
Elephant killing by the Savuti lions in the Chobe National Park, Botswana

By John Power



Photograph: Shem Compion

I spent the month of October 2005 with the BBC Natural History Unit assisting with documenting and filming this well publicised phenomenon. This interaction between Africa's largest predator and prey has captured much intrigue from in particular the filming fraternity, and there are a number of documentaries showing footage. The following briefing is a description of events that we observed. I have omitted any statistics of sorts.

We followed the Savuti pride of 29 lions every night from sunset through to sunrise for a period of three weeks, and followed them closely whenever they moved and attempted to hunt. We traveled in two landcruisers which were fitted with lighting, spotlights, and camera rigging. We made our observations with infra-red binoculars, as infra-red lights were used for the filming, unlike any previous filming.

Between the 4th and 28th of October there were 8 elephant kills recorded. Of those kills some were made just prior to and after the film shoot, and only three of the kills were observed, while two were missed (not being allowed to drive near a lodge where they killed). The elephants hunted were field age estimated, and when kills were made, we photographed the skulls (with molars depicted) with an appropriate scale (*leatherman*). From field age estimating it appeared that 7 of the kills were between 8 and 15 years old, and most were males. One kill was a 4-5 year old calf.

The lions always targeted groups of 4 or less, and they did attempt on a few occasions to fission larger groups by running at them with the desire to split the group. The hunting that was witnessed was initiated by the lionesses who storm at, and single out an elephant of an appropriate size. The first lioness upon contact would attempt to jump onto the elephant's back, digging her claws into the elephant's hindquarters, and creating purchase for a lunge to the rump of the elephant. A second lioness would follow suit and also 'ride' the elephants back, and while atop they persistently bite at it. Two other lionesses were observed to hang onto either hind leg, and it was also observed that they bite at the root of the tail if they could reach. The elephant continues to run and it then suddenly collapses. It is surprisingly quick, at just over a minute from the time when the first lioness is aboard. It appears that the strategy is to weight the hindquarters heavily to ensure collapse of the elephant. I don't know much about the tendons in an elephant's hind limbs, but I presume that they are relatively weaker than cursorial ungulates, which have high recoil energy, and flexion of their limbs can enable escape from attacking lions. Perhaps the weaker tendons simply give in to the weight of over 500 kg of lion on their hindquarters. When the pachyderm goes down, the death takes some time, and they tear into the carcass at the armpit area. The carcass takes about 24 hours to complete. They were twice recorded in killing a successive elephant 24 hours after the first.

Of six hunting attempts witnessed, where there was physical contact, three resulted in the animal being killed. The failure of the attempts was ascribed to the following in each individual case: a) hyper-protective nature of a mother to a yearling calf; b) marginally large (c. 15 - 20 years) elephant bull that managed to shrug the lions off; and c) a teenage male (c. 15 years) which managed to shrug lions off the overhanging canopy of a thicket. When attacked there was no counter-attack mounted by elephants, though one elephants returned and milled about a bit.

So why do these Savuti lions prey upon elephants?

Aside from romantic notions of the return of Pleistocene carnivores preying upon mega-herbivores, the reasons are likely to do with recent human-intervention. Once again as with other explanations to the root of elephant problems - artificial waterholes!

The Savuti channel stopped flowing in 1982, and subsequently the Department of Wildlife started pumping water to the waterholes to serve a game scout camp and a growing tourist demand in the immediate area. This would have prompted residency in some herbivores, especially the elephants. The herds of zebra, wildebeest and buffalo are the normal lion prey in the wet season, but these herds continue to migrate to the Linyanti. During the dry season the lions are left with elephant, which dominate the herbivore community (> 90 %), both numerically and in biomass. It is during the height of the late dry season (July - October) that lions turn their attention to elephant and they have been doing this with regularity in the last decade or so. Whether they kill full-grown adult elephant is a bit sensationalistic and I am not certain on this claim. It does appear that weaned teenagers within family herds are most vulnerable to lion predation, and their lessened maternal dependence would predispose this. It would be interesting to know whether lions *can* have some local impact on the elephant population, though this might be negligible, as males appear to predominate the list of victims and this predation is also seasonal.

Lions will probably continue to prey upon elephants in the Savuti, if artificial water is still present at Savuti, a large pride with at least five adult lionesses is present, and if elephants continue to dominate the late dry season herbivore community.

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