

TIGER AND MAN – THE DIFFICULT CO-EXISTENCE OF TWO TOP PREDATORS IN INDIA

»It is the most terrible of all cats, a predator against which so far even man is still powerless.« An insistent description of the tiger by Alfred Brehm in his »Thierleben« from 1876.

»No predatory mammal can combine so much horror with truly seductive beauty. Man has exaggerated its bloodlust or at least portrayed it with very utilising colours. However, this is not surprising, because for those who could describe it, it is the sum total of all cruelty. Even today a frightening number of tigers inhabit India, and thousands of people have to be mobilized even to temporarily free a region which would otherwise fall prey to desolation, from this worst of all plagues.«

What Alfred Brehm wrote more than a century ago is no longer true. The tiger is – apart from a single region – no menace anymore. By now its numbers are so greatly reduced that it is in danger of becoming extinct. Additionally, our attitude towards this beautiful big cat (**fig. 1**) has changed, as it has become one of the most popular animal figures. This is obvious not only by the use of tigers in advertisements, but also in the promotion of tourist destinations like »Tigerland«. To look into a tiger's eyes is way better than a photo safari for lions or elephants in Africa.

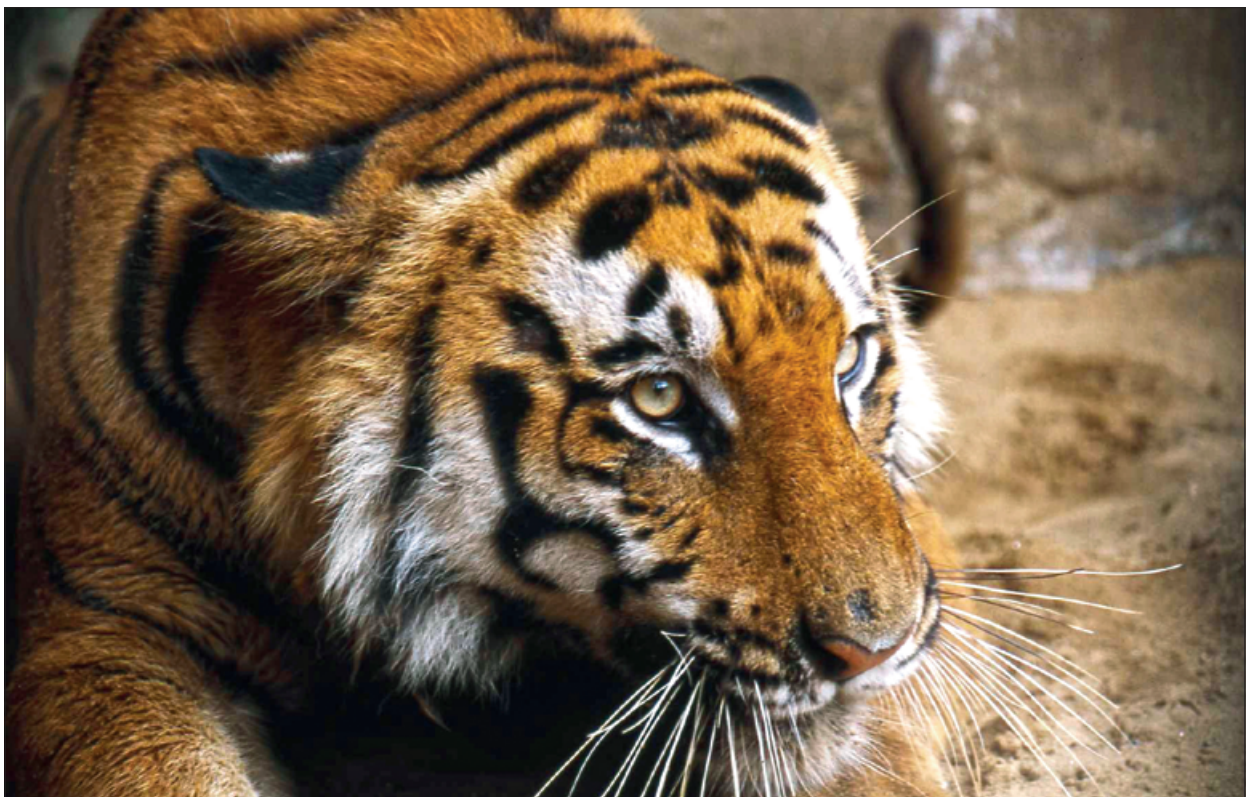


Fig. 1 »The most terrible of all cats« – that's how Alfred Brehm described the tiger over 100 years ago. Today we see the big cat in a completely different light. – (All photos F. Jantschke).



