

44 Mrs. Deane	66 R. C. Murphy	88 John H. Sage
45 Mrs. T. S. Palmer	67 H. H. Covell	89 Wm. B. Barrows
46 Mrs. H. J. Taylor	68 J. T. Nichols	90 F. W. Rapp
47 Mrs. Irene Wheelock	69 C. E. Hellmayr	91
48 Miss C. A. Mitchell	70 Otto Widmann	92 Casey Wood
49 Mrs. Levey	71 Herbert L. Stoddard	93 Arthur C. Bent
50 T. S. Roberts		94 Miss McGregor
51 E. H. Forbush	72 H. C. Oberholser	95 Hoyes Lloyd
52 Mrs. Harrington	73 P. A. Taverner	96
53 Miss Althea Sherman	74 Jonathan Dwight	97 R. N. Davis
	75 D. R. Dickey	98 Ruthven Deane
54 W. E. Clyde Todd	76 Rev. Geo. Bennett	99 W. E. Praeger
55 Thos. L. Hankinson	77 H. K. Coale	100 C. W. Richmond
56 Amos W. Butler	78 A. H. Cordier	101 S. N. Rhoads
57 A. H. Wright	79 H. H. Ninninger	102 R. M. Strong
58 Ludlow Griscom	80 W. E. Saunders	103 H. B. Ward
59 Frank M. Chapman	81 Albert F. Ganier	104 Prof. MacBride
60 Francis Herrick	82 Wilfred H. Osgood	105 Witmer Stone
61 Leon J. Cole	83 S. Prentiss Baldwin	106 W. L. McAtee
62 Arthur A. Allen	84 Fred C. Lincoln	107 T. S. Palmer
63 Mrs. H. C. Miller	85 Wm. I. Lyon	108 H. J. Perry
64 Wm. Kilgore	86 Dr. W. C. Herman	
65 G. Finlay Simmons	87 W. H. Shedd	

A. F. G.

CONDITIONS OF THE BREEDING GAME BIRDS IN NORTH DAKOTA, EXPEDITION OF THE CHICAGO ACADEMY OF SCIENCES

BY FRANK M. WOODRUFF

In completing the Chicago Environs Groups in the Chicago Academy of Sciences, it was found necessary to take a trip to North Dakota to obtain the young of the various Ducks and Waders which were once found in great numbers nesting in our Calumet Region.

In the early forties Canada Geese, Canvas-back and Red-head Ducks nested with us and as late as 1880 Mallard and Teal could be found nesting in Cook County.

On the invitation of Mr. H. E. Peck the writer left for Kenmare, N. D., on the upper DuLac Lake arriving July 12, 1915, finding Mr. Peck an enthusiastic bird student, always ready to help the scientist. I have never met a more generous or a bigger hearted man than Dad Peck as he was called by all that knew him. Mr. Peck placed his work rooms and his high powered Jack rabbit car at my disposal, and every day we toured the country visiting the Lakes for seventy miles around, enabling us to obtain all of the specimens necessary to complete our groups and also to get a fair idea of the conditions of the nesting game birds.

After the death of Mr. Peck, which occurred in 1919, I was

assisted in my work by Mr. E. H. Gross of Kenmare, who is an ardent sportsman and a skilled photographer.

We found the farmers without exception true sportsmen, protecting the game to the fullest extent, even objecting to our taking the few specimens which we collected after showing the necessary permits. In 1915, when the Spring shooting law went into effect, I found a pair of Pintail Ducks nesting on a small hillside. The following year I found eleven pairs in this same area, showing plainly the results obtained from the enforcement of this wise law.

