

Pesticide Poisoning of Tigers

By Juan Spillett

REPORTS of Indian wildlife being poisoned by pesticides are increasingly common, but usually difficult if not impossible to confirm. The crux of the problem is the uncontrolled and free distribution of pesticides to agriculturists by the Indian Department of Agriculture. Illiterate farmers are often given toxic materials with little instruction as to their proper use. These people do not appreciate their toxicity or the devastating results they can have on wild animals, while others have found that certain pesticides are very effective poisons particularly for carnivores such as tigers.

A Forest Department official in Andhra Pradesh informed me in November 1966 that the highly toxic insecticide endrin was "occasionally" used in that area to poison tiger kills. Officials in Mysore and Madras claimed that endrin was not normally distributed in their states, but that an insecticide called folidol was used. The chemical name for folidol was not known, but the reports suggest that it is probably parathion. A Conservator of Forests in Bangalore, in Mysore State, claimed that folidol was only infrequently used to poison wildlife, though commonly used in homicides in many parts of India. The Wild Life Officer for Mysore, however, said that pesticides were frequently used to poison wildlife and particularly Carnivora, and he felt that if the present trend continued the large felines would become extinct throughout southern India within a few years. He said that there had been little control over the distribution of pesticides since the Department of Agriculture started to distribute them to farmers in 1955, and that it was almost impossible to control their use. If a tiger killed a cow, the owner often sprinkled 2 or 3 ounces of folidol, which is said to be both tasteless and odourless, upon the kill. On its return the unsuspecting tiger would eat freely, and then travel anywhere from 15 yards to half a mile before dying an agonising death.

Two tigers (a male and a female) were killed by a poisoned bait along the north boundary of the Venu Gopal Wild Life Park (Bandipur Sanctuary) in October, 1965, and the tigress skin is presently on display in the Forest Rest House at Bandipur; the male hide had spoiled before it was found. A leopard was similarly killed on Chamundi Hill overlooking the city of Mysore in 1963. Four tigers were killed by the use of folidol on a single bait in the Shimoga District of Mysore State in 1962. Besides these confirmed reports, it is anyone's guess how many more animals were killed by pesticides during this period. Prior to 1962 the Maharaja of Mysore, who is the present governor, and his guests annually shot five or more tigers on the shooting blocks north of the Venu Gopal Wild Life Park, but since 1962 only one tiger has been shot on the sixteen tiger blocks maintained in this area. In the whole of Mysore, in 1962, not a single tiger was legally shot; even the Maharaja had to go elsewhere to shoot tiger.

The mating season for tigers in the Bandipur Sanctuary is generally during November and December. The staff claimed that in former years tigers could be heard frequently roaring during this period, but that no roaring had been heard in Bandipur since 1964. During the past year no tiger tracks have been observed either in the sanctuary or on the sand roads surrounding the tiger blocks adjoining the sanctuary.

Copper sulphate, which is supplied by the Department of Agriculture for insect control, is sprayed on the coffee plantations along the Western Ghats in Mysore State. This has resulted in fish kills in many of the streams below the plantation areas, and it appeared in some cases that people were deliberately using copper sulphate to kill the fish.

I did not visit Kerah during 1966, but in September, 1965 I was informed by Forest Department personnel there that pesticides were frequently used to poison wildlife in the state. Further, while visiting adjoining parts of Mysore in November 1966, I was told that a large number of elephants had recently been killed in Kerala by folidol, which had been sprayed or injected into sugar cane baits. I was not able to confirm this report.

In Madras the Wild Life Officer claimed during my visit in December, 1966 that pesticides are very little used to poison wildlife in his state. He feels this is primarily because of the State Forest Department's policy of reimbursing farmers for their livestock losses to tigers.

It is urgent that steps be taken as soon as possible to insure that toxic materials are not wantonly distributed throughout the nation, and that those to whom they are given use them only for the purpose for which they were originally intended. Otherwise, much of India's already greatly diminished wildlife may soon be brought to the verge of extinction.

Pakistan Protects Wild Sheep

A RESERVE to protect the last surviving flock of the Punjab race of the urial or wild sheep *Ovis orientalis punjabiensis* has been created in the Salt Range Mountains, in West Pakistan, by the Nawab of Kalabagh, and the photograph opposite shows one of the Pathan guards on duty. The reserve is one of the fruits of last year's World Wildlife Fund expedition to Pakistan, led by Guy Mountfort, an international trustee of WWF. The urial, or shapu, was once widespread in the mountains of the Punjab, Sind, and Baluchistan, extending to Iran, Ladak and Tibet, but the populations of the three subspecies, the Punjab, Afghan and Ladak, have all been greatly reduced. The new reserve ensures the survival of the Punjab race, the most severely threatened. Under strict protection the flock had an excellent lambing season in 1967 and is now believed to number about 500.

No Crocodiles from India

The export of crocodile skins, or parts of the produce of crocodiles, from India has been prohibited by an Export Trade Control Order.



Plate 1: GUARDING A NEW RESERVE IN PAKISTAN

Tom Robert



Plate 2: A GIFT TO CEYLON. Mr. Eric Wikramanayake, President of the Wildlife Protection Society of Ceylon, and Dr. Fred Kurt with the Land Rover provided by the Fauna Preservation Society and the World Wildlife Fund, through their joint Revolving Fund, for the Ceylon National Parks. The Land Rover was urgently needed by the Smithsonian Institution's team, of which Dr. Kurt is a member, for their ecological survey of the Ceylon elephant. The elephants are in danger from the pressures of cultivation, but to protect them it is essential to study their migration habits and routes, about which little is known, in order to understand what they need and to be able to delimit suitable reserves.

Max Hemple



Plate 3: THE DIBBLER. This small carnivorous marsupial was believed extinct until it was rediscovered in May this year in Western Australia. A Note about the dibbler is on page 178. *Photograph by Dr. W. D. L. Ride*



DROUGHT IN BIHAR

Plate 4 above: A bull gaur, the Indian bison, on its way to a water trough during the drought described in the article opposite.

Plate 5: Cheetal, the spotted deer, at a water hole filled daily by jeep tanker.

Photographs by S. P. Shahi