

they include among their food the eggs and young of game birds; they have, moreover, also been known to take the eggs and young of poultry, and have been attacked for this reason. The amount of damage they thus entail has, in the writer's opinion, been exaggerated, and the benefits they confer have been almost ignored. If there were no preservation of game in this country we should hear fewer complaints against these birds; it is therefore essential that we should know, as precisely as possible, the actual damage they do, and carefully weigh against this the benefits they confer in the interests of agriculture."

It is axiomatic that most damage to agriculture by birds must occur in connection with the taking of vegetable food. The four species of *Corvidae* treated by Dr. Collinge are so highly carnivorous (Carrion Crow 79%, Hooded Crow 95.5%, Magpie 74.5%, and Jay 71.5%) that one should not expect them to do much direct harm to agriculture. So the author finds and his conclusions as to these four birds as well as to the two previously published upon are summarized in the following table:

| Species | Food Percentages | | |
|-----------------------|------------------|-----------|---------|
| | Beneficial | Injurious | Neutral |
| (1) Carrion Crow..... | 23.0 | 21.0 | 56.0 |
| (2) Hooded Crow | 30.5 | 19.0 | 50.5 |
| (3) Jackdaw..... | 48.5 | 23.0 | 28.5 |
| (4) Rook..... | 28.5 | 52.0 | 19.5 |
| (5) Magpie..... | 43.0 | 16.5 | 40.5 |
| (6) Jay | 42.0 | 16.5 | 41.5 |
| Total | 215.5 | 148.0 | 236.5 |
| Averages | 35.9 | 24.7 | 39.4 |

"In conclusion," Dr. Collinge says, "there are two very important points in connection with the economic status of the members of the family *Corvidae* which we should like to emphasize. First, so long as these birds are not too numerous we believe that the benefits they confer far outweigh any injuries they inflict, but if, as in the case of the Rook, they rise above the 'highwater mark of abundance,' the injuries are greater than the benefits. Secondly, the persecution of the four species here treated of is, in the writer's opinion, largely, if not entirely, due to misunderstanding. By countenancing such destruction the agriculturist is robbing himself of a valuable economic factor, since the four species are all distinctly beneficial to agriculture."

There are valuable hints here for American agriculturists as our Crow tribe are "birds of a feather" with those of the British Isles, and similarity in their economic status is to be expected.—W. L. M.

Bird Protection in Japan.—Although no review of this 1927 paper¹ has hitherto appeared in 'The Auk,' it is so full of interest that it should

¹ Uchida, S., The Present Condition of the Protection of Birds and Mammals in Japan, 23 pp., 10 Pls., Dept. of Animal Industry, Ministry of Agriculture and Forestry, Tokyo, 1927.

be called to the attention of ornithologists. This interest may be due in part to the setting in a land on the opposite side of the globe, but in part as certainly also it is due to a freshness in point of view and a doing of things without precedent such as America has been noted for, a leadership it may perhaps be losing to "the Yankees of the East."

The report here reviewed states that "The development of civilization and the gradual increase of hunters in Japan has been a principal cause of the decrease of wild animals and birds in general." This situation being thus frankly recognized the Japanese Government decided to carry out a thorough-going move for protection which was done by revising the game laws. There is a universal close season from April 16 to October 14 and even during the open season only birds and mammals on a game list can be hunted. According to our point of view, the list is very comprehensive including in Japan proper about 170 species of birds contrasted to about 250 species which are on the totally protected list. A tabulation is given of the bag for a single season in which we note such unfamiliar items as Ospreys 9,260, Night Herons 43,725, Bramblings 728,411, Rustic Buntings 1,050,992, Dusky Ouzels 1,338,218, Japanese Tree Sparrows 2,240,121, and Japanese Yellow Buntings 10,524,542.

