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# Kampuchean wildlife— survival against the odds

Chris Thouless

**The continuing war in Kampuchea has made it difficult for zoologists to assess the status of endangered species in the remoter parts of the country. Two of the world's rarest mammals, the kouprey and the Javan rhinoceros, may still survive there. The author visited the area in April 1986 and, in interviews with people in two refugee camps on the Thai border, gained the impression that the effects of the war on wildlife were not as drastic as had been expected.**

There has been little recent information on the status of wildlife in Kampuchea. Wars, civil unrest and hostile governments have made it impossible for foreigners to visit much of the country, and the majority of educated Khmers have either been killed or escaped to other countries.

The war in Kampuchea is still continuing. The capital, Phnom Penh, and the more populous parts of the country are controlled by 160,000–180,000 Vietnamese troops with 50,000 of their Democratic Kampuchean allies. Their opponents are guerrillas loyal to the UN-recognized government based on the border with Thailand. This is a coalition between the Khmer Rouge, the Kampuchean People's National Liberation Front (KPNLF) and supporters of Prince Sihanouk. During the wet season about 40,000 of their soldiers operate mainly in the north and west of the country; in the dry season the Vietnamese push up to the Thai border and have attacked the refugee camps, which hold about 240,000 Khmer civilians.

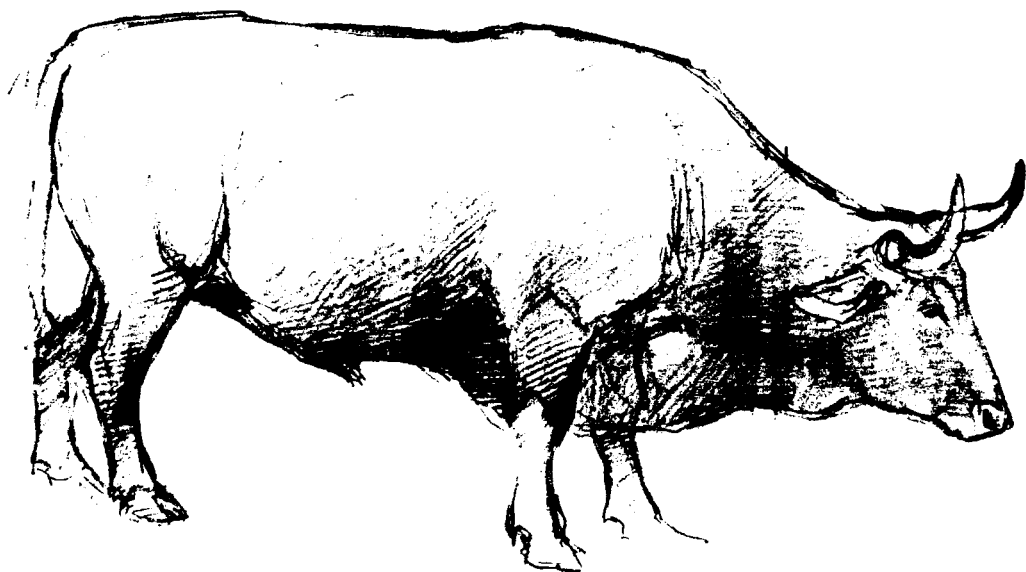
Reports on the status of endangered species that were previously resident in Kampuchea have tended to be rather pessimistic about their chances of survival. It has been assumed, in particular, that populations of large game will have been severely reduced because of the breakdown of nature reserves, a shortage of food and the presence of large numbers of armed men.

*Kampuchean wildlife*

Visits to remote parts of Kampuchea by zoologists are not recommended because of the profusion of land-mines and a local tendency to assume that any stray white man works for the CIA or the KGB, and, as such, is in season. However, there is considerable potential for collecting information from Khmers on the Thai border, since many have recently arrived as refugees or have returned from fighting.

