

a group as the weavers fills a large variety of similar niches or habitats, beautifully illustrating what Osborn has called "adaptive radiation." These and an infinity of other tempting subjects invite the outdoor naturalist, while from a medical point of view there are many important problems relating to parasitic diseases due to minute organisms with complex life-histories concerning which we need more knowledge.

For one keenly interested in natural history, I can think of no more glorious experience than to awaken with the tropic dawn of an African morning, to sense the fresh earthy tang in the very air, to sniff the faint fragrance of mimosa blossoms, to hear the sprightly voices of unfamiliar birds, and to see spread before him a vision of unspoiled hills and plains dotted here and there with antelope, buffalo, or giraffe. Here lies a strategic point for the establishment of a new research station. Here stands Opportunity knocking at the door!

BIRD-BANDING IN JAPAN

BY FREDERICK C. LINCOLN

ON May 26, 1924, Prince Taka Tsukasa, a member of the Japanese House of Peers, was a visitor at the offices of the Biological Survey in Washington. The Prince was well informed on ornithological matters and expressed much interest in the bird-banding work carried on in the United States and Canada. Full information was given to him, including official bulletins and circulars, and a series of separates of bird-banding papers from the ornithological journals. Upon his return to Japan, the subject was apparently brought to the attention of the Ornithological Society, and as a result this method of investigation was taken up by the Japanese Government and a series of six bands adopted. Three of these are patterned after the flat adjustable band (designated as size "X") that has been used in North America; one is similar to the American size "6," while the remaining two are simple split rings. Besides the customary aluminum, copper is used for sea-birds to insure a longer life to the band. The bands carry, in addition to the serial number, three ideographs identifying their point of origin as the Ministry of Agriculture and Forestry, at Tokyo.

The work is carried on under the direction of Dr. Seinosuke Uchida, Ornithologist to the Department of Animal Industry,

Ministry of Agriculture and Forestry, whom it was a real pleasure to welcome to the Survey offices on May 11, 1927. At the time of this visit Dr. Uchida informed the author that in the preceding two years more than thirteen thousand birds had been banded, return records of which amounted to about three and one-half per cent. All recoveries at that time were from points in Japan.

On May 2, 1928, the Baird Ornithological Club entertained at dinner, Dr. Nagamichi Kuroda, a leading ornithologist of Japan and Honorary Fellow of the American Ornithologists' Union. In the course of the evening the author had an opportunity to obtain much interesting information concerning the work carried on in Japan. In that country bird-catching is a regular occupation licensed by the Government, about ten thousand persons holding these licenses. The potential possibilities for intensive banding work will thus be obvious. By taking advantage of this opportunity, a fairly large number of birds already have been banded, and it appears to be the intention to extend these activities materially. In addition to this work, birds also are banded by the game wardens of the various local governments.

A recent paper (1928) by Dr. Uchida, entitled "Bird Banding in Japan," furnishes additional details of the progress of the work since its inception in 1924. From this, it appears that at the time of writing, 33,267 birds had been banded. The number of returns thus far obtained (not including those for 1927, which had not been tabulated) was 611, or 2.9 per cent of the total banded at the beginning of that year.

The banded birds represent 43 species, and it is interesting to note the numerical distribution thereon and the results obtained. The list is headed by 17 species of finches totaling 11,944, which had yielded 142 return records. Next in order is the Dusky Ouzel with 3,215 banded and 62 returns. In 1926, 200 Black-tailed Gulls were marked on reservations in northern Japan, but up to the end of the year no returns had been reported. Work with ducks, of which ten species had been banded, netted a total of 2,128 individuals, yielding 294 returns, this high percentage (more than 13 per cent) being comparable with figures obtained in similar activities in this country.

The returns of special interest are two from the Philippine Islands—a Chimney Swallow, banded on July 1, 1927, and recaptured on the Island of Luzon on October 26, 1927; and a Gray Heron, banded on August 7, 1927, retaken about six miles north of Manila, on January 14, 1928.

There are two problems that add to the difficulty of obtaining concrete results from banding operations in Japan. The first of these has to do with the ideographs used on the bands, which are not well understood in foreign countries. Steps have been taken to overcome this by bringing the work to the attention of governmental authorities in those countries through which Japanese birds are presumed to migrate. The second problem concerns the geographic position of the island empire, which is not located upon a general migration highway, birds from northern China and Siberia usually traveling south through the mainland, or at best by way of the coast. A comparable situation may be expressed by assuming that in the United States banding work was being done only on Cape Cod, and that the next point of contact for the birds was the Bahama Islands. The number of returns to be expected under such conditions obviously would be small.

It is hoped, however, that with the excellent background already established by our co-workers in Japan, their operations will persist, as operators of American bird-banding stations can attest to the interesting character of the results that are derived from continued and intensive effort.

Biological Survey, Washington, D. C., June 14, 1928.

HISTORY OF A FEMALE HOODED WARBLER

BY T. DONALD CARTER

On July 4, 1923, during a visit to the Wyanokie Plateau region of Passaic County, New Jersey, my attention was attracted to a female Hooded Warbler (*Wilsonia citrina*) feeding a young fledgling perhaps two days from the nest. Fortunately I had a small folding trap with me, and, after securing the young and banding him No. 36073, I placed him in the trap as bait and in a few minutes the mother was caught. She was banded with No. 36074 and liberated. As is my custom, the young bird was banded on the right leg, whereas the band was placed upon the left leg of the adult.

On May 30, 1924, a banded female Hooded Warbler was observed at exactly the same spot where No. 36074 was banded the previous year. It was not until June 21st, that with the help of R. H. Howland, she was caught and her