Some Old Shore Bird Records for the Chicago Area.—Many of the larger waders that the older writers list as once common in the Great Lakes region seem to have entirely disappeared, leaving few dates of actual captures behind them. The N. W. Harris Public School Extension of Field Museum recently obtained a small collection of beautifully prepared skins of waders taken by Mr. Charles Brandler in the once famous Calumet region, within the city limits of Chicago.

Following are a few of the more interesting of these records:

Numenius americanus americanus. LONG-BILLED CURLEW.—Three specimens, two males and one female, taken at Calumet Lake September 22, 1889.

Recurvirostra americana. AVOSET.—Two males taken at 89 St. and Stoney Island Ave. on May 5, 1889.

Limosa haemastica. HUDSONIAN GODWIT.—A male and female taken at Wolf Lake (Illinois side) on October 4, 1889. The female is in full summer plumage, the male about two-thirds changed. Another, a male, was taken at 89 St. and Stoney Island Ave. September 27, 1889.

Limosa fedoa. MARBLED GODWIT.—A fine male taken at Calumet Lake May 15, 1889. This is the only record I know of for the Chicago Area.—H. L. STODDARD, *The N. W. Harris Public School Extension of Field Museum, Chicago, Ill.*

Estimated Numbers of Shore Birds.—In studying the migration of shore-birds on Long Island, the writer has drawn up, for his own future reference, an estimate of the average number of each species which occurred there during the last half of a year for the ten-year period, 1911 to 1920. It will, perhaps, be interesting to others to place this estimate on record, and it is submitted herewith.

Sufficient data are not available to make these figures authoritative. They are based, however, on a fair knowledge of the topography of the whole island, and of the local habits (migration and otherwise) of the different species, and on rather continuous field observation during this period. Such species only as have been personally met with are included. Breeding birds and young successfully reared are included in the estimate, birds which may pass too high for observation, at night, or off-shore (doubtless many Northern Phalaropes), are not. The species are arranged below in order of their estimated abundance.

The figures for no two species have been arrived at in precisely the same manner. One of the methods followed was to multiply the observed average hourly number of individuals passing a point on the main line of flight by the supposed number of hours of active migration for that species and the product by the probable relationship of migration for the whole island to that along the main line of flight. Another method was from count on a favorable feeding ground (through the season) to estimate the entire number of individuals which had occurred on that ground and multiply by the probable relationship of the entire migration

to the part of it tributary to that particular ground. Estimates so obtained were arbitrarily revised to meet probable error due to some known habit of occurrence of a species. But, where actual figures of this sort were available, they were at least held to as a basis. Species, where satisfactory figures were not available, were estimated in relation to the figures for other comparable species.

Semipalmated Sandpiper (*Ereunetes pusillus*) 40,000.
Least Sandpiper (*Pisobia minutilla*) 12,000.
Ring-necked Plover (*Charadrius semipalmatus*) 6,500.
Lesser Yellowlegs (*Totanus flavipes*) 5,000.
Sanderling (*Crocethia alba*) 5,000.
Spotted Sandpiper (*Actitis macularia*) 3,200.
Pectoral Sandpiper (*Pisobia maculata*) 2,200.
Greater Yellowlegs (*Totanus melanoleucus*) 2,000.
Black-breasted Plover (*Squatarola squatarola*) 1,500.
White-rumped Sandpiper (*Pisobia fuscicollis*) 1,500.
Turnstone (*Arenaria interpres morinella*) 1,200.
Woodcock (*Philohela minor*) 1,000.
Wilson's Snipe (*Gallinago delicata*) 1,000.
Dowitcher (*Limnodromus griseus griseus*) 1,000.
Hudsonian Curlew (*Numenius hudsonicus*) 1,000.
Red-backed Sandpiper (*Pelidna alpina sakhalina*) 1,000.
Western Sandpiper (*Ereunetes mauri*) 1,000.
Killdeer Plover (*Oxyechus vociferus*) 400.
Solitary Sandpiper (*Tringa solitaria solitaria*) 350.
Piping Plover (*Aegialitis meloda*) 300.
Stilt Sandpiper (*Micropalama himantopus*) excepting 1912, 200 (1912, 3,000).
Northern Phalarope (*Lobipes lobatus*) 150.
Western Willet (*Catoptrophorus semipalmatus inornatus*) 100.
Knot (*Canutus canutus*) 100.
Golden Plover (*Pluvialis dominica dominica*) 100.
Long-billed Dowitcher (*Limnodromus griseus scolapaceus*) 50.
Hudsonian Godwit (*Limosa haemastica*) 10.
Wilson's Phalarope (*Steganopus tricolor*) 5.
Marbled Godwit (*Limosa fedoa*) 1.