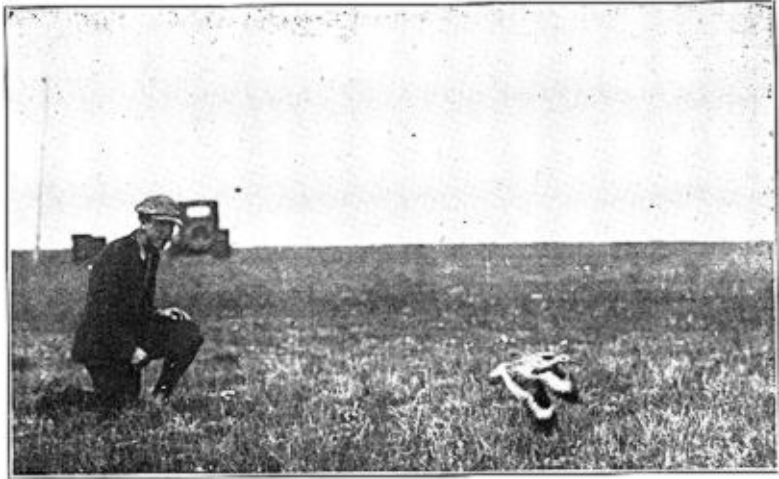


WILLET ON NEST

It was a wonderful sight to observe the immense number of shore birds on Kenmare Lake, and to find our Wilson's Phalarope one of the most common of them all. The Willet nesting on the uplands in company with Bartramian Sandpiper. The series of photographs of the Willet which accompany this article were taken on the Kenmare Golf grounds. The members of the club staked off a large section of ground around the nest so that the bird would not be disturbed. In the picture where the bird is arising from the nest the young man had to lift her from the eggs before she would fly.

There are very few Lark Finches west of the Lake but they are replaced by the Chestnut-collared Longspur. In the Arroyos are found the Black-billed Magpies, the Ferruginous Rough-legged Hawk and the Western Horned Owl. A nest of

the Marsh Hawk can be found every mile or so, Sharp-tailed Grouse are plentiful—many young are seen in every stage of growth.



WILLET FLYING FROM NEST

I was agreeably surprised to see a pair of Bobolink on the road east of Kenmare, the only ones seen in this region. The Lark Sparrows are very plentiful; several pairs can be found on all of the fields under cultivation.

The mud flats of the upper DuLac Lake on July 13, 1915, abound with Limicolae. Thousands of the more common varieties of snipe are seen. Least Sandpiper, Semipalmated and Stilt Sandpiper, Dowitchers and Robin Snipe, also a few pairs of Marbled Godwit.

On the shores of the alkali lakes are found nesting, the Common Tern, American Avocet, Wilson's Phalarope, Canada Geese and the Gadwall. I do not understand why these birds prefer this filthy ground to nest on, as there are plenty of clean lakes in the vicinity. As you observe in the photographs, the geese and gadwall select a location where the ground is covered with rocks about the size of their bodies, depending entirely upon this resemblance for protection.

When the wind arises or there is any disturbance in the water the shores are lined with a white mass resembling soap suds. This is practically what it is for it is the alkali combined with the



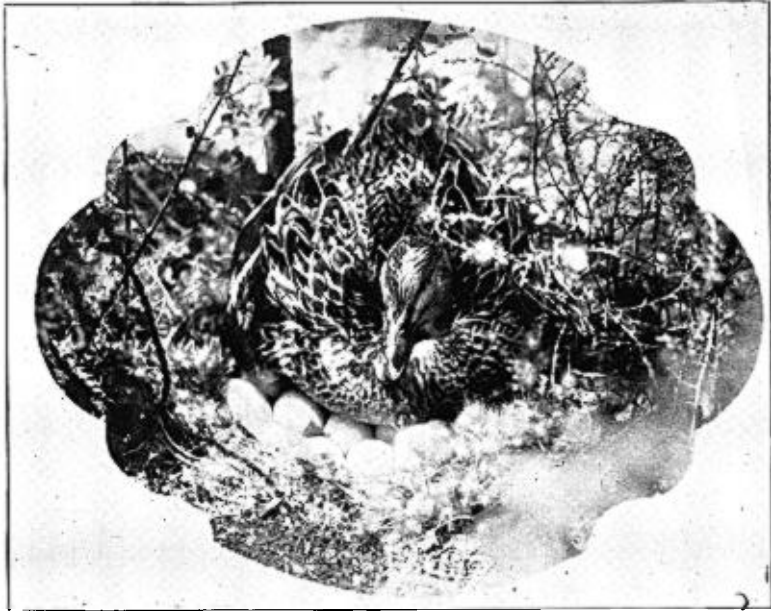
NESTS OF HORNED GREBE

greasy matter in the water. The young Tern and Gadwall when disturbed would dive into this mess and it was a difficult matter to locate them. The outer white line in the photo of the Canada Goose shows this foam. A short distance from the nest of the Goose was found a nest of the American Avocet with seven eggs, also another nest containing three young birds which are now in the Academy collection.

In the Lost Lake Region 60 miles from Kammare we found the small bays covered with the nests of the Horned Grebes. A little farther out the Eared Grebe is nesting. The former are the most plentiful. Many Western Grebe are seen far out in the lake but no nests of this species were found on any of my trips.

