Crocodile bites and traditional beliefs in Korogwe District, Tanzania

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Abstract

Objectives—To investigate why fatal crocodile bites are increasing in a Tanzanian district and the importance of traditional beliefs and superstitions in determining the residents' response to the crocodiles.

Design—Information about beliefs was obtained by interview of Korogwe residents. Human and crocodile fatality statistics were obtained from the Korogwe Department of Natural Resources.

Setting—Villages within Korogwe District.

Subjects—Population of Korogwe District.

Results—Crocodiles have been responsible for 51 deaths in the 52 months from January 1990 to April 1994. Of these, 18 deaths occurred in the first four months of 1994.

Conclusions—Local beliefs and superstitions about crocodiles include those about the taming of animals, with implications concerning the choice of victim and the penalties that may ensue if a crocodile is killed. The recent rise in human fatalities is thought to relate to increasing river pollution reducing the fish supply, together with a change in social mores at the riverside which has increased the crocodiles' displeasure. A reliable pumped water supply would reduce the need to draw water and bathe in the river, and eradication of superstition would empower the villagers in the fight against a common enemy.

Introduction

Crocodiles are a considerable health hazard in riverine areas of Tanzania. In Korogwe District, the incidence of crocodile bites has been increasing recently. We document the reported human fatalities following crocodile bites since 1990 and discuss some of the local beliefs concerning crocodiles.

Methods

Information concerning local beliefs was obtained by informal interviews of both Africans and Indians in the community, including the man whose job it is to recover dead bodies from the river. Senior hospital staff were subsequently interviewed to check that such beliefs are indeed commonly held. Human and crocodile fatality statistics were obtained from the Korogwe Department of Natural Resources, which documents human deaths following crocodile bites and also gives permission and provides bullets for crocodile destruction.

Results

The Pangani river emerges from the highlands of Tanzania and passes through Korogwe District close to its termination in the Indian Ocean at Pangani, Tanga Region. Korogwe District consists of 20 villages with a population of 217 810 (1988 census). The crocodile

population in the district is thought to number 600. Crocodile attacks have been reported in Korogwe since 1925 but accurate statistics are not available before 1990. The table compares human fatalities with the corresponding number of crocodiles shot by professional hunters or government game scouts in the 52 month period from January 1990 to April 1994. Non-fatal lacerations resulting from crocodile attacks have not been included.

Deaths caused by crocodiles and deaths of crocodiles, Korogwe District, Tanzania, 1990-4

Date	Human deaths	Crocodile deaths
1990	5	10
1991	9	5
1992	8	8
1993	11	10
1994 (January to April only)	18	16
Total	51	49

Discussion

It seems strange that these voracious human predators are not exterminated; indeed, they seem to be flourishing at the expense of the local population. Traditional beliefs and superstitions are central to the continued existence of crocodiles in Korogwe.

Not all people are thought to be susceptible to crocodile attack. From long ago and continuing until the present day, certain crocodiles have been fed meat and deliberately tamed for service. This service has included transporting their "owners" across the river in times of floods. However, more sinister activities are also attributed to the tamed beasts. At one point the Pangani River is punctuated by five small islands. Crocodile owners are reputed to frequent these islands, employing their animals as procurers of women. Hapless ladies brought by the crocodiles would undoubtedly be in no state to resist demands placed on them. In addition, tamed crocodiles are believed to be used as assassins, disposing of enemies of their "owners." Crocodiles in this employ will apparently travel considerable distances from water in pursuit of their victims, even into their houses. These talented animals may be given as an inheritance to relatives or, particularly after any misbehaviour, they may be slaughtered for their skins.

Why have crocodile attacks increased recently? Up to the 1950s the river was clean; fish were plentiful, and bathing and collecting water were relatively safe activities. Since then overfishing, coupled with the dumping of the sisal industry's waste products into the river, has reduced the crocodiles' primary food supply. In addition, traditional riverine customs are no longer properly observed. Not only are cooking pots, maize cobs, and offal thrown into the river, but menstruating women now visit the river, further provoking the crocodiles. Thus, increasing attacks are seen as a consequence of human folly.

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BMJ 1994;309:1691-2

A survivor of a crocodile attack

Many believe that crocodiles attack men and women alternately and that, for example, boys may bathe safely after an attack on another male. Unfortunately, crocodiles attack multifocally and therefore up to the minute information is required to be secure from danger.

