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DISTRIBUTION OF LARGE MAMMAL IN TASEK KENYIR TAMAN NEGARA TERENGGANU

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Abstract

A fourteen-day study conducted in Tasek Kenyir Taman Negara Terengganu revealed that the area is rich in wildlife especially in the valley of Sungai Chirchir to Gunong Gagau. Among the large mammals most frequently detected were the elephants followed by the Sumatran rhinoceros and tapir. The distribution of large mammals was the highest between altitude 200m and 600m.

Abstrak

Kajian selama empat belas hari di kawasan Tasek Kenyir Taman Negara Terengganu mendapati yang ianya kaya dengan hiduan liar terutama di lembah Sungai Chichir hingga ke Gunong Gagau. Di antara mamalia besar yang paling kerap dijumpai ialah gagah dan diikuti oleh babak Sumatra dan tapir. Taburan paling tinggi adalah diantara altitud 200m hingga 600m.

INTRODUCTION

Taman Negara Terengganu and the adjacent portion of the Terengganu river basin area are considered rich in wildlife. The distribution of large mammals in the area has been monitored by The Wildlife and National Parks Department since its establishment in 1939.

Several surveys had been conducted in the area by several researchers including Hislop (1961) and Khan (1971) on wildlife in the area. The Department estimated that there were between 20 to 30 tigers around the Kerbat and Besut rivers while Conry (1977) estimated the presence of about 20 seladangs in the area.

The Kenyir Hydroelectric Project which was completed in 1984 has resulted in the impoundment of 36,900 ha in the 260,000 ha watershed area. As a result, 3,500 ha of the Taman Negara was inundated and several islands were also created.

The Department conducted a wildlife rescue operation in the area and managed to rescue about 200 animals consisting of 20 species including elephants (Elephas maximus), bearcat (*Arctictis binturong*), white handed gibbon (*Hylobates lar*), slow loris (*Nycticebus coucang*), long-tailed macaque (*Macca fascicularis*), banded leaf-monkey (*Presbytis melalophos*), dusky leaf-monkey (*Presbytis obscura*), common palm civet (*Paradoxurus hermaphroditus*), black giant squirrel (*Ratufa bicolor*) and common giant squirrel (*R. affinis*) (Misliah, 1984).

A survey to determine the distribution and status of large mammals in Taman Negara Terengganu was conduced by the Department and the result of the survey is presented in this paper. The objectives of this study were to determine the distribution of large mammals in Tasek Kenyir and to estimate their population size.

STUDY AREA

The study was conducted in Taman Negara Terengganu. The total area is approximately 526 km.sq. and consists of small parts of the north east of Taman Negara Pahang, uppper Sungai Terengan and their tributaries, and small portion of Ulu Terengganu forest reserve which is to the north outside of Taman Negara Terengganu (Figures 1 and 2)

METHOD

The study was carried out over a period of 2 weeks from 5 September to 19 September 1992. Seven trails were identified prior to the survey and these tracks were surveyed by a group of four to six personnel. The survey groups were supplied with topo maps (sheets no. 47, 48, 59, and 60), Silva compass, measuring tapes and altimeters.

The surveys along the 7 trails were conducted simultaneously by 7 different groups. The presence of wildlife in the area were based on direct and indirect observations.

The routes taken by the survey groups were as follows.

Trail 1 : The trail starting from Sungai Gagau to Gunong Gagau ridge and down to Sungai Chichir and Sungai Perepek (20 km)

Trail 2 : Starting from Sungai Reh to Bukit Che Hassan before walking down to Sungai Terenggan (28 km.)

Table 3 : Starting from upper Sungai Sepia to Gunong Mandi Angin and down to upper Sungai Terengan before reaching Sungai Perepek (40 km.).

Trail 4 : Starting grom Sungai Petang to Sungai Cacing (20 km.)

Trail 5 : Starting grom Sungai Terengan to upper Sungai Cacing and back (30 km.).

Trail 6 : Kuala Sungai Biwah to upper Sungai Biwah and back via Sungai Chenana (15 km.).

Trail 7 : Starting grom Sungai Kepayang Hampa to the west until meeting upper Sungai Genong and then walking down until meeting Sungai Lawit (14 km.).

All data on wildlife species encountered in the study area were recorded in survey forms distirbuted to the team prior to the survey. These data were also plotted on a map after the survey was completed. The total lenght of the line transects covered during the survey was 167 km.

The distribution of big mammals was plotted in the map based on the information from tracks, dungs or sightings. The population size was estimated from both direct and indirect count. The distribution of big mammals was influenced by the altitude. This parameter was also measured whenever the animals tracks had been located.

RESULTS

A total of eight species of large mammals were recorded with the elephants being the most frequent wildlife species encountered during the survey (Table 1). This was followed by the Sumatran rhinocerous (*Dicerorhinus sumatrensis*) and tapir (*Tapirus indicus*).

The distribution of large mammals in the study area was more concentrated in the areas of Gunong Gagau to the valley of Sungai Chirchir and Perapek (Table 2).

Other mammals recorded in the area included leopard cat (*Felis bengalensis*), small clawed otter (Aonyx cinerea), smooth otter (*Lutra perspicillata*), siamang (*Hylobates syndactylus*), white handed gibbon and lesser mousedeer (*Tragulus javanicus*).

It was estimated that 4 herds of elephant consisting of between 61-69 individuals roamed in the study area (Table 2). However, their distribution covered almost the entire study area except on the eastern part of the Sungai Petang valley (Fingure 3)

A herd of 23 elephants was found at Sungai Chirchir valley until Gunong Gagau. A herd of 10 to 16 elephants was found in the upper Sungai Terengan. The herd also roamed in the upper Sungai Cacing.

Another herd of 10-12 elephants was detected near Sungai Lawit. This herd sometimes moved into the Kelantan side. A herd of about 18 elephants was also located around Sungai Kepayang which was the area where translocated elephants were released.

Rhinoceros tracks were found in five different areas (Table 2 and Figure 4). The tracks were found along Gunong Gagau to Sungai Chichir. The rhinos utilized the path along the mountain ridge to cross into Pahang and vise versa. Several rhinoceros were also recorded by the survey team from Gunong Mandi Angin. About 2 to 4 animals were found roaming in upper Sungai Sepia, Gunong Mandi Angin and upper Sungai Terengan.

Numerous rhinoceros tracks, estimated from about 2-6 animals were found at the upper Sungai Petang dan upper Sungai Genong. Another 1-2 animals were found at Sungai Biwah. The same animals also utilized Sungai Chenana and Sungai Kepayang. Tapir (*Tapirus indicus*), sambar deer (*Cervus unicolor*) and barking deer (*Muntiacus muntjak*) were also found in the study area. Tracks of Malayan tiger (*Panthera tigris corbetti*), serow (*Capricornis sumatrensis*) and Malayan sunbear (*Helarctus malayanus*) were seldom seen.

Table 3 and Figure 7 shows the distribution of large mammals according to altitute. About 50% of the tracks were found between 200m to 60m above sea level. Among the big mammals, the elephants were found up to 1500m above sea level, but were more frequent (20.8%) between 200m and 600m above sea level. Rhinoceros distribution also showed similar trend. About 12% of the tracks were recorded between 200m and 600m above sea level.