1. MALLARD—*Anas platyrhynchos*.

From July 13 to 23, 1915, there were about 15 pairs with



MALLARD TURNING EGGS

young seen along the road from Kenmare to the Lost Lake region. In the marsh joining the upper and lower Du Lac Lake there are hundreds of young in all stages of growth. The Mallard nests in any location it takes a notion to, on top of hay stacks, piles of grass, along the stone fences, and on one occasion I found

one nesting on top of a small hill almost devoid of vegetation, the form of the bird standing in silhouette against the sky. There was a decided increase of birds in 1916, and many more in 1920.

2. GADWALL—*Chaulelasmus streperus*.

I find these birds preferring the Alkali lakes for the nesting



GADWALL SWIMMING

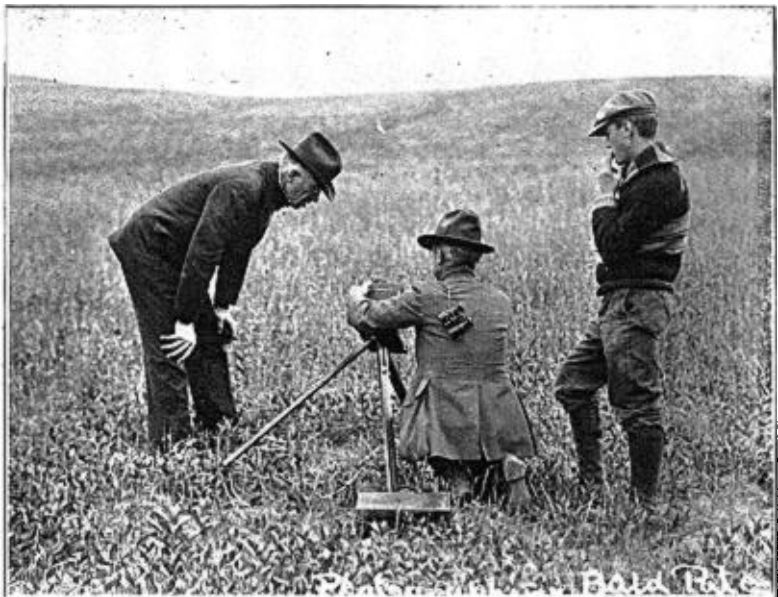


NEST OF GADWALL

sites, placing the nests among the rocks which are about the size of their bodies and making little or no attempt to cover the eggs.



YOUNG OF GADWAIL HATCHING



PHOTOGRAPHING BALDPATE

About ten nests were found on Stink Lake 35 miles from Kenmare. A slight increase in numbers in 1916, and about as many in 1920. The first nests were found July 16, 1915. Eggs and young were taken for the Chicago Academy of Sciences on July 26, 1915. A fine series of photographs were taken of this species showing birds hatching, old birds swimming and asleep, and nests among the rocks.



NEST OF BALDPATE COVERED



NEST OF BALDPATE EGGS EXPOSED

3. BALDPATE—*Mareca americana*.

Twenty-five or thirty nests were found of this species between July 13 and 23, 1915, containing eggs or young birds just hatched. Some of the nests were placed within four feet of the water's edge and in no case were they farther away than 200 feet from the water. In 1916 there was a slight increase in numbers, and in 1920, on June 28th, there were many more birds seen than in preceding years.

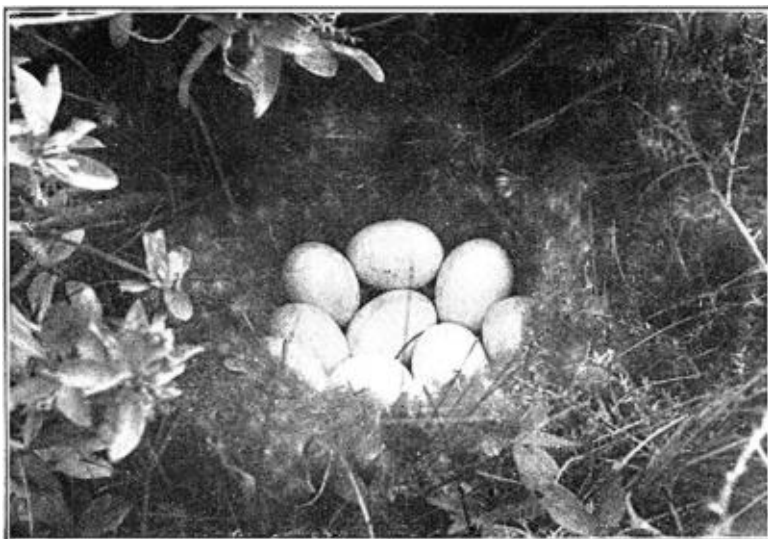


TEAL CAUGHT BY DOG

4. BLUE-WINGED TEAL—*Querquedula discors*.

On July 15th, 1915, most of the Teal were through hatching. Only one nest with fresh eggs was found, which are in the

Chicago Academy of Science collection. In 1916 the birds had increased in numbers. In 1920 the increase was enormous.