I conducted interviews with residents of two refugee camps, Site 2 (KPNLF) and Site 8 (Khmer Rouge), for two days in April 1986, with the help of interpreters who were fluent in both Khmer and English, and were familiar with the animals that I was asking about. Subjects for interviewing were chosen by asking camp authorities to locate residents who had a reputation as hunters. Others came of their own accord, having heard that we were interested in animals that they had seen. Interviews were conducted with the aid of photographs, drawings and posters of South East Asian wildlife.

The observations described below include only instances where my informants had seen the animal personally. In order to check the validity of the records I asked for details of the animals' behaviour and what kind of habitat they had been in; I also asked how observers managed to distinguish the species concerned from related ones. In general, I was impressed by the reliability of the



**Above:** Kouprey (drawing by Bruce Pearson).  
**Below:** Khmer Rouge refugee camp showing the rugged country of the border area (Chris Thouless).



Khmers. They were happy to admit if they had not seen an animal or could not distinguish between two species. For example, I could not get information on Temminck's cat because the same Khmer word was used for all small cats, and the various species were not separated.

## The kouprey

The kouprey *Bos sauveli* is one of the rarest and least known large mammals in the world. It is a kind of wild cattle, characterized by a pendulous dewlap and massive horns with distinctive frayed tips. The kouprey was first described in 1937 and even then was quite rare, being confined to the remote and inaccessible northern part of Kampuchea and neighbouring areas of Vietnam and Laos. Its population was then believed to number a few thousand but, as a result of shooting and disturbance, population estimates had dropped to fewer than 100 by 1970, after which Kampuchea became a battleground and no further information emerged. At one time it was believed that there was little chance of any kouprey having survived, but in 1982 some were reported by villagers just on the Thai side of the border. An expedition was mounted with the intention of capturing some for captive breeding; however, while tracks were found, no kouprey were seen (IUCN, 1983). More recently, MacKinnon (1986b) has established that small numbers of kouprey survive in Laos and Vietnam.

All the Khmers I spoke to were certain that there still were kouprey in Kampuchea, and several people had actually seen them. Most of these observations came from the years 1975–79 (Figure 1). This was because many of the refugees had left Kampuchea in 1979 at the time of the Vietnamese invasion and because, in 1975, the Khmer Rouge leadership had forced many people to go and live in sparsely inhabited forest regions. Two of these records are from Siem Reap Province, which is to the west of the supposed range of the kouprey (Sauvel, 1949). Although it is possible that groups have wandered to new areas as a result of disturbance from the fighting, it seems more likely that the lack of previous observations from this area is because it was one of the least populated areas of the country. One man we spoke to said that while he had been

*Kampuchean wildlife*

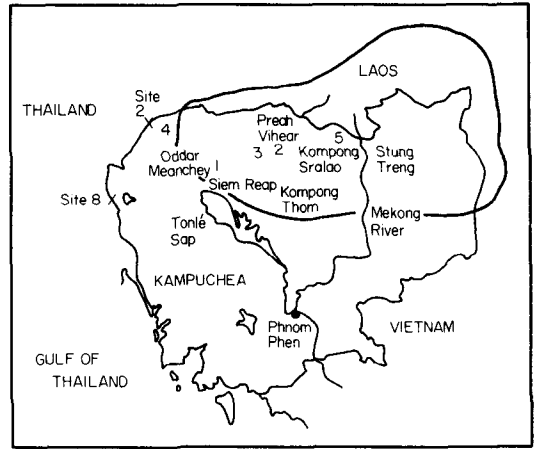


Figure 1. Observations of kouprey. Line encloses former range. Dates of records are as follows: (1) 1975–9; (2) 1975–9; (3) 1977; (4) 1983; (5) 1983–4.

a labourer for the Khmer Rouge in Siem Reap he had taken part in kouprey hunts. These involved about 30 men with half that number of guns. They had killed six kouprey over a three-year period from a local population of about 30. Not entirely surprisingly, numbers were lower and the animals were more difficult to find at the end of this time.

