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**Diving times of grebes and Masked Ducks.**—Least Grebes (*Podiceps dominicus*) and Masked Ducks (*Oxyura dominica*) were found to have significantly different diving times at a small pond near Turrialba, Costa Rica in 1963 (Jenni 1969, *Auk* 86: 355). Additional data on diving times were collected at the same pond in 1970 and 1972. Between 1963 and 1970 the pond was intensively managed and its aspect changed from that of a wild marsh to a parklike lily pond (Jenni and Collier 1972, *Auk* 89: 743). Although management efforts decreased between 1970 and 1972, the pond was still intensively managed. Pied-billed Grebes (*Podilymbus podiceps*) did not visit the pond during July and August of 1963, but the species was found there during 1970, 1971, and 1972.

The intervals between dives varied more from year to year than did the dive times (Table 1). A bird on the surface was more apt to be distracted briefly by other stimuli and was probably more apt to interrupt the feeding bout with preening, drinking, or other behavior. However the duration of the individual dives while the birds searched for food or actually fed is more important ecologically. The following discussion is restricted to dive times.

Because the numbers of observations varied by species and year, a random sample of nine diving times was drawn for each species from each year. These data were used to calculate analyses of variance. The overall differences between the species in diving times was significant ( $P < 0.001$ ,  $F = 32.1$ ). The differences in diving times between species were significant each year ( $P < 0.001$ ,  $F \geq 14.5$  for all years). The differences in diving between years were significant for the Masked Duck ( $P < 0.001$ ,  $F = 13.8$ ), but not quite significant for the Pied-billed and Least Grebes.

TABLE 1  
DIVING AND SURFACE PAUSE TIMES

	Year	Time in Seconds			
		N	Min.	Max.	Mean $\pm$ SE
Diving					
<i>Podilymbus podiceps</i>	1970	36	12.6	32.4	22.28 $\pm$ 0.73
	1972	26	10.5	32.5	22.60 $\pm$ 0.92
<i>Podiceps dominicus</i>	1963	23	8.8	14.7	12.48 $\pm$ 0.59
	1970	54	3.3	21.2	13.00 $\pm$ 0.56
	1972	11	6.0	23.5	15.40 $\pm$ 1.44
<i>Oxyura dominica</i>	1963	16	11.0	26.5	21.02 $\pm$ 1.37
	1970	20	4.4	32.2	24.51 $\pm$ 0.89
	1972	13	19.5	38.5	29.35 $\pm$ 1.47
Surface pause					
<i>Podilymbus podiceps</i>	1970	21	5.6	29.4	14.19 $\pm$ 1.35
	1972	25	3.5	17.5	11.36 $\pm$ 0.72
<i>Podiceps dominicus</i>	1963	24	2.3	24.1	11.95 $\pm$ 1.36
	1970	50	2.2	28.4	14.77 $\pm$ 0.70
	1972	10	1.0	63.5	26.20 $\pm$ 5.32
<i>Oxyura dominica</i>	1963	12	8.3	15.4	11.49 $\pm$ 0.73
	1970	12	12.5	35.6	19.98 $\pm$ 2.13
	1972	11	9.5	26.5	18.64 $\pm$ 1.76

To identify the source of the variation found with the analyses of variance, *t*-tests were run on all the data. Diving times for both the Least Grebe and Masked Duck increased steadily between 1963 and 1972 (Table 1). The Masked Duck had longer diving times in 1970 than in 1963 and longer times in 1972 than 1970 ( $P < 0.05$ ,  $t = 2.2$ ; and  $P < 0.01$ ,  $t = 3.0$ ). The Least Grebe also increased its diving times from year to year. Although the increase was less marked than in the Masked Duck, the difference was significant between 1963 and 1972 ( $P < 0.05$ ,  $t = 2.2$ ).

Masked Ducks surfaced within one or two body lengths from where they dived and Least Grebes surfaced 5–10 m from where they dived (Jenni *ibid.*). The Pied-billed Grebe most often surfaced very near to where it dived as did the Masked Duck, but occasionally it surfaced far from where it dived as did the Least Grebe. Apparently at Turrialba the Pied-billed Grebes fed at one spot for several dives, and then moved to a new location by diving underwater and perhaps searching for more food en route. Least Grebes often swam rapidly and erratically through semi-open patches of water lilies (*Nymphaea ampla*) with their heads beneath the surface. This behavior occurred only in shallow water and occasionally led directly to diving.