NEST OF BLUE-WINGED TEAL

5. SHOVELER—*Spatula clypeata*.

On July 13th, 1915, a fifty-mile auto trip was taken along the



SPOONBILL AND YOUNG

road from Kenmare to the Lost Lake Region. Nearly every small pond passed had from one to ten females of this species with young just hatched. In no case did we find young more than a few days old.

On July 28, 1916, we found conditions about the same. On June 25, 1920, the birds are laying; no young seen. A slight increase in numbers of adults seen over 1916 and 1915.



NEST OF PINTAIL

6. PINTAIL—*Dafila acuta*.

Next to the spoonbill the pintail exceed in numbers all of the other ducks of this region. Their nests dot the hillsides and the fields. The farmers are kept busy plowing around the nests. On July 15, 1915, on a farm of 150 acres, we found seven nests of this species which were empty. The young on the neighboring sloughs were about two weeks old. Only one set of young were found just hatched. These were taken for the Chicago Academy of Science collection.

In this same field was also found a nest of the Short-eared Owl. The bird had commenced incubation upon laying the first egg. There were five young in the nest, one of them just hatched, the others ranging in size to one fully two weeks old. Five nests

of this bird were found, one of them only ten feet from a nest of the Pintail.

July 28, 1916, conditions were about the same in regard to this species. In June, 1920, nests with full complements of eggs were found.



PHOTOGRAPHING REDHEAD

7. REDHEAD—*Marila americana*.

In 1915 a colony of 20 pairs or more nested on the upper DuLac lake. Also every pond of any size between Kenmare and Lost Lake Region had from one to ten pairs nesting upon it. On Sweetwater Lake, 35 miles from Kenmare, I found 12 nests with fresh eggs July 15, 1915. The Redhead makes a much more substantial nest than the Canvas-back, and is usually placed on a small raft in the open spaces among the rushes. On this date a few young are hatched and a set of ten eggs and eight young were taken for the Chicago Academy of Science. In 1916 there was a decided increase in numbers but in 1920 there were few birds or nests found.



NEST OF REDHEAD

8. CANVAS-BACK—*Marila valisineria*.

On my first visit to Kenmare, North Dakota, I found this species nesting very late. On July 13th the females were sitting on fresh eggs. There were no young to be seen. The first nest, containing 11 eggs, found July 13, was located within a stone's throw from the railroad round-house, almost in the heart of the city. About ten pairs were nesting in the upper DuLac. I also found a few pairs nesting at Thompsons Lake, 20 miles from Kenmare, and 15 pairs at Dead Dog Lake, 35 miles from Kenmare. This is a fresh water lake which is only 100 yards from an alkali lake known as Stink Lake. Here the nests were placed just inside of the heavy growth of rushes and were very carelessly constructed; in fact so thin that many of the eggs were lying on the bottom of the lake, where they had fallen through. The following year, 1916, there were very few Canvas-backs nesting in this region as the water was very high. Some of the nests were placed in the debris along the shore without any attempt at concealment. On June 21, 1920, the young were just hatching and I obtained a set of eleven eggs with the shells just pipped.

I rushed these home and improvised an incubator with my camera case and an electric light bulb. By noon the next day I had eleven young canvas-backs. These birds are in the Chicago Environs group in The Chicago Academy of Sciences.



NEST OF CANVAS-BACK

9. LESSER SCAUP—*Marila affinis*.

Large numbers of these birds are nesting on ponds of any size throughout this region. On July 13, 1915, the birds were just hatching and I saw about thirty pairs with young. In June, 1916, the conditions and numbers of birds were about the same. In 1920 there was a slight increase in the number of nesting birds. Brood of eleven young in Academy collection, taken July 23, 1915.

