Steenhof, K., S.S. Berlinger and L.H. Fredrickson. 1980. Habitat use by wintering Bald Eagles in South Dakota. *J. Wildl. Manage.* 44:798-805.
Ueoka, M.L. 1974. Feeding behavior of Ospreys at Humboldt Bay, California. M.S. Thesis. Humboldt State Univ., Arcata, California. 75 pp.
Warner, J.S. and R.L. Rudd. 1975. Hunting by the White-tailed Kite (*Elanus leucurus*). *Condor* 77:226-230.

MOUSE TRAP RECOVERED IN HARRIER NEST

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An annual vole (*Microtus* sp.) index is an important part of Hamerstrom's study of the Northern Harrier (*Circus cyaneus*) in central Wisconsin (Hamerstrom, F., Auk 96:370-374, 1979). Vole trapping on her study area began in 1964 and 28,911 trap nights have been accumulated by Hamerstrom and her coworkers through 1981. On 4 July 1981 I found evidence that a harrier had stolen a trap.

On 1 July, 120 traps were put out at about 2000 hours. When they were picked up at about 1200 hours 2 July, 1 trap was missing. Tufts of vole hair were found within 10 cm of the missing trap. On 4 July at 0945 hours I visited a harrier nest about 2.2 km from the trap-line. The nest has been deserted within the past 2 days, and an empty sprung trap lay upside down near the center of the nest. I believe it unlikely that the harrier carried an empty trap. It seems reasonable to conclude that the harrier was attracted to the trap by the presence of a vole in it. The vole may have been dead at the time it was taken since in a few instances harriers have been known to feed on carrion (Bent, U.S. Natl. Mus. Bull. No. 167, 1937:86; Randall, Wilson Bull. 52: 165-172, 1940; and Errington and Breckenridge, Am. Midland Nat. 17: 831-848, 1936). It is also possible that the vole may have been alive when the trap was taken because a few live voles have been found in sprung traps in previous years (Hamerstrom pers. comm.).

PRECOCIOUS NEST DEFENSE BEHAVIOR BY A SHARP-SHINNED HAWK

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On 22 July 1981 we observed 3 fledged Sharp-shinned Hawks (*Accipiter striatus*) in trees within 20 m of their nest in Door County, Wisconsin. They were food-calling (for a description of calls, see Beebe, F.L., Occas. Pap. B.C. Prov. Mus. 17. 163 pp., 1974) and we anticipated the return of an adult with prey for them. To capture adults, we placed a mist net within 3 m of the nest tree and 1 m of a tethered live Great Horned Owl (*Bubo virginianus*) (Hamerstrom F., Proc. Int. Ornithol. Congr. 13: 866-869, 1963). We

moved about 20 m away and waited. Approximately 30 min later one of the young's food-call changed to a nest defense call and then it stooped at the owl, hit the net, but escaped. This behavior by the same fledgling occurred 4 times within the next 15 min before it was captured. Its weight (159 g) indicated a female and all her flight feathers had blood in quill; we estimated her age at 30-32 days. After banding and releasing, she immediately perched and uttered a nest alarm call (we believe at us for she could not see the owl from her position) before flying from view. The other 2 young had continued food-calling but they never uttered a nest alarm call.

F. Hamerstrom (pers. comm.) observed 2 similar occurrences where 2 recently fledged Northern Harriers (*Circus cyaneus*) were caught after stooping at decoy live Great Horned Owls. Acker (Auk 94; 374-375, 1977) reported an immature (65-70 days old) female Red-shouldered Hawk (*Buteo lineatus*), at hack, attempting to build a nest and feed 2 captive Northern Harrir chicks. These observations suggest that some behavior patterns commonly associated with breeding adults, are present soon after fledging in some raptors.

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Book Reviews

Recent Advances in the Study of Raptor Diseases. Proceedings of the International Symposium on Diseases of Birds of Prey, J.E. Cooper and A.G. Greenwood, eds., 1981. Chiron Publications, Ltd., West Yorkshire, England. 165 pp. $25.00. (obtainable through CHIRON PUBLICATIONS, P.O. Box 25, Keighley, West Yorkshire BD22 7BA, United Kingdom.

This publication contains the edited proceedings of the First International Symposium on Diseases of Birds of Prey held in London, July 1 - 3, 1980. The text provides excellent clinical and surgical information for veterinarians treating raptors. The volume is divided into three parts: Part I - Pathology and Microbiology; Part II - Surgery and Anesthesia; and Part III - Medicine and Therapeutics. Two additional workshops are incorporated which contain topics on mortality factors in wild populations and captive breeding that will appeal to the raptor biologist, aviculturalist, and individuals involved with rehabilitation of raptors.

Highlights of Part I include discussion on bacterial flora and haematozoa of raptors, effects of chronic lead ingestion, causes of death in trained raptors and infectious diseases of birds of prey. Part II deals with anesthesia, surgical treatment of bumblefoot and diagnostic laparoscopy. Significant information is presented on the ossification of long bones in raptors, thermaplastic coating material in fracture repair and the use of external fixation is demonstrated with several illustrated case reports. The section on medicine and therapeutics contains discussion on avian malaria, serum chemistry profiles, aspergillosis, tuberculosis, management of bumblefoot and visual defects in raptors.

Topics on captive breeding include the influence of cross-fostering on mate selection in captive kestrels, microbiological aspects of egg hatchability in captive American Kestrels, breeding of condors at the New York Zoological Park, hand rearing of vultures and abnormal and maladaptive behavior in captive raptors.

The section on mortality factors in the wild included studies on the causes of mortality in British kestrels, problems of rehabilitation, maintenance energy requirements and rate of weight loss during starvation in birds of prey and the relationship of body weight, fat deposit, and moult to the reproductive cycles in wild Tawny and Barn Owls.