

had in its stomach the remains of 2 larval lepidopterans, and 13 larval and 2 adult coleopterans.

A young, downy Southern Lapwing from the same locality, weighing 148 g, was brought into the laboratory on 4 September 1961. It was fed known quantities of food about 12 times daily and periodically weighed. The food consisted of earthworms, raw ox heart, lung, and spleen, and muscle from fox and lamb. Earthworms were preferred by the bird, and its activity was greater when it was on an earthworm diet. At the end of 23 days it weighed 250 g.

Average daily weight increase in the first eight days in captivity was 4.6 per cent of the body weight. Average daily consumption of food during this period was 126.3 g on a diet of fox, ox heart, and earthworms. In the two 24-hour periods in which food consumption was greatest, the bird ate 214 g (103 per cent of its body weight) and 226 g (108 per cent of its body weight) of earthworms. In the second eight days in captivity, its body weight increased an average of 0.65 per cent daily, on a diet of an average of 58 g daily of ox heart and lungs, and lamb.

We thank George J. Wallace, Department of Zoology, Michigan State University, who read and commented on this paper.—J. K. GREER AND MARJORIE GREER, *The Museum and Department of Zoology, Michigan State University, East Lansing, Michigan*. Present address: *The University of Oklahoma Museum of Science and History and Department of Zoology, The University of Oklahoma, Norman, Oklahoma*.

**Dividing schedules of a Common Loon and a group of Oldsquaws.**—On the Wrangell Narrows near Petersburg, Alaska, in the spring of 1962, I made some observations on the diving schedules of a Common Loon (*Gavia immer*) and a group of nine Oldsquaws (*Clangula hyemalis*). The observations of the loon were made on 28 March and those of the Oldsquaws on 21 March. The second hand of a wrist watch was used to time the diving intervals of the birds. The birds of both species were actively diving, presumably feeding, so that the observations consisted of timing alternate periods on and beneath the surface of the water. The periods recorded for submergence were the intervals between diving of the first bird and surfacing of the first bird; the periods recorded for time on the surface, conversely, were the intervals between surfacing of the first bird and diving of the first bird. Resulting data are given in Table 1.

The diving schedules of the nine Oldsquaws were remarkably synchronized, so that all birds submerged at nearly the same moment and all surfaced at nearly the same moment. This synchronization was so marked that the conclusion seems inevitable that the birds operated on a flock impulse, such as is evident in the flights of shorebirds. That synchronization has been noted before is shown in a report by W. J. Breckenridge, quoted by T. S. Roberts (*The birds of Minnesota*. Vol. 1. Minneapolis, Univ. Minnesota Press, 1936; see p. 273): "At frequent intervals they all dove at once and no sign of them could be seen for some time, when the whole group reappeared at the surface as closely massed as before, as though the same formation had been maintained beneath the water."

The mean interval of time spent beneath the surface was very similar for the loon and the Oldsquaws, being slightly less than a minute for each. A full minute was spent beneath the surface in each of five dives of the loon; this may be near the loon's normal maximum interval of submergence when feeding. The several abbreviated submergence intervals might result from various possible conditions, such as finding food which requires further processing before ingestion. The Oldsquaws spent shorter intervals of time on the surface than the loon. During diving

TABLE 1  
TIME SPENT ON AND BENEATH THE WATER SURFACE BY A COMMON LOON  
AND NINE OLDSQUAWS

Species	Position of birds	Number of observations	Time (in seconds)		
			Mean $\pm$ S. E.	Range	Dive : pause ratio
Common Loon	Submerged	8	52.1 $\pm$ 4.6	26-61	2.1 : 1
	Surfaced	9	25.1 $\pm$ 2.3	15-42	
Oldsquaw	Submerged	9	52.4 $\pm$ 0.7	49-54	4.3 : 1
	Surfaced	9	12.2 $\pm$ 0.4	9-14	

sessions, approximately two-thirds of the loon's total time and four-fifths of the Oldsquaws' total time was spent submerged. The group of nine Oldsquaws operated on a more regular diving schedule than the single loon.

Discussing observations on 40 dives of the Common Loon, R. S. Palmer (*Handbook of North American birds*. Vol. 1. New Haven, Yale Univ. Press, 1962; see p. 34) indicated that dives varied from 8.5 to 60 seconds; in other observations on diving loons cited by Palmer the average submergence interval was 43 seconds, but the number of observations was not reported. In the report by W. J. Breckenridge already cited, intervals spent by Oldsquaws on and beneath the surface of the water were somewhat longer than I observed. The reference states that "they dove [spending] on an average of one minute and twenty seconds under water and forty seconds at the surface." D. D. Dow (*Auk*, 81: 556-558, 1964), however, made observations on Oldsquaws in closer agreement with mine. He observed a dive : pause ratio of 4.1 : 1 for 28 dives as compared with my 4.3 : 1 for 9 dives. With a range of 47.6 to 67.1 seconds beneath the surface and 6.2 to 28.2 seconds on the surface, Dow found a wider range of variation than I did. I observed a range of 49 to 54 seconds beneath the surface and 9 to 14 seconds on the surface. The wider range observed by Dow was partly to be expected because of a larger sample; however, it appears that my birds may have been operating on a more precise schedule than were those studied by Dow.

The observations reported in this note were made when I was stationed at Petersburg, Alaska, conducting research on the effect of DDT on the Bald Eagle for the U. S. Fish and Wildlife Service.—PAUL A. STEWART, U. S. Department of Agriculture, Agricultural Research Service, Entomology Research Division, Oxford, North Carolina.

**A 36-year-old wild Herring Gull.**—On 29 June 1930, Stanley Hyde, Paul A. Walker, William A. O. Gross, and I went onshore for an hour on Duck Rock, not far offshore from Monhegan Island, Maine, and during this brief stay banded 81 young Herring Gulls (*Larus argentatus*) whose ages averaged about 10 days. Of the 19 young which I banded, one (A676871) was found dead on 20 June 1966, by a group of Girl Scouts on the shore of Little Traverse Bay near Petoskey, Michigan.

This 36-year life-span of a wild bird may well exceed any other so far reported. In a recent listing of longevity records by W. Rydzewski (*The Ring*, 3: 147-152, 1962), the record for a bird in the wild is held by a Herring Gull in Europe which was banded as a chick and recovered 31 years and 11 months later.—OLIN SEWALL PETTINGILL, JR., Laboratory of Ornithology, Cornell University, Ithaca, New York.