Heat insulation in the tarsi and toes of birds.—It has puzzled many people why the feet of birds so not freeze in sub-zero temperatures, particularly in those species with bare tarsi. The answer is obviously insulation against loss of heat, but it is not often that one has an opportunity of getting much factual data on this point.

An opportunity came to the writer when camped in a tent in the Duck Mountains, Manitoba, during the second week of October, 1944. These mountains are in the Canadian Zone. During a stay of four days at East Blue Lake, the writer succeeded in taming four Canada Jays so that they would come racing to his hand when called from the forest and would come right into the tent at the far end and take scraps from the hand and even from the mouth. The approach to the interior of the tent was always the same—first on the grocery box near the entrance, thence either to the box stove or to an open pot thereon, and then to the hand.

As the weather was frosty, the stove was under full draft and the thin metal was, at times, almost red hot. When gripping an open half-gallon iron pot, the birds would stay there for 30 or 40 seconds. After some 15 seconds, they would stretch and close the toes alternately, apparently to permit radiation of the heat taken in. Several times, however, the birds stayed on the hot stove (when the pot was absent and while the flames were licking the roof of the stove) for from five to eight seconds, showing discomfort by crouching but still tolerating it. The heat was sufficient to make a drop of water flash into steam.

This observation has made me realize the marvellous insulation against the transfer of heat possessed by these birds. I am not aware of any research having been done to test and measure the conductivity of the tissues of the feet of birds but it would seem that this could very easily be done and might be a worthwhile contribution to our knowledge.—L. T. S. NORRIS-ELYE, *Winnipeg, Canada.*

English Sparrow eating salt.—From June 25 to 27, 1944, some interesting observations were made on the feeding habits of the English Sparrows (*Passer domesticus*) nesting on the farm of Miss Edith L. Hause, Route 5, Huntington, Indiana. There were two salt blocks in the barnyard for the use of the small herd of cows. From dawn until dusk there was a continual stream of sparrows visiting these blocks, pecking off small bits of salt. These sparrows must have obtained a much greater amount of salt than is needed to maintain their normal metabolic requirements. Certainly these sparrows were obtaining more salt than most other birds are able to obtain. Although I am unable to offer an explanation for the physiological need of such large quantities as were apparently consumed by these birds, I believe that these observations should be recorded.—JOHN B. CALHOUN, *Dept. of Biology, Emory University, Georgia.*

The sequence of molt in Purple Grackles.—Purple Grackles (*Quiscalus quiscula stonei*) trapped at Harrisburg, Penna., for banding studies gave an opportunity for observing the sequence of their postnuptial molting. Between March 19 and September 18, 1944, I trapped and banded 146 Purple Grackles. Evidence of molting, with new feathers, first appeared on July 23. The molting period extended until mid-September, and with other observed grackles until mid-October. The first feathers molted were those along the edge of the wing, the last were the central tail feathers. Individual check notes were tabulated on 52 birds, all adults with white irides. The sequence of molting was determined to be in the following order of feather groups: lesser wing-coverts, greater coverts, secondaries, forehead, crown, nape, rump, primary-coverts, upper tail-coverts, cheeks, neck, back, belly, under tail coverts, scapulars, proximal primaries, breast, chin, and finally the distal remige and then the median rectrices.

The old axillars were retained by some birds until all but the primaries and rectrices were completed. In some birds the auriculars were shed after the rest of the head had received its new quota of feathers. The molting on the breast was irregular in only one bird. Practically all the birds exhibited great regularity in their molting areas. The proximal remiges were shed and regained quickly, but the distal four were lost in regular order and slowly redeveloped. Those feathers with stiff quills were the slowest to grow. In nearly all the birds, the secondaries were either all old or all new; in only four was it seen that the central secondaries, the 4th and 5th, were old while all the others were fully developed, except one third and one sixth. The median body feathers were shed and grown before the laterals, both dorsal and ventral, as along the spine before the side areas. These developments agree with the dispositions of the primary pterylar tracts in a nestling, but no opportunity was offered to study the sequence of development of the primary feather tracts in grackles.—HAROLD B. WOOD, *Harrisburg, Pennsylvania.*

Notes on the Duck Hawk in Ashland County, Ohio.—An immature female Duck Hawk (*Falco peregrinus anatum*) was shot on the Dr. Hess and Clark Research Farm located two and one-half miles east of Ashland, on September 29, 1944. This specimen constitutes the first known county record. The skin was preserved and deposited in the Biological Collection of Ashland College.

The specimen was examined by Dr. Paul D. Harwood of Dr. Hess and Clark Incorporated and yielded the following parasites:

An immature strigeid trematode which could not be identified further was found in the intestines.

Six specimens of *Cladotaenia foxi* McIntosh, 1940 were found in the intestines. Duck Hawks probably acquire this infection by eating mice since the intermediate host of *C. foxi* was found experimentally to be a mouse (McIntosh, Proc. Helminth. Soc. Wash., 7: 71–74, 1940). This parasite is not known to occur in any definitive host other than the Duck Hawk. The present record constitutes the third time it has been taken from this falcon (Guthrie, J. E. and P. D. Harwood, Amer. Jour. Vet. Res., 2: 108–116, 1941).

Eight nematodes that are tentatively identified as *Synhimantus laticeps* (Rudolphi, 1819) were found in the proventriculus. This is believed to be the first record of this form in the western hemisphere, although it has been reported many times from hawks and owls of Europe, Asia and Africa. The available material differs slightly from descriptions of Old World material in certain body proportions, but until additional material is available, it is believed preferable to refer these specimens to *S. laticeps*. A conspicuous area of inflammation was noticeable at the region of attachment of these nematodes.—NORMAN A. PREBLE, *Department of Biology, Ashland College, Ashland, Ohio.*

On the type of *Cassicus melanurus* Cassin.—Many years ago, Cassin described a new species of cacique which supposedly came from Guayaquil in Ecuador, a most unlikely place for a forest-haunting bird. The locality, according to Cassin, was written on the original label in the hand of Victor Massena, Prince d'Essling. The bird formed part of the Rivoli Collection (Massena was also the Duc de Rivoli) which was presented to the Academy of Natural Sciences of Philadelphia by Thomas B. Wilson in 1860.

Cassin described the bird in the Proceedings of the Academy in 1867, (p. 66) noting that the tail was entirely black, as were the under tail-coverts, and that the specimen differed from other known species of caciques by having "a wide band immediately above the under tail coverts, yellow."