Fig. 2 To look a tiger in the eye is the dream of many tourists visiting India's tiger reserves today.

We do not want to deal with the tiger primarily from the perspective of tourism (fig. 2). Two questions are more important: Does the big cat have a chance of surviving in a densely populated India? And how can people coexist with a predator that is not only dangerous but sometimes known as a »man-eater« who specifically even hunts them?

The tiger is undoubtedly one of the most attractive and beautiful mammals. With its strikingly striped fur, a size of approximately 2.5m without tail and a weight of nearly 300 kg, this big cat blends remarkably well into its surroundings, whether it is dry grass, leaves, bamboo jungle or light *śāl*-forest (*Shorea robusta*). In nature, tigers are much harder to detect than the dun-coloured lions. But – and this is a positive development – tigers have become much more visible. At least in the Indian national parks it is no longer necessary for tigers to hide from people. They are encountered in broad daylight in the middle of a street or taking a nap on the lake shore without worrying about vehicles or photographers.

Only 40-50 years ago this was totally different. Tigers were hunted continuously, often as a feudal amusement. The rich and powerful Maharajas made uninhibited use of their privileges. This included the tiger hunt, which was operated under an immense output of manpower and material (fig. 3). Some Maharajas



Fig. 3 Representation of an old hunting scene (Maharaja hunt). The Maharajas and their guests undertook the tiger hunt with great enthusiasm, often by riding an elephant's back.

were known to have hunted more than 1000 tigers. In the British colonial period, senior officials also took to the hunting of tigers too. Towards the end of colonial rule, the British viceroy Lord Linlithgow shot, in one single hunting season in 1938-1939, 120 tigers. With India's independence, the situation did not improve, it got even worse. The number of hunters increased dramatically. Wealthy Indians, Europeans, Americans, all wanted to kill a tiger, to have a photo of it over, or a tiger fur in front of the fireplace. The majority of Indians, without the means for sportsmanlike hunting, could at least afford poison or a trap to kill a tiger. Either to slay a »rustler« or to enrich themselves by selling fur or bones on the black market.

The demise of the tigers came also indirectly. The dramatic growth of the human population – with almost 1.3 billion people India is by now more densely populated than Germany – invaded nearly all the habitats of the striped cats. They are now mostly used for agricultural purposes, from fields via pastures to plantations. Large carnivores have no room anymore. The forests in India are often totally exploited. Intensive livestock farming leads to overgrazing and bare soils with erosion washing out the roots of the trees. Branches are constantly cut off as fodder for livestock. No suitable habitat remains for deer and other prey species of tigers.

It is no surprise that with the decline of habitats and resources the number of tigers in India decreased drastically. Allegedly, at the beginning of the last century, around 100 000 of them lived in India. Since 1940, around the time of India's independence, their number was still thought to be approx 30 000. In the mid-1960s, it had dropped to only a few thousand. The first appeals to protect the tiger were raised. In 1969 the dramatic situation was clearly addressed at an international conservation conference in Delhi. The Indian government under Indira Gandhi reacted promptly and banned the hunting of tigers and the export of tiger skins the following year.

In 1973 »Project Tiger« was started under the leadership of Kailash Sankhala (**fig. 4**). He had worked in the state forest services and became the zoo director of Delhi in 1965. His first task was to carry out a nationwide tiger census. The common method for this at that time was the counting of tiger tracks, as these vary for each animal (**fig. 5**). The result was even more devastating than expected: In the whole of India only 1827 tigers were counted. Within three decades, the country had lost at least 25 000 of the big cats. For the protection of their tigers, India has spent – up to the present day – an immense fortune: according to experts about 4 million dollars per year. In addition the annual loss of revenue due to the renunciation of the timber industry and other uses were summed up to a total of around 14 million dollars. In 1973 the first nine tiger reserves were established, encompassing approximately 10 000 km² in total. Ten years later the number increased to 15 parks with an area of 25 000 km². Within this period, the number of tigers in the reserves increased threefold, and the total population in India doubled.

