. The Oven-bird eggs, on May 30, were in the bottom of the nest, and the Cowbird eggs around the edge, above the Oven-bird eggs. On June 8 the arrangement was similar except that one Cowbird egg was at the edge of the bottom layer and an Oven-bird egg was on the edge above. The Cowbird egg that was in the bottom layer was the one with the larger spots and was one of those that failed to hatch.

It is a well-known fact that any very appreciable reduction in the amount of heat delivered to the eggs during incubation, especially during the early stages, lengthens the time required for hatching or is fatal to the embryos (Baldwin and Kendeigh, 1932, Physiology of the temperature of birds, *Sci. Publ. Cleveland Mus. Nat. Hist.,* 3:143–144). The largest number of eggs incubated hitherto by an Oven-bird under my observation was four Oven-bird and two Cowbird eggs. These all hatched, and the young lived to leave the nest, but the incubation period was unknown, since the nest was not found until after incubation had started. The volume of these six eggs that hatched successfully I estimated to be about 1.3 times that of the normal clutch, as compared with the present group of eggs, with 1.8 times the normal volume, which hatched only two Cowbirds. It is probable that the limit of egg volume that an Oven-bird is able to hatch is between 1.3 and 1.8 times the volume of the normal 5-egg clutch, and doubtless is much nearer 1.3 than 1.8. Probably also the eggs must lie in a single layer in the bottom of the nest.

On June 18, the nest had been torn out by a predator, and undoubtedly the two Cowbirds were destroyed.—HARRY W. HANN, *Department of Zoology, University of Michigan, Ann Arbor.*

Flight speeds of some south Texas birds.—In the course of field work in south Texas in 1945, I recorded the following flight speeds (taken at Alice and Bentonville, Jim Wells County, and at Bishop, Nueces County). All records were made by automobile.