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Gary A. Allport & John R. Fanshawe

BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA, U.K.

A note on the diet of Barn Owls *Tyto alba* at Djoudj, Senegal

A small batch, 155g, of Barn Owl pellets was collected from the car park at "P.C." (Parc Campement), Parc National des Oiseaux de Djoudj, Senegal (c. 16°20'N, 16°20'W) on 18 and 23 March 1992. The identity of the predators is certain, as they were visible roosting in the trees there. Skulls and jaws were extracted from each pellet, working "dry", and are presented in Table 1 as Minimum Numbers of Individuals (MNI), that is the highest number in any one category (skulls, left dentaries, right dentaries) needed to explain the total contents of the batch.

Rodent remains were initially identified by reference to Rosevear (1969), and the identities later checked against reference collections in the Mammal Section, British Museum (Natural History). However, the taxonomy of many African rodents is unstable, and there is little correspondence (or cross-reference) between Rosevear (1969) and the recent checklists for Senegal (Hubert *et al.* 1973, Duplantier & Granjon 1992). I have attempted to reconcile these. The identity of non-rodent prey is discussed later.

The overwhelming majority of the 79 prey items was Multimammate Rats *Mastomys natalensis* (Table 1). These are common commensal rodents throughout sub-Saharan Africa, and were probably caught by the owls around the park headquarters. Taxonomically, what was formerly regarded (e.g. by Rosevear 1969) as a single wide-ranging species is now believed to contain two or three species, distinguished primarily by their chromosome counts. The Djoudj specimens are probably referable to *M. erythroleucus* (see Duplantier & Granjon 1992). Three other rodents were represented, a pygmy mouse *Nannomys haussa*, a small gerbil *Gerbillus nanus* (upper molar row m^{1-3} , 2.95 mm) and the grass rat *Arvicanthis niloticus*. The two *Arvicanthis* were very young, barely weaned, and were recognised primarily from isolated teeth. The gerbil is presumably the species referred to by Duplantier *et al.* (1991) as *G. henleyi*, since *G. nanus* and *G. henleyi* are both small gerbils with a chromosome count of $2n = 52$ (Lay 1983); *G. nanus* is the earlier name. The only non-rodent prey were four shrews and two small birds. The shrews, with an upper tooth row ($i-m^2$) length of 6.98 mm in the best preserved skull, seem referable to *Crocidura planiceps* (see Hutterer & Happold 1983). The two passerines are small seed-eaters with bill lengths of about 11.6 and 12.1 mm, and a tarsus length of 17.5 mm; these measurements closely match Yellow-crowned Bishop *Euplectes afer*, which is abundant in the area.

Table 1. Prey of a pair of Barn Owls *Tyto alba* at Djoudj, Senegal, March 1992. Weights interpreted by comparison with skeletons of British prey species.

Prey species	Estimated body wt (g)	Skulls (n)	Jaws		MNI	% of total prey nos.	Total prey wt. (g)	% of total prey wt.
			Left (n)	Right (n)				
<i>Mastomys natalensis</i>	35	64	66	68	68	86.1	2380	93.7
<i>Crocidura ?planiceps</i>	6	3	4	3	4	5.1	24	0.9
<i>Nannomys haussa</i>	5	2	2	2	2	2.5	10	0.4
<i>Arvicanthis niloticus</i>	40	2	1	2	2	2.5	80	3.1
<i>Gerbillus nanus</i>	12	1	1	1	1	1.3	12	0.5
Passerine sp.	17	2	2	2	2	2.5	34	1.3
Totals					79	100	2540	100

This diet is remarkable for the extent to which it is dominated by a single prey species, and for the scarcity of "truly wild" prey; although murid rodents typically provide around 80% of the diet in southern Africa, and *M. natalensis* is predominant among them, 94% provided by a single species is notable (Wilson *et al.* 1988). It may be that the seasonally flooded lowlands around P.C. support few "wild" rodents;

alternatively, the abundance of commensal rodents may make it unnecessary for the owls to hunt further afield. It would require trapping studies to establish the former point, though the latter is very evident from casual observation. These Barn Owls were clearly not exploiting the abundant waders present, as were those in Bissau reported by Heim de Balsac (1965).

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D.W. Yalden
Department of Environmental Biology,
The University, Manchester M13 9PL, U.K.