ORNITOLOGIA NEOTROPICAL 15: 413–415, 2004

DIET OF THE BARN OWL (*TYTO ALBA*) IN THE LOWLANDS OF ANTIOQUIA, COLOMBIA

Carlos A. Delgado-V.[1], & Edmundo J. F. Cataño-B.[2]

[1]Instituto de Biología, Universidad de Antioquia, Apartado Aéreo 1226, Medellín, Colombia.
E-mail: cadelv@yahoo.com

[2]Sociedad Antioqueña de Ornitología, Apartado Aéreo 60010, Medellín, Colombia.
E-mail: edjofer@hotmail.com

Dieta de la Lechuza común (*Tyto alba*) en las tierras bajas de Antioquia, Colombia.

Key words: Barn Owl, *Tyto alba*, diet, Neotropical rodents, Colombia.

Barn Owls (*Tyto alba*) are found virtually worldwide. In Colombia, this species is found locally in open and semi-open lowland habitats, and human habitations where it often roosts and nests (Hilty & Brown 1986). Numerous papers have documented the diet of this species in southern South America, especially in Argentina (see Pardiñas & Cirignoli 2002) and Chile (see Jaksic 1996). However, only few studies deal with the species in northern South America.

We had the opportunity to examine Barn Owl pellets from a Colombian locality. Although the sample size is limited, our aim was to provide preliminary information on the diet of the species in Colombian lowlands.

STUDY SITE

Pellets were collected in Departamento de Antioquia, Mun. Santa Rosa de Osos, vereda La Clara, finca La Montañita (c. 06°34.5'N, 75°12.5'W, 1100 m a.s.l.), on the western side of the Río Porce. This region (traditionally called "Porce") is an anthropogenic open area used for extensive cattle ranching. Scattered trees and shrubs occur locally throughout the grassland, intermixed with small relict patches of forest.

METHODS

Pellets of Barn Owl were collected during sporadic visits 5–18 June 2000, 2–8 July 2000, 12–22 February 2001, and 20 March 2002. All pellets were collected below the perch of a single bird. The perch was a shrub of an unidentified species of Caesalpinaceae.

Although several procedures have been described for analyzing owl pellets (see Schueler 1972), we recurred to an inexpensive and effective technique used for mammalian predator scats (Chinchilla 1997). Vertebrate remains were separated into hair, skull, postcranial fragments, and teeth, and identified, when possible, at different taxonomic levels ranging from order to species, depending on

TABLE 1. Prey items in 80 Barn Owl (*Tyto alba*) pellets from Antioquia, Colombia. N = the minimum number of individuals in each prey category. Percentages (%) were calculated considering the total number of prey.

Prey items	N	%
Rodentia		
Mus musculus	1	0.6
Oligoryzomys sp.	5	3.2
Nectomys sp.	1	0.6
Rhipidomys latimanus	5	3.2
Zygodontomys brevicauda	54	34.2
Sigmodon sp.	2	1.3
Sigmodon hispidus	22	13.9
Murid unidentified	8	5.1
Anura unidentified	44	27.9
Coleoptera		
Curculionidae	2	1.3
Unidentified	1	0.6
Orthoptera unidentified	3	1.9
Insecta unidentified	10	6.3

the type and quality of the sample, and the availability of reference material. The minimum number of individuals was determined for each food category. To avoid the possibility of overestimating abundance, the total number of mammals was determined according to the number of skulls (Manning & Jones 1990). Amphibian and insects prey were quantified based on pelvic waist and head capsules, respectively.

RESULTS AND DISCUSSION

We counted 158 prey items (142 vertebrates, 16 invertebrates) in 80 pellets collected (Table 1). The mean number of prey/pellet (SD) was 2.0 ± 1.2 (range = 1–6) and the mean number of rodents/pellet was 1.2 ± 0.6 (range = 1– 4). The sample contained the following percentages of individual samples (in descending order of abundance): rodents (62.1%), frogs (27.9%), and insects (10.1%).

Although the presence of other mammals such as bats, lagomorphs and marsupials have been reported in the diet of Barn Owls of other South American localities (e.g., Massoia & Lartigau 1995, Vargas *et al.* 2002), only muroid rodents [(6 native and 1 introduced species (*Mus musculus*)] were recovered in our sample. *Zygodontomys brevicauda* was the predominant rodent prey, comprising 34.2% of the sample, while *Sigmodon hispidus* was the second most common rodent (13.9%). Species such as *Oligoryzomys* sp. and *Rhipidomys latimanus* (3.2%) and *Mus musculus* and *Nectomys* sp. (<1%) were present in lower proportions. On the other hand, we did not recover birds or reptiles, prey previously reported in the diet of Barn Owls (Fritzell & Thorne 1984, Noriega *et al.* 1993). We did find a high number of frogs in our sample but presence of insects was minimal.