The most recent sightings of kouprey were made in 1984 in Kampong Sralao district. This area used to be a kouprey reserve. Apparently, in this region villagers send their cows into the forest in the hope that they will be fertilized by kouprey bulls. This is interesting for two reasons: firstly, it is thought that kouprey may be resistant to rinderpest and hence may confer resistance to the offspring of domestic stock that they breed with; secondly, it has been suggested that kouprey are the ancestors of modern brahmin cattle (Pfeffer and Kim-San, 1967). Although this theory is unlikely to be completely true, since genetic analysis shows relationships between brahmins and other domestic breeds, there may have been interbreeding in the past giving rise to brahmin features such as the dewlap. This kind of interbreeding between wild and domestic stocks has occurred in other places. For instance, in Java wild banteng *Bos javanicus* bulls are encouraged

to mate with local cattle, producing hardy hybrids able to cope with a low quality diet.

It may seem surprising that people were so familiar with a rare and elusive animal that does not look very different from other wild cattle. In fact, confusion is made possible by the fact that 'kouprey' in Khmer means literally 'forest cattle', and that the word can be used in this sense as well as the specific one. Part of the reason why everyone knew about kouprey was because in the early 1960s Prince Sihanouk made it the Cambodian national animal and declared several sanctuaries specifically for its conservation. Koupreys were illustrated and described in primary school textbooks that were being used in the Khmer Rouge camp. Wharton (1968) has also suggested that there has been a long association between kouprey and man in northern Kampuchea since this species may be dependent on the fire-climax habitats produced by slash-and-burn cultivation.

## Javan rhino

The Javan, or Asian one-horned, rhino *Rhinoceros sondaicus* was once widely distributed throughout South East Asia. Now almost the entire world population (about 50) is confined to a small part of Java and there have been no confirmed sightings elsewhere for many years. However, there have been a number of reports suggesting that they do still survive in remote parts of the area. McNeely and Laurie (1977) received reports of their existence in the Tenasserim range in Thailand. Villagers in southern Laos had seen Javan rhino on a number of occasions (Neese, 1976).

A number of Khmer refugees had seen rhinos, mostly in the remote northern areas (Figure 2). In most cases these were single sightings. It was evidently quite an event to see a rhino. One old hunter said that he had seen only one in his life, in the 1950s. In two areas there had been a number of sightings over a period of time. A hunter from Preah Vihear thought that there had been about 10 individuals in the area in the early years of this decade, but these had been very shy because they were hunted to sell blood and horns as medicine in Laos. One of the Khmer Rouge had

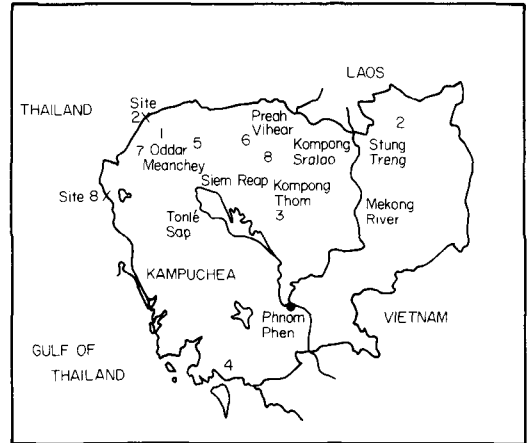


Figure 2. Observations of Javan rhino. (1) 1967; (2) 1970; (3) 1975; (4) 1980s; (5) 1980-1; (6) 1981; (7) 1982; (8) 1982.

been in a group of soldiers who had killed and eaten one in the same area in 1982. The other group was in the south of the country in the Elephant Mountains. They seemed to be less threatened.

There is a possibility of confusing the Javan rhino with its slightly less rare relative, the Sumatran rhino *Dicerorhinus sumatrensis*. However, all the Khmers who claimed to have seen rhino were emphatic that they were one-horned, not two-horned. This is not surprising, since almost all early records in Indo-China refer to Javan rhino (Groves, 1967); the mainland distribution of Sumatran rhino was more to the west.

## Other species

A number of other species that are endangered in most of their range still appear to be reasonably common in parts of Kampuchea. The Siamese race of Eld's, or brow-antlered deer *Cervus eldi siamensis*, was believed to be extinct, or on the verge of extinction. However, Khmers said that this species was still reasonably common. Its continued presence in Kampuchea is confirmed by a recent rack of antlers that had been brought to Thailand.

