

full consideration is given to bird enemies. Wetmore's account¹ 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 article² 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 Bulletin³ 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

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

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

³ Washington, D. C. Feb. 5, 1918, p. 8.

experiments with pigeons. Suitable pens were prepared facing each other, and the space between was inclosed by wire netting. The front of each pen was left open, so that pigeons which were placed in the inclosed space between the pens could have easy access to the pens on either side. In one pen pigs sick of cholera were kept and in the other there were healthy, nonimmune pigs. When the sick pigs died they were replaced with others, so that the disease was kept constantly present in one of the pens, and this pen was not cleaned during the course of the experiment. The healthy pigs were changed from time to time. The pigeons constantly flew from the infected pen to the opposite pen containing the well pigs, which was only 10 feet distant. In the different experiments healthy pigs were exposed to infection through the medium of the pigeons for from 30 to 40 days. In no case was the disease transmitted by the pigeons, although it is evident that every opportunity was afforded for this to occur. The exposed pigs were proved susceptible by subsequent exposure to cholera. While these experiments can not be said to prove that it is impossible for pigeons to carry hog cholera, it seems fair to conclude that the disease is probably not often carried from one farm to another in that way."

These experiments under conditions much more favorable to the transmission of the disease than ever occur in actual hog raising practice, would seem to indicate that birds, not carrion-feeders, probably never distribute the causative agent of hog cholera on their feet or other parts of their bodies. The relations of the carrion feeders to the disease have previously been discussed in 'The Auk,'¹ and evidence adduced that they have little importance in spreading stock diseases. Nevertheless a violent campaign has been waged against buzzards and crows especially in farm journals, in southern states, and protection has been denied buzzards by legislative enactment in Alabama, Louisiana, South Carolina, Tennessee, and Texas. All this on a suspicion which was controverted by facts available at the beginning of the campaign, and which the evidence since accumulated still further discredits.—W. L. M.

The Ornithological Journals.]

Bird-Lore. XX, No. 1. January-February, 1918.

Photographs of Falkland Island Bird-Life. By Rollo H. Beck.— These are some of the pictures which appeared recently in the 'American Museum Journal' but they do not compare with the latter in quality of printing.

'Pauperizing' the Birds. By Henry Oldys.— A clever article discussing the possibility of diverting birds from insect diet by the introduction of feeding stations. The evidence is against such a theory, so that we may go on providing food with a clear conscience.

¹ 30, No. 2, April 1913, pp. 295-8.