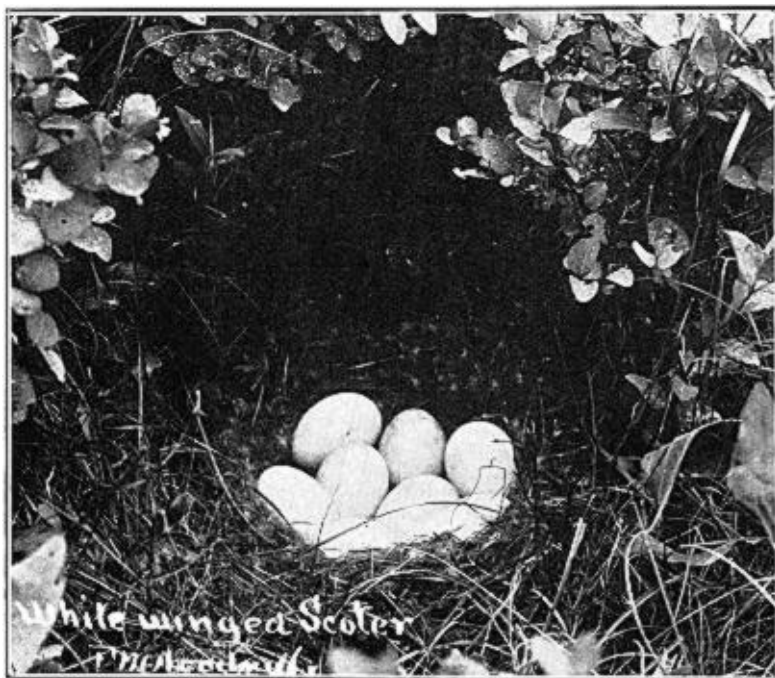
10. RING-NECKED DUCK—*Marila collaris*.

Very few of this species were seen and no young birds. A rather strange fact to me as I had found them nesting plentifully in Minnesota some years ago.

11. WHITE-WINGED SCOTER—*Oidemia deglandi*.

On July 13, 1915, while walking along the shores of Thompsons Lake about sixty feet from the waters edge, the dog flushed

a female White-winged Scoter, from the heavy growth of bushes. The nest was beautifully constructed and from the amount of down it would seem as if at least three or four birds had contributed towards it. I had noticed three pairs of these birds swimming far out in the lake but had no thoughts of their nesting here. Mr. Peck informed me that this was the first record for this region.



NEST OF WHITE-WINGED SCOTER

12. RUDDY DUCK—*Erismatura jamaicensis*.

On July 19, 1915, the Ruddies were in the height of the nesting season — both eggs and young were found. The largest birds seen were not over two weeks old. A set of five eggs was taken on this date; also five young birds which are in the collection of the Academy.

This species was found in about the same numbers in 1916. But in 1920 had become quite scarce.

13. CANADA GOOSE—*Branta c. canadensis*.

On July, 19, 1915, on a small island in Stink Lake, I found

this species nesting. There were five eggs laid on the bare sand with a few sticks laid around the outside. This island is covered with small boulders and rocks about the size of the goose. There was no further attempt of concealment. There were no geese

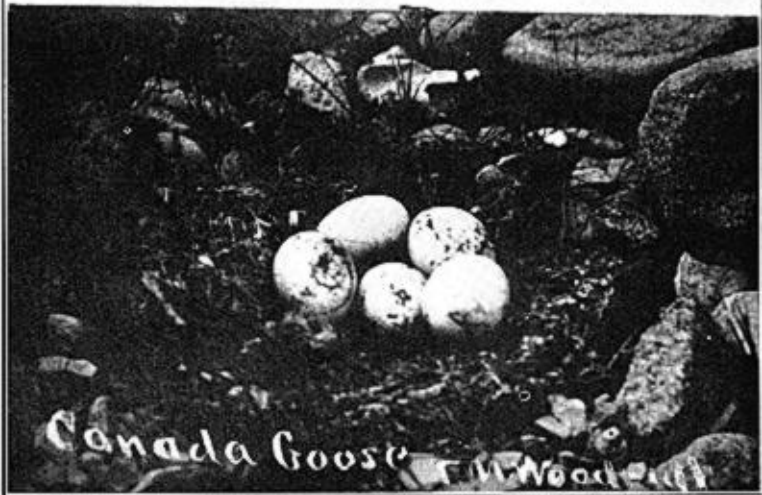


NEST OF RUDDY DUCK

nesting in 1916 or 1920. The farmers tell me that prior to 1915 there were quite a number of geese and a few Sandhill Crane to be found on this lake.



CARRYING EGGS TO SHORE



NEST OF CANADA GOOSE

NEST OF CANADA GOOSE

Chicago, Ill.