

## SUMATRAN RHINOCEROS IN ENDAU-ROMPIN AND FUTURE

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### ABSTRACT

The effect of logging an area inhabited by rhino disturbed its population distribution. *D. sumatrensis* does not re-establish itself in disturbed forest of Endau-Rompin. Lower Sungai Endau, Sungai Selai and Sungai Juaseh-Sungai Kemidak are three main rhino areas. These areas are easily accessible on foot along logging roads and jungle tracks, and thus pose a great danger to rhino conservation. Regular patrols and public relation works are among the vital tools to ensure perpetual survival of the endangered species.

### INTRODUCTION

The Sumatran rhinoceros is the rarest and the most threatened animal found in Endau-Rompin. Listed as one of the endangered species in the IUCN Red Data Book, the species received tremendous attention from scientists, naturalists and conservationists in the study of its ecology and behaviour.

Flynn made a three year study (1975-1977) on the ecology, behaviour and distribution of rhinos in the Endau-Rompin area under the direction of Encik Mohd Khan bin Momin Khan, Director General and Encik Louis Ratnam, Research Officer of the wildlife and National Parks Department. The objectives of the study were to determine the distribution status, movements and habitat use of the area and to collect additional information on its ecology and behaviour. Observation made on forest logging and land development in the area had shown to have lasting effects on the rhino population and habitat. The direct impact of such indiscriminate acts have reduced the contiguous rhino occupied area and splitting the population into two sub-population groups in Endau-Rompin during the early development period of 1977 (Flynn, 1978).

### THE STUDY AREA

Geographically, the 400 sq. km study area (Flynn, 1976), is in the region which forms the watershed between the east and the west side of the country, and is the source of four rivers; the Sungai Ulu Pukin flowing northward, the Sungai Segamat flowing westward, the Sungai Endau flowing eastward, and the Sungai Selai flowing to the south (Heaslett, 1970).

Heaslett (1970) noted that the forest cover in the region is of Lowland Dipterocarp and merges into Upper Dipterocarp Forest at the higher altitudes, but at about 1340 m., rocks and granite edge appear and there is an abrupt change to a zone of Montane Ericaceous Forest. Notable among the dipterocarp forest are the *Shorea curtisii* (Seraya) found mainly along the ridges. Generally, the undergrowth is dense. Although there is an Orang Asli settlement at Kg. Juaseh there is no evi-

dence of shifting cultivation being practised. The people collect rotan and damar from the forest but rubber tapping is their main occupation.

At the foot of the southern ridge, *south* of Gunung Besar, is the upper reaches of Sungai Selai where the Selai Camp is situated. The camp can accommodate eight persons and it is connected by a three hours-walk trail to Kepah Camp which is located on the eastern fringes of the forest.

As a whole the forest is rich in wildlife; large terrestrial mammals including elephant, tapir, pigs, tiger, barking deer, seladang, gibbons and macaque, birds and fish are present. The presence of deer has attracted poachers into the forest to hunt illegally. They also indiscriminately poisoned fish in the upper reaches of Sungai Endau, Sungai Selai, Sungai Jemai dan Sungai Kemapan, and has resulted in a drastic decrease in fish population in those rivers.

## INTRODUCTION

SSC (1979) estimated a total population of between 100-150 animals in the world. About 30-50 of these are in Peninsula Malaysia, of which 10-15 animals are estimated to be living in Endau-Rompin. It is therefore the second largest rhino area compared to the estimated 40-60 in the Gunung Leuser Reserve in Sumatra (Flynn 1978).

Metcalfe (1961) estimated 10 rhinos in Johore while Hislop (1965) surprisingly recorded 0-2 rhinos. Stevens (1968) estimated 5 rhinos in the Sungai Emas and the area south of Mersing, Strien (1974) quoted Ng Poh Tip as that there were 5 rhinos in the State of Johore. Flynn (1979) concluded that there were 8 animals in the study area based on two census works in March 1977 and March 1979.

During the pre-logging period, as in February, 1976, rhinos were found over a contiguous area from Ulu Kemapan in the north to Gunung Bekok; the areas are Upper reaches of Sungai Juaseh, Sungai Kemidak, Sungai Selai, Sungai Tenang, Sungai Segamat, Sungai Pukin, Sungai Chapau, Sungai Jemai, Sungai Jekatih and Sungai Gadong and most of the Ulu Endau area, which is about 600 sq km. During the intensive logging period in May 1977, there was no sign of the animal in the Sungai Jemai, Sungai Kemapan and Sungai Pukin areas (Flynn 1978). The physical disturbances, machinery and human interference into its habitat evidently drove the animals deeper into the impenetrable forest.

