



## Asian Rhino Specialist Group

Charles Santiapillai

### Javan Rhinoceros in Vietnam

The Javan rhino (*Rhinoceros sondaicus*) was once widely distributed in the northern and southern parts of Vietnam. Although even as late as 1969, there was some skepticism as to whether or not Javan rhinos occurred in Vietnam, there had been sporadic reports of their presence in the south from hunters and tribal people. Then in 1988 one animal was killed by a Stieng minority tribesman and the skeleton was taken to Hanoi, where it rests today at the Ministry of Forestry. That it had survived the war and destruction wrought on its habitat by bombardment and defoliation is in itself proof of its remarkable ability to survive.

In March 1991, a survey was carried out in the Lam Dong province (about 150 km northeast of Ho Chi Minh City) along the Dong Nai river in an area where the four provinces of Lam Dong, Dong Nai, Song Be, and Dac Lac meet. This area of 35,000 ha of lowland forest represents the last stronghold of the Javan rhino in Vietnam, where it is estimated that between 8-12 animals may still survive. The Javan rhino is a shy animal, often retreating to dense forests to escape poachers. While this characteristic is of survival value and therefore to be welcomed by conservationists, it also makes this an extremely difficult species to study scientifically. Much of the information about the number, range, and food habits of the rhinos was derived indirectly from footprints, trails, wallows, and dung. Much of what is known of its biology is still derived from incidental observations of the tribal people and poachers.

The altitude range of the mountains of southern Vietnam is such that most of the area in Lam Dong province along the Don Nai river is rich habitat for rhinos. A preliminary study of dung revealed the presence of undigested plant material, some of which could be identified. Among the plants eaten by the Javan rhino in Vietnam were *Acacia pennata*, *Calamus poilanei*, *Calamus tetradactylus*, *Combretum* sp., *Bambusa*

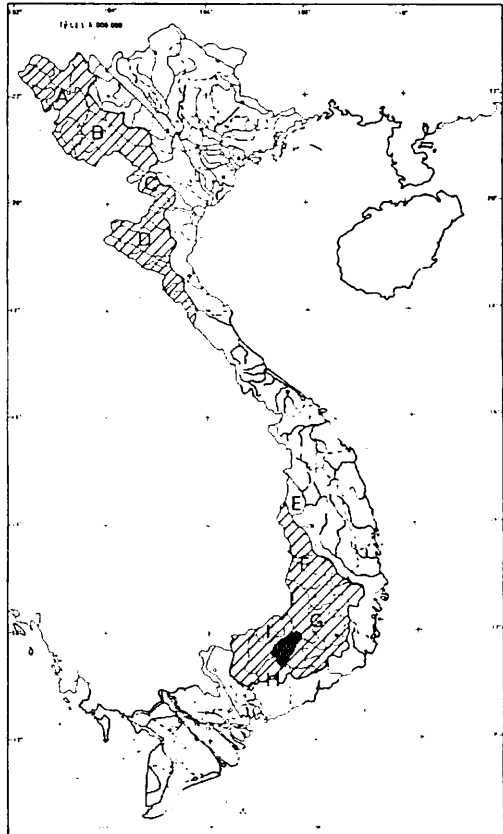


Figure 1. Map of Vietnam showing the extent of the past (cross hatching) and present (solid shading) distribution of the Javan rhino. A-Lai Chau, B-Son La, C-Thanh Hoa, D-Nghe Tinh, E-Gia Lai-Con Tun, F-Dac Lac, G-Lam Dong, H-Dong Nai, and I-Song Be provinces.

*procera*, *Bambusa bluemeana*, *Plectocomia elongata*, and *Daemonorop nigro-ciliata*. In addition, rhinos may be feeding on wood fern (*Cyathea* sp.). Rhinos are known to break down toxic plant material in their stomachs, so it was not surprising to find that among the plants that the Javan rhinos ate was a highly poisonous species, *Strychnos nux-vomica*.

The most serious threat facing the Javan rhino

4996

population in Vietnam is poaching. One of the unpleasant legacies of the prolonged war with the United States is the ready availability of guns and rifles. Many tribal people carry guns as they hunt wildlife for meat. Given the high price that rhino horn fetches in the international market, the Javan rhino in Vietnam is worth more dead than alive to traders in Ho Chi Minh City who deal in rhino horn.

Logging is not a serious direct threat to the Javan rhinos in their habitat, which is rich in commercially important timber species belonging to the family Dipterocarpaceae. The Vietnamese system of timber extraction stipulates the removal of only those trees that are about 60 cm diameter at breast height (dbh) and a cutting cycle of 35-40 years. Logged areas in fact offer some of the best habitats for the rhinos and other large herbivores. The threat to the rhinos from logging is indirect and is attributable to the fact that the logging roads provide easy access to hitherto inaccessible places for people and poachers alike.

Another threat comes from the slash and burn agriculture practiced by almost all the tribal people resident in the area. The fires set by farmers could easily spread into the core area of rhinos, especially during the dry season when there is so much combustible plant material around. Shifting cultivation is identified as one of the prime agents of forest destruction.

Much emphasis is placed on inbreeding depression in small populations. While the effects of inbreeding depression are real, they are often

transitory in nature and not all small populations are doomed. The effects of inbreeding depression can be minimized if numbers recover quickly from bottlenecks.

The first conservation priority for Javan rhinos in Vietnam is to protect habitat and eliminate the threat of poaching. It is also proposed to link up the 35,000 ha rhino area with the adjoining 45,000 ha Nam Bai Cat Tien National Park and provide a buffer zone around the rhino area to increase the total area to about 100,000 ha, and declare the entire unit as a Biosphere Reserve. More detailed surveys of adjoining areas are planned in an effort to determine the range and number of Javan rhinos in Vietnam. Stricter penalties need to be meted out to persons killing rhinos or trading in rhino products. The conservation of the Javan rhino, if it is to succeed, should have the support of the local people, especially those who live along the fringes of the rhino habitat whose livelihood depends on the rational use of forest resources.

The Javan rhino in Vietnam is well-adapted to respond to a sanctuary strategy. The small population in Lam Dong province can become viable and so must be protected and not abandoned on the hypothesis that genetic degeneration will set in and automatically eliminate it.

*Charles Santiapillai*  
*Asian Rhino Specialist Group*

