TABLE 1

DATE OF HATCHING AND FIRST FLIGHT FOR OSPREYS IN CHESAPEAKE BAY

Nest No.	Hatching Date	Flying Date	Days[1]
1	May 17	July 12	56
2	May 18	July 5	48
3	May 18	July 15	58
4	May 20	July 10	51
5	May 20	July 12	53
6	May 23	July 17	55
7	May 24	July 14	51
8	May 25	July 17	53
9	May 25	July 17	53
10	May 26	July 20	55
11	May 27	July 17	51
12	May 27	July 17	51
13	May 27	July 24	58
14	May 29	July 21	53
15	May 29	July 24	56
16	May 30	July 25	56
17	May 31	July 23	53
18	June 1	July 30	59
Mean	May 25	July 18	54

[1] Standard deviation was ± 2.95 days; therefore, the 95% confidence interval was 48 to 60 days.

The distance of the first flight varied according to the distance to acceptable perches. Flights from the offshore duck blinds varied from a few meters to 1000 m, but the majority were 200–300 m. The young do return to their nest after the first flight albeit awkwardly at times.—VERNON D. STOTTS, *Maryland Dept. of Natural Resources, Annapolis 21401, and* CHARLES J. HENNY, *U.S. Fish and Wildlife Service, Migratory Bird and Habitat Research Laboratory, Laurel, MD 20811 (present address CJH: Denver Wildlife Research Center, Building 16, Federal Center, Denver, CO 80225). Accepted 3 Oct. 1974.*

Diving times and distances in the Pied-billed Grebe.—Although numerous authors have investigated diving times of grebes, relatively few have reported data on underwater lateral movement. Jenni (Auk 86:355–356, 1969) found that Least Grebes (*Podiceps dominicus*) generally surfaced 5–10 m from where they dived. A Red-necked Grebe (*Podiceps grisegena*) remained submerged for over a minute, and moved more than 60 m underwater (Cahn, Auk 29:437–444, 1912). LaBastille (Wildl. Monogr. 37:1–66, 1974) recently has reported that Atitlán Grebes (*Podilymbus gigas*) have moved up to 90 m while remaining submerged. This paper reports diving times and lateral movement, under differing ecological conditions, in the Pied-billed Grebe (*Podilymbus podiceps*).

Pied-billed Grebes were observed at El Dorado Park, Los Angeles Co., California

TABLE 1

DIVING TIMES AND DISTANCES OF PIED-BILLED GREBES
(154 FORAGE DIVES, 52 ESCAPE DIVES)

Type of dive	CV	Minimum	Maximum	Mean ± SD
		Diving Time in Seconds		
Forage	40.5%	1	15	7.58 ± 3.07
Escape	28.6%	3	18	9.31 ± 2.66
		Diving Distance in Meters		
Forage	81.8%	0	12	3.69 ± 3.02
Escape	44.3%	2	20	10.00 ± 4.43

during May, June, and July 1973, and February and May 1974, and at the U.S. Naval Weapons Annex, Fallbrook, San Diego Co., California during February 1974. Pied-billed Grebes were present on small, man-made lakes at both localities during all visits. Air temperatures ranged between 15.5 and 27° C, and water depths ranged from 2–5 m, with most dives occurring in water 2–3 m deep. Dive and pause times were recorded to the nearest second. Lateral movement, the distance between diving and surfacing points, was estimated to the nearest meter using fixed shoreline features and buoys as reference points. All observations were between 08:00 and 10:00, or between 17:00 and 19:00.

Two types of dives, escape and forage, were recorded. All dives occurring within 5 min after the observers' arrival and dives occurring after the grebes became aware of the observers were considered escape dives. Dives by grebes not responding in any obvious way to the observers were considered forage dives. The dive/pause ratio was calculated only from the mean values of forage dives and pauses. Only series containing 3 or more dives were used.

Data on birds diving in close proximity to one another were not recorded because positive identification was impossible. When grebes were not observed to surface within 60 sec they probably surfaced in nearby vegetation and the observations were terminated.

Forage and escape diving times (Table 1) were significantly different ($P < .001$; $t = 3.69$). The distance of lateral movement for forage and escape dives (Table 1) also differed significantly ($P < .001$; $t = 11.49$). Pied-billed Grebes submerged longer and moved farther during escape dives than during forage dives. These data indicate that the presence of a predator or potential predator influences diving time and distance. The dive/pause ratio of forage dives was 2.3, similar to the 2.7 reported for the Horned Grebe (*Podiceps auritus*) by Dow (Auk 81:556–558, 1964).