Many of the first tiger reserves were former hunting grounds of the Maharajas, for example Ranthambore, Sariska and Bandhavgarh, to name just three of the most important ones. These rulers, even when

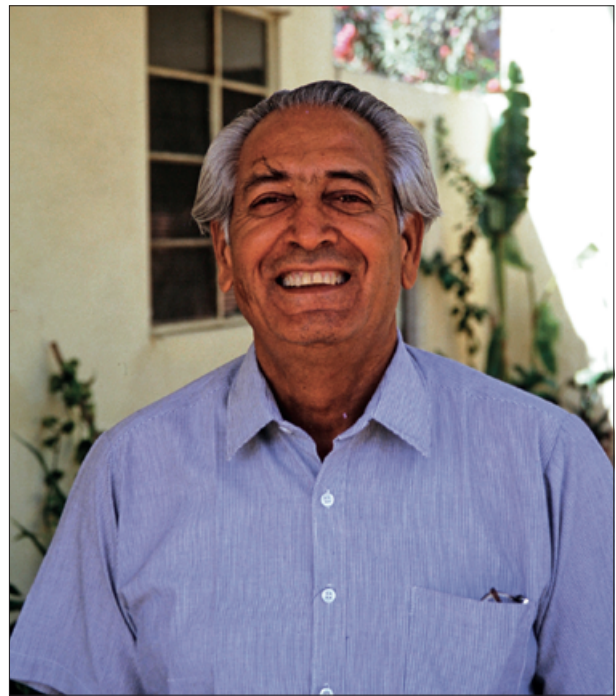


Fig. 4 The first director of the ambitious and successful Indian »Project Tiger« was the former zoo director Kailash Sankhala.



Fig. 5 Tiger's footprint. Even today, the common form of the determination of a tiger population is the counting of the different tiger tracks.

compared to feudal conditions in Europe, had a staggering amount of power and wealth. The state of their indulgences can be estimated by the magnificence of the hunting lodge Sariska, now a tourist hotel, which the former owner called »my little shooting box« (fig. 6). The Swedish nature photographer Bengt Berg created a literary monument to this hunting lodge and the Maharaja in his book »Tiger and Man«. It was written in 1934 when these rulers were still in power. A short excerpt from this work: »Whoever is able to provide his esteemed guests with a tiger as a present has a trump in his hand. Money can be used to bribe social inferiors. With a tiger one can show his generosity towards superiors. Therefore, a well-kept tiger hunting preserve is a capital, more valuable to his princely owner than the tax documents of his state. As a good host, he hardly dares to shoot a tiger himself anymore, because a Maharaja without a tiger is lacking something that cannot be replaced by gold.«

The Kanha National Park, one of the most famous tiger reserves, was at least partly the hunting ground of the British viceroys. Right at the beginning of the »Project Tiger«, the reserve in the Central Indian Highlands was enlarged from 318 to 448 km², two years later it doubled in size. There was also a buffer zone



Fig. 6 Sariska Palace. »My little shooting box« is what the Maharaja of Alwar called the magnificent castle in his hunting ground Sariska, today a tourist hotel.

Fig. 7 The Kanha National Park, a tiger reserve from the very beginning, is mainly shaped by *śāl*-forest.



of 1000km² incorporated. Much of the area is covered by evergreen *śāl*-forest (fig. 7), but there are also regions with deciduous monsoon forest. Another element of the vegetation are bamboo thickets, situated especially on hillsides and riverbanks, perfect hiding places for the tiger (fig. 8).

The most common inhabitants of this light, open forest are axis deer (*Axis axis*). One of the most prestigious and rarest animals in the reserve is the impressive gaur (*Bos gaurus*), the largest living bovine species. It lives predominantly in forests and feeds on leaves and herbs. Another rare species of the parklands is the Central Indian Barasingha deer (*Cervus duvauceli branderi*). At the beginning of the »Project Tiger«, only about 60 of them still survived in Kanha. After a study by the Swiss biologist Claude Martin, their living conditions were improved and their stock increased tenfold in just under 20 years. Key measures were the enlargement of the national park and the relocation of people. In the main habitats of the Barasinghas former rice terraces are still visible everywhere. Among the many activities of the national parks is the preservation of water reservoirs formerly established for the livestock. In the dry season, fallen leaves and twigs are constantly being swept from the paths and burned, thus creating firebreaks and preventing forest fires from one side to the other.



