

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

food species such as *Sceloporus*.—DEAN AMADON, *American Museum of Natural History, New York City*, AND ALLAN R. PHILLIPS, *118 Olive Road, Tucson, Arizona*.

Great-Plains races of Sharp-tailed Grouse.—When the writer made a study (Univ. Toronto Studies, biol. ser., no. 40, 1935) and revision (Occas. Papers Roy. Ontario Mus. Zool., no. 2, 1935) of the Sharp-tailed Grouse in 1935, it was not found possible to examine the type of *Pedioecetes phasianellus campestris* in the collection of the U. S. National Museum. Recently there was opportunity to do so and I am now convinced that I redescribed this form and renamed it *P. p. campisylvicola*. Ridgway (Proc. Biol. Soc. Washington, 2: 93, 1885) had designated two birds, a male from northwestern Illinois and a female from Rosebud Creek, Montana, as types of *campestris*. Through the kindness of Dr. H. Friedmann, the latter specimen, or co-type from Montana, was secured for comparison. Neither this bird nor a topotypical Illinois specimen seemed to represent satisfactorily the browner birds occupying the grove belt in the northern Great Plains, eastward into the eastern forest. They were more ochraceous, the co-type particularly, in their general dorsal aspect. With regrets that Ridgway had not selected a type from Nebraska, the writer named the 'pinkish-cinnamon' to 'snuff-brown' birds *campisylvicola*. On seeing the type of *campestris*, he is convinced that it represents these 'browner' birds. Apparently Ridgway selected two birds, either to show what he thought was normal sex differentiation (Illinois male, Montana female) or to show some range of individual variation within the form. It seems evident to the writer, after seeing the type, that the co-type is referable to a form distinct from *campestris*. Thus, still with regrets that Ridgway did not select a Nebraska type, *campisylvicola* is relegated to the synonymy of *campestris*.

It would appear that the paler birds of the more southern Great-Plains region are unnamed. However, a recent examination of the series in the U. S. National Museum shows that individual variation of specimens from this region is sufficiently wide to include the Colorado variant named *P. p. jamesi* by Lincoln (Proc. Biol. Soc. Washington, 30: 83-86, 1917). This form had been left in question in the writer's revision. It was pointed out in the study that large pale Sharp-tailed Grouse occur as far north as South Dakota; also it was noted in the revision that the southern Great-Plains specimens seen were the most variable in color, with the general effect dorsally varying from the 'gray' (of Lincoln) to ochre. Dr. H. C. Oberholser informs me that he has examined a large series of Colorado birds and that he regards the dark ventral markings, as mentioned by Lincoln, as reflecting *columbianus* influence, or intergradation with the Great-Basin form. Since the somewhat localized variants from Colorado do not seem to constitute a valid race, the name *jamesi* is available for the Sharp-tailed Grouse of the southern Great Plains.

The five forms of *Pedioecetes phasianellus* and their ranges are as follows, approximately as previously recorded:

P. p. columbianus—The Great Basin, from northern British Columbia to northern New Mexico.

P. p. kennicottii—In the far Northwest, Alaska, Yukon and the Mackenzie region, North West Territories.

P. p. phasianellus—The Hudson and James Bay watersheds of northeastern Manitoba, northern Ontario and Quebec.

P. p. campestris—From the foothills of the mountains in Montana, central Alberta and Saskatchewan, eastward to the upper peninsula of Michigan; formerly south to northwestern Illinois.