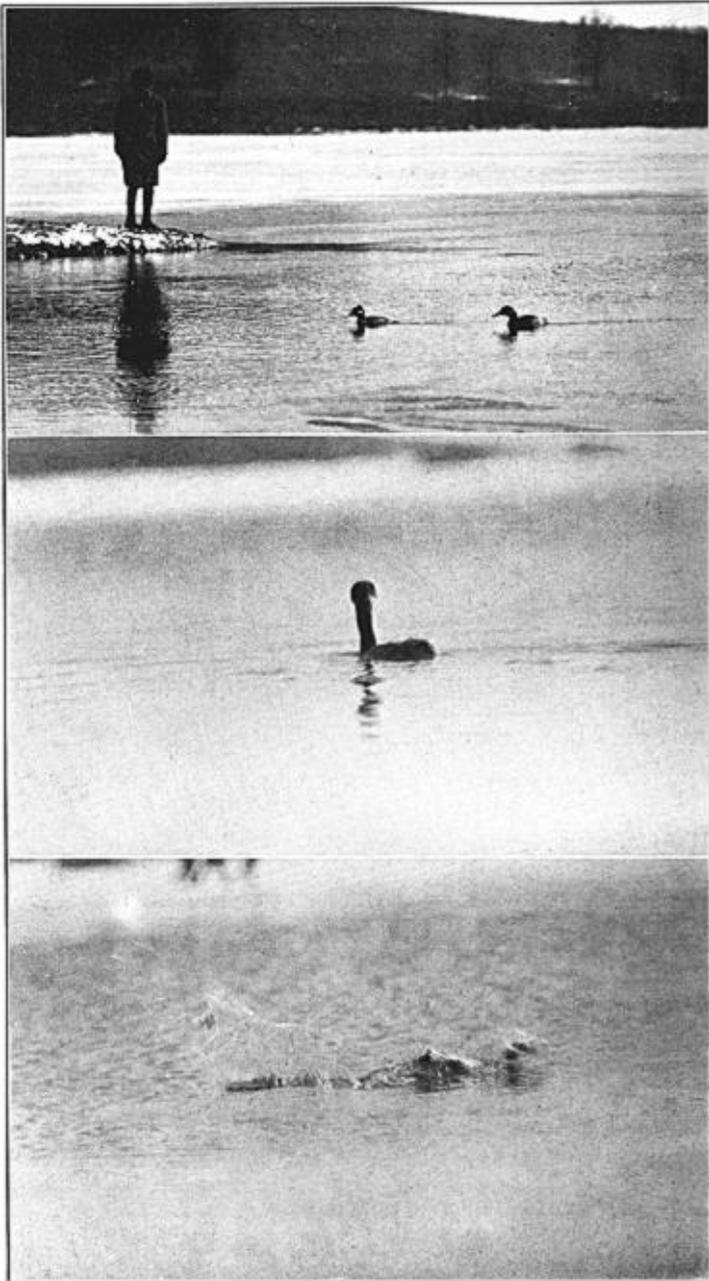


DOES A GREBE SPREAD ITS WINGS JUST BEFORE
DIVING?

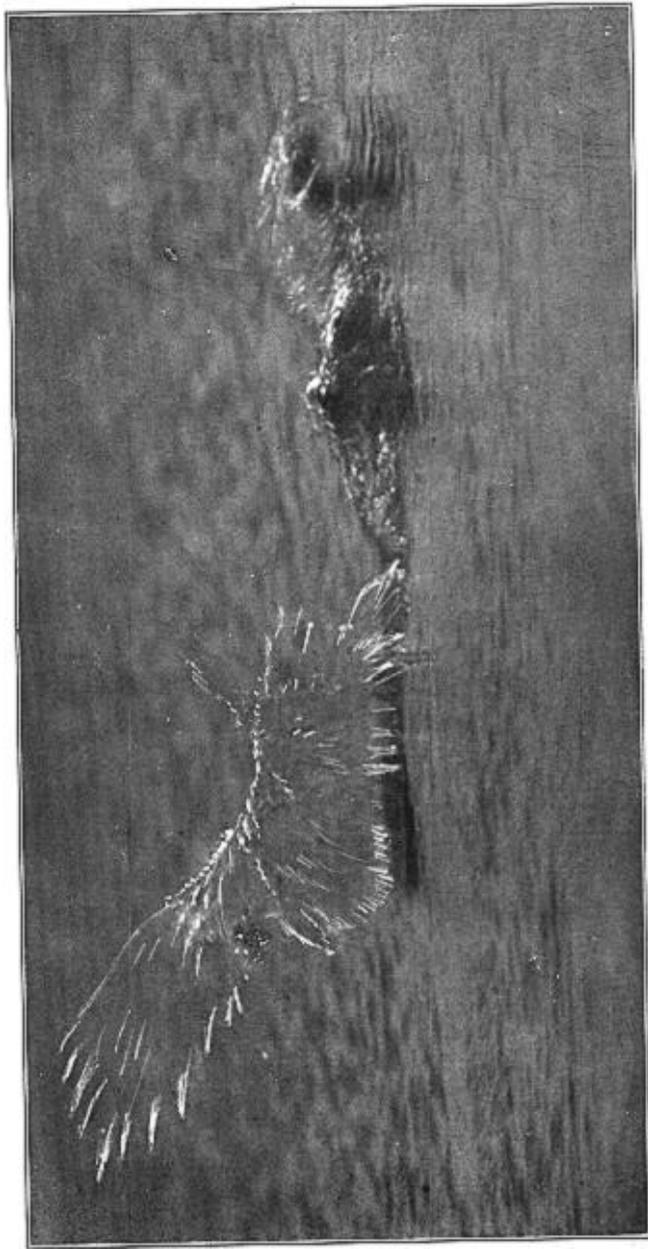
BY VERDI BURTCHE.

