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A Survey of Deaths in Rhodesia Caused by Animals

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*"While Fell was reposing himself in the hay
A reptile, concealed, bit his leg as he lay,
But all venom himself of the wound he made light
And got well while the reptile he died of fright."*

INTRODUCTION

It is of interest that in Rhodesia deaths caused by animals are far fewer than those caused by man himself. Besides murders and traffic accidents, there are ten times as many deaths amongst Africans due to suicide (Castle and Rittey, in publication), as there are from all the animal species added together and reported here.

METHOD

The returns of mortality to the Rhodesian Attorney General's Office were reviewed retrospectively over the five-year period June, 1965, to May, 1970. Included in the study are all fatalities in which the victim was reported to have died from direct or indirect contact with some non-human species of Rhodesian animal life. It includes deaths, due to trauma and to bites or stings of venomous animals and insects, but deaths caused by such diseases as rabies and psittacosis are excluded (E905 and 906, International Classification of Diseases, 1965).

RESULTS

Over the quinquennium there were 117 such deaths—114 African and three European. The Europeans were adult males, one losing his conflict with a hippopotamus and two dying as a result of bee stings. Of the 114 African victims, 93 were male (58 adults and 35 children), and of the 21 female deaths 11 were adults and 10 juveniles.

The overall low crude rate in the survey of 0.47 per 100,000 is brought into perspective in Table I, when it is shown alongside this country's African

Table I

RHODESIAN AFRICAN MORTALITY RATES BY
VARIOUS SELECTED CAUSES

Cause	Annual Death Rate Per 100,000*
Road accidents (1969 return)	8.3
Suicides (1968-69 return)	5.6
Mining Accidents (1969 return)	1.5
Lightning (1965-69 return)	0.9
This study	0.5

* Rates based on the 1969 census figures for the total African population.

crude mortality rates by various other violent causes.

The second table shows the species responsible in order of frequency and Table III shows the same results broken down generically. Although crocodiles and snakes are the most effective species, their mammalian counterparts when considered collectively are 80 per cent. as effective. Of the mammals concerned, less than 20 per cent. are carnivorous; presumably many of the herbivorous mammals were provoked into conflict.

Table IV shows the African mortality rates per 100,000 by province. The crude death rate is very low in every province, but is highest in Victoria and Matabeleland North.

Table II

SPECIES OF ANIMAL REPORTED RESPONSIBLE FOR
HUMAN DEATHS IN THE PAST QUINQUENNium
IN RHODESIA

Animal Species	No. of Deaths
Crocodiles	37
Snakes	21
Bees	12
Cattle	11
Buffalo	6
Elephants	5
Lions	4
Hippopotami	4
All others (less than four each)	17
TOTAL	117

Table III
CLASSES AND ORDER OF ANIMAL SPECIES REPORTED IN PREVIOUS TABLE

Class	Order	No. of Deaths
Mammalia	Carnivora	8
	Artiodactyla (herbivorous, split hoof)	22
	Perissodactyla (herbivorous, single hoof)	8
	Others (including one unknown)	8
	Sub-Total	46
Reptilia		58
Insecta		13
	TOTAL	117

DISCUSSION

I begin the discussion by apologising for writing about a matter so inconsequential relative to other problems of medicine in a developing country. However, physicians report their rare cases and consequently I present this mortality pattern of rarities.

The morbidity pattern, although less reliable and more difficult to obtain, would be of greater medical and administrative interest than the mortality pattern. In such a morbidity league one would suspect that the crocodile, which rarely loses its conflict, would be demoted and the snakes and mammals would figure more prominently (Fig. 1).

However, in this mortality picture the reptiles are most prominent and are the only group with sufficient numbers possibly to justify further

Fig. 1—"He surest strikes that smiling gives the blow".



Table IV
AFRICAN MORTALITY RATES IN THIS SURVEY BY PROVINCE

Province	No. of Deaths Over 5 Years	Annual Death Rate Per 100,000*
Manicaland	10	0.26
Mashonaland N.	19	0.52
Mashonaland S.	13	0.26
Matabeleland N.	23	0.85
Matabeleland S.	7	0.39
Midlands	6	0.17
Victoria	36	0.99
OVERALL	114	0.47

* Rates based on the 1969 census figures for the total African population.

analysis. Table V shows the victims of the two reptile groups by age and sex. Both snakes and crocodiles killed more males, but the crocodiles killed more youngsters and the snakes more adults. The probable factors are that young boys venture further into water while adult males wander further overland, and probably an adult would be more capable of escaping from the crocodile by struggling.

The victims by the reason of their death are listed in Table VI. The mammals kill throughout the year, while reptiles, being cold-blooded, kill mainly in the spring and summer. Snakes hibernate in winter, while crocodiles devour other mammals which are driven by water shortage to the rivers to drink, boys finding the winter rather too cold for swimming.

Table VII shows the annual death rate for the reptiles by province. Victoria's prevalence is highest, particularly with crocodiles. These creatures inhabit all Rhodesian rivers and are particularly prevalent in the Limpopo, but are less common

Table V
VICTIMS OF THE REPTILE BY SEX AND AGE

	Adults	Children	Sub-Total
Crocodile—			
Male	9	21	30
Female	1	6	7
Sub-Total	10	27	37
Snake—			
Male	15	2	17
Female	2	2	4
Sub-Total	17	4	21
Total	27	31	58

Table VI

	Mammals	Reptiles	Insects	Sub-Totals
Summer	15	27	3	45
Autumn	12	5	0	17
Winter	12	1	2	15
Spring	10	25	2	37
TOTALS	49	58	7	114

in densely populated areas. Snakes, although not classified into types in these returns, are presumed to be mainly puff-adders. These are distributed fairly evenly over the country and so are the reported snake deaths.

It is of little interest to the tourist to observe that of the mammals that cause human deaths, cattle figure most prominently. Of the 11 deaths, six were reported as being caused by cows, four by oxen, with only one bull fatality. This presumably reflects the higher number of cows to bulls rather than the gentleness of Rhodesia's bull population!

The most "newsworthy" items seem to be those deaths caused by the larger wild animals. Besides those recorded in Table I, the rhinoceroses killed two people, rather surprisingly, the hyenas two and the leopards only one. There was a single zebra death.

I aimed to include in this survey deaths either due to direct contact with the animals or accidental deaths directly attributable to the animals' activities. Within this latter group I included two deaths and excluded one from the tables, and these three are to me the most interesting. I

Table VII

REPTILE INDUCED MORTALITY RATES BY PROVINCE

Province	Crocodile		Snake	
	No. of Deaths over five years	Annual Death Rate/100,000	No. of Deaths over five years	Annual Death Rate/100,000
Manicaland ...	3	0.08	1	0.03
Mashonaland North ...	5	0.14	3	0.08
Mashonaland South ...	4	0.08	4	0.08
Matabeleland North ...	4	0.14	2	0.07
Matabeleland South ...	0	—	3	0.17
Midlands ...	2	0.06	1	0.03
Victoria ...	19	0.52	7	0.19
OVERALL	37		21	

included the boy who climbed a high pole, the base of which had been destroyed by white ants, and the drunken man who fell head first down an antbear hole and suffocated. I excluded the man who was reported to have been "run over by a caterpillar" (Fig. 2).



Fig. 2—"Though the world comes about me in arms I shall not falter!"

I began and I conclude this discussion with an apology.

SUMMARY

A five-year retrospective study of deaths of people in conflict with other animals indicates a small but interesting mortality pattern which is described.

REFERENCES

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