

NATURE

[Jan. 18, 1883

DESTRUCTION OF LIFE IN INDIA BY WILD ANIMALS

IN a recent communication I called attention to the loss of human and animal life in India from snake bites; I now proceed to describe the mortality due to wild animals, which, though much less than the former, is very considerable, and forms an important item in the mortuary returns.

The statement appended shows in detail for each province the number of persons and cattle killed by wild animals, and the number of wild animals destroyed, with the rewards paid for their destruction during the year 1881, as compared with the previous year. The figures are summarised in the following tables:—

Number of Human Beings and Cattle Killed by Wild Animals

	Persons killed.		Cattle killed.	
	1880.	1881.	1880.	1881.
Madras	223	238	8,667	8,668
Bombay	136	141	4,537	2,398
Bengal	1,295	1,367	14,567	8,423
North-Western Provinces and Oudh ...	561	470	8,140	7,971
Punjab	42	27	7,986	4,083
Central Provinces ...	289	248	3,711	2,929
British Burma	32	34	978	898
Coorg	Nil	Nil	219	191
Assam	234	211	3,269	2,802
Hyderabad Assigned Districts	24	18	3,560	3,013
Ajmere-Merwara ...	4	3	216	264
Total	2,840	2,757	55,850	41,640

Number of Wild Animals destroyed and Amount of Rewards Paid

	Destroyed.		Rewards.		Destroyed.		Rewards.	
	1880.	1881.	Rs.	a. p.	1880.	1881.	Rs.	a. p.
Madras.....	1,284	1,429	16,579	10 0	1,429	20,251	5 0	
Bombay	1,717	1,367	4,775	1 0	1,367	4,965	13 0	
Bengal	4,783	4,213	24,841	10 6	4,213	23,316	3 0	
N.-W. Provinces and Oudh...	2,924	3,037	7,295	4 0	3,037	8,434	14 0	
Punjab	1,389	1,411	4,715	0 0	1,411	4,856	3 0	
Cent. Provinces	1,408	1,351	17,887	8 0	1,351	15,842	0 0	
British Burma.	639	1,059	3,468	0 0	1,059	4,260	8 0	
Coorg.....	26	15	140	0 0	15	215	0 0	
Assam.....	541	1,176	7,022	10 0	1,176	7,552	2 0	
Hyderabad Assigned districts	167	216	1,590	0 0	216	2,156	0 0	
Ajmere-Merwara	8	5	13	0 0	5	Nil		
Total	14,886	15,279	88,327	11 6	15,279	91,850	0 0	

The resolution of Government, dated November 8, 1882, in dealing with this subject, gives the following details, which are so far satisfactory, as they show that organised measures are now being put in force for the destruction of wild beasts, and that already there has been diminution in the loss of human and domestic

animal life. As in the case of venomous snakes, the prevention; or at all events diminution of loss of human and domestic animal life from the ravages of wild animals, is a question mainly of time, perseverance, and expenditure of money. The last consideration perhaps may have stood in the way of progress, not that expenditure of rupees either has been or would be grudged, were there certainty that it would overcome the evil, but that there may have been, perhaps is, a natural reluctance to spend public money for what seems an uncertain benefit, as some have regarded a system of rewards for destruction of snakes and wild animals. The Government of India has always evinced a desire to adopt any steps that might reasonably afford hope of relief, and many resolutions by the supreme and local Governments, and considerable expenditure of money with this object in view, proves that the authorities have been and are alive to the magnitude of the evil and to the importance of repressing it, and that they have taken measures which in some districts have been attended with a fair amount of success. But the absence of a thoroughly organised system of dealing with the evil, and the desultory and varying methods employed have prevented the attainment of the success that might fairly be expected and would be obtained under better arrangements; and it will not be until some complete organised system have been steadily and perseveringly prosecuted that the desired result will be accomplished. A few years ago (in 1878), when calling attention to this subject, I noted that the loss of life from wild animals in 1875 and 1876 had been as follows:—

Animals.	Killed in 1875.		Killed in 1876.	
	Persons.	Cattle.	Persons.	Cattle.
Elephants	61 ...	6 ...	52 ...	3
Tigers	828 ...	12,423 ...	917 ...	13,116
Leopards	187 ...	16,157 ...	156 ...	15,373
Bears	84 ...	522 ...	123 ...	410
Wolves	1,061 ...	9,407 ...	887 ...	12,448
Hyenas	68 ...	2,116 ...	49 ...	2,039
Other animals	1,446 ...	3,011 ...	143 ...	4,573

Total... .. 3,735 ... 43,642 ... 2,327 ... 47,962

Comparing these returns with that of 1880-81 it will be observed that the loss of life has not been materially diminished

	Persons killed.				
1880	2,840
1881	2,757
1875	3,735
1876	2,327

though there is reason to hope that future yearly reports will be more favourable.

