

In the winter of 1953-1954 I saw B-AW only on April 23 and 29. On the latter date its breast was much streaked, its whites were brighter than those of most mid-winter birds but still only grayish white, and its throat patch bore the two dark lines.

Forbush (*Birds of Massachusetts*, 3: 73, 1929) has this note on White-throat plumage: "Mr. M. J. Magee sends me a record of a banded bird (that he believes was hatched in 1925) that had not attained full adult plumage on May 5, 1927. Some require an extra year, or possibly even more, to assume highest plumage." — Hervey Brackbill, 4608 Springdale Avenue, Baltimore 7, Maryland.

Long-distance Recovery of Barn Owl. — A juvenal Barn Owl (*Tyto alba*), No. 546-06106 that I banded near Kempton, Penna., on June 10, 1953, was "found dead in yard — no visible injury" at Key West, Florida, the following December 10. The distance from Kempton to Key West is about 1,140 miles and, according to the dispersal study of Barn Owls made by Paul A. Stewart (*Auk*, 69: 227-245, 1952), the present record apparently represents the most southerly recovery of a Barn Owl.—Maurice Broun, Kempton, Penna.

Notes on Woodcock Chicks Reared in Captivity.—Four Woodcock (*Philohela minor*) chicks were picked up on a road in the Township of Duane (Franklin County, N. Y.) at 10 a.m. on June 4, 1951, by a local resident who stated that the mother bird had been killed by a car. The brood was turned over to District Game Manager Greenleaf T. Chase at Saranac Lake at 7:30 p.m., but did not accept their first food in captivity until 10 p.m. Thus the chicks, probably in their second day of life, had been without food at least 12 hours.

Chase followed a schedule of seven feedings a day, starting at 7 a.m. and ending about 10 p.m. Pieces of small worms were used at first, but after the second day whole worms were fed.

On June 9 the chicks were transported some 180 miles from Saranac Lake to the senior author's home near Altamont, being without food from 6 p.m. on that date until 2:30 a.m. on June 10. They had been chilled during the trip, but three of them readily accepted worms as soon as offered. The fourth and smallest one finally took a few worms dangled in front of it.

Beginning at 7:30 a.m. on June 10 the chicks were fed each hour until 10:30 p.m., all of them appearing greedy at each feeding. This schedule was maintained with minor variations until the birds were released on June 26.

Each chick was given two worms at a feeding for the next two days, and four per meal on June 14. Thereafter no attempt was made to count the worms consumed. The chicks usually appeared willing to eat more worms than were offered. The worms fed through June 14 were relatively small, averaging perhaps 2½ inches in length and one-eighth inch in diameter. From June 15 on, large "night-crawlers" were included in the diet, these usually being cut into pieces.

After eating several worms, and particularly after swallowing a night-crawler, a considerable bulge was evident on the neck of each chick. This invariably was to the right of the center of the throat and appeared as a lump covered with thin, naked skin. The writhing of the worms within was quite evident. The distension often was apparent for 10 minutes or longer, following a meal. Later, as the down on the neck was replaced by feathers, these bulges became much less noticeable.

A pan of dirt containing worms was made available on June 16 but no attempts at probing were noticed until the following day, the birds then being about 14 days old. During the last few days in captivity they obtained all their food by probing in the dirt-filled pan.

The chicks spent most of the time during the first two weeks in a cardboard carton indoors, occasionally being taken out and placed in a sunny spot in the yard. Thereafter they were kept outdoors in a mesh-wire enclosure on fair days, but were brought inside at night. Upon being placed in the enclosure they would move about busily for a time, picking at an occasional insect or attempting to probe in the dry, hard turf. After a bit they usually settled down singly in the sun with wings partly outstretched and feathers fluffed, or gathered in a group in a shady spot. While wandering about in the pen they frequently exhibited the "bobbing" habit characteristic of many shore-birds.

The development of the primary and secondary feathers first was noted on the fifth day in captivity, at the probable age of 6 days. Down appeared to persist

longest on the head and the region of the rump and upper tail coverts. All down appeared to have been replaced by feathers by the sixteenth day, and feather development appeared to be essentially complete when the birds were released on June 26 at approximately 22 days of age.

