

SHORT NOTE

The prey of owls from Koichab Pan in the southern Namib Desert

by

J. D. Skinner, M. Lindeque, R. J. van Aarde
and R. C. Dieckmann

Mammal Research Institute,
University of Pretoria,
Pretoria, 0002

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A sample of 760 owl pellets from six roosts in the southern Namib Desert, an area of which the mammalian fauna is little known, was analysed. Seven species of mammals were identified in the pellets, the most important being gerbils (50 %) and golden moles (30 %), while geckoes (16 %) were the other most important prey. *Malacothrix* was recorded for the first time as a prey item in this region and also as being present in the southern Namib.

The value of studying vertebrate distribution through analysis of pellets of raptors has long been recognised (Davis, 1959; Nel, 1969). This method has proved particularly useful in furthering our knowledge of the distributional range of small nocturnal vertebrates, as owls are more adept at finding them than man is with the present methods at his disposal. The object of this short note is to present the results of an analysis of the contents of pellets dropped by the spotted eagle owl *Bubo africanus*.

During a visit to the southern Namib in January 1979 to study the ecology and distribution of hyaenas, extensive ground searches were conducted and owl pellets also collected from six different roosts among the rocky hills bordering Koichab Pan. Two of the roosts, containing 483 and 89 pellets, were occupied by spotted eagle owls and, although the occupants of another three nearby roosts were not identified, they were probably the same owl species as were the occupants of the sixth roost which was about 5 km away.

The hunting range of this raptor is unknown as far as we are aware. The area covered by the present survey consisted of a gravel plain several hundred metres wide, immediately north of the rocky hills sloping gently down to the dry Koichab river-bed covered by bush clumps. On the northern side of the river sand rose quite steeply to a plateau for the entire length of the river. This "dune" was covered by sparse vegetation and stretched for several kilometres until met by large red dunes and dune streets characteristic of the central Namib Desert. We assume, therefore, that the area over which the owls hunted can be separated into four distinct habitats namely: the rocky hills, the gravel plain, the river-bed and the vegetated sand, over large areas of which tunnels of the golden mole were evident.

Only whole pellets were analysed. Cranial remains were sorted and identified separately for pellets from each of the roosts which were all in use at the time of the collection.

The results of the analysis are illustrated in Table 1. Unfortunately no distinction could be made between the species of *Gerbillurus*, due to the fragmented nature of the cranial remains and absence of bullae, which have therefore been lumped together. Although *Rhinolophus darlingi* and *Bathyergus janetta* have been tentatively recorded, these records must await confirmation before they can be accepted.

The results presented here were from a large sample of owl pellets but the period over which the owls caught

TABLE 1: Number of prey and percentage composition by number from six owl roosts in the area of Koichab Pan, southern Namib Desert.

PREY SPECIES	ROOST												TOTAL	
	A		B		C		D		E		F			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Mammalia														
<i>Gerbillurus</i> spp	483	50,6	51	67,1	8	47,1	53	66,3	70	31,0	45	73,8	710	50,21
<i>Eremitalpa granti namibensis</i>	361	37,8	3	4,0	4	23,5	26	32,5	24	10,6	14	22,9	432	30,55
<i>Desmodillus auricularis</i>	5	0,5	2	2,6	—	—	1	1,3	1	0,4	—	—	9	0,64
<i>Malacothrix</i> sp (<i>typica</i>)	10	1,1	—	—	—	—	—	—	3	1,3	—	—	13	0,92
<i>Rhodomys pumilio</i>	1	0,1	1	1,3	—	—	—	—	—	—	—	—	2	0,14
* <i>Rhinolophus darlingi</i>	1	0,1	—	—	—	—	—	—	—	—	—	—	1	0,07
* <i>Bathyergus janetta</i>	—	—	1	1,3	—	—	—	—	—	—	—	—	1	0,07
** Geckonidae	87	9,1	13	17,1	5	29,4	—	—	127	56,2	2	3,3	234	16,55
Passeriformes	6	0,6	5	6,6	—	—	—	—	1	0,4	—	—	12	0,85
Solifugae	present												present	
Tenebrionidae	present												present	
	954	99,9	76	100,0	17	100,0	80	100,1	226	99,9	61	100,0	1414	100,00
Total No. of pellets	505		48		16		53		89		49		760	
Mammal component	90,2		76,3		70,6		100,0		43,4		96,7			
Reptile component	9,1		17,1		29,4		—		56,2		3,3			
Bird component	0,6		6,6		—		—		0,4		—			

* Only 1 mandible *R. darlingi*. Only 1 molar *B. janetta*, identification therefore doubtful.

** Majority *Palmatogeo* sp. as well as *Pachydactylus* and *Ptenopus* spp.

their prey is unfortunately not known. It is, however, hoped to revisit this area during the course of future ecological research and then it will be interesting to make comparisons.

As in Nel's (1969) analysis of pellets from the spotted eagle owl further north at Sossusvlei in the Namib Desert *Gerbillurus* spp. are the most common prey. We were however, unable to distinguish between different species from the broken skull remains at our disposal. Likewise, as in the north, *Eremitalpa granti namibensis* was the second most numerous genus caught. This was not surprising considering the evidence of their presence on the vegetated dune. The third most important mammal caught was *Malacothrix* which is recorded for the first time from this region; this species is widely distributed in the arid regions of southern Africa and its occurrence here is not unexpected although not yet recorded amongst the mammals of the Namib Desert proper (Coetzee, 1969; Stuart, 1975) as well. *Desmodillus auricularis* and *Rhodomys pumilio*, both recorded here in small numbers, are well-known inhabitants of the Namib Desert to the north.

The gerbils, moles and geckoes made up 97 % of the total prey of the owls. The geckoes, however, occurred twice as frequently in the pellets as they did in Nel's (1969) study. On the other hand, the role of birds, as in Nel's (1969) analysis, is negligible; nor were invertebrates apparently of any great importance, al-

though it is difficult to determine this due to the soft body parts.

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