If a person is missing and a crocodile attack is suspected, advice is sought from certain authorities, who will then consult the beasts in order to determine whether they have been involved. If a body turns up in the river these men, protected by witchcraft and by local medicines applied to their bodies, will fish it out with impunity. Such medicine is available for sale and may be applied, for example by boys collecting sand from the river, in order to ward off attack.

Why are the crocodiles not systematically hunted to urban extinction? Firstly, they are viewed as a natural resource and their destruction is controlled. Secondly, over and above the difficulty that government game scouts have in obtaining ammunition and a daily wage are other ingrained beliefs which inhibit both individual and group action. Foremost of these is the real fear of witchcraft used by the "tamed" crocodiles' owners. Others believe that it is impossible to kill a tamed crocodile. Another worry is that a crocodile's killer will subsequently lose a son to another beast. Finally, if one is successful in hunting it is essential to bury the crocodile's bile in front of witnesses to avoid the possibility that others might use it as a poison.

What advice can be given to a person attacked by a crocodile? The best defensive action is to counterattack the animal's eyes; indeed, most survivors presenting to the two Korogwe hospitals attribute their escape to this manoeuvre.

How can crocodile bites be reduced in Korogwe? The importance of a reliable, pumped water supply in reducing risky bathing and water collection is clearly shown in the statistics for 1994. Eighteen deaths—about one a week—coincided with the failure of the town water pump. Failing this, villagers could collect water from the various bridges by using a long rope. Concerted village activity to reduce the vegetation along the river's edge would help hunters to flush out the enemy. Lastly, the role of education in counteracting the influence of superstition cannot be over-emphasised. This would reduce the pervading fear and allow crocodiles to be killed more freely.

We thank Camille Thomas, Damaris Maghisa, and Michael Mganga of St Raphael's Hospital, Korogwe; Mr Kibwana of the district natural resources department, Korogwe; and Mr Shayo of the district administrator's office, Korogwe.

Come back DDT—all is forgiven

Jacqueline Currey

About a year ago my elderly dachshund started to cry and pace about the house in the evenings. At first I thought that he was asking for extra food. I then wondered if he could be ill or in pain, but the vet said that he seemed fine. We tried an extra evening biscuit and he had the usual veterinary panacea of a course of steroids, but he was no better.

The awful truth eventually dawned: his problem was due to fleas. My mind went back to a horrendous evening when I found him in the garden nosing a hedgehog and with an army of fleas marching swiftly off the hedgehog and down his back. That was years ago, though, and the invaders had quickly been defeated by an insecticidal spray.

Things reached crisis point when we came back from our summer holiday recently to find a house full of fleas. They were all over our legs and at first I thought that the sun had made me come out in freckles. Some freckles! Instead of having the relaxed evening which I had anticipated, I spent it hoovering the entire house—only to come down next morning to find things apparently no better. Worst of all, my old dog started howling at night as if in torment, and we had a week of virtually sleepless nights.

Since then we have tried all flea cures known to veterinary science. There are tablets which the dog takes monthly and which render the fleas infertile; new

anticholinesterase drugs which are applied to shaved skin between the shoulder blades, and new sprays for the house. The cost of all this makes a NHS prescription charge look like the tip for a pub lunch. The pest control officer from our local council has sprayed the house and my husband has even sprayed the lawn, but all to no avail. I have telephoned one of the companies that makes anti-flea products and am horrified to learn that I am only seeing 5% of the problem: the other 95% is lurking in the carpets in the form of eggs, pupae, and larvae waiting to hatch when the conditions are right.

I now spend an appreciable part of my day dealing with fleas. At night, instead of counting sheep I count fleas. The carpets are threadbare from hoovering, and the air in the house contains so many chemicals that we should be wearing smog masks. I have overcome the embarrassment of mentioning fleas to my friends and am resorting to alternative medicines such as insecticidal shampoos and a gadget with a light bulb which is said to be a flea trap. There does not seem to be any light at the end of this tunnel yet.

It is amazing that we live in a society which has heart transplants and space travel but no cure for fleas. Some of my more aggressive patients come to me and say that they "want it sorted." Well, I want this one sorted and the sooner the better. Any suggestions will be gratefully received.

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BMJ 1994;309:1692