Brigham Young University, and thank the staff of the Smithsonian Tropical Research Institute, Barro Colorado Island, who provided facilities while we were in Panama. Alexander Skutch, Neal Smith, Burt Monroe, and Henry Howe kindly provided suggestions and comments on an earlier draft of this note.—DAVID P. MINDELL AND HAL L. BLACK, *Dept. Zoology, Brigham Young Univ., Provo, Utah 84602.* *Accepted 19 Mar. 1984.*

Wilson Bull., 96(2), 1984, p. 321

Birds predominate in the winter diet of a Barn Owl.—Barn Owls (*Tyto alba*) are thought to prey primarily upon small mammals (Marti, Condor 76:45–61, 1974; Hamilton and Neill, Am. Midl. Nat. 106:1–9, 1981; Bunn et al., The Barn Owl, T. & A. D. Poyser, 1982). This note describes an instance of a Barn Owl feeding primarily on birds. A single Barn Owl of unknown sex roosted in a barn on the Marais Temps Clair Wildlife Area, St. Charles Co., Missouri, from approximately November 1980–March 1981. The 373-ha area comprises a large riverine marsh surrounded by agricultural land.

Forty regurgitated pellets were collected from the barn in August 1981 and examined for identifiable remains. Skulls, feet, and feathers of birds, and skull, mandibles, and fur of mammals were contained in the pellets and were used to identify prey, primarily by comparing with museum specimens. Numbers of individuals consumed were determined by counting skulls or skull fragments within pellets. Biomass of each prey type was estimated from published weights (Marti 1974) and museum specimens.

Avian material occurred in 39 of 40 (98%) pellets and mammalian remains occurred in only four (10%). Remains of 21 Red-winged Blackbirds (*Agelaius phoeniceus*), four Starlings (*Sturnus vulgaris*), one Rusty Blackbird (*Euphagus carolinus*), one Common Grackle (*Quiscalus quiscula*), one *Microtus* sp., and one *Peromyscus* sp. were identified. Based on prey weight estimates (in parentheses) the relative contribution to diet biomass of these taxa was as follows: Red-winged Blackbird (60 g) 69.6%; Starling (80 g) 17.7%; Rusty Blackbird (65 g) 3.6%; Common Grackle (100 g) 5.5%; *Microtus* sp. (45 g) 2.5%; *Peromyscus* sp. (20 g) 1.1%. Birds comprised 96.7% of the food ingested.

Marsh areas of the Marais Temps Clair Wildlife Area were used by large flocks of "blackbirds" during winter 1980–81. Although Barn Owls typically feed on small mammals, their diets have been shown to shift to include more avian prey when rodent populations decline (Hawbecker, Condor 47:161–166, 1945; Otteni et al., Wilson Bull. 84:434–448, 1972; Smith et al., Great Basin Nat. 32:229–234, 1972). No studies in North America have documented a proportion of birds in the diet as large as that reported here. Lacking information on small mammal abundance, we don't know if the higher incidence of birds resulted from a decline in rodent populations or was simply a dietary response to a readily available concentration of marsh dwelling birds.

Acknowledgments.—This note is a contribution of the Missouri Cooperative Wildlife Research Unit (University of Missouri-Columbia, Missouri Department of Conservation, U.S. Fish and Wildlife Service, and Wildlife Management Institute cooperating) and Missouri Agricultural Experiment Station Project 179, Journal Series 9449. We thank J. R. Wombwell and F. A. Reid for providing access to study material.—ERIK K. FRITZELL AND DAVID H. THORNE, *School of Forestry, Fisheries and Wildlife, Univ. Missouri, Columbia, Missouri 65211.* *Accepted 24 Aug. 1983.*