Plates XXI-XXII.

ON March 10, 1912, I got a remarkable photograph of a Holboell's Grebe (*Colymbus holboellii*) in the act of diving. It had been a very cold winter and Keuka Lake was frozen over early in January with the exception of the channel through the bar at Branchport, N. Y. Here there is a continual current flowing into and out of the harbor and this keeps the channel open even in the most severe weather. This open area is usually about ten to fifteen rods in diameter and here about six hundred wild ducks, Canvas-backs, American Scaups, American Golden-eyes and a single Buffle-head passed through the same ordeal as described by Alvin R. Cann in 'The Auk' for 1912, (Vol. XXIX, p. 437), while the conditions were the same as prevailed on Cayuga Lake where his observations were made. At the time of which I write the sole survivor of the entire flock of ducks was the little Buffle-head. We had just had several days of very severe cold and the open area was much restricted. This morning I found a Holboell's Grebe with the Buffle-head. It dived as soon as I went near and when it came up uttered a "pup-pup-put" and dived again. It would stay up but a moment between the dives and sometimes stayed under water so long that I began to fear that it had come up under the ice but it eventually came up in the open area each time. As it was above water only a moment each time it was rather difficult to focus the camera and make an exposure before it dived again. Once when it came up quite close to me, I focused and released the shutter at the very instant it started to dive. The resulting picture shows a dark area representing the depression in the water where the Grebe sat at the beginning of the exposure, the 'ghost' of its wings fully spread out behind as it started to lunge forward and the Grebe itself nearly submerged a full length ahead. It would seem to me that the wings were instantly spread and closed again as the Grebe lunged forward, the



1. BUFFLE-HEAD AND HOLBELL'S GREBE.
2. HOLBELL'S GREBE.
3. HOLBELL'S GREBE IN ACT OF DIVING WITH 'GHOST' OF EXPANDED WINGS.



ENLARGEMENT OF PHOTOGRAPH OF HOLBELL'S GREBE IN ACT OF DIVING, WITH 'GHOST' OF EXPANDED WINGS INTENSIFIED. THE BODY APPEARS TO HAVE BEEN ABOUT WHERE THE DARK SPOT IS SEEN. THIS WOULD REDUCE THE APPARENT EXCESSIVE LENGTH OF WING.

impression on the photographic plate being made during the instantaneous pause when the wings were fully spread before closing.

The figure at the bottom of Plate XXI shows a reproduction of the photograph actual size while Plate XXII is an enlargement with the 'ghost' of the wings intensified. The left wing appears to be too long but if we imagine the center of the bird's back to have been where the black spot appears on the photograph, which was no doubt its position, then the proportions would be about right.



BIRDS OF AUTAUGA AND MONTGOMERY COUNTIES, ALABAMA.

BY LEWIS S. GOLSAN AND ERNEST G. HOLT.

Plate XXIII.

THE counties of Autauga and Montgomery are just a little southeast of the center of the state of Alabama the southeast corner of Autauga and the northwest corner of Montgomery adjoining along the Alabama River.

This region lies well within the Austroriparian Fauna of the Lower Austral Zone; the most conspicuous breeding birds characterizing it being: *Chamepelia p. terrestris*, *Catharista urubu*, *Dryobates v. auduboni*, *D. p. pubescens*, *D. borealis*, *Colaptes a. auratus*, *Antrostomus carolinensis*, *Sturnella m. argutula*, *Peuceæ æ. bachmani*, *Guiraca c. cærulea*, *Lanius l. ludovicianus*, *Protonotaria citrea*, *Dendroica d. dominica*, *Geothlypis t. ignota*, *Mimus p. polyglottos*, and *Sitta pusilla*.

The mean temperature and precipitation at Montgomery (taken from Mohr's "Plant Life of Alabama," p. 97 are as follows:

		Annual.	Winter.	Spring.	Summer.	Fall.
Mean temperature	Degrees F.	63.3	50	66.6	80	65.4
Rainfall	Inches	51.4	17.1	16.74	12.22	8.54