

area either had incomplete sets of eggs or the hawks had not yet laid.—WILLIAM A. WIMSATT, 11 Grafton St., Chevy Chase, Maryland.

An Unusual Migration of Broad-winged Hawks.—At daylight on the morning of September 22, 1938, east side of Avery Island, Louisiana, I saw three or four birds take flight from a small clump of timber covering about an acre where the marsh and highland join, and move toward the hills. While I was trying to puzzle out what these birds were, several more took flight from the same clump, heading toward the high timber on Prospect Hill. Driving toward them, I presently saw eight or ten more birds, rising from the same thicket. When I reached the line of flight, I found the birds were Broad-winged Hawks (*Buteo platypterus*). There seemed to be a continuous line of them coming from this small clump of timber at the foot of the hills. The time was 6.15 a. m.—the sun rose this morning at 6.01. In the space of about twenty minutes, ninety-three Broad-winged Hawks, all coming from the same clump of timber, passed over my head, none of them more than one hundred fifty feet in the air. They were flying leisurely, all heading for the same large timber on the crest of Prospect Hill which rises about two hundred feet above the timber whence these hawks came. When the flight ceased, I went on my way.

At 7.55 a. m., as I was going to my office, I saw several Broad-winged Hawks leave the timber on top of Prospect Hill and start west. These birds passed directly over my head flying in a loose flock. After going about a quarter of a mile, they began circling in a small compact group at about five hundred feet above the earth. As this group started circling, more birds that had been steadily coming from the timber on Prospect Hill, gathered in a second group and started circling almost over my head and still hawks came out of the Prospect Hill timber. These two circling groups drifted with the light northeast wind and soon a third group formed, made up at about the same place in the air where the second group had started circling. A few scattered birds were flying between these three groups, that is, going from one group to the other. In the space of twenty-five to thirty minutes, the last group was out of sight. All three groups had taken the same course straight west. I estimate that there were between 375 and 500 birds in the three groups, all adults. The morning was cool, clear and quite still. The birds flew with broadly spread tails and slowly moving wings. As they passed over my head, not more than two hundred feet up, I could see each bird clearly. Every one was an adult, and to the best of my belief, all were males.

Later, this same day, when I went to my game farm two and a half miles northeast of Avery Island, where there is a wide open prairie in which no trees grow, the man in charge asked me if I had seen a great number of hawks that morning. On my telling him I had seen several hundred moving west from the highland of the Island, he said they could not have been the same ones he saw, for, between 7.30 and 8.00 a. m., more than three thousand hawks passed his house, all of them coming from a piece of woodland about a quarter of a mile to the eastward. He said that as they passed low, he had killed one and was saving it for me. On inspecting the bird, I found it was an adult male Broad-winged Hawk. He said all the birds were of the same species. His account of the flight was as follows. At about 7.30 a. m., he noticed hawks coming in a loose stream from the woods a quarter of a mile east of his house, flying toward it. Shortly after they passed his house, they gathered in a compact circling group. After the first group was formed, three other groups formed, making a total of four, three almost in line east and west and one a little south of the line. He watched these birds until they circled out of sight going due west. The groups remained in compact circling bodies with a few straggling birds going from

group to group. In about half an hour, they had all passed out of sight, going west and he saw no other birds of that variety although later in the day, a considerable number of Cooper's Hawks (*Accipiter cooperi*) came by and perched in the tree around the traps set for grackles and red-wings. A number of them entered the traps, killing and eating the small birds that were inside.—E. A. McILHENNY, *Avery Island, Louisiana*.

Notes on the Mexican Goshawk.—A family of four Mexican Goshawks (*Asturina plagiata plagiata*) was collected by the writers on June 29, 1938, in the Santa Cruz River bottoms a few miles south of Tucson, Arizona. Adult male, weight 434 grams, and nestling male, weight 363 grams, are numbers 448072 and 448073 in the American Museum of Natural History; adult female, weight 636 grams, is in Phillips's collection on deposit at the Museum of Northern Arizona at Flagstaff; second nestling of unknown sex, weight 423 grams, is in the aviary of the University of Arizona, Tucson.

Description of male nestling.—The specimen is clad in white down. On the dorsal surface, however, and especially on the lower back, the down is tinged with pale gray. The head is still entirely downy except for a few blackish feathers that are just becoming visible on the crown. In the ventral tract, rows of fuscous-black feathers, broadly margined and tipped with pinkish buff, are appearing in the sternal and abdominal areas. The feathers of the spinal and alar tracts are much further developed. The former are fuscous black tipped with cinnamon. The color of the wing coverts is similar, except that cinnamon occurs also on their inner vanes, in irregular blotches. About 30 mm. of each flight feather is free of the sheath; the exposed portion is fuscous black, tipped (very narrowly on the primaries) with pale gray. Basal sheaths still cover the tail feathers over most of their length. The exposed segment of each rectrix is about 15 mm. in length and has three color bands of approximately equal width, viz., a white tip, a grayish-black subterminal bar, and a black band which is still partially within the sheath. The talons and bill were black; iris grayish brown; legs, toes, cere, and edges of mouth yellow, skin of eyelids and lores cobalt blue.

The juvenal plumage of the other young bird was only slightly more advanced in development than that of its smaller nest-mate.

The goshawks' nest was discovered on June 27 when one of the parents uttered high-pitched, complaining cries from a perch near, or possibly in, the nest-tree. This behavior was repeated at our approach on the 29th. The bird was collected and proved to be the female. The nest, which was a well-built structure about the size of a crow's nest, was placed seventy-five feet up in a cottonwood. The hawks had gathered many of the twigs used in its construction from living trees and had lined it with the usual green twigs. Fresh willow twigs, the most recent addition to the lining, must have been secured at a distance of at least one hundred fifty feet from the nesting tree.

Mr. E. C. Jacot, the well-known collector, had previously told Phillips of the probability that the range of the Mexican Goshawk in the southwestern United States is determined by the availability of lizards as food. Our observations are in complete accord with his belief. The male, when secured, was bringing a large lizard, *Sceloporus magister* (as determined by the generous assistance of Dr. Charles T. Vorhies of the University of Arizona) to the nest, and each of the three specimens, which were collected at about 10.30 a. m., had eaten a lizard of apparently the same species. Quite probably, then, the distribution and migration of *Asturina* is determined by the range (in abundance) and cycle of activities of one or two important