Mean distances moved during forage and escape dives approximate Jenni's (1969) observation that Least Grebes usually surfaced 5–10 m from where they dived. He attributed that movement to the pursuit of free-swimming prey by Least Grebes. Movements during forage dives in my study probably resulted from the similar feeding activity of Pied-billed Grebes.

Diving times reported here are similar to diving times by 2 *P. podiceps*, which averaged 9.37 ± 1.82 (SD) and 12.70 ± 2.77 (SD) sec per dive (Heintzelman and Newberry, Wilson Bull. 76:291, 1964). LaBastille (1974) observed 5 types of dives by Atitlán Grebes which averaged between 4.8 and 34.9 sec and varied with the age and sex of the individual birds. Jenni (1969) reported the average dive time for Least Grebes as 12.48 ± 0.59 (SE) sec. A Horned Grebe averaged 33.4 ± 0.72 (SE) sec per dive (Dow 1964).

Heintzelman and Newberry (1964) reported mean diving times of 2 Horned Grebes as 19.24 ± 6.11 (SD) sec and 17.38 ± 3.80 (SD) sec, respectively.

It is probable that differing ecological factors (Heintzelman and Newberry 1964, Jenni 1969), as well as interspecific behavioral differences, and possibly interspecific physiological differences, contributed to the variation in the diving times of various species of grebes. Intraspecific differences in diving times and distances occur under varying ecological situations among Pied-billed Grebes. Coefficients of variation (Table 1) suggest that escape dives are much less variable in both time and distance than are forage dives. This situation might be expected if birds diving to escape a predator were diving closer to their maximum times and distances. Forage dives, being more random in time and distance, exhibit greater variability.

Kathleen M. Bleich and Hans Megens helped with the field work. Most of the observations were made while I was a Ranger at El Dorado Park. Rear Admiral J. W. William, Jr., Captains W. E. Betzer and F. R. Cassilly, and Commander J. R. DeView provided access to Navy property.—VERNON C. BLEICH, *Dept. of Biology, Rio Hondo College, Whittier, CA 90608; Present address: California Dept. of Fish and Game, Chino Fish and Wildlife Base, Rt. 5, Bird Farm Rd., Chino 91710.* *Accepted 24 Oct. 1974.*

Status of the Gyrfalcon in Illinois.—The Gyrfalcon (*Falco rusticolus*) was considered a species of accidental occurrence in Illinois by Smith and Parmalee (Ill. St. Mus., Pop. Sci. Ser. 4:21, 1955). Their record was based on a single individual in white phase observed on 20 December 1953 and presumably the same bird again on 27 December 1953 at Arlington Heights, Cook Co. (Lukasik, Aud. Bull. 89:8, 1954). The only other published occurrence of this species in Illinois is an observation made on 28 December 1966 at Illinois Beach State Park, Lake Co. by R. Gustafson (Fawks, Aud. Bull. 140:6, 1966); no other details were submitted with the report. Russell (Aud. Bull. 144:13, 1967) concluded from the few records of this species, its confusing variability in plumage, and the possibility that observations could have been made on falconers' escaped birds that the Gyrfalcon should not be included on the hypothetical list of Illinois birds. Russell also mentioned that no specimens or photographs of this species were extant for Illinois.

On 3 November 1971, an immature Gyrfalcon was trapped by Ken Invergo (a licensed Illinois falconer), 9.7 km S Galena, Jo Daviess Co., Illinois (apparently this is the same bird reported by Kleen and Bush, Amer. Birds 26:71, 1972, and Buckley, Amer. Birds 26:569, 1972, although they listed the date of capture as 6 November 1971). Appearing in poor condition, the bird was kept under observation and died sometime later. Dr. William Halliwell, of the University of Missouri at Columbia, performed an autopsy on the bird and concluded that it died from arterial hepatitis. The specimen (Ill. Nat. Hist. Surv. No. FA-r-1) weighed 1679.6 g and contained little fat. Although no gonad measurements were included with the autopsy, the specimen is assumed to be a female according to the measurable sexual differences listed by Friedmann (U.S. Natl. Mus. Bull. 50:637, 1950). On the basis of the length of the fourth primary the specimen is assignable to the subspecies found widely in northern North America, *F. r. obsoletus*. The plumage represents the gray phase (dark variety) described by Friedmann (1950: 636) and there were no signs of molt. This constitutes the first specimen record for Illinois.