Fig. 8 By sweeping the paths and burning the dry leaves, effective firebreaks are created in the Kanha Tiger Reserve.



Fig. 9 Tigers in front of riding elephants with tourists. The tigers are hardly impressed, as they are visited for one or two hours by riding elephants with tourists in some reserves.



Fig. 10 Tigers with jeeps. Tigers also casually stroll past jeeps full of foreign and local tourists.

The infrastructure for visiting the Kanha Tiger Reserve, mainly by small Indian jeeps, is well developed. The best way to get to know the habitat off the beaten track is on the backs of elephants. Unfortunately, there are not enough of the proboscideans for all the tourists. Therefore, they are primarily used to take visitors directly to the tigers. Each morning rangers search at suitable locations for tigers which are accustomed to humans and elephants. After positioning elephants there, they are then used to shuttle tourists to and from their jeeps in short rides to the big cats (figs 9-10).

On Sundays, between 9 and 11 in the morning Kanha is visited by many locals and a few hundred people will gather, waiting to be carried by three to five elephants to the chosen tiger sites. This way they are normally getting better photos than from the jeep because elephants are allowed to leave the tracks and thus can bring the tourists very close to the tigers. These are accustomed to this procedure and show no sign of disturbance. The tiger population in the park is relatively constant and estimated at around 100 animals. The great interest of foreign and native tourists contributes significantly to their conservation.

Essential research on the territorial behavior of tigers was done at the Kanha preservation site leading to new unique discoveries:

1. All tigers favor areas with a high prey density. The strongest animals succeed. Weaker individuals, primarily the young and old, have to move to poorer areas. In the core areas each animal has its own, strictly defined territory.
2. Areas of high-ranking males may include one or more females. Their territories may overlap slightly.
3. The territorial males have exclusive mating rights with these females and grant their protection to their offspring.
4. Areas with a good supply of prey are also the main birthplaces.
5. Animals with deteriorating health live in more peripheral areas and their territories may not be clearly defined any more.
6. Old and young tigers have to emigrate to the poorest areas.
7. In large forest areas these emigrating tigers can provide a genetic exchange between populations. But many of them fall prey to poachers.

True wildlife areas are concentrated mainly in the mountain region, from the Himalayas to the Southern Indian Nilgiris. By contrast, in the lower elevations a »green revolution« led to a modest surplus of food production. Therefore, agriculture in less favorable areas has decreased, which has had positive effects on the regeneration of natural habitats.

The conservational goals have already been implemented to quite a large extent. In 1975 there was a total of five national parks and 126 other reserves covering an area of 24 000 km². Eleven years later the numbers have increased to 54 national parks and 248 reserves, covering a total of 100 000 km². Today, India has more than 100 national parks, and the number of tiger reserves has grown from the original nine to 49. Unfortunately, the population of the tiger has not increased to the same extent. On the contrary, in 2006 an accurate survey concluded that only 1418 tigers were left in India, less than at the beginning of the »Project Tiger«. In various regions, even in national parks, poaching has been intense. No wonder, since the bones of the tiger are virtually worth their weight in gold in Traditional Chinese Medicine. The fact that the number of tigers has been corrected two years later to 1706, puts the reliability of official data in doubt. One had forgotten to include one of the most important areas for the tiger population, the Sundarbans on the border between India and Bangladesh. The current estimate is about 2400 living tigers for the whole of India.

One of the most famous and popular tiger reserves is Ranthambhore, also a former Maharaja hunting reserve. The name derives from the ruin of a fortress that overlooks the entrance to the reserve and can be seen from afar. In many parts of the park there are remains of ancient settlements, for example, small Hindu

temples. This together with lakes, meadows and dry bushy forests creates much of the charm of Ranthambhore. Without the lakes, which are mostly artificial, the animal wealth of axis (*Axis axis*) and sambar deer (*Cervus unicolor*) and many other species would be inconceivable. Only a short distance away from the water sources, the landscape is, outside the monsoon season, mostly dry.