We suspect that dietary dependence on rodents, especially *Z. brevicauda* and *S. hispidus*, might be attributable to the relative abundance of these vertebrates, because both rodents are restricted to open areas where they apparently reproduce all the year round (Voss 1991, 1992).

Habitat preferences is likely a factor of prey occurrence in pellet samples. Strictly terrestrial mammal species (e.g., *Z. brevicauda*, *Sigmodon* spp.), common in anthropogenic non-forested habitats where grass is an important component of the vegetation (Voss 1991, 1992), were typically ranked higher in pellet samples than species associated with forest (e.g., *Nectomys* sp., *Rhipidomys latimanus*). This suggests that Barn Owls in this locality hunt regularly in open areas.

Feeding habits and hunting strategies of Barn Owls are poorly known, if not

unknown, in Colombia. Herein we report dietary composition in Antioquian lowlands for the first time. Further systematic collection of pellets are needed for a more detailed analysis.

ACKNOWLEDGMENTS

We are grateful to M. Gómez Laverde for her assistance in the determination of some of prey items. D.M. Brooks kindly made available some useful literature, moreover we appreciate his improvements in English usage made through the Association of Field Ornithologists' program of editorial assistance. E. Castrillón Ortiz, S. Botero Cañola and J. L. Márquez Cataño alerted us on the occurrence of Barn Owls in La Montañita. IDEA WILD provided valuable logistic support. U. F. J. Pardiñas, R. McNeil and an anonymous referee provided important comments on the manuscript.

REFERENCES

Chinchilla, F. A. 1997. La dieta del jaguar (*Panthera onca*), el puma (*Felis concolor*) y el manigordo (*Felis pardalis*) (Carnivora: Felidae) en el Parque Nacional Corcovado, Costa Rica. Rev. Biol. Trop. 45: 1223–1229.

Fritzell, E. K., & D. H. Thorne. 1984. Birds predominate in the winter diet of a Barn Owl. Wilson Bull. 96: 321.

Hilty, S. L., & W. L. Brown. 1986. A guide to the birds of Colombia. Princeton Univ. Press, Princeton, New Jersey.

Jaksic, F. 1996. Ecología de los vertebrados de Chile. Ediciones Univ. Católica de Chile, Santiago, Chile.

Manning, R. W., & J. K. Jones. 1990. Remains of small mammals recovered from Barn Owl pellets from Crosby county, Texas. Texas J. Sci. 42: 311–312.

Massoia, E., & B. Lartigau. 1995. Mamíferos (Rodentia, Lagomorpha y Marsupicarnivora) cazados por *Tyto alba* en el Río Limay, Departamento de Río Pilcaniyeu, provincia de Río Negro. Bol. Cient. Asoc. Protec. Nat. 27: 15–19.

Noriega, J. I., R. M. Aramburu, E. R. Justo, & L. J. M. de Santis. 1993. Birds present in pellets of *Tyto alba* (Strigiformes, Tytonidae) from Casa de Piedra, Argentina. J. Raptor Res. 27: 37–38.

Pardiñas, U. F. J., & S. Cirignoli. 2002. Bibliografía comentada sobre los análisis de egagrópilas de aves rapaces en Argentina. Ornitol. Neotrop. 13: 31–59.

Pillado, M. S., & A. Trejo. 2000. Diet of the Barn Owl (*Tyto alba tuidara*) in northwestern argentine Patagonia. J. Raptor Res. 34: 334–338.

Schueler, F. W. 1972. A new method of preparing owl pellets: boiling in NaOH. Bird Banding 43: 142.

Vargas, J., C. Landaeta, & J. A. Simonneti. 2002. Bats as prey of Barn Owls (*Tyto alba*) in a tropical savanna in Bolivia. . J. Raptor Res. 36: 146–148.

Voss, R. S. 1991. An introduction to the Neotropical muroid rodent genus *Zygodontomys*. Bull. Am. Mus. Nat. Hist. 210: 1–113.

Voss, R. S. 1992. A revision of the South American species of *Sigmodon* (Mammalia: Muridae) with notes on their natural history and biogeography. Am. Mus. Novit. 3050: 1–56.

Aceptado el 5 de Marzo de 2004.