The trend toward increased diving time appears to be related to the increase in open water and the removal of most of the dense aquatic vegetation and floating mud islands. The use of the pond by Pied-billed Grebes apparently depends on the presence of areas relatively free of dense aquatic vegetation. Although Least Grebes most commonly fed where the water lilies and other vegetation was denser, they occasionally fed in the open areas preferred by Pied-billed Grebes.

Differences in diving behavior and duration of diving probably relate to the food habits of these three subsurface feeding birds. These observations on diving times and other aspects of diving behavior suggest large differences in their feeding

habits at the Turrialba pond. The variation in diving times from year to year also suggests that diving times may be strongly influenced by proximal factors and are not fixed species characters. These data also suggest that the density or diversity of aquatic vegetation is an important factor in determining diving time in Masked Ducks and to a lesser extent in Least Grebes. The spatial relationship between the start of a dive and the end of the same dive appears to be much less influenced by the alterations of the vegetation than is duration of the dive.

Field studies in Costa Rica were supported by NSF GB-21279. We are indebted to the Instituto Interamericano de Ciencias Agrícolas, Turrialba, Costa Rica, for use of their facilities.—DONALD A. JENNI and ROGER D. GAMBS, *Department of Zoology, University of Montana, Missoula, Montana 59801*. Accepted 18 May 1973.

**First North American record of Little Bunting in eastern Chukchi Sea.—**

Marine science technicians on the U. S. Coast Guard icebreaker 'Glacier' collected and froze a small sparrowlike bird that came aboard at 71° 59' N, 167° 36' W in the Chukchi Sea (Arctic Ocean) 150 nautical miles (280 km) northwest of Icy Cape, Alaska, 6 September 1970. The bird was prepared a year later as a study skin at the Smithsonian Institution (USNM 536465), but gonad deterioration prevented sexing.

Aboard ship it was identified as a Savannah Sparrow, *Passerculus sandwichensis*, and was so reported by Watson and Divoky (1973, U. S. Coast Guard Oceanogr. Rept. 50: 123). Further study and comparison with series of specimens in the Smithsonian collection revealed it to be a Little Bunting, *Emberiza pusilla*, in freshly-molted first basic plumage (throat and eyestripe buffy rather than chestnut). This Siberian species breeds in willow, birch, and alder scrub in the tundra, tundra forest, and northern taiga zones from Scandinavia and northern Russia east to the Pacific in the lower valley of the Anadyr River, and winters from India to Indochina and southern China (Sudilovskaya 1970 in Dementiev and Gladkov (Eds.), *Birds of the Soviet Union*, Jerusalem, Israel Prog. Sci. Transl. vol. 5, pp. 558-562). Fall migration takes place in September. Stragglers have been recorded in Japan and the Philippines in the east and as far west as the British Isles. This is the eastern-most record of the species and the first for the A.O.U. Check-list area.—GEORGE E. WATSON, J. PHILLIP ANGLE, *Department of Vertebrate Zoology, Smithsonian Institution, Washington, D. C. 20560*, and M. RALPH BROWNING, *U. S. Bureau of Sport Fisheries and Wildlife, National Museum of Natural History, Washington, D. C. 20560*. Accepted 4 Jun. 73.

**Ancient error in a 1955 Auk paper.—**In 1972 T. H. Manning of Merrickville, Ontario, called my attention to an error in the F. W. and E. J. Preston paper in the *Annals of the Carnegie Museum* (1953, 53: 129-139), an error that carries over into a paper by Gemperle and Preston (1955, *Auk* 72: 184-198). The denominators, m and n, of the first two equations of page 137 had been interchanged and neither the authors nor the referees noticed it—nor apparently had any reader noticed it before Manning. It affects many of the numerical values of Table 3 of the Auk paper (p. 188), but has next to no effect on the qualitative conclusions. My former associates, J. M. McCormick and T. C. Baker, concurred in Manning's findings, and W. J. Winans and E. H. Barnett independently produced a revised Table 3 on separate high-speed computers, using the raw data of Table 1. Their