The tiger reserve of Ranthambhore was founded and led for two decades by Fateh Singh Rathore. Under his administration the small 400 km² reserve became an excellent tiger habitat and he himself a renowned tiger expert. We owe much of our knowledge about the social life of tigers to him. Before Rathore, we were unaware that tiger offspring will remain for up to two years with the mother. Male tigers are no threat for the young ones. Many even visit their offspring and the mothers regularly. Tigers are much more social animals than was previously thought possible.

For the prey of the tiger Fateh Singh came up with the following order: The primary quarry are not the very common axis deer (*Axis axis*), but wild boars (*Sus scrofa cristatus*). They are often so busy searching the ground for food that they easily fall prey to the cats. According to Fateh Singh, the careless sambar deer (*Cervus unicolor*) are the second most likely victims of the large cats. If they discover something suspicious, they do not flee immediately but come closer and take a curious, and often their last, look. In third place are the large, also relatively careless nilgai antelope (*Boselaphus tragocamelus*). Only fourth as tiger prey are the axis deer (*Axis axis*), because they are extremely vigilant and always have some sentinels positioned in their herds. But basically tigers prey on nearly every conveniently available animal, from the gray langur (*Semnopithecus entellus*) to the gaur (*Bos gaurus*), occasionally even young elephants and rhinos. And sometimes also people ...

With the exception of humans, tigers have no real enemies, only competitors like the leopard (*Panthera pardus*). In tiger areas it is rarely seen during the day and seems to avoid the larger rival. A pack of the very social dholes (*Cuon alpinus*) can probably overwhelm a tiger, but they are also food competitors. Other predators like the golden jackals (*Canis aureus*) or bears sometimes feed on a tiger's prey and therefore compel these big felids to go hunting again.

Towards the end of his career, Fateh Singh was transferred to Sariska Tiger Reserve in order to rehabilitate it. Instead of the 40 tigers officially reported there he was only able to verify the existence of 17 or 18 animals. A skeptical view on the reported figures is mainly due to a marked weak point in Indian bureaucracy: The directors of the national parks are regularly transferred to other positions. In order to prove their qualification they simply use a slightly larger number of animals than before. Verifying their information is hardly possible. Meanwhile, the stocks are therefore determined almost entirely by photo traps.

At the commencement of his duties in Sariska, Fateh Singh immediately closed all the observation posts at the waterholes, from which poachers had hunted at least 26 tigers. While such measures are easy to perform, the resettlement of villagers from the national parks is much more difficult. Since they cannot be forced to leave persuasion is necessary, for example by the promise of a better infrastructure such as schools, wells and public transport just outside the park. In the reserves people cause significant problems. They monopolize the best areas including the waterholes and their cattle and goats are not only a competition for the wildlife, but the habitats are overgrazed considerably. The results are severely degraded environments around the villages.

It is obvious that establishing reserves and creating new protection laws is not sufficient. Realizing this, a longtime fellow of Fateh Singh, the social anthropologist Valmik Thapar, drew consequences. Instead of focusing solely on tiger research and preservation he devoted himself increasingly to the assistance of local people which also indirectly benefitted the tigers. For this purpose the Ranthambhore Foundation was established. With the financial help of the foundation a protective wall against livestock was erected around the reserve. The villagers, who carried out this construction work themselves, may harvest only grass for their

cattle in the park. Instead they receive trees from a nursery and a mobile ambulance is now in use, which is vital for health care in the neighboring villages of the national park.

The foundation promotes local craftsmanship, for example the production of shoes and clothing. In a breeding station, there are also bulls of water buffalos (*Bubalus arnee*) and humped cattle (*Bos primigenius indicus*) for improving the livestock. With that measure the number of cattle can be kept down.

In addition to the villagers, there are also native tribes who have no interest in »progress« and development. For example, the Gond people still live in the area of the Kanha National Park and sustain their lives by what nature has to offer, for example, collecting wild fruit in the reserve. They hardly disturb the natural balance. Besides Kanha and Ranthambhore, a number of additional parks have become excellent habitats for the big cats – the Corbett National Park in the foot hills of the Himalayas and Bandhavgarh situated in the Central Indian Madhya Pradesh province. They are also popular with nature tourists. Kaziranga National Park in northeastern Assam province, famous for its population of Indian rhinos (*Rhinoceros unicornis*), also contains a healthy tiger population. Similarly well-equipped for the last Indian lions (*Panthera leo persica*) is the Gir Forest north of Mumbai (formerly Bombay). No doubt, India has as much to offer in terms of nature as in its renowned culture.

