

A census of rhino was carried out in March 1981. The dense vegetation, rough terrain and climate in the tropical rainforest made the census a difficult task. Only indirect evidence (the size and location of the track) could be used as the basis of a census method, because in Ujung Kulon the rhino cannot be observed or captured.

The census gave a minimum estimate of 54 animals and maximum of 60 animals, reflecting improved census methods. An encouraging sign was the evidence of eight mother/calf pairs. Information on sex ratio, age and distribution were collected from the census and will be evaluated for population structure and dynamics.

From data collected, it appears that the Javan rhino is still in good shape. No overpopulation was indicated, although two or three rhinos have visited an area outside the peninsula.

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MALAYSIA, Endau-Rompin - Conservation of the Sumatran Rhinoceros (Project 1649)

Conservation of Sumatran Rhinoceros (Project 1972)

The status of the Sumatran rhinoceros (Dicerorhinus sumatrensis) in Malaysia is very precarious at the present time. The species has been greatly reduced in numbers and the remaining animals are scattered in small, isolated populations. The Endau-Rompin area contains the largest known contiguous rhino population, 20-25 animals, remaining in the country and has been the focus of initial research and conservation efforts. Rhinos have also been reported from several other areas in the country, but very little information is available on these populations. These areas include the protected reserves of Sungai Dusun and Taman Negara, but also several unprotected areas in the states of Kelantan, Pahang, Perak and Johor.

Information on the distribution and ecology of the Sumatran rhinoceros was needed to develop a conservation programme. Before this project was initiated in 1974, little information was available. Since then, considerable effort has gone into this study and it is hoped a successful conservation programme can be implemented before this unique animal slips away to extinction.

During the field season from August 1980 to July 1981 heavy rains prevented the collection of good information during some of the surveys because much of the data collection is based on locating foot prints in the soil. Thus more time was spent on other aspects of the study particularly food selection during the wet months.

A census survey of the primary rhino area was completed during September 1980 to determine the number of animals within this intensive study area. A second census was planned for early 1981, but poor weather conditions and unavailable field personnel prevented the completion of this survey.

For the food and habitat selection study, rhino trails were followed on 18 different occasions for a total distance of 30 km with 247 new feeding cases obtained.

The total number of rhinos occurring in the Endau-Rompin region can be estimated by projecting estimated rhino densities over the total occupied area. The density of rhinos in the 400 km² census area has been estimated at one animal per 40 km². Rhino density in the remainder of the region is known to be much lower, probably less than half. If the density of animals in these areas is conservatively estimated to be one animal per 100 km², then the number of rhinos in the 1,300 km² of habitat outside the census area can be projected to be about 13 animals. Combining these estimates yields a total of 23 rhinos over the 1,700 km² of remaining habitat. A more realistic estimate would be a range of 20 to 25 rhinos remaining in the Endau-Rompin region. This revised estimate over the previous one of 10-15 animals does not reflect any increase in actual rhino numbers, but rather the inclusion of additional information on distribution.

Even though 20 to 25 animals of such a rare animal remaining in the same area may be an encouraging sign for the survival of the species, the lack of reproduction indicates that this population is in serious trouble. The low density of animals may be preventing an adequate mixing of adult males and females for courting purposes. Another cause of the low reproductive rate may be a low quality diet. If this species is to survive, a major and sustained effort will be needed to monitor the population and implement a conservation programme.

Such a programme may require the movement of additional animals to Endau-Rompin in order to increase the size of the breeding population. If 20 to 25 animals is not a large enough breeding population, then scattered small groups of two to five animals which exist in other parts of the country do not have much future in terms of being a viable population.

The loss of rhino habitat through logging and land clearance remains a constant threat to the species. The total amount of habitat in the Endau-Rompin region continues to shrink as surrounding lands are exploited. At the present time, the proposed national park lands remain intact, but this area has never been officially gazetted as a protected area. Thus the future of the key rhino area in Malaysia remains uncertain.

As more time passes before final action to protect the area occurs, pressure to exploit the timber resource will greatly increase. At present, only about one half of the area now occupied by rhino lies within the proposed national park. The remainder of the rhino area is already under timber contracts. As this logging proceeds over the next few years, the disturbance to the habitat is bound to affect the number of animals. The area of most concern is the 500 km² Lesong Tree Farm concession. Present information indicates that this entire block of forest contains rhinos, but it will be logged over the next 25 to 35 years. The opportunity exists to minimise the impact of logging on the rhino population because in this concession the timber will be extracted in relatively small blocks (about 20 km² annually) over a number of years. Also, road access to the concession is somewhat controlled and the key rhino areas will not be cut for several years. The status of primary forest land adjacent to the approved western park boundary in the State of Johor is not known. I have recommended that all of this land be included within the proposed park.

All available information indicates that this species of rhino cannot tolerate any major disturbance to their habitat. Agricultural areas are not used at all. Logging areas are avoided after the active timber extraction has begun and field work has shown that logged areas may not be used again for several years after the activity has stopped. More work needs to be completed in this area especially the long-term effects of logging on a rhino population.

No cases or evidence of rhino poaching in the Endau-Rompin area have been reported recently, but the true situation is difficult to determine. The southern section is being occasionally patrolled by Department of Wildlife and National Parks rangers, but most of the northern sections have not yet been adequately surveyed much less patrolled.

Rodney W Flynn

SRI LANKA, Planning and Management of Elephant Reserves (Project 1783)

WWF/IUCN are supporting a study of elephant ecology in Sri Lanka to recommend boundaries for a new national park at Madura Oya round reservoirs which will be constructed under the Mahaweli River Development Scheme, and for the corridors which will link it to other conservation areas. The park and corridors will help to save some of the 800 elephants displaced under the development scheme.

The corridors proposed by the Department of Wildlife Conservation to link Wasgomuwa Strict Natural Reserve and Somawathiya Sanctuary with the proposed Madura Oya National Park, have both been found to be areas of high elephant activity. The home ranges of at least two elephant populations overlap in each of these corridors. The grassland plot in the corridor area