

White-winged Scoter Nesting Record in North Dakota.—The White-winged Scoter (*Melanitta deglandi*) has been recorded in North Dakota a number of times, but nesting records are rare. The last nesting (to the writer's knowledge) was reported on July 28, 1936, by Seth Low who found two broods of nine young each, near Denbigh, North Dakota (Auk, 63: 251–252, 1946). Although a pair of White-winged Scoters was observed on School Section Lake, in the Turtle Mountains of North Dakota, on June 10, 1952, by D. V. Gray of the Lower Souris National Wildlife Refuge, no brood was seen on subsequent visits (Audubon Field Notes, 6: 287, 1952).

On July 28, 1952, while making an aerial waterfowl census on the Des Lacs National Wildlife Refuge, Kenmare, North Dakota, U. S. Fish and Wildlife Service Pilot-Biologist R. M. Glahn and the writer observed what they believed to be a female White-winged Scoter with a brood of downy young. Although several passes were made at a low altitude, it was not possible to count the young accurately.

In the early morning of July 29, the brood was re-located and the identity checked by the writer. There were then nine downy young with the female White-winged Scoter.

On the evening of July 29, the brood was again observed and the identification was verified by Dr. and Mrs. R. T. Gammell of Kenmare, North Dakota. At this time, however, only eight young were seen.

The last observation of this White-winged Scoter and her brood was made on September 3, by K. D. Dybsetter of the refuge staff. At this time only three young, about two-thirds adult size, remained.

Although the Upper Des Lacs Lake area frequented by the female and her brood was covered several times while making population counts, breeding-pair counts, and early brood counts, the male scoter was never seen.

Kortright (The Ducks, Geese and Swans of North America, 1943) indicated that northern North Dakota is within the breeding range of the White-winged Scoter, and it seems probable that the species nested more extensively in this area in earlier days; encroachment of civilization and past drought years may account for the infrequent occurrences in recent years.—HOWARD S. HUBNECKE, *U. S. Fish and Wildlife Service, Des Lacs National Wildlife Refuge, Kenmare, North Dakota.*

Foraging Activities of the Snowy Owl (*Nyctea scandiaca*) During a Period of Low Lemming Population.—Following the "crash" in the population of the brown lemming (*Lemmus trimucronatus alascensis* Merriam) during the spring of 1949, this small rodent almost disappeared from the tundra in the vicinity of Point Barrow, Alaska. Snowy Owls were fairly common throughout the summer of 1949, but much less numerous during the spring and summer of 1950. In late April, 1950, a Snowy Owl perched on a hummock of ice approximately three-fourths of a mile off shore opposite the Arctic Contractors' base camp, seven miles southwest of the geographical tip of Point Barrow. Since no lemmings were in evidence on the tundra, and would not be present out on the ocean ice, there was speculation about the source of food for the large owl.

Eider ducks had begun to drift northward in fair-sized flocks, and Eskimo hunters killed a few each day while waiting for whales to appear along open leads off shore. Since the Eskimo usually fires into a *flock* of ducks rather than at an individual bird, the number of wounded ducks not recovered by the hunters is disproportionately high. Casual observation of the owl over a period of several days revealed that it was stationed almost in the center of one of the main local fly-ways of the eiders.

It seemed to pay no attention to flocks of ducks passing overhead. One day the owl was seen to fly erratically about a comparatively restricted area, making frequent swoops at something on the uneven surface of the sea ice. Examination of the area several hours later indicated that the Snowy Owl had either killed an injured female King Eider (*Somateria spectabilis*) or had harried it until it died from the combined effects of gunshot wounds and exertion. The owl had stripped most of the flesh from the carcass.

About a month after the above episode, and before the owl working over the ocean ice had moved inland, another Snowy Owl began a systematic patrol along a single-wire antenna that ran inland about a mile from one of the radio stations. A series of poles supported the wire about fifteen feet off the ground. Red Phalaropes (*Phalaropus fulicarius*) frequently flew from one small lake to another and in so doing often flew across the antenna. One or more of the phalaropes struck the tautly stretched wire daily, and a large percentage of these was killed or seriously injured. The owl slowly flew up and down the antenna, stopped at every pole for a short period, then proceeded to the next. The owl quickly devoured any phalarope injured badly enough to seriously impair its flight. I never saw the owl attempt to capture an uninjured phalarope.

During the spring and summer of 1952, when lemmings were numerous, I again saw Snowy Owls flying leisurely along the antenna, presumably to pick up crippled birds, but none was observed hunting injured ducks on the sea ice off shore.—IRA L. WIGGINS, *Arctic Research Laboratory, Point Barrow, Alaska.*

Analysis of the Call of the Whip-poor-will.—Tall (Audio Engin., 34 [Aug.]: 1950) has stated that "The human ear, when it is behaving normally, can understand, or perceive, an unrelated sound following another sound after a period of time approximately 0.14 seconds long." In examining a number of bird calls with an oscilloscope, very short pulses of sound with intervals less than this were observed. When bird calls contain pulses of a given frequency with short intervals between them, the impression gained is that of a metallic clatter or rasping sound. Some birds produce very rapid frequency modulation of a continuous call or signal with very rapid amplitude modulation. This gives the impression to the normal ear of separate notes, the intervals being low amplitude portions of the call.

Recently the authors examined a fine tape recording of the call of the Whip-poor-will (*Caprimulgus vociferus vociferus*) made by Mr. and Mrs. Jerry E. Stillwell during May and June, 1950, in Kentucky. These recordings were made on Minnesota Mining & Manufacturing tape no. 100. Some were at 15 inches per second and some at 7.5 inches per second. No appreciable difference between these was detected. When this recording is projected on an oscilloscope there are revealed pulses of sound, and modulation of both the frequency and amplitude which the ear did not approach interpreting with any degree of accuracy. The oscilloscope trace with its brief residual period permitted the eye to sense what the ear was incapable of. However, when the playback speeds are changed to one-half, one-fourth, or one-eighth of the original, an aural interpretation is gained which confirms the optical impression produced by the oscilloscope. There are three separate parts to the call. Generally only the third of these is audible as the *whip-poor-will*, though occasionally when one is close to the bird the second part is heard as a *chuck* preceding the third longer portion. The first note, visible on the oscilloscope and audible when the recording is played back at the slower speeds, is not normally heard because its amplitude is quite low, and its period of duration is so short that the ear does not detect its presence. According to Miller (Journ. Acoustical Soc. Amer., 20: 160-161): "When a