The distribution of tigers, which formerly ranged over large parts of Asia, has shrunk considerably. Three of the nine subspecies have become extinct, a fourth is only surviving in captivity. The Bali tiger vanished before World War II, the Javan tiger in the mid-1970s and in the last years also the Caspian tiger. The South Chinese tiger is probably extinct. Only around 350 animals of the Indochinese tiger are still alive, about as many live in Sumatra (Sumatra tiger). Of the Malayan tiger, a subspecies only recently set-up, about 500 individuals are estimated to be alive. Only doubtful and fluctuating information on the Amur or Siberian tiger are available: around 400 animals are left. Including the large population of perhaps 3000 animals which live in India and some neighboring countries like Nepal and Bangladesh, only 4500 Bengal tigers are left.

In three subspecies the habitat they require is quite accurately determined. Not surprisingly the Siberian tiger roams through the largest areas. This is not only because of their enormous size but also because in their region the food supply is rather limited. The home range of females is around 200-400, for males between 800 and 1000 km². An area of 1000 km² can support about five to six tigers. There is a marked contrast with the favorable conditions in India, where 14 tigers thrive in an area of around 100 km², more than 20 times as many as in Siberia. Four to six individuals are expected to live in an area of 100 km² in Nepal, whereas only four Sumatran tigers can share that space. The Indian subcontinent seems to offer favorable conditions for the tigers.

A crucial question is: How do people in India cope with the tigers, which prey not only on their livestock, but also on themselves? After all Wikipedia (an admittedly rather dubious source) mentions that since the 1800s up to 373 000 people have been killed by tigers. Numbers which can hardly be verified. Much more reliable is a contribution by the American tiger expert Charles McDougal »The man-eating tiger in geographical and historical perspective«, which was published in 1986 in the book »Tigers of the World«. According to him, there were problems with tigers mainly in South China (in a village up to 60 people were killed in a few weeks in 1922), Singapore (where in the 1940s 200-300 people died) and in Manchuria. In the latter, the officials' response was swift and dealt with extreme severeness. A lot of incidents occurred in what is today India. In 1822 about 500 people were killed by wild animals, almost exclusively by tigers, in the Bombay district alone. In the foothills of the Himalayas »man-eaters« appeared repeatedly and became quite well-publicized by the books of Jim Corbett (**fig. 11**). And in the central provinces of Madhya Pradesh and Maharashtra 200-300 people were killed by tigers annually during the mid-19th century. Particularly dangerous was (and still is) Bengal, which today comprises the Indian district of West Bengal and western Bangladesh, where around 500 people were killed every year.



Fig. 11 The famous tiger hunter Jim Corbett (whose bust stands at the entrance of the national park named after him) was a pioneer of tiger protection.

The death rate by tigers in the British colonial territory (today's India, Pakistan and Bangladesh) was quite high in the early last century: From 1902 to 1911 an average of 850 people died every year. In the 1920s, the death rate was even higher and the year 1922 holds the record with 1603 deaths. From 1928 to 1933, there were more than 7000 deaths, an average of nearly 1200 per year. After World War II, when India became independent, the number of tigers was significantly reduced, resulting in the near absence of fatal attacks on humans in most areas. But since then there have always been exceptions: 128 deaths were recorded in the years 1978-1984 in the Uttar Pradesh province. These killings ended after ten tigers were slain and two were captured.

Jim Corbett, who earned himself the reputation of a tiger hunter, was always called in to help when a tiger problem started in any region. His conclusion was that in general animals that were wounded or unable to hunt natural prey due to old age or sickness were the problematic ones. But on the other side there are also disabled tigers which do not hunt humans and healthy tigers which specialize for some reason in hunting people. In the late 19th century, no

problems with tigers were known in the border regions of the Himalayas, where Jim Corbett was mainly active at that time. That changed when their food supply had deteriorated significantly, leading to attacks on domestic animals and humans.