A few words in explanation. Discussion with other members of the Linnæan Society of New York, indicates that above figures for the three most abundant species, Semipalmated and Least Sandpipers and Ring-neck Plover, might be considered too low, even allowing for the fact that all figures are intentionally conservative. This is perhaps due to the large proportion of each species that passes through along a narrow "gutter" of migration, the beach side of the south shore bays, between limited dates as compared with the total period when the species is present. When this flight wave bunches up on a favorable feeding ground, in its path it

gives an observer a fictitious impression of a bird's actual abundance. On the other hand, the suggestion that the estimate for the Killdeer is too high is probably due to this species being scattered over the island rather evenly, at no time concentrated at those points where one looks for shore-birds. Figures for the Western Sandpiper are admittedly unsatisfactory due to the difficulty in always distinguishing it from the abundant Semipalmated Sandpiper.

As to changes during the ten-year period, unusually large numbers of the Greater Yellow-legs in 1919, unusually small numbers of that species and the Black-breasted Plover, and large numbers of the Hudsonian Curlew in 1920, are probably fortuitous as was one of the well-known periodic flights of the Stilt Sandpiper in 1912. The changes of perhaps greater significance which the writer believes to have occurred over the ten-year period are as follows: a marked decrease of the Semipalmated Sandpiper; a decided increase of the Pectoral Sandpiper and Wilson's Snipe; an appreciable increase of the Dowitcher, Stilt Sandpiper, and Golden Plover; a gradual increase and decrease again of the Western Willet and greater frequency of the Marbled Godwit in the closing years.

The question which naturally follows upon the above remarks is what relation the present numbers of shore-birds bear to those of the past. So far as data with which the writer is familiar are concerned numbers in the past are for the most part a matter of pure hypothesis; in fact the present estimate has been drawn up with the idea of having something a little more definite to go by in the future. To judge from hearsay and some shooting data about thirty years before the decade under discussion the two Yellow-legs, Black-breasted Plover and Hudsonian Curlew, are present in approximately the same numbers now as then, the Pectoral Sandpiper and Dowitcher have fallen off. Of course, we know that the Golden Plover has fallen off greatly from its one-time abundance, but the break probably occurred more than thirty years ago. The south-shore gutter along which the majority of migrants flow is still full of them, giving an impression of greater abundance than really exists, whereas formerly they very probably overflowed from it into considerable territory which is now unoccupied. The apparent recent increase in the Pectoral Sandpiper and Dowitcher, species which had been notably reduced even along their main migration route, and of the Golden Plover, is a hopeful sign as regards efficiency of recent legislation. One could not expect signs of increase even if such an increase exists in species where there has been little apparent falling off for many years.—J. T. Nichols, *American Museum Nat. Hist., New York City.*

Prairie Chicken (Tympanuchus americanus) in Arkansas.—On November 15, 1919, an adult female was shot by a farmer about eight miles west of this city. No others were observed. Undoubtedly it was a straggler. The species is extremely rare in the State. Have not had reports of its occurrence in the past eight years.—Albert Lano, *Fayetteville, Ark.*