Registration is now becoming more accurate than it has been, and the returns are probably more reliable than they were, but they do not indicate any marked improvement on the whole. It is evident, however, from the terms of the resolution before referred to, that Lord Ripon is determined to deal vigorously with the evil, and, just as in the case of the poisonous snakes—only, perhaps, more surely—will the result, in time, justify the expenditure which must needs be incurred.

Of the wild animals and veno:nous snakes which destroy life in India, the wolf and tiger, it will be seen, are the chief offenders among the former, the cobra and bungarus (krait) among the latter. A list of the rewards that have been offered at various times and in different parts of India is appended, but I do not know the amount now offered for each animal, though it is probably much on the same scale. If these rewards be distributed regularly and systematically throughout India, they will probably suffice to insure a steady reduction in the number of noxious animals, and so will diminish a great evil.

“The figures quoted show a decrease during the year under review, as compared with the previous year, both in the number of persons and cattle killed; and, on the other hand, an increase in the number of wild animals destroyed. As was the case in the previous year, the mortality which occurred in Bengal and in the North-Western Provinces and Oudh, was far greater than in other provinces. Of the total number of deaths, 2757 were caused by wild animals, the figures for the previous year being 2840.

The number of persons killed in Bengal (747), and in the North-western Provinces, and Oudh (208) by wild animals other than those specifically named in the returns, was considerable. In future returns the animals which come under the general head “other animals,” and which causes in all provinces a very large proportion of the mortality, should be specified in a foot-note, with the number of deaths caused by each kind.

The total number of cattle killed also decreased. This result is chiefly due to the exclusion from the Bengal return of sheep and goats, of which a large number were included in the figures of the year 1880. There has, however, been a marked decrease in the number of cattle killed by wild animals in the Bombay Presidency. In the Punjab, also, the number of cattle killed was considerably less than in the preceding year, but in this province, as in the case of Bengal, the decrease appears to be due to the exclusion of sheep and goats from the returns of the year 1881.

The number of wild animals destroyed was 15,279, against 14,886 in 1880. The number of tigers, leopards, bears, and wolves destroyed was 1557, 3397, 991, and 4538 respectively, as compared with 1689, 3047, 1100, and 4243 in the preceding year; and the number of human beings killed by these animals respectively, amounted to 889, 239, 75, and 256, against 872, 261, 108, and 347 in the year 1880.

Of the total amount of rewards paid during the year, Rs 91,850 were awarded for the destruction of wild animals.

In the review of the returns for the year 1880 a hope was expressed that endeavours would be made to induce men belonging to the Shikari class to devote themselves specially to the work of destruction in districts which are more than usually infested with wild animals, and Local Governments were authorised to make special arrangements for the experimental employment of such men.

From the present reports it appears that the Government of Madras has decided that the employment of a paid corps of Shikaris is undesirable, as the cost of supervision would be excessive, while the employment of such a corps would discourage local Shikaris. On this point the Governor-General in Council desires to remark that where local Shikaris exist it is very desirable that every en-

couragement should be held out to them, and that in such cases it is preferable to trust to fixed, certain, and prompt payments according to results, as the most effective way of inducing the Shikaris to devote themselves to the work. At the same time certain tracts of country exist in which the special and temporary employment of men from outside may be very useful and expedient, and the reports show that the adoption of this plan has in some cases been followed by satisfactory results. For instance, in the Futehpore district, in the North-Western Provinces, the entertainment of a body of special Shikaris resulted in the destruction of a considerable number of wolves with which that district was infested. In Dinapore, in the Lower Provinces, also, professional hunters were engaged during the closing month of the year for the destruction of tigers.

"In the Central Provinces the ravages committed by tigers in the Balaghat and Seoni districts necessitated the offer of enhanced rewards for their destruction, and the district officer of Seoni has endeavoured to organise a special expedition of shikaris for the purpose of hunting down the animals, and has provided the shikaris with ammunition. Licenses under the Arms Act appear to have been more freely given than hitherto to persons who require arms for protecting themselves and their cattle and crops from the attack of wild animals, but the Governor-General in Council desires to take the opportunity of expressing a hope that this matter will be carefully kept in view by Local Governments and Administrations in order that every possible facility may be offered to cultivators and others for obtaining such licences in districts in which wild beasts are more than usually abundant."

Wild Animals destructive to Life in India

CARNIVORA

Felidae

Felis—F. leo	Lion
F. tigris	Tiger
F. pardus	Leopard
F. jubata	Hunting Leopard

Hyænina

Hyæna—H. striata	Striped Hyæna
------------------	---------------

Canide

Canis—C. pallipes	Wolf
C. aureus	Jackal

Urside

Ursus—U. isabellinus	Brown Bear
U. tibetanus	Black Bear
U. labiatus	Sloth Bear.

