

eared Owls were under observation from Dec. 25, 1898, to Feb. 22, 1899, and one Short-eared Owl from Feb. 26 to March 26, 1899. The pellets were gathered regularly once each week, not only from beneath their roosting trees but from beneath the trees that served as their casual feeding perches, the number of Owls frequenting these roosting and perching trees being also noted daily. The results are given in tabular form, showing the number and species of Owls under observation each day, the number of pellets gathered at each collection, the contents of the pellets, and the daily food average, which, consisting almost wholly of small mammals, varied from 1.57 to 2.16 for each Owl daily. A summary of the contents of the food pellets found under the roosting tree of the Long-eared Owls is thus stated: "2 birds, 1 *Blarina*, 2 *Peromyscus leucopus*, 1 *Mus musculus*, 6 *Microtus pinetorum*, 319 *M. pennsylvanicus*, and 18 undetermined individuals of *Microtus*." The contents of the pellets gathered under the other roosting tree, occupied by the Short-eared Owl, and occasionally by one of the Long-eared Owls, is thus summarized: "1 *Cambarus* [crayfish], 5 birds, 2 *Blarina parva*, 1 *Zapus hudsonius*, and 105 *Microtus pennsylvanicus*." Pellets were gathered from under a number of other trees, all within the radius of an eighth of a mile, which served as feeding perches, which are thought to have been all, or nearly all, produced by these same Owls. "These pellets contained the remains of 5 small birds (including *Regulus*, *Junco*, *Certhia*), 3 *Blarina brevicauda*, 3 *B. parva*, 1 *Blarina* undetermined, 2 *Zapus hudsonius*, 3 *Peromyscus leucopus*, 1 *Microtus pinetorum*, 139 *M. pennsylvanicus*, and 4 undetermined individuals of *Microtus*." Thus these five Owls, in the space of about one month, destroyed 12 small birds, 10 shrews, and 600 field mice, of which the greater part were the common meadow vole or 'meadow mouse.' The examination of food pellets gathered at other localities gave similar results, except that the remains of no birds were found.

Mr. Montgomery concludes his very interesting and valuable paper as follows: "In conclusion, it may be noted that these data add further support to the well-proven results of ornithologists, that our local Owls (with the possible exception of the Great Horned Owl) are of the greatest benefit to the agriculturist. Our three commonest local Owls, the Screech, Long-eared, and Short-eared (as well as the rarer Acadian and Barn Owl), are indefatigable destroyers of mice and insects. But since this is the case, and since the group of the Owls is one of great interest to the naturalist, it is to be hoped that future students of their dietary habits will avoid studying their stomachs for this purpose, and in order not to destroy them examine their food pellets instead."—J. A. A.

Lantz's 'Review of Kansas Ornithology.'¹—This very carefully pre-

¹A Review of Kansas Ornithology. By D. E. Lantz, Manhattan, Kan. Read before the Academy Oct. 28, 1897. Trans. Kansas Academy of Science, 1896-1897, pp. 224-276. July, 1899.

pared paper consists of two parts,—I, 'The Bibliography of Kansas Ornithology' (pp. 224-244); II, 'An Historical List of Kansas Birds' (pp. 244-276). The first gives an annotated chronological list of books and papers containing references to the birds of Kansas, and includes also the titles of all papers on ornithology by Kansas authors, whether or not relating to Kansas birds. The list begins with the report of Pike's Expedition, published in 1810, and includes about two hundred titles, annotated to show their bearing upon Kansas ornithology, specifying also in each case the additions made to the list of Kansas birds. At the close a 'Recapitulation' indicates, in chronological order, the date and number of species added by the different authors.

Part II consists of a concisely and judiciously annotated systematic list of the birds of Kansas, numbering 351 species. In addition to a statement as to the character of the presence of each species in Kansas, there are historical notes, giving the date of the first record of the species for the State, and the authority therefor. As regards accuracy and completeness, this is doubtless one of the most carefully prepared State lists that has yet appeared, and has the additional feature of being also historical. It is fairly free from typographical errors, but is worthy of a better typographical setting, the technical names being printed in the same uniform type as the text, not only in the 'List' itself, but in the 'Bibliography,' which latter is also devoid of the special bibliographical marks commonly employed to designate the makeup of title pages, etc. But this, we are informed, is not the fault of the author, whose wish, as manifested in the preparation of the copy, was not only disregarded, but he was not even permitted by the State printer to revise the proof sheets! That so few errors have crept in is a sufficient guarantee that Prof. Lantz must have given the printers exceptionally well prepared copy, and indicates that the care and exhaustive research shown in the bibliographical and historical phases of the paper extended to the clerical details of composition.—J. A. A.

The Goss Collection of Mexican and Central American Birds.—As is well known, it was the habit of the late Col. N. S. Goss, during the later years of his life, to spend the winter season in some part of tropical North America. His first trip was to Guatemala in 1882, and his last, in 1889, to Nicaragua and Costa Rica. While he published very few of his observations, it was, we are told, "his ambition to have his collection contain representatives of every species of North American bird." The present paper,¹ compiled by Prof. Lantz, contains a list of his collections,

¹A List of Birds collected by Col. N. S. Goss in Mexico and Central America. From the Collector's Notes; compiled by D. E. Lantz, Manhattan. Read before the Academy October 27, 1897. Trans. Kansas Academy of Science, 1896-1897, pp. 218-224. July, 1899.