

GENERAL NOTES

Green-throated Loon (*Gavia arctica viridigularis*) in Southeastern Alaska.

—On a cruise among the islands of southeastern Alaska in the spring of 1948, I saw many loons in the waterways and watched carefully, hoping to find *G. a. viridigularis* which had not been recorded in the area. When in Chatham Strait, well off the west coast of Admiralty Island, near Wilson's Cove, many loons were noted upon the glassy waters, and a Green-throated was collected on May 13. It was a male (DMNH no. 25415) with well developed testes, apparently going into its first high plumage. This form is similar in color to *pacifica*, but differs in having a uniformly dark crown and hind neck and in being approximately the size of *Gavia i. elasson*. The specimen collected has a tarsus of 80 mm., 10 to 14 millimeters longer than the tarsi of any of the 22 skins of *pacifica* in our collection. The middle toe is 111 mm. long as against 99 mm. for the longest *pacifica*.—ALFRED M. BAILEY, *The Denver Museum of Natural History, Denver, Colorado.*

Homing of the Manx Shearwater.—Shearwaters are ideal species for long-range homing experiments. During the long incubation period, one parent may remain in the nest for as long as twelve days; the birds are therefore accustomed to long periods of fasting. Many experiments with the Manx Shearwater (*Puffinus puffinus puffinus*) have been conducted from Skokholm, an island off the southwest coast of Wales. This island, made famous by the residence and works of the English ornithologist R. M. Lockley, is now a research station operated by the West Wales Field Society.

In the most remarkable of the prewar tests Lockley took two Manx Shearwaters by aircraft to Venice where he released them. Birds of this subspecies never normally visit the Mediterranean and do not cross dry land in their migrations. Yet upon release, one of the birds turned and headed west in the direction of the Italian Alps instead of flying south toward the sea. It reached its own burrow in Skokholm in 341 hours 10 minutes.

Dr. G. V. T. Matthews of the Department of Zoology, University of Cambridge, has been conducting further homing experiments with Manx Shearwaters. He has had birds released at many points on the British mainland and has enjoyed a startling series of returns. In many cases there was strong evidence of an initial sense of homeward orientation, because the birds started on a direct compass bearing for Skokholm. Attempts at sending birds to America had failed because the long journey by steamer exhausted them.

During a conversation with Mr. Lockley at Skokholm on June 1, I happened to say something concerning my anticipated return by air to Boston on the morning of June 3. Lockley at once realized the opportunity for quick transport and asked me to take two birds to Boston for release. Accordingly, I was given a carton containing two Manx Shearwaters which Dr. Matthews had taken from their burrows and banded. I left Tenby, Pembrokeshire, that evening via sleeper train for London. The birds caused no little wonder and merriment to the people in the adjoining rooms, who could not understand the origin of the mewing and cackling sounds which came from my room in the late evening. The next day the birds remained in the carton, each in its own compartment, and in the evening I enplaned for America with the birds under my seat. Only one survived the journey.

On the morning of June 3, immediately after landing and passing through Customs, I was driven in a TWA truck to the easternmost point of Logan International Airport on Boston harbor. There, with the kind cooperation of a TWA employee, I released

Shearwater AX6587 at the edge of the water, 100 yards from the point and on the southern shore of a tiny peninsula. It flew directly over the water to the end of the peninsula and then abruptly turned eastward over the ocean. This was at 8:15 a. m., E. D. S. T. June 3, 1952.

On June 20 I was surprised to receive the following cable: "MAZZEO, SYMPHONY HALL, BOSTON, MASS. No. AX6587 back 0130 BST 16th stop—FANTASTIC—MATTHEWS." A letter subsequently received said that Matthews on making his second round of the night of June 15/16, was "completely flabbergasted" to find AX6587 in its own burrow. He continued, "I read the ring several times, and then put the bird back and blocked the entrance. I wanted to make sure it would still be in when I took Peter Conder along to verify my observation. As we had not then had your letter, I was convinced that you must have run into trouble with our customs and released the bird at London. The boat came over that morning with your letter—there was no gainsaying the result then! A pretty touch, the bird beating the mail!"

The bird travelled more than 3200 land miles in 12 days, 12 hours, and 31 minutes, or an average of 250 miles per day.—ROSARIO MAZZEO, *Symphony Hall, Boston, Massachusetts.*

Night Rafting of American Golden-eyes on the Mississippi River.—Numerous observers have reported regular daily movements of flocks of American Golden-eyes (*Bucephala clangula americana*) on their wintering grounds. Recently I have had opportunity to study some of these movements in detail. For the past 12 years I have lived on the west bank of the Mississippi River about five miles north of the city limits of Minneapolis. Small flocks of golden-eyes, which fed during the day in the open places in the river, would fly down river past my home in the evening and up river again early in the morning. After a little local investigating I found that a night raft existed not far from the center of Minneapolis. Occasional observations during subsequent winters indicated that this was a relatively permanent, well-established concentration.

It was located at the upstream end of a long, narrow island about midway between the Broadway and Plymouth Avenue bridges, where the river is about 300 yards wide. A large steam electrical plant of the Northern States Power Company occupies the east bank of the river $1\frac{5}{8}$ miles upstream; and the water, heated in the process of cooling the huge generators, keeps the river channel at least partially open to a point below the raft site even in the coldest weather. Evidently this accounts for the regular use of this location by the ducks. During the winter of 1949-50 I made many observations of this raft in an effort to understand better the nature of this regular concentration.

During a normal evening the ducks began arriving at the raft site about an hour before sunset and would continue to arrive until nearly an hour after sundown (Fig. 1). (This graph indicates the percentage of the entire flock that came in during 10-minute intervals before and after sundown.) It was so dark when the last flocks arrived that they could be distinguished only with difficulty against the faint light in the western sky. As a rule the birds arrived in small flocks that could be actually counted or at least fairly accurately estimated after a portion of the flock had been counted. As the birds settled down after dark they rafted into a compact mass in midstream just above the upper end of the island. In the morning small flocks of birds could be distinguished in the semi-darkness leaving the raft and going both up and down stream to their feeding spots. Only a few birds remained in the raft in the morning after the light became strong enough to discern its position on the water. The maximum number of birds recorded in the raft was somewhat more than 600.