On June 15 the birds were seen to stretch and flap their wings and actually to raise themselves a few inches in the air. Two days later they could achieve a height of about a foot. Often, one chick would attempt to fly, whereupon the other three immediately would follow the example. Up to the date of release they never flew out of the pen, the sides of which were but three feet high. If held on the open palm, after about 18 days of age, the chicks would fly for a short distance. Otherwise no attempts at sustained flight were observed.

A careful watch was kept on the development of the bill. No evidence was found, however, even as late as the day of release, that the tip of the mandible could be moved voluntarily. When manipulated with the fingers the tip could be moved slightly. Full development of this peculiar asset appears to be retarded in comparison with the general rapid growth of these birds. — Charles P. Brown, Game Research Investigator, N.Y.S. Conservation Dept., Delmar, N. Y., and Greenleaf T. Chase, District Game Manager, N.Y.S. Conservation Dept., Raybrook, N. Y.

Reciprocal Ohio-Georgia Recoveries of Banded Chimney Swifts. — Seldom do bird banders obtain reciprocal foreign recoveries at stations which are widely separated. The writers have recently been successful in trapping each other's banded Chimney Swifts (*Chaetura pelagica*) between Ohio and Georgia as described below. A Chimney Swift captured by Ralph W. Dexter on May 28, 1952, was banded with No. 20-188666. It was found in air shaft L1 on the roof of Kent Hall on the campus of Kent State University, Kent, Ohio. With it were three other swifts, two of which were later mated to each other that season and nested in shaft L3 nearby. The third one was a non-breeding bird which, however, remained in the campus colony for the duration of the season. No. 20-188666 was not captured again at Kent. On September 27, 1953, this swift was recaptured and then released at the Junior High School at Rome, Georgia, by Gordon L. Hight, Jr. At the time that this bird was recaptured, it was taken in a roosting flock of 5,558 swifts. Included were 395 returns, 261 repeats, and 9 foreign recoveries, including the one from Kent. The remaining 4,891 birds were banded at that time. (It was on this date that photographs were made for *Life Magazine* issue of November 16, 1953, depicting the work of Gordon L. Hight, Jr., on banding Chimney Swifts. A similar account of Chimney Swift investigations made by the senior writer will be found in *Audubon Magazine* issue of May-June, 1950). One of the newly banded swifts was No. 52-88053. This bird was later recaptured and released by Ralph W. Dexter on May 14, 1954, at Kent, Ohio. It was found roosting in air shaft H1 on Kent Hall with 19 other swifts, two of which had previously nested in that shaft as mates in 1953. The others were unbanded.

These reciprocal foreign recoveries would indicate a migration route running directly between Kent, Ohio, and Rome, Georgia. Both recoveries were apparently migrating birds passing through these two points since the nesting locality of neither one is known.

Since the above note was set in type, Gordon L. Hight trapped a total of 7,377 Chimney Swifts from the same chimney at Rome, Georgia, on September 19, 1954. Of these, 6,034 were unbanded, 1,307 were returns (including No. 52-88053 mentioned above), and 36 were foreign recoveries including two from the colony at Kent State University in Ohio banded by Ralph W. Dexter. One of these, No. 20-188672, was a female which had been banded, possibly as a juvenile, from shaft G4 on July 20, 1952. She returned to nest in shaft H1 in 1953 and 1954 with the same mate (48-164517) each year. (At the time of banding, her future mate was roosting in the same air shaft with her and 10 others. When she returned on May 14, 1954, she was with her mate and the foreign recovery from Georgia, No. 52-88053, as noted above.) The other recovery taken by Hight, 21-128595, was banded at Kent at the same time, May 14, 1954, being one of the 16 unbanded birds taken with the mates of H1 and the recovery from Georgia as already mentioned. Thus, two swifts roosting together in Georgia, (20-188666 and 52-88053) were trapped separately at Kent, and three swifts roosting together in Ohio (20-188672, 21-128595, and 52-88053) were also trapped in Georgia, where