Post-logging observation in early 1979 in Sungai Jemai and Sungai Pukin, showed signs of re-establishment of big terrestrial animals such as elephant (*Elephas maximus*) and tapir (*Tapirus indicus*) in the disturbed forest. However, no rhino tracks were recorded. The semi-opened forest canopy could contribute to the reason for the rhino not returning to its former rangeland.

## OBSERVATION & DISCUSSIONS

A recent expedition in May, 1979, had gathered signs of rhinos in Sungai Kemapan and areas adjacent to the Segamat-Mersing District border where logging had ceased on the eastern side. The tracks of the animal measured 19.5-21.5 cm. It followed along the game trail for a distance before it suddenly disappeared. Probably it was the same animal which left a few tracks in the sandy bank of Sungai Kemapan which is about 3 km west from the point where the first track was found.

In the months of May, August and December, 1979, three sets of rhino tracks were found each measuring 20.0-21.0 cm, 20.0-22.5 cm and 18.5-19.5 cm respectively, along the areas of lower Sungai Endau (i.e. between Sungai Kemapan and Sungai Jemai). Hence, it is not fallacious to confirm the existence of at least three individuals with tracks measurements of 20.0-20.5 cm, 18.1-18.6 cm and 19.0

cm (Flynn, 1979). A number of wallows were found throughout the Sungai Selai and Sungai Selepas. Although there is an abundance of food plants, the rhinos are generally selective in their feeding habit. Plant such as *Prunus spp.*, *Ficus spp.*, *Diospyros spp.*, *Lasianthus spp.* and *Macaranga spp.*, are often fed by the animals. Metcalfe (1961) had also recorded species of *Ficus* and *Macaranga*. Fruits of cultivated and wild mangifera (macang) were also eaten. During the fruiting season in March 1979, a rhino from the Kepoh area travelled from the forest into the nearby fruit plantation to feed on mangifera fruits. The animal swallowed the whole fruit and on one occasion 10 seeds were found in the dung. Six out of the ten seeds were found to have germinated and were collected and planted near the Selai Camp. The seeds made up about 20% of the total composition of the dung 80% were of digested leaves and chewed small branches. The daily amount of food plants and fruits consumed is not known.

### CONCLUSION

Hubback (1939) and Foenander (1944), were among the early authors to voice out the depleting rhino population in this country. The demand for rhino horn is closely related to the belief on the value of the horn as an aphrodisiac and also to its medicinal properties. Under the Wildlife Act of 76/1972, the rhinoceros is a totally protected animal. The penalty for shooting, killing or wounding the animals is M\$3,000 or two years' imprisonment. The penalty is not strict enough to discourage poachers from killing the animal because of the higher price of the horn as compared to the M\$3,000 penalty and the readily available market.

Enforcement is aimed at keeping poaching at bay but the prevailing problem is the difficulty in locating poachers, and the lack of enforcement facilities to regularly patrol the known rhino areas. At Endau-Rompin there are game rangers for the rhino management team to patrol the Kepoh, Sungai Jemai and Sungai Jasin areas periodically. However, the effectiveness of curbing encroachment of the extensive region is questionable. The forest is accessible at Kepoh, Juaseh, Sungai Jemai, Bekok and Sungai Jasin by logging road or jungle tracks. The establishment of the temporary Kepoh Camp can only check poachers on the west side where as the other three points are left to be encroached at any time. Setting up guard posts at Pukin, Bekok and Sungai Jasin and a constant patrolling of the area is essential.

### REFERENCES

1. Foenander E.C. (1952). *Big Game of Malaya*. Batchworth Press Ltd. 179 — 189
2. Flynn, R.W. (1976). Progress Report. Department file — (1978) the Sumatran Rhinoceros in the proposed Endau-Rompin National Park of Peninsular Malaysia. Dept. File — (1976). Progress Report Dept. File.
3. Heaslet, E.A. (1970). Gunong Chabang Tiga: A note on a small area of montane ericaceous forest in Johor. *Malay nat. J.* 23: 149 — 154.
4. Hislop, J.A. (1965). Rhinoceros and Seladang. Malaysia's vanishing species, IUCN Pub. new series 10: 278 — 283.
5. Hubback, T. (1939). The asiatic two — Horned Rhinoceros. *J. Mammalogy* VII, 20, No. 1: 1 — 20.
6. Metcalfe, G.T. (1961). Rhinoceros in Malaya and their future *Malaya Nat. J.* Special issue: 183 — 191.
7. S.S.C (1979). On the biology of the rhinos general remarks. Introduction by R. Skenkel special meeting paper. Bangkok.
8. Steven, W.E. (1968). The care large mammals of Malaysia. *Malay nat. J.* 22: 10 — 17.
9. Van Strien, N.J. (1974). The Sumatran or two horned Asiatic Rhinoceros A Study of the literature *Meded. Landbouwhogeschool Wageningen* 74 — 16. 82 pp.