

that the birds from the coast region north of San Francisco Bay are different from either of the above. These he separates as *A. californica oocleptica* (p. 413), type locality Nicasio.

He also differs from Dr. Oberholser's recent conclusion that *A. hypoleuca* is merely a race of *A. californica*, as maintained in the A. O. U. 'Check-List,' and would give it full specific rank. The facts in regard to this group would seem to be now before us and any difference of treatment must be due to personal opinion.—W. S.

**Wetmore on *Palaeochenoides mioceanus* Shufeldt.**<sup>1</sup>—This name was based upon the fossilized distal end of the right femur of a bird which Dr. Shufeldt considered as related to the Anseres. Quoting from Dr. Shufeldt's paper we find "that this femur never belonged to any bird at all related to *Sula*, or to any of the Herons, or to *Pelecanus*, all of which have femora possessed of some characters, which, though not of wide difference, are quite sufficient to constitute discriminating ones, and to point to the fact that this great extinct fowl did not belong in any of those groups, as we know them, osteologically."

Now comes Mr. Wetmore with the results of another careful examination of this same bone fragment and we read that of five characters of the femur "*Palaeochenoides* agrees with the *Steganopodes* in four, while in only one does it approach the Anseres... and it is referred without question to the *Steganopodes*." He further suggests that it was a Pelican-like bird of a somewhat generalized type showing resemblances to the Gannets and remotely to the Cormorants and Darters.

It would seem desirable that those who name fossil birds should not fashion their generic names on those of existing birds as it is embarrassing to find them shifted into other families or orders where the name becomes somewhat of a misnomer!

Mr. Wetmore's argument in the present case seems much the more convincing of the two that have been presented.—W. S.

**Economic Ornithology in recent Entomological Publications.**—Some interesting original observations of the relations of birds to insect pests have recently been published by entomologists. They relate to the following insects:

Potato aphid (*Marcosiphum solanifolii*). This new pest, because of the thoroughness and insidiousness of its attacks, is popularly known as the "Kaiser bug" in Ohio where it destroyed many potato fields. The following birds were observed actively feeding on the aphids: Chipping Sparrow, Quail, and English Sparrow.<sup>2</sup>

<sup>1</sup> The Relationships of the Fossil Bird *Palaeochenoides mioceanus*. By Alexander Wetmore. The Journal of Geology, XXV, No. 6, Sept.—Oct., 1917.

<sup>2</sup> Houser, J. S., Guyton, T. L. and Lowry, P. R., Bull. 317, Ohio Agr. Exp. Sta., Nov. 1917, p. 80.

The sweet-potato leaf-folder (*Pilocrocis tripunctata*). This Pyralid moth larva was found to be very injurious to sweet potatoes near Brownsville, Texas. Mr. M. M. High who studied it there, states that the Boat-tailed Grackle, feeds upon this species among "a number of insects that attack truck crops and particularly on larvæ. . . . Observed it first feeding on the cabbage looper (*Autographa brassicæ* Riley) in 1913, two days after cabbage had been sprayed with an arsenical. Some species of larvæ after being poisoned have a habit of crawling to the top of the leaves of the plant upon which they are feeding before dying, and here they fall easy prey to the grackle. The poison apparently does not seriously affect the birds, since none have been found dead in the vicinity of sprayed crops."<sup>1</sup>

The pecan-leaf case-bearer (*Acrobasis nebulella*). The larva of this Phycitid moth is a serious pest in the southern part of the pecan growing district. "Three species of birds — the Blue Jay, . . . Mockingbird, . . . and the Orchard Oriole. . . — have been observed feeding upon the larvæ of the pecan-leaf case-bearer. These birds, as well perhaps as those of other species, do much to check the ravages of this pest, and their protection in the pecan orchard should be encouraged. The Blue Jay very likely is more beneficial than harmful to the pecan grower. In the writer's opinion the good that this bird does in feeding upon injurious pecan insects more than offsets the injury that it is accused of doing in the fall of the year, when it may take a few nuts from the pecan trees."<sup>2</sup>

The fall webworm (*Hyphantria textor*). The facts concerning the seriousness and ubiquity of this pest need no restatement. Dr. C. Gordon Hewitt informs us that, "The study of the natural control of the fall webworm was extended to Nova Scotia in 1916, and it is interesting to record that of the different factors operating in the reduction of this insect the Red-eyed Vireo, *Vireosylva olivacea* L., appears to be the most important. It was estimated that about 40 per cent of the larvæ had been destroyed in the webs by this bird at the five observation points."<sup>3</sup> Other really effective bird enemies of the fall webworm, on the basis of their record in the United States are the Yellow-billed Cuckoo and Baltimore Oriole.

