

A REPORT ON NEMATODES FOUND IN SOIL AND ROOT SAMPLES FROM THE KRUGER NATIONAL PARK

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Five soil and root samples were taken in the Southern part of the Kruger National Park during December 1961 and examined for the presence of nematodes, using a modification of the Oostenbrink elutriator (J. B. Goodey, 1957). Counts were made under the dissecting microscope of the numbers of nematodes present in the various samples.

The localities where the samples were taken with the dominant grass species in each case, are as follows :

Sample No.	Locality	Grasses
1	Western border near Skukuza.	<i>Digitaria sanguinalis</i> <i>Cynodon hirsutus</i>
2	Western border near Skukuza.	<i>Aristida diminuta</i>
3	Western border near Skukuza.	<i>Themeda triandra</i> <i>Botryochloa insculpta</i>
4	Eastern border near Lipape road.	<i>Brachiaria nigropedata</i>
5	Eastern border near Lipape road.	<i>Cenchrus ciliaris</i>

The results of the counts made, are summarised in the following table :

Sample No.	Total number of nematodes in 10 gram roots	Number of nematodes per 250 cc Soil							
		Various Tylenchidae	Various Hoplolaimidae	<i>Pratylenchus</i> spp.	<i>Tylenchorhynchus</i> sp.	<i>Paratylenchus</i> spp.	<i>Xiphinema</i> spp.	Various Dorylaimoidea	Various saprophagous forms
1	142	510	200	10	—	70	20	70	300
2	—	680	50	70	20	20	—	10	70
3	407	730	20	70	—	70	10	10	610
4	938	1,360	680	40	200	40	—	—	2,400
5	244	760	360	240	160	—	40	120	1,120

Since on the whole the same species were found in both root and soil samples, a single list is given below for the dominant species found in the five samples :

Sample No.	Plant parasitic	Saprophagous	Predacious
1	<i>Scutellonema brachyurum</i> <i>Pratylenchus pratensis</i> <i>Paratylenchus</i> sp. <i>Xiphinema brevicaudatum</i>	<i>Diplogaster</i> sp. <i>Eucephalobus</i> sp. <i>Dorylaimellus</i> sp.	<i>Discolaimium</i> sp. <i>Mylonchulus</i> sp.
2	<i>Scutellonema brachyurum</i> <i>Helicotylenchus nannus</i> <i>Pratylenchus pratensis</i> <i>Pratylenchus vulnus</i> <i>Tylenchorhynchus</i> sp. <i>Paratylenchus</i> sp.	<i>Mesodorylaimus arvensus</i> <i>Zeldia serrata</i>	<i>Mylonchulus</i> sp. <i>Discolaimus major</i>
3	<i>Scutellonema coheni</i> <i>Pratylenchus pratensis</i> <i>Paratylenchus</i> sp. <i>Xiphinema americanum</i>	<i>Eudorylaimus amylovorus</i> <i>Acrobeles</i> sp. <i>Diplogaster</i> sp.	<i>Discolaimoides</i> sp. <i>Iotonchus</i> sp.
4	<i>Scutellonema brachyurum</i> <i>Helicotylenchus multicinctus</i> <i>Pratylenchus</i> sp. <i>Tylenchorhynchus</i> sp.	<i>Diplogaster</i> sp. <i>Eucephalobus</i> sp. <i>Eucephalobus latus</i> <i>Acrobeles</i> sp. <i>Zeldia serrata</i> <i>Chiloplacus lentus</i>	<i>Ironus</i> sp. <i>Mylonchulus</i> sp. <i>Iotonchus</i> sp.
5	<i>Scutellonema coheni</i> <i>Pratylenchus pratensis</i> <i>Pratylenchus zeae</i> <i>Tylenchorhynchus</i> sp. <i>Xiphinema brevicaudatus</i> <i>Xiphinema americanum</i>	<i>Eudorylaimus amylovorus</i> <i>Chiloplacus</i> sp.	<i>Discolaimus major</i> <i>Mylonchulus</i> sp. <i>Iotonchus</i> sp.

The populations found can be regarded as normal, since it is typical of grassland vegetation on the whole. The Hoplolaiminae (of which *Scutellonema* and *Helicotylenchus* are representatives) as well as *Pratylenchus* and *Tylenchorhynchus*, which were present in large numbers, are the normal inhabitants of grassland.