Onderstepoort J. vet. Res., 58, 15–16 (1991)

PARASITES OF SOUTH AFRICAN WILDLIFE. VII. HELMINTHS OF SUNI, *NEOTRAGUS MOSCHATUS*, IN NATAL

J. BOOMKER[1], D. G. BOOYSE[1] and L. E. O. BRAACK[2]

ABSTRACT

BOOMKER, J., BOOYSE, D. G. & BRAACK, L. E. O., 1991 Parasites of South African wildlife. VII. Helminths of suni, *Neotragus moschatus*, in Natal. *Onderstepoort Journal of Veterinary Research*, 58, 15–16 (1991).

The helminths of 4 suni, *Neotragus moschatus*, from the Tembe National Elephant Park, KwaZulu, Natal, were collected, counted and identified. *Cooperia hungi*, a race of *Cooperia rotundispiculum*, *Haemonchus vegliai*, *Setaria cornuta*, a *Skrjabinema* sp., *Strongyloides papillosus*, *Trichostrongylus anomalus* and *Trichostrongylus deflexus* are new parasite records for suni in Africa. *Megacooperia woodfordi* was recovered for the first time from South African antelope.

INTRODUCTION

Suni are very small antelope, the males standing approximately 35 cm at the shoulder with a mean mass of about 5 kg. The females are about the same size, but are slightly heavier with a mean mass of about 5,4 kg. The subspecies *Neotragus moschatus zuluensis* occurs in South Africa and is found in the northern parts of the Kruger National Park (KNP), as well as in the north-eastern parts of Natal and down to False Bay Game Park of the Lake St. Lucia area. The latter area marks their southern limits (Smithers, 1983). Suni are associated with dry woodland with thickets and underbrush, riparian scrub or dry scrub along drainage lines (Smithers, 1983). They occur singly, in pairs or as family groups. According to Heinichen (1972), they inhabit small territories in which they may regularly be found. They are shy and wary and are active during early morning and late afternoon.

Suni are browsers, feeding on the terminal leaves of shrubs and the fallen and growing fruits of trees and shrubs. Heinichen (1972) lists 11 plants that are utilized by suni in the False Bay Game Park. Like that of red and blue duikers, their status is precarious because their habitat is rapidly being destroyed.

The parasites of these antelope are practically unknown, as the first record is that of Khalil & Gibbons (1976). These authors recovered 10 helminth species from 6 suni from Ngong, Kenya. The helminth parasites of the South African subspecies are recorded here for the first time.

MATERIALS AND METHODS

The Tembe National Elephant Park (TNEP) (32° 09′–32° 21′ E; 26° 50′–26° 56′ S, altitude 30–100 m) is situated in the extreme north of Natal and comprises approximately 29 878 ha. The Park's northern boundary is also part of the southern boundary of Mozambique. It falls within the Lowveld subtype of Tropical Bush and Savannah (Acocks, 1988). The rainfall varies from 500 to 750 mm per annum and occurs mostly in summer. Summers are hot and humid and winters are mild. Frost does not occur.

Shortly after being captured in the TNEP 3 adult male suni died as a result of capture myopathy. Another old male died from an unknown cause 2 months after translocation to the KNP.

The parasites of all 4 animals were collected, counted and identified, as described by Boomker, Horak & De Vos (1989). Digests of the gastro-intestinal mucosa, however, were not done. The first helminth record and the author of the description used to assist with the identification of the worms are listed in Table 1. This table also lists the helminths recovered to date from suni in South Africa.

TABLE 1 First list of the helminth parasites of suni in the Republic of South Africa, with reference to the first record and the authors of the descriptions used to assist with the identification of the worms

Helminth species	First record	Identification
No cestodes or trematodes were recorded		
Nematodes		
Cooperia hungi	This study	Gibbons, 1981
A race of *Cooperia rotundispiculum* Gibbons & Khalil, 1980	This study	This study
Haemonchus vegliai Le Roux, 1929	This study	Gibbons, 1979
Megacooperia woodfordi Khalil & Gibbons, 1976	Khalil & Gibbons, 1976	Khalil & Gibbons, 1976
Setaria cornuta Von Linstow, 1904	This study	Yeh, 1959
Skrjabinema sp.	This study	Mönnig, 1932
Strongyloides papillosus (Wedl, 1856) Ransom, 1911	This study	Ransom, 1911
Trichostrongylus anomalus Boomker & Vermaak, 1986	This study	Boomker & Vermaak, 1986
Trichostrongylus deflexus Boomker & Reinecke, 1989	This study	Boomker & Reinecke, 1989

RESULTS

The species and numbers of helminths recovered and the number of antelope infested are listed in Table 2.

