## In our hands; the survival of the Rhinoceros

Under a clear sky with a bright moon and millions of stars a rhinoceros drinks calmly. She has by her side a young calf, only around two months old. She nudges her baby forwards, so gently with her large horn. She huffs through her nose and the calf reaches up, flapping its ears and extends its lip to reach its mothers nostril. Seemingly gaining reassurance from her warm breath, the calf turns and steps forward gently, to take what appears to be its' first steps into water. This experience creates squeaks of delight from the tiny rhino, which jumps around and bounces into its mother's leg. The calf is answered by gentle squeaks and huffs from its mother. The two rhinos turn and wander off closely together into the thick bush, quickly and quietly disappearing into the night.

A truly unforgettable scene. At the time this felt to be an once-in-a-lifetime experience, but only because I am not lucky enough to live in Africa. I was at that point a research scientist, who gained privileged access to see Africa and its wonders for only a short time. I now know that both of these rhinos died; the elderly mother drowned in a river weakened by old age, and the calf, sadly at five years old lost condition and died during a very dry year. It could be said that they were both lucky to have lived a natural life and died a natural death. There are many rhinos including individuals known personally by name, which have been shot, mutilated and killed for one thing; their horn. This facial feature, essential for self-defence, to push through bushes and grasses, to access food and, as I saw, to gently reassure a young calf, is the one thing for which human beings are defying the laws of nature and are again killing rhino unsustainably in large numbers.

Globally there are thought to be around 27,000 rhinos existing, with the majority, around 24,000 in South Africa. There exists three different rhino species in Asia, the greater one horned rhino, the Sumatran rhino and the Javan rhino, and two species in Africa, the white rhino and the black rhino. Each rhino species is different in many ways, including the habitat it which it lives, its behaviour, size and appearance. All rhinos have one thing in common, the threat of poaching; the illegal killing of rhino for their horns. Now only around 200 Sumatran rhinos remain, and less than 50 Javan rhino (now extinct in Vietnam after the last one was poached). The fact that these rhino populations remain is the result of conservation work such as habitat protection and the creation of reserves, species management and protection including anti-poaching patrols. What is essential is the willingness of global human citizens to protect their future. A success story includes the Southern white rhino which was reduced to around 1,800 individuals in 1968, now they are the most numerous of all the species numbering more than 20,000. The black rhino too, having lost 95% of its population due to hunting and poaching in the late 20<sup>th</sup> Century, has started to see small population increases due to intense conservation action. Having reached a point where despite some level of poaching, rhino numbers for all species were either stable or beginning to grow, we are now edging towards crisis point where we are in real danger of losing the rhino forever.

The last three years in particular have seen an acute and building pressure on the rhino. Poaching is on the increase and those involved in rhino poaching, horn smuggling and trade are increasingly lethal, and often are also those also involved in other illicit trade such as drugs and arms. The profits are high and the greed is insatiable. In South Africa alone, more than 1400 rhinos have been poached in 36 months. Over a seven year period from 2000 - 2007, South Africa lost 120 rhinos to poaching in total. Since the end of 2007 there has been a rapid and exponential increase in rhino poaching. In 2009, 122 rhinos were lost in one year. Since then, the numbers are shocking with 2012 ending with 668 rhinos lost in South Africa in only 12 months. Rhino poaching rates have increased in all rhino strongholds in both Asia and Africa, and the demand for rhino horn is behind this dreadful situation.

The driving force behind the killing of rhinos does include ornamental uses, such as carved rhino horn dagger handles in the Middle East, but currently the main demand by far is for use in medicine. Traditionally, rhino horn has been included in Chinese medicines mostly for cooling fevers. It is widely known that rhino horn consists of proteins, mostly keratin, which also occurs in all other hoofs, horns and human hair and nails. The believed medicinal property of these proteins is shared by many alternatives including buffalo horn which has been used as a substitute in traditional Chinese medicines. There are also numerous fever controlling medicines used globally which are cheap and readily available and which are highly effective and have saved count-less lives, such as aspirin and paracetamol.

Now however, non-traditional use in traditional Asian medicine is causing a huge problem. Rhino horn is being used, particularly in Vietnam, as a cure-all medicine, this includes the new craze that it impossibly helps to fight cancer. The unarguable facts are: fighting cancer is just not that easy, there exists no cure-all, and those involved in the trade of rhino horn are sadly in it entirely for the profit – not to help people. Interestingly, unrelated scientific studies have also found that cancerous tumours with higher keratin contents can actually be more aggressive and invasive. The problem with rhino horn consumption has gone even further, with rhino horn now considered a Vietnamese party drug for the wealthy and a status symbol. Because of the demand in Vietnam, and a growing demand in China, the rhinoceros, an animal that has graced the Earth for millions of years beyond our own existence, is now in real danger due to its artificial value and human greed. It is so sad to think that the experience in the wild with the rhino mother and calf described here, may well have been 'once-in-a-lifetime' for entirely the wrong reasons. The truth is, as global citizens we simply cannot allow such an amazing animal and such a moment to become a thing of the past and impossible for future generations to marvel at.

For decades conservationists have been working to protect rhinos for the future. Thousands of dedicated people work tirelessly, often giving their lives in the wilds of Asia and Africa to protect rhinos and their habitats. Rhinos, like Pandas, are globally iconic and symbolise the need for collaborative efforts to secure their future. The one thing that will save the rhino is to cut the demand for rhino horn. The one act that will make a difference by those who now purchase, or who are tempted to purchase anything with rhino horn as an ingredient, is to buy a sustainable alternative instead, one which does no harm to the future of a species. By doing this, each person becomes a guardian for an animal whose existence rests entirely in our hands.