UNGULATA

Elephantidae

Elephas—E. indicus	Elephant
Rhinoceros—R. indicus	Rhinoceros

Suidæ

Sus—S. indicus	Wild Boar
----------------	-----------

Bovina

Gavæus—G. gauri	Bison, gaur
Bubalus—B. arni	Buffalo, arna

SAURIA

Crocodylidae

Crocodylus—C. palustris	Crocodyle
C. biporcatus	”
C. pondicerianus	”
Gavialis—G. gangeticus	Gharial

PISCES

Carcharidae

Carcharias—C. gangeticus	Groundshark of Ganges
--------------------------	-----------------------

Poisonous Snakes of India

Those marked with an * are most deadly.

Those marked with a † are most common among the most deadly.

POISONOUS COLUBRINE SNAKES

Elapidae

1. Naja	N. tripudians †, cobra, several varieties
2. Ophiophagus	O. elaps*, hamadryas
3. Bungarus	B. cæruleus †, krait
”	B. fasciatus, sankni
4. Xenurelaps	X. bungaroides
5. Callophis	C. intestinalis and several other species

Hydrophidae, or Sea Snakes (all deadly)

1. Platurus	P. scutatus, P. Fischeri
2. Hydrophis	H. cyanocincta, and several other species
3. Enhydrina	E. bengalensis
4. Pelamis	P. bicolor

VIPERINE SNAKES

Crotalidae, or Pit Vipers

1. Trimeresurus	T. gramineus and several other species
2. Peltopelor	P. macrolepis
3. Halys	H. himalayarum
4. Hypnale	H. nepa

Viperidae, or true Vipers

1. Daboia	D. russellii †, Chain Viper, Tic-polonga
2. Echi	E. carinata †, Phoorsa snake, Afaë, Kuppur

The following is a scale of the rewards offered in different parts of India, at different times, for wild beasts and snakes :—

TIGERS

	Rupees.
Bengal	12½ to 50
Berar	10 „ 20
Bombay	6 „ 60
Burmah	5 „ 20
Central Provinces	10 „ 100
Hyderabad	20
Madras	50 to 500
Mysore	35
North-West Provinces	10
Oudh	None
Punjab	None
Rajpootana	10 to 15

LIONS

The only record of which I find official mention, is 25 rupees in Kotah.

PANTHERS, LEOPARDS, CHEETAHS

	Rupees.
Bengal	2½ to 10
Bombay	3 „ 12
Burmah	5 „ 10
Hyderabad	10
Madras	25
Mysore	15
North-West Provinces	5
Rajpootana	8 to 10
Central Provinces	5 „ 12

WOLVES

	Rupees
Bengal	5 to 20
Berar	3 „ 5
Bombay	4
Central Provinces	2 to 5
Madras	5
North-West Provinces	5
Oudh	1 to 6
Rajpootana... ..	5

HYÆNAS

	Rupees.
Bengal	1 to 2
Berar	5
Central Provinces	½ to 2
Madras	3½

BEARS

	Rupees.
Bengal	1¼ to 2½
Berar	5
Bombay	3 to 12
Burmah	5 „ 12
Hyderabad	5
Madras	5
Central Provinces	2 to 5
North-West Provinces	3
Rajpootana... ..	5

SNAKES (Species not reported)

Bengal	4 annas
Berar	—
Bombay... ..	6 pie to 4 annas
Burmah	—
Central Provinces	1 rupee

Hyd-rabad	...	...	...	8 annas to 2 rupees
Madras	...	...	...	1 anna
Mysore	...	...	...	8 annas
North-West Provinces...	...	...	...	2 rupees
Oudh	...	...	...	—
Punjab	...	...	...	2 annas
Rajpootana	...	...	...	1 to 8 annas

No rewards appear officially proclaimed for elephants, buffaloes, or bisons. In cases of notorious rogue elephants rewards have been specially given. In Burmah 5 to 20 rupees offered for alligators ; in special cases, more has been given in Bengal and Madras.

The difference in the amount of the rewards appears to indicate that higher sums were offered in special cases, probably when the creature was a notorious man or cattle-slayer.

Now I cannot help thinking that if Government made it part of the duty of district officers, not only to proclaim these rewards but to encourage the destruction of wild animals and snakes, by means of an organised establishment, which should be supplied in these districts, much benefit might result. The money rewards already offered would probably suffice for wild animals, but those for venomous snakes should be increased ; if, at the same time, the people were encouraged to work for the rewards, and were aided by persons acting under properly selected superiors, the result would soon show a diminution of the wild animals and snakes. But, I repeat that not until some organised establishment is formed, to be worked steadily throughout the whole country—not dependent on the will or subject to the caprice of individuals, but under local officers subject to one head—will any real or progressive amelioration of the evil be effected. Such a department under a selected officer, would, as was the case with the Thugs and Dacoits, soon make an impression on a death-rate which, so long as it continues in its present condition, must be referred to a defect in our administration.

J. FAYRER