THE COMPOSITION OF THE MILK OF THE AFRICAN DWARF GOAT, SPRINGBOK AND BLUE DUIKER

H. F. VON KETELHODT
Queen's Park Zoo, East London

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The rearing of animals in captivity involves many factors of which one of the most important is to ensure that conditions are suitable for the development of young. Ideally, the young animal should be reared by its mother but in practice it is sometimes necessary to hand-rear a young animal and in this case information on its diet is important, particularly the composition of the mother's milk. Ben-Shaul (1963) has given the composition of the milk of a large number of wild animals but those of the blue duiker (*Cephalophus monticola*), springbok (*Antidorcas marsupialis*) and the African dwarf goat (*Caprine* spp.) were not included. These three animals are kept at Queen's Park Zoo, East London, and the author took the opportunity of having milk samples from lactating ewes analysed. The results of these analyses are shown in Table 1.

ACKNOWLEDGEMENT

The author would like to thank Mr G. Thornton, chief chemist, East London municipality, for analysing the milk samples.

REFERENCE

BEN-SHAUL, D. M. 1963. The composition of the milk of wild animals. In *The international zoo yearbook*, 4, ed. C. Jarvis & D. Morris. London: Hutchinson.

TABLE 1

The composition of the milk of the blue duiker, springbok and African dwarf goat (in % m/m).

	Blue Duiker	*Dwarf Goat*	*Springbok**
Total milk solids	29,25	13,68	
Fat	16,00	5,55	12,00
Lactose	3,22	1,39	1,78
Protein	8,47	5,36	3,35
Ash (residue after ignition)	1,04	1,15	1,50
Analysis of ash			
Calcium as Ca	17,44	13,37	
Magnesium as Mg	3,76	2,06	
Sodium as Na	3,91	22,30	
Potassium as K	13,24	3,17	
Chlorides as Cl	3,97	25,82	
Phosphates as PO_4	50,09	33,20	

*Taken from a dying ewe five days after the onset of lactation.

OBSERVATIONS ON THE LAMBING INTERVAL OF THE GREY DUIKER, SYLVICAPRA GRIMMIA GRIMMIA

H. F. VON KETELHODT
Queen's Park Zoo, East London

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INTRODUCTION

Little information is available on the reproduction of the grey duiker, *Sylvicapra grimmia grimmia* (Linnaeus) in South Africa. Stevenson-Hamilton (1912) considered the gestation period to be about four months, Jennison (1927 in Kenneth & Ritchie 1953) 123 days and Wilhelm (1933 in Kenneth & Ritchie 1953) a maximum of 210

days. More recently Zaloumis & Cross (1974) have given the gestation period as 210 days.

Having a pair of grey duikers in a camp in Queen's Park Zoo in 1965, the author decided to establish the lambing interval of *Sylvicapra grimmia grimmia* in captivity.

A fenced camp, 0,3 ha in area, was used in this study. The vegetation in the enclosure consisted of a mixture of indigenous and kikuyu grass plus a number of shade trees. During the course of this study, five blue duiker, a bushbuck ram and a number of cranes and herons shared the camp with the pair of grey duiker under observation.

From October 1965 to August 1973 the dates of birth of all grey duiker in the enclosure were recorded. All new-born lambs were removed from the enclosure after weaning. In this study the animals were exposed to normal seasonal photoperiod (daylength) changes. No artificial lighting was used in the camps.

RESULTS

The birth data from the pair of grey duiker are shown in Table 1.

DISCUSSION

It was found that the mean lambing interval for the grey duiker was 259 days which was slightly less than that of 270 days (nine months) given by Mentis (1970). If it is assumed that the gestation period of 210 days reported by Zaloumis & Cross (1974) is correct, then it may be deduced that the female grey duiker is capable of conception on an average of 49 days following the birth of each lamb and that the lambing interval is not regulated by an annual rhythm or seasonal cycle.

On two occasions during this study, the ram was observed to mate with the ewe four days after she had given birth but whether this mating was successful is not known.

With a lambing interval of 259 days, it is possible for the grey duiker to bear two lambs within a single 12-month period.

TABLE 1

The birth data from a pair of grey duiker recorded at Queen's Park Zoo, East London between October 1965 and August 1973. The fiducal limits of the lambing interval indicate $\pm$ 2 $\times$ S.E.

Lamb Number	*Birth date of lamb*	*Birth date of previous lamb*	*Lambing interval (in days)*
1	20. 7.1966	14.10.1965	279
2	25. 3.1967	20. 7.1966	248
3	21.12.1967	25. 3.1967	271
4	14. 9.1968	21.12.1967	267
5	19. 5.1969	14. 9.1968	248
6	22. 1.1970	19. 5.1969	248
7	30. 9.1970	22. 1.1970	249
8	24. 7.1971	30. 9.1970	298
9	11. 4.1972	24. 7.1971	262
10	28.11.1972	11. 4.1972	232
11	7. 8.1973	28.11.1972	253
		Mean =	259,5 $\pm$ 11,6

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