A real special case is Sundarbans (**figs 12-13**), an area of about 16000 km² comprising of the deltas of the Ganges, Brahmaputra and Meghna at the border between India and Bangladesh. It is still a region prone with man-hunters. 100 or more people fall prey to the big cats every year. In 1971, a first scientific study of the man-hunters was led by the zoologist Hubert Hendrichs. Recent data on this topic, especially from Bangladesh, derives from the Southeast Asia experts Gertrud and Helmut Denzau. After Hendrichs only 1 % of the tiger population (the estimated number in both countries is up to 500 animals, the largest, only truly viable population worldwide) is specialized in humans as prey. About 30 % of the attacks are accidental and the vast majority of tigers avoid humans.

There are various theories for the attacks of tigers on humans.

- The lack of natural prey may lead to attacks on livestock and consequently on shepherds (especially children).
- The high salinity of the drinking water could make tigers particularly aggressive. Therefore, freshwater ponds have been established.
- Due to the constant flooding of their habitat the territorial markings are washed away regularly. This may trigger more dominant/aggressive behavior.
- As a result of devastating cyclones a large number of people (sometimes thousands) perish. Tigers could find dead bodies and become accustomed to humans as a source of food.



Fig. 12 Sundarbans. The mangrove area of Sundarbans in the delta of the mouth of three large rivers is in many places only navigable by boat. Even today tigers fall victim to fishermen in Sundarbans on the border to Bangladesh – and vice versa.

- The wet and slippery habitat makes it difficult to hunt. In comparison, man is easier to capture than natural prey.
- The people who go about their work foraging in the marshes are often bent down to catch fish or shrimp and gather wood and thus evoke the predatory instincts of tigers more.
- People do not live directly in the marshes and are often not accustomed to dealing with the big cats.
- In other areas, the tigers were more intensively hunted, reduced in number and became wary of humans.



Fig. 13 Tiger tracks. These tracks at the edge of a river demonstrate that tigers are not scared of water.



Fig. 14 Masks for protection. Masks on the back of their heads are supposed to protect them from a tiger attack when they go fishing in Sundarbans.

Whatever the reasons, the tigers of Sundarbans are behaving distinctively different than in all other areas of their distribution. People are therefore much more careful than anywhere else. No one, not even a ranger, would simply go by foot or on a bicycle in the marshes, as they normally do in all the other tiger reserves in the country. The villages located on the outskirts of the Sundarbans are surrounded by electric fences. With the approval of the authorities, some people may enter the swamps in order to collect wood or honey. As a protection, they are often wearing masks on the back of the head depicting a second face. The belief is that tigers, who usually attack prey from behind, are confused and refrain from attacking (**fig. 14**). Puppets wearing human clothing have been charged-up with batteries so that »man-eaters« taking a bite are prevented from further attacks. For tourists visiting the Sundarbans special rules of behavior also apply. They may visit the area only accompanied by armed rangers and the access to the observation towers, where they are allowed to leave their boats, is always surrounded by tall, tiger secure fences. Through all these measures, the number of deaths and attacks inflicted by tigers both in India and in Bangladesh have been greatly reduced. But conflicts are not over yet. Sundarbans has been and continues to be the area where man has to fear the tiger, as was initially described by Alfred Brehm.



Pl. 1 a-d Tigers are undoubtedly among the most beautiful and popular mammals, but also among the most feared. Different tigers in the Bandhavgarh National Park and in the Corbett National Park.



Pl. 1 (continued)



Pl. 2 **a** For wealthy hunters, also Indians, such a picture above the fireplace was and is an absolute hit. – **b** Tiger trap. Anyone who wants to defend himself against cattle hunters or kill a tiger for the illegal market makes use of such powerful slap traps. – **c** Degraded habitat. Even in the vicinity of national parks, here that of Ranthambore, the habitats are severely degraded by overgrazing. Kanha NP.



Pl. 3 a Tigers in front of riding elephants with tourists. Little impressed are tigers, which are visited in some reserves for one or two hours by riding elephants with tourists. – b Tigers with jeeps. Tigers also casually stroll past jeeps full of foreign and local tourists.



Pl. 4 a Axish deer. The lack of natural prey like *Axishirschen* could be a reason why in Sundarbans humans fall victim to the big cats. – b Wild boars. The Indian comb wild pigs belong to the most popular and most frequent booty animals of the tigers.



Pl. 5 **a** Sambar Deer. The mighty Sambar stags often become tiger victims, because they curiously approach their hunter only one step closer. – **b** Axis Stag. The dainty, but with a huge antler equipped *Axishirschen* is very careful and is therefore less often carried off.



