NOTES ON SOME SUMMER BIRDS OF CHEFOO, CHINA.

BY TSEN-HWANG SHAW.

Chefoo is located on the northern coast of the Shangtung Peninsula, 37° 32" north latitude and 121° 23" east longitude. During the past few years, Chefoo has been the favorite place for zoological collectors, being regarded as the Woods Hole of China. The marine fauna is not only rich in species, but also abundant in individuals. The birds, so far as I know, have not been fully listed.

In July, 1929, the present writer, accompanied by Messrs. C. J. Shen and S. K. Tang, visited Chefoo to collect zoological specimens for the Fan Memorial Institute of Biology, Peiping, and as a matter of personal interest, I took the opportunity to observe and collect the summer birds of the locality. The period of my stay was short, the specimens thus collected were only forty-seven in number. The skins, which were prepared by S. K. Tang, are now in the Zoological Museum of the Fan Memorial Institute of Biology. In addition to my notes on these birds, I have included comments on some interesting specimens obtained by Mr. K. F. Wang of the Biological Laboratory, Science Society, Nanking, during June and July, 1929.

The following list contains the birds I have personally examined or have seen at the field.

Phalacrocorax carbo sinensis (Shaw & Nodder). Chinese Cormorant.—A colony of about fifty birds is established at the northwestern end of Chefoo Shan. A typical habitat of this Cormorant is on a bluff where they pass the night and where the white excretions of the birds is scattered conspicuously here and there. The sea water under this cliff is very calm. We have seven birds taken on July 26, 1929, at that place. Their body weight varies from 2000 to 2300 grams. The flight of this bird is low and laborious. The Cormorant goes under the water for its prey, and may remain there for about a minute or so. Long, long ago, the birds were domesticated by Chinese, and utilized for catching fishes. Fishing by Cormorant is also seen in north China, but it is not so popular as that of central and south China. Several times I saw one or two birds perched on a rock and watching for fishes.

Phalacrocorax pelagicus pelagicus Pallas. Pelagic Cormorant.— The Pelagic Cormorant is not so common as the Chinese Cormorant. On July 26, I noticed a few birds at the west side of Chefoo Shan, two or three together. Again, on July 31, while we were leaving for Yang-ma Tao by boat, I saw a single bird flying over the sea. Several specimens are in Wang's collection, taken near Chefoo Shan, July 24.

Ardea cinerea jouyi Clark. EASTERN GRAY HERON.—On July 9, Mr. Wang saw two Gray Herons standing on a rock near Yang-ma Tao, at low tide. The one he shot was an adult female. On August 1, I noticed one on the sea shore at Moping, the mainland south of Yang-ma Tao. Mr. Wang told me that he has twelve specimens from the northwestern side of Chefoo Shan, collected July 28.

The bird is also found in marshy fields and on the banks of streams.

Erythropus vespertinus amurensis (Radde). Eastern Red-Legged Falcon.—The Eastern Red-legged Falcon is a common summer bird in the district. Four birds in Wang's collection, were collected June 29, July 1, and July 28. We have two birds collected on July 28, and one on July 30. They show a sexual difference in coloration. The male differs from the female by its unspotted breast, reddish bill, and a few minor characters. The body weight varies from 135 to 150 grams. They feed on lizards, and on locusts, beetles and other kinds of insects.

? Butastur indicus (Gmelin). Gray-faced Buzzard-Eagle.—On the morning of July 30, I saw a large Hawk, which was believed to be of this species, flying over the sea shore.

Alectoris graeca pubescens (Swinhoe). EASTERN RED-LEGGED PARTRIDGE.—The vernacular name for this bird is 'Shih-chi' which means 'Stone Chicken.' On July 25, Mr. Wang noticed a flock of Red-legged Partridges at Chefoo Shan, their coloration is largely protective in the sandy hills. The bird Wang collected that day was a male. A countryman told me that the Partridges are now (end of July) relatively scarce as compared with last month. Mr. Wang purchased three males in the market on June 4. But there are no birds on the market for sale in latter part of July.

Cirrepidesmus mongolius mongolius (Pallas). Mongolian Plover.—A female was shot in the morning of August 1, at the northern shore of Moping. The body weight of this bird is 85 grams. Several others were noticed on the sandy beach where they feed on small crustaceans. It was also observed on the sea shore at Chefoo.

Anteliotringa tenuirostris (Horsfield). Eastern Knot.—Only few noticed on the sea shore at Moping, south of Yang-ma Tao, on August 1. A female was taken, weighing 170 grams.

