NECROSPY DATA OF EIGHT REEDBUCK
*REDUNCA ARUNDINUM* FROM THE KRUGER
NATIONAL PARK

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Introduction

During October 1969 a piece of land was fenced out of the Kruger Na-
tional Park, Republic of South Africa, near Numbi Gate in the south
western tip of the Park. Impenetrable diamond mesh fencing material
was used. In spite of concentrated and repeated efforts to drive game
from this excised bit of land, some game still remained within the area.
As this piece of land was designated for concentrated human habitation-
al purposes and lay within the region where movements are restricted
by foot-and-mouth control regulations, it was decided to shoot and use
the remainder of the antelope population for research purposes. This
report documents the findings on eight reedbuck *Redunca arundinum*
which were collected in this area. Very little is known of the disease spec-
trum of this species in the wild state.

Material and Methods

The animals were killed by means of a small bore, high velocity rifle.
Body mass and measurement data were then recorded in accordance
with standards by Ansell (1965). Standard necropsy procedures were
followed and a macroscopic examination was made of all organ systems.
Specimens from all organs and tissues were collected in 10% buffered
formalin and forwarded to the Department of Pathology, Veterinary Re-
search Institute, Onderstepoort, for light microscopy. Internal parasites
were collected in 10% formalin and handed over to the Department of
Helminthology, Veterinary Research Institute, Onderstepoort for iden-
tification purposes. External parasites were collected in 70% alcohol and
subsequently identified by the Department of Entomology, South Afri-
can Institute for Medical Research.

Results and Discussion

This survey was confined to a very limited, but essentially randomly
collected number of apparently healthy individuals living under natural
conditions. Consequently the results do not reflect the entire disease
Table 1

Necropsy data of eight redbuck from the Kruger National Park

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Sex</th>
<th>Body Mass (kg)</th>
<th>Body length (cm)</th>
<th>Height at withers</th>
<th>Girth</th>
<th>Pregnancy Status</th>
<th>Macroscopic</th>
<th>Microscopic</th>
<th>Internal Parasites</th>
<th>External Parasites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young adult</td>
<td>♂</td>
<td>56.0</td>
<td>106.8</td>
<td>92.5</td>
<td>88.3</td>
<td></td>
<td>No specific lesion</td>
<td>No specific lesion</td>
<td>Setaria bicornata</td>
<td>Rhipicephalus evertsi</td>
</tr>
<tr>
<td>Prime adult</td>
<td>♂</td>
<td>61.5</td>
<td>111.0</td>
<td>94.0</td>
<td>89.0</td>
<td></td>
<td>Four rough areas over liver surface.</td>
<td>Localized chronic hepatitis. One small lymphoid.</td>
<td>Setaria bicornata</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Prime adult</td>
<td>♀</td>
<td>63.5</td>
<td>110.2</td>
<td>95.0</td>
<td>90.0</td>
<td></td>
<td>Rough whitish areas over liver surface. Few attachments of liver to diaphragm.</td>
<td>Setarias, Subcapsular area showing a parasitic granuloma. Also localized areas of chronic perihepatitis.</td>
<td>Setaria bicornata</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Old adult</td>
<td>♀</td>
<td>51.0</td>
<td>101.0</td>
<td>95.3</td>
<td>84.0</td>
<td></td>
<td>Localized rough area over liver surface attached to diaphragm.</td>
<td>Localized chronic hepatitis</td>
<td>Setaria bicornata</td>
<td>Rhipicephalus evertsi</td>
</tr>
<tr>
<td>Young adult</td>
<td>♀</td>
<td>59.0</td>
<td>99.3</td>
<td>93.5</td>
<td>71.0</td>
<td>+</td>
<td>No specific lesions.</td>
<td>No specific lesions.</td>
<td>Harmonchus veglia</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Prime adult</td>
<td>♀</td>
<td>47.5</td>
<td>102.1</td>
<td>88.6</td>
<td>80.5</td>
<td>+</td>
<td>Localized rough areas over liver surface. Cysticercosis (1 cyst) of heart muscle.</td>
<td>Very mild fatty changes in liver.</td>
<td>Setaria bicornata</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Old adult</td>
<td>♀</td>
<td>49.0</td>
<td>105.1</td>
<td>90.3</td>
<td>78.8</td>
<td>+</td>
<td>Heavily parasitized with internal parasites and liver. Cysticercosis (2 cysts) of heart muscle.</td>
<td>Localized vasculitis and few round cell foci in liver.</td>
<td>Setaria bicornata</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Old adult</td>
<td>♀</td>
<td>43.0</td>
<td>109.0</td>
<td>86.0</td>
<td>76.0</td>
<td>+</td>
<td>No specific lesions.</td>
<td>No specific lesions.</td>
<td>Harmonchus veglia</td>
<td>Rhipicephalus evertsi</td>
</tr>
<tr>
<td>Average</td>
<td>♂</td>
<td>41.23</td>
<td>107.25</td>
<td>94.2</td>
<td>88.95</td>
<td></td>
<td>No specific lesion</td>
<td>No specific lesion</td>
<td>Setaria bicornata</td>
<td>Damalinia reducnae</td>
</tr>
<tr>
<td>Average</td>
<td>♀</td>
<td>44.63</td>
<td>103.88</td>
<td>86.95</td>
<td>76.58</td>
<td></td>
<td>No specific lesion</td>
<td>No specific lesion</td>
<td>Harmonchus veglia</td>
<td>Rhipicephalus evertsi</td>
</tr>
</tbody>
</table>

Body measurements in accordance with standards by Amell (1965)
*Body length taken over curves with head included, but tail excluded.
parameter of this species in the Kruger National Park. Nevertheless some interesting information was gained and can be taken as a basis for subsequent observations. The most important results are presented quantitatively and qualitatively in Table 1.

Body masses as recorded are slightly below figures quoted by Meinertzhagen (1938) and Wilson (1968) for reedbuck in northern regions. This, however, be ascribed to the fact that the animals were killed at the end of the dry season.

All females in the sample were in calf. Foetal stages of development were very similar, indicating a lumping tendency in time of birth. Judging from foetal development it was subjectively assessed that births would have taken place during December or January. This fits in with the theory advanced by Jungius (1971) that a peak in births occur during December to April in the Park.

With the exception of light to fairly heavy parasitism, essentially negative findings were recorded for the macro- and microscopical examination. Although no new species of parasites were found for the reedbuck as reflected by the literature (Theiler 1962; Neitz 1965; Round 1968) all these host-parasite recordings are new for the Park.

Fairly heavy setariosis must be held responsible for the light but consistent pattern of localized hepatitis and perihepatitis in most of the animals.

Acknowledgements

The Departments of Pathology and Helminthology of the Veterinary Research Institute and Department of Entomology of the South African Institute for Medical Research are thanked for services rendered during this and similar projects.

REFERENCES