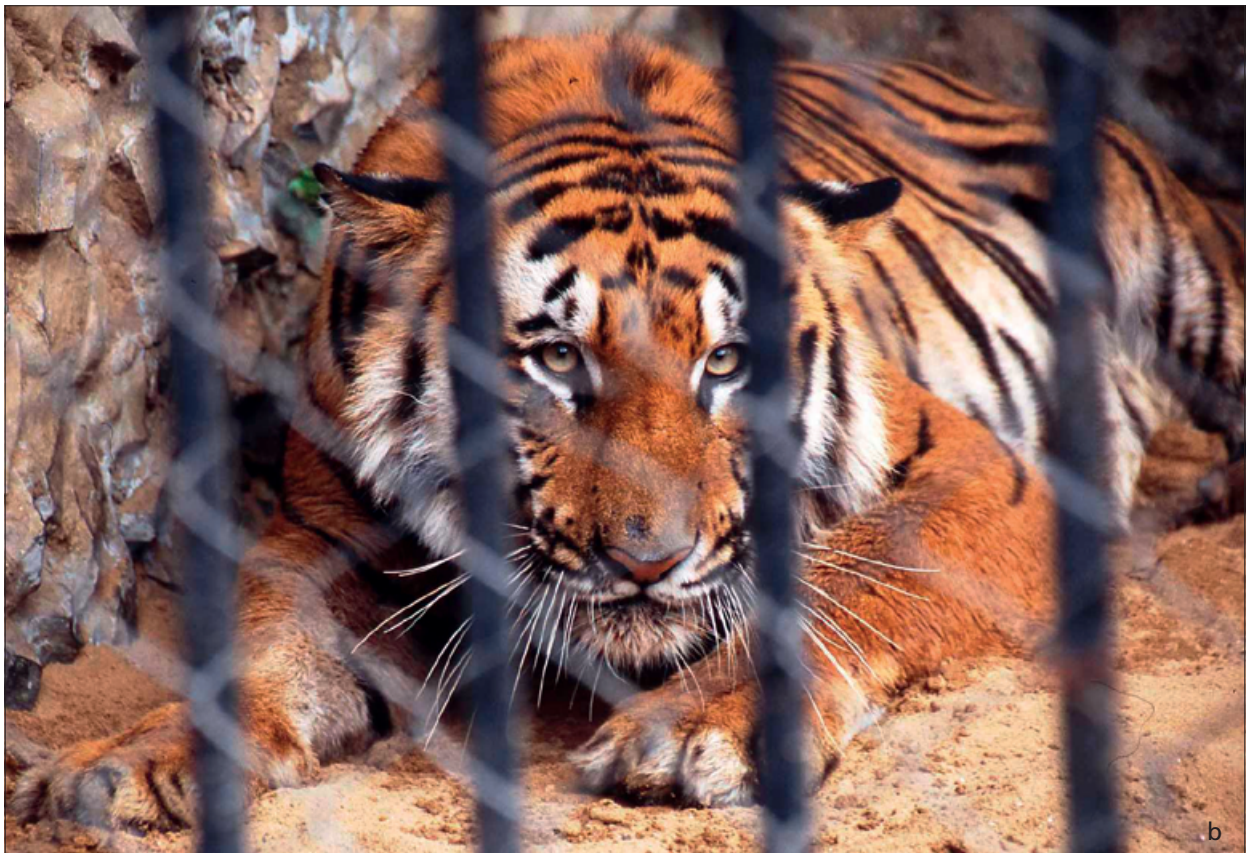
Pl. 6 a-b Tigers in Thailand. Very much more rarely than the Indian king tigers are all other subspecies of the tigers, also the Indochina tigers held here by monks in Thailand.



Pl. 7 a Tiger statue in Bangladesh. Tiger statue behind fence: everywhere in the Sundarbans people protect rather themselves from the big cats in this way. – b This man was attacked by a tiger and only escaped with his life through the help of his friends.



Pl. 8 a The people living in the Sundarbans are very well aware of the danger posed by the big cats. – b An electric fence is to keep the dangerous tigers away from this village in the Sundarbans, but it is not always successful.



Pl. 9 a Fishermen in the Sundarbans on the border to Bangladesh. – b This tiger had killed a girl in the Sundarbans, was caught and brought to the Calcutta Zoo.