

Turkey Vulture in West Chester Co., N. Y.—Two Turkey Vultures (*Cathartes aura septentrionalis*), presumably a pair, were seen on June 3, 1928, by Mrs. C. Carll Tucker and myself at Pound Ridge, Westchester Co., N. Y. Several years ago there was a record of the breeding of this species in the adjoining township and Mr. C. H. Pangburn has recorded a single bird at Chappaqua, N. Y. (Auk, 1929, p. 385).—JOHN H. BAKER, 1165, Fifth Ave., New York.

Turkey Vulture Wintering in Calhoun Co., Mich.—On December 22, 1929, while taking a Christmas Census for 'Bird-Lore,' I observed, twelve miles east of Battle Creek, Mich., a Turkey Vulture (*Cathartes aura septentrionalis*) resting in a tall dead tree. He flew almost immediately. His mammoth size, so much larger than the Crows nearby, with wing expanse apparently six feet or more, together with the lighter area on the lower side of the wings served to identify the bird; to further aid in a sure identification, near the carcass of a dead horse found only a few rods from the base of the tree, were several large chicken-like tracks, clearly distinguishable in the snow from the numerous Crow tracks. By rough measurement they were 5.75 to 6 inches long and 4.5 inches wide. A neighboring farmer, hunter, and trapper said the Vulture had been there all during the day and was adept at soaring overhead. The bird not only had been interested in the horse but also in a Crow caught in a trap, over which he had soared for a long time.

Although the Vulture is not abundant in this county it has been observed many times by the writer. The greatest number was on September 15, 1929, when five miles south of Marshall, twenty Vultures were seen soaring gracefully over Notawa Lake. Frequent summer observations of the bird have been made in the region of this winter record but never before has the bird been observed during the winter months.—LAWRENCE H. WALKINSHAW, M. D., Battle Creek, Michigan.

Notes on the Senses of Vultures.—As a collector of beetles I have frequently been forced to use carrion as bait, and have thus acquired an intimacy with a subject which more fortunate zoologists can avoid. This, I think, qualifies me to make a few remarks on the entomology of corpses and to suggest a relationship between the insects which they attract and the finding of food by Vultures. The facts are easily presented. Soon after the death of an animal, except in unusual cases or during cold weather, the body attracts numbers of flies and beetles, some of which may continue to circle about it for several hours or days. The resulting congregation of insects is noisy and conspicuous, and of a sort which does not often occur except about decaying material, so that it may be considered more or less characteristic of the latter. Since Vultures can undoubtedly see and perhaps hear such insect swarms at a distance, they have probably learned to recognize their significance, just as we recognize the significance of gatherings of the Cathartidae.

No attempt will be made here to apply this suggestion in detail, since I have not myself carried on controlled experiments with the birds, but I should like to mention a few of the observations which first led me to think that Vultures might be practical entomologists.

The first incident took place at the Harvard Tropical Laboratory on the Soledad sugar estate near Cienfuegos, Cuba. In November, 1926, some dead fish were put out near Harvard House to attract beetles, but were stolen by Turkey Buzzards the first day. The bait had been hidden under fairly large stones, and since it was placed beside a garden where people were frequently moving about, there is no reason to suppose that the birds were attracted by my actions. They may, indeed, have smelled the fish, but it seems just as likely that they saw the insects which collected and which would have given the set away to any intelligent human being. Near Santa Marta, Colombia, in 1928, the same sort of thing happened, for when dead iguanas were put out they were invariably discovered by Vultures, even when the baiting was done in scrubby woods. The most rational explanation in this case seemed to be that the birds had heard the carrion-drawn flies.

These experiments, if they may be called that, were admittedly not planned to test the senses of Buzzards, but they have suggested a possible factor in the birds' behavior which seems to have been overlooked, and there are doubtless other factors still to be found. In fact I think it is a safe assumption that both the Turkey Buzzard and Black Vulture are very intelligent birds which make use of their senses in every possible way in their search for food. They must be forced to do so by strict competition. This conclusion is supported by conversations with Boston ornithologists and, indirectly, by various published accounts.

If a moral must be drawn from the preceding paragraphs, it is not primarily that Buzzards are attracted by carrion-feeding insects, although I think they are. Nor is it that they do or do not possess a nose. It is rather that they are highly organized animals which presumably react to a complex environment in a very complex manner, and which must be experimented with accordingly.—P. J. DARLINGTON, JR., *Care of Museum of Comparative Zoölogy, Cambridge, Mass.*

Long-eared Owl at Lexington, Va.—The Long-eared Owl (*Asio wilsonianus*) seems to be quite rare in western Virginia. The first specimen to be recorded for the Lexington region, a large female, was brought to me on December 26, 1929. It had been shot early that morning in daylight when it was frightened from a dense covert in one of the large sink-holes that abound in this limestone region. This sink-hole is filled with a thick tangle of bushes, briars, and honeysuckle vines, with a few small trees. The stomach contained a flattened oblong mass of feathers and bones, evidently a pellet almost ready for ejection. Several whole grains of corn were stuck on one end of the mass. This was examined by the Biological Survey, with the report that it consisted "entirely of the remains