Tringa incana brevipes (Vieillot). Gray Sandpiper.—The Gray Sandpiper was not uncommon on the northern shore of Moping. On August 1, we shot five females within an hour. Their body weight varies from 93 to 100 grams. They feed on crabs and various other small crustaceans.

Numerius cyanopus (Vieillot). Eastern Curlew.—On August 1, I saw several birds on the sea shore of Moping.

Sterna hirundo hirundo Linnaeus.—Common Tern.—The common Tern is one of the most familiar sea birds of Chefoo. One specimen in Wang's collection, taken July 14. On August 1, we collected nine birds from the northern shore of Moping. Their body weight varies from 49 to 53 grams. Their stomachs contained fish and crustaceans.

Larus crassirostris (Vieillot). Black-tailed Gull.—This species is common along the sea shore and is often seen following the steamers. Mr. Wang shot one female on June 24.

Cuculus canorus telephonus (Heine). Common Cuckoo.—In the morning of July 27, I heard the calling of the Common Cuckoo.

? Asio otus otus (Linnaeus). Long-eared Owl.—Mr. Wang collected a young female on July 11. Owing to the bad condition of the skin, the specimen was not saved.

Micropus apus pekinensis (Swinhoe). NORTH-CHINA SWIFT.—This Swift is somewhat smaller than the White-rumped Swift. A single specimen in Wang's collection.

Micropus pacificus pacificus (Latham). LARGE WHITE-RUMPED SWIFT.—The large White-rumped Swift is a common bird along the sea shore of Chefoo. It is known that this bird breeds here in June. The nest is made of glutinous matter produced by the bird, and mixed with few feathers. The so-called "bird's nest" is highly valued on the table. Each nest contains two or three eggs. They fly in flocks, more or less Swallow-like. Six specimens collected on July 26, at Kung-tung Tao, an island about seven miles east of Chefoo Town. Their body weight varies from 38 to 45 grams. Wang has one bird taken June 20.

Dryobates cabanisi cabanisi (Malherbe). Chinese Pied Wood-Pecker.—A male in Wang's collection was taken on the southwestern hills.

Melanocorypha mongolica (Pallas). Mongolian Sandlark.—The Mongolian Sandlark is a common cage-bird in North China. People love to keep this bird in captivity. They hang their cages under the shade of trees and enjoy the singing of the birds.

Galerida cristata leautungensis Swinhoe. North China Crested Lark.—Several times, the Crested Lark was observed in the southwestern hills. Although it is a song bird, people care much more for the song of the Mongolian Sandlark. It was also noticed at Yang-ma Tao, on July 31.

Hirundo rustica gutturalis Scopoli. Eastern House Swallow.— The House Swallow seems to be rather rare in Chefoo. I saw few birds in the town and vicinity.

Hirundo daurica nepalensis Hodgson. Hodgson's Striated Swallow.—This Swallow feeds on beetles, grasshoppers, flies, mosquitoes and other insects. We have a bird taken in the southwestern hills, on July 28, and five more from Yang-ma Tao on July 31. Four of them weighed 17 grams each, one 20 grams, and the other 21 grams. It breeds in Chefoo. One mud-nest was observed in the Taoist Temple at Yang-ma Tao. It was fixed under the ceiling, and about fifteen feet above the

ground. The circular entrance facing towards the outside of the building. Next to the Tree Sparrow, the Striated Swallow is the most familiar bird in Chefoo.

Parus major artatus Thayer & Bangs. North China Tir.—The North China Tit is common in the wooded hills, where it feeds on leaf-hoppers and other small insects. One female was taken at Southwestern Hills on July 28. The weight of this bird was 15 grams.

Oriolus chinensis indicus Jerdon. Black-naped Oriole.—Wang's collection contains one specimen. It was collected on July 3, on the southwestern hills.

Pica pica sericea Gould. Chinese Magpie.—I frequently heard this Magpie calling in the hills. It inhabits in the wooded region, and seems to be not very common.

Spodiopsar cineraceus, (Temminck). Gray Starling.—On July 28, Wang's party saw three Gray Starlings in the southwestern hills. He shot a female which weighed 65 grams. On August 1, a female was shot at the west side of Yang-ma Tao, its body weight being 74 grams.

Emberiza cioides castaneiceps Moore. Chinese Meadow-Bunting—The Meadow-Bunting is not uncommon on the pine-covered hills. We have two birds in our collection, one taken July 25 which weighed 21 grams, the other on July 28 weighing 20 grams. The birds feed largely on insects and seeds of grasses.

Passer montanus saturatus Stejneger. Chinese Tree Sparrow.— The Tree Sparrows are very abundant in Chefoo. Seven specimens were collected by us. They feed on both animal and vegetable matter, and do great damage to the millet which is cultivated in the foothills.