The green peafowl *Pavo muticus* is another species that has been almost exterminated from Thailand. Again, the Khmers said that it was still



Javan rhinoceros (drawing by Bruce Pearson).

fairly common. I saw several tails from recently killed males and was informed by UN Border Relief Operation staff that live birds that had been caught in Kampuchea were sold quite frequently in Aranya Prathet, on the Thai border, for about 1000 baht (£25).

Tigers and elephants are also said to be reasonably common in the remote areas. Tigers are still hunted, particularly if they become man-eaters. Many are said to have acquired a taste for human flesh during Khmer Rouge rule. Elephants are thought to be badly affected by land-mines, although no one I spoke to had seen elephants that had been killed in this way.

## Discussion

After talking to the Khmer refugees, I was left with the impression that the effects of the recent troubles on Kampuchean wildlife were not nearly as drastic as expected. It had been assumed that large game would be eradicated by the large numbers of armed soldiers and guerillas wandering around a country suffering from food shortage. However, soldiers said that they were often afraid to shoot animals for food because the Vietnamese might hear and shoot them in turn. By way of contrast, in Thailand, which is politically much more stable, there is a great deal of *Kampuchean wildlife*

shooting for food and trophies. One consequence of Khmer Rouge rule was that few of the people were allowed to keep guns. They were also forbidden to go into the forest, so that they could not escape. Land-mines are an obvious danger to wildlife as well as to people, and there are a vast number of them—about one million are said to be scattered along the border area. However, it is likely that there are not so many in the interior.

The other main problem for wildlife is habitat destruction. Compared with other South East Asian countries, Kampuchea is relatively unscathed in this respect. During Pol Pot's regime many city-dwellers were sent out to clear areas of forest, sometimes for crops, more often for no real purpose except 're-education', but this was short-lived and, since the people did not have effective tools, had little effect. There is some forest clearing taking place at the moment. Trees along the northern border are being felled as part of the effort to seal off the Khmer Rouge and KPNLF inside Thailand, and some roads, particularly along the border, are having the verges cleared to a distance of 500 m to prevent ambushes. The Vietnamese are also said to be felling trees along the Mekong to float downstream into their own country. Refugees claim that the Vietnamese electrocute fish in Tonle Sap, the Great Lake, but it is difficult to know how important these activities

are, if they do indeed occur. Overall, the extent of deforestation is minute compared with Thailand. There are two reasons for this. Most of the heavily forested areas are used by the guerillas, and large-scale logging would be an extremely hazardous exercise. The second reason is that Kampuchea is one of the few countries whose population has declined substantially in recent years, and there is consequently no shortage of agricultural land. There is instead a shortage of man-power. No accurate figures are available, but it is generally accepted that the population of Kampuchea decreased by 10–20 per cent during the 1970s.

## The future

While the situation in Kampuchea could be worse for the wildlife, and is somewhat better for the people, than it was 10 years ago, it is still very unsatisfactory, and the long-term prospects for species such as kouprey and rhino are distinctly uncertain. Effective protection will be possible only when there is a political solution to the country's problems. In the meantime the Vietnamese and Laotian governments, and the Heng Samrin government in Phnom Phen, have agreed on a conservation plan for kouprey, and have declared large sanctuaries in all three countries (MacKinnon, 1986a). This is unlikely to have any direct practical effect in Kampuchea since the areas in which kouprey live are not effectively controlled by either side in the fighting. It may be useful in reducing the amount of shooting of kouprey by Vietnamese soldiers. On the other hand, if the kouprey is used as a symbol of co-operation between the three countries, it may be interpreted as a symbol of Vietnamese oppression by Khmer nationalists. In order to avoid this, the importance of the wildlife heritage of Kampuchea must be stressed to both sides. The kouprey was once used by Prince Sihanouk

as a symbol of Khmer unity. If Kampuchea is to become a united nation again then a sense of nationhood cannot come from a shared history since recent events have destroyed this. It must instead come from an appreciation of the common heritage, including the natural heritage, of the Khmer people.

## Acknowledgments

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