The emperor moth (*Samia cecropia*). This large moth, while attracting considerable attention on account of its size can hardly be classed as a pest. Dr. Hewitt's comment on its bird enemies, nevertheless, is of interest. "Studies in the natural control," of this moth, he says, "have been made, and . . . it was found that most of the cocoons were destroyed by woodpeckers" (op. cit., p. 9).

West Indian mole cricket (*Scapteriscus vicinus*). In a recent important bulletin<sup>4</sup> on this "most serious pest of general agriculture in Porto Rico,"

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<sup>1</sup> In Bull. 609, U. S. Dept. Agr., by Thos. H. Jones, Nov. 22, 1917, p. 9.

<sup>2</sup> Gill, J. B., Bull. 571, U. S. Dept. Agr., Dec. 15, 1917, pp. 14-15.

<sup>3</sup> Rep. Dominion Entomologist, 1917, p. 8.

<sup>4</sup> Van Zwaluwenburg, R. H., Bull. 23, Porto Rico Agr. Exp. Sta., Feb. 12, 1918, pp. 18-19.

full consideration is given to bird enemies. Wetmore's account<sup>1</sup> of the subject is quoted almost in full and the statement made that "The most efficient enemies of the change are to be found among the native birds."—W. L. M.

**Protection of Military Carrier-Pigeons.**—An interesting article<sup>2</sup> by Professor Henri Blanc, informs us that the Military and Interior Departments of the Swiss government in 1915 demanded that a warfare be carried on throughout Switzerland against birds of prey capable of destroying Carrier Pigeons in flight with messages. In following this order some of the cantons offered bounties of as much as four francs per bird. From Sept. 11 to Dec. 13, 1915, Professor Blanc states, 86 hawks were presented for identification at the museum of which he is curator. Among these were 11 *Cerchneis tinnunculus* and 17 *Buteo vulgaris* which are deemed especially useful species. Examination of the stomachs of some of these birds revealed only small rodents in those of the former species and large grasshoppers and small rodents in those of the latter.

Examination of the stomachs of *Accipiter nisus*, *Astur palumbarius* and *Falco peregrinus* yielded only remains of small birds, and in one case of a chicken. "On the basis of these autopsies," the author says, "one must conclude that the rapacious birds killed in the canton of Vaud in 1915 have not done the assumed damage to the carrier pigeons of the army." The total number of birds of prey killed in Switzerland in 1915 was 806, of which 506 were *Accipiter nisus*, 159 *Astur palumbarius* and 35 *Falco peregrinus*. This is a very high percentage (more than 80) of destructive bird hawks, and shows greater success in restricting slaughter to these species than has been attained in similar campaigns in the United States.

A recent issue of the Official Bulletin<sup>3</sup> informs us that the United States army also is losing some of the carrier pigeons in training, but from another cause. The Bulletin says "Any pigeon in the air may be a carrier pigeon flying from a loft under government supervision. Its destruction may be a serious loss to the American Army. All persons therefore, are urged to refrain from the shooting of pigeons and to discourage the practice." The birds bear bands with the legend "U. S. A.—18" and persons coming into possession of any birds so marked are requested to report the fact to the Chief Signal Officer, Land Division, Washington, D. C.—W. L. M.

**Birds Probably not Distributors of Hog Cholera.**—The following is quoted from the Annual Report of the Chief of the Bureau of Animal Industry, U. S. Department of Agriculture for 1917 (p. 48). "The belief that birds play an important part in the spread of hog cholera led to some

<sup>1</sup> Bull. 326, U. S. Dept. Agr., 1916, pp. 9, 10, 21, 31, 32.

<sup>2</sup> Destruction des Oiseaux rapaces diurnes dans le canton de Vaud et en Suisse pendant l'année 1915. Bull. Soc. Vaud. Sci. Nat., 51, 1917, pp. 315-319.

<sup>3</sup> Washington, D. C. Feb. 5, 1918, p. 8.