Nine nematode species were recovered, and of these, *Cooperia hungi*, the *Cooperia rotundispiculum* race, *Haemonchus vegliai*, *Setaria cornuta*, the *Skrjabinema* sp., *Strongyloides papillosus*, *Trichostrongylus anomalus* and *Trichostrongylus*

[1] Department of Pathology, Faculty of Veterinary Science, Medical University of Southern Africa, P.O. Box 59, Medunsa 0204

[2] National Parks Board, Private Bag X402, Skukuza 1350

Received 15 October 1990—Editor

TABLE 2 Helminth parasites recovered from four suni from the Tembe National Elephant Park, KwaZulu

Helminth species	Number of helminths recovered			Number of antelope infested
	Larvae	Adults	Total	
Cooperia hungi	*	110	110	1
Cooperia rotundispiculum race	*	1	1	1
Megacooperia woodfordi	*	65	65	3
Cooperia spp. larvae	50	—	50	1
Haemonchus vegliai	10	77	87	4
Setaria cornuta	0	1	1	1
Skrjabinema sp.	0	10	10	1
Strongyloides papillosus	0	26	26	1
Trichostrongylus anomalus	*	177	177	4
Trichostrongylus deflexus	*	36	36	1
Trichostrongylus spp. larvae	10	—	10	1
Total burden (4 antelope)	70	503	573	
Mean burden (4 antelope)	17	126	143	

* = Larvae indistinguishable at species level. Counted together as either *Cooperia* spp. or *Trichostrongylus* spp.

deflexus are new parasite records for suni in Africa. Individual burdens varied from 18 to 310 worms.

DISCUSSION

Khalil & Gibbons (1976) recovered 10 helminth species from the 6 suni they examined, 2 of which were new species of nematodes that were subsequently described as *Trichostrongylus moschatus* and *Megacooperia woodfordi*. *T. moschatus* has spicules similar in length to those of *T. anomalus;* the differences between these species have been discussed by Boomker (1990).

With the exception of *M. woodfordi,* none of the worms Khalil & Gibbons (1976) found were present in the suni from the TNEP. Those recovered in this study therefore constitute new parasite records for this host in Africa. This is the first time that *M. woodfordi* has been found in South Africa.

H. vegliai and *T. anomalus* should be considered as definitive parasites of suni. *M. woodfordi* should be considered as a host-specific nematode, as it has so far been recorded only from suni (Gibbons & Khalil, 1976; Boomker, 1990). The remaining nematodes are possibly occasional parasites, since each was recovered from a single antelope.

The magnitude of the helminth burdens harboured by the suni appears to be insignificant pathologically, particularly when the composition of helminth species is considered.

ACKNOWLEDGEMENTS

We wish to thank the Natal Parks, Game and Fish Preservation Board and the Trustees, National Parks Board, for placing the animals at our disposal. This study was partly funded by the Foundation for Research and Development of the Council for Scientific and Industrial Research.

REFERENCES

ACOCKS, J. P. H., 1988. Veld types of South Africa. Memoirs of the Botanical Survey of South Africa, No. 57, pp. x + 146 and maps.

BOOMKER, J. & VERMAAK, DALENE, 1986. *Trichostrongylus anomalus* n. sp. (Nematoda: Trichostrongylidae) from the red duiker *Cephalophus natalensis* A. Smith, 1834. *South African Journal of Wildlife Research,* 16, 122–123.

BOOMKER, J. & REINECKE, R. K., 1989 *Trichostrongylus deflexus* n. sp. (Nematoda: Trichostrongylidae) from several antelope species. *South African Journal of Wildlife Management,* 19, 21–25.

BOOMKER, J., HORAK, I. G. & DE VOS, V., 1989. Parasites of South African wildlife. IV. Helminths of kudu, *Tragelaphus strepsiceros,* in the Kruger National Park. *Onderstepoort Journal of Veterinary Research,* 56, 111–121.

BOOMKER, J., 1990. A comparative study of the helminths of browsing antelope of South Africa. D.V.Sc. thesis, Medical University of Southern Africa.

DESSET, MARIE-CLAUDE, 1966. Contribution a la systématique des filaires du genre *Setaria;* valeur des diérides. *Memoirs du Muséum National d'Histoire Naturelle,* 39, 257–287.

GIBBONS, LYNDA M., 1979. Revision of the genus *Haemonchus* Cobb, 1898 (Nematoda: Trichostrongylidae). *Systematic Parasitology,* 1, 3–24.

GIBBONS, LYNDA M., 1981. Revision of the African species of the genus *Cooperia* Ransom, 1907 (Nematoda: Trichostrongylidae). *Systematic Parasitology,* 2, 219–252.

HEINICHEN, I. G., 1972. Preliminary notes on the suni, *Neotragus moschatus* and red duiker, *Cephalophus natalensis. Zoologica Africana,* 7, 157–165.

KHALIL, L. F. & GIBBONS, LYNDA M., 1976. The helminth parasites of the suni, *Neotragus moschatus* von Dueben, 1846 from Kenya with the description of a new genus and two new species of nematodes. *Revue de Zoologie africaine,* 90, 559–577.

MÖNNIG, H. O., 1932. Wild antelopes as carriers of nematode parasites of vertebrates. Part II. *18th Report of the Director of Veterinary Services and Animal Industry, Department of Agriculture, Union of South Africa,* pp. 153–172.

RANSOM, B. H., 1911. The nematodes parasitic in the alimentary tract of cattle, sheep and other ruminants. *Bulletin of the Bureau for Animal Industry, United States Department of Agriculture,* 127, 1–132.

SMITHERS, R. H. N., 1983. The mammals of the southern African subregion. Pretoria: University of Pretoria.

YEH, L.-S., 1959. A revision of the nematode genus *Setaria* Viborg, 1795, its host-parasite relationship, speciation and evolution. *Journal of Helminthology,* 33, 1–98.

Printed by the Government Printer, Private Bag X85, Pretoria, 0001