So much for that side of the picture—other countries, other ways. The other side, protection, has for its object preservation of birds useful to agriculture, forestry, and the aquatic products industries, and in addition those which are scarce or in danger of extermination. Protection is secured by a close season, total on 260 species, partial on 170 as noted above, by sanctuaries, by designating areas where hunting of certain species is prohibited, and by establishing certain sites and apparently some birds as natural monuments.

The sanctuaries at the time of the report reviewed numbered 64 national, and 380 prefectural. A typical example is one at the foot of Mt. Fuji. It covers 30,000 hectares, and is known to be visited by 174 species of birds of which 114 breed. There are sanctuaries on migration routes, sanctuaries for sea-birds, a special sanctuary for the sacred Crane and the Japanese Stork, established with the praiseworthy motive as the report notes of "preventing some birds from getting extinct." Certain places where Guano of sea-fowl is gathered also in effect are sanctuaries.

Under the Law for preserving Scenery, Historic and Natural Monuments, up to the date of publication the following Monuments benefiting birds had been established: Two breeding places of Siebold's Shearwaters, all breeding places of the Japanese Stork, Tsushima Island the home of Tristram's Woodpecker, two breeding places of the Black-tailed Gull, Kominato the only place where large flocks of Whooper Swans occur, two wintering grounds of Japanese Cranes, colonies of transplanted Chinese Magpies, islands inhabited by Lidth's Jay, and mountains supporting the Japanese Ptarmigan.

The reasons given for establishing some of these natural monuments are such as to reflect great credit upon any nation as they show not merely

conservation sentiment but deeds, in other words full courage of convictions. For instance of Tristram's Woodpecker it is said that the bird is a very beautiful large Woodpecker, it is very scarce in Japan and even on the point of becoming extinct. Also that "This bird is a valuable species, from scientific viewpoint, as illustrating how Tsushima Island was connected with the Continent during the geological age."

How many cases are there of such practical recognition of what scientists believe to be truths but which even at this late date are regarded in some quarters as heresies?

Again "Of the islands making a line southward from the southern corner of the Island of Kiushiu, Oshima and Tokunoshima are very important, because they are characteristic in distribution of animals. They are situated facing the Shichito Nada line, the line of demarcation dividing the two great regions of animal distribution, the Oriental Region and Palaeartic Region. Lidth's Jay (*Lalocitta lidthi*) and Amami Hare (*Pentalagus furnessi*) are very significant species, from zoological point of view, only peculiar to these two islands. Great care must be taken for their preservation, as their distribution is so narrowly limited. In view of this fact the Japanese Government has recently decided to regard these two species as protected animals and specify them as natural monuments."

Finally it may be noted that one domesticated bird the Long-tailed Fowl has itself been specified as a natural monument. "Thanks to this step taken by the Government, they have lately begun to increase. There are four races of the long-tailed fowl, the one shown in the plate being Shinowarato, the commonest race of the fowl. This race is of a nature of having its tail grown longer than the other three races, it reaching from three to five meters."

The protection of insectivorous birds in Japan and administration of the game law are in the jurisdiction of the Ministry of Agriculture and Forestry while the preservation of the Natural Monuments is handled by the Ministry of Home Affairs. In the former ministry, there is an Experiment Station for Ornithology and Mammalogy which makes investigations of the relations between these animals and agricultural and forestry undertakings and also studies migration, ecology, propagation of game birds, and attraction and protection of beneficial birds. This station put out more than 18,000 nest boxes in a single year.—W. L. M.

Swann's 'Monograph of the Birds of Prey.'—The ninth part¹ of this notable work which is being edited by Dr. Alexander Wetmore from the late author's manuscript has appeared and consists of the title, contents, index and errata to Volume I which is now completed and two colored plates of the Harpy and Monkey-eating Eagles, *Harpia harpyja* and *Pithecophaga jefferyi*.—W. S.

¹A Monograph of the Birds of Prey. Part IX, June, 1930. Pp. 1-ixviii and two plates.