

## Local People And Primates In The Way Kambas National Park : Going Towards Co-Existence Or Conflict?

### Masyarakat Setempat Dan Primata di Taman Nasional Way Kambas: Hidup Berdampingan Atau Berseberangan?

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**ABSTRAK.** Kajian bekerja sama dengan Taman Nasional Way Kambas dilakukan untuk mengamati perjumpaan dan gangguan primata di desa yang berdekatan dengan perbatasan taman nasional, Labuhan Ratu VI dan Labuhan Ratu VII. Survei lapangan dan penyebaran angket digunakan dalam pengumpulan data. Perjumpaan dengan primata cukup tinggi. Di antara keberadaan empat primata, monyet ekor panjang dan beruk paling sering dijumpai secara langsung. Dua titik perjumpaan berdekatan dengan perkebunan singkong. Primata belum dianggap sebagai hama penggangu karena adanya ancaman yang lebih besar dari gajah Sumatera dan babi hutan. Namun demikian penemuan ini harus dijadikan pertimbangan untuk upaya konservasi yang berkaitan dengan masyarakat setempat dan primata di Taman Nasional Way Kambas.

**Key Words:** masyarakat lokal, primata, perjumpaan, monyet ekor panjang, beruk, tanaman pertanian

**ABSTRACT.** Research in collaboration with Way Kambas National Park was done to observe the sighting and disturbance on primate was conducted in Labuhan Ratu VI and Labuhan Ratu VII, villages adjacent to the park, by survey and questionnaire. The sighting of primates was high. Of the presence of primates, long tailed and pig tailed macaques, leaf monkey and slow loris, in the park boundary, direct sightings were high. Of four primates, both macaques were frequently spotted. Two of the sighting points were next to cassava plantation. Primates were not considered as crop raiders and disturbance due to bigger crop raiding threats by Sumatran elephant and wild boar. Nevertheless this finding should be a consideration for conservation effort related to local people and primates in Way Kambas National Park.

**Key Words:** local people, primates, sighting, long tailed and pig tailed macaques, crop raiding.

## INTRODUCTION

As human population expands and natural habitats shrink, people and animals are increasingly coming into conflict over living space and food. The impacts are often huge. People lose their crops, livestock, property, and sometimes their lives. The animals, many of which are already threatened or endangered, are often killed in retaliation or to 'prevent' future conflicts.

People and non-human primates are at risk from loss of food sources, disease transmission, injury and death. Habitat change, due to human activities, is the main reason for wildlife becomes crop raiding. Furthermore, it is claimed as pest and as the results has to be hunted and killed

(Raharyono, 2002). Conflict wildlife other than Sumatran elephant (*Elephas maximus sumatrensis*) and local people occurred in Way Kambas National Park (Balai Taman Nasional Way Kambas, 2001), which become local people conflict of interest including primates of long tailed macaque (*Macaca fascicularis*), and pig tailed macaque (*Macaca nemestrina*) (Supriatana, 2000), as well as tonkean macaques (*Macaca tonkeana*) (Riley, 2007). In and around Kerinci Seblat National Park, Sumatra, farmers named the pig-tailed macaque, *Macaca nemestrina*, as one of the most destructive crop pests and were indeed made most crops damage (Linkie *et al.*, 2007). Problem solving is crucial as primates have crucial ecological roles in forest regeneration (Supriatna, 2000) as well as as they play an important component in the food chain of

Sumatran tiger (*Panthera tigris sumatrensis*) (Rustiati, 2000).

This research was carried out to observe the frequency of sighting and the potency of disturbance caused by primates in Labuhan Ratu VI dan Labuhan Ratu VII, in collaboration with Way Kambas National Park by survey and questionnaire.

## METHODS

The research was conducted in March-April 2005, in collaboration with Way Kambas National Park, in its vicinity villages of Labuhan Ratu VI and Labuhan Ratu VII. Most of local people settled in these villages are traditional farmers mostly of cassava (*Manihot sp*), rice (*Oriza sativa*). The swamp areas between the park and Labuhan Ratu VII were used to plant rice, vegetables, maize (*Zea mays*), bananas and coconuts (*Cocos nucifera*). Data were collected by survey and questionnaire methods. The questionnaire was developed to understand local people's behaviour in relation to the presence of

primates out of the Way Kambas National Park and its problems.

Survey was done at hours of 06.00-10.00, 12.00-14.00 and 16.00-18.00, along the boundary of the park, adjacent to the villages, to observe the presence of primates, traces and remains left and contact points. Rapid assessment was applied to describe the general types of vegetation.

## RESULTS AND DISCUSSION

### Sightings on primates: out of the park

The sighting of wildlife out of the park by local people is high (99.0%). This can be seen based on the presence signs such as feces and foot prints of 69.0% had sightings on primates, especially in the afternoon and evening, which most of the sightings were directly (90.0%), and the rest are by food remains, and feces. Most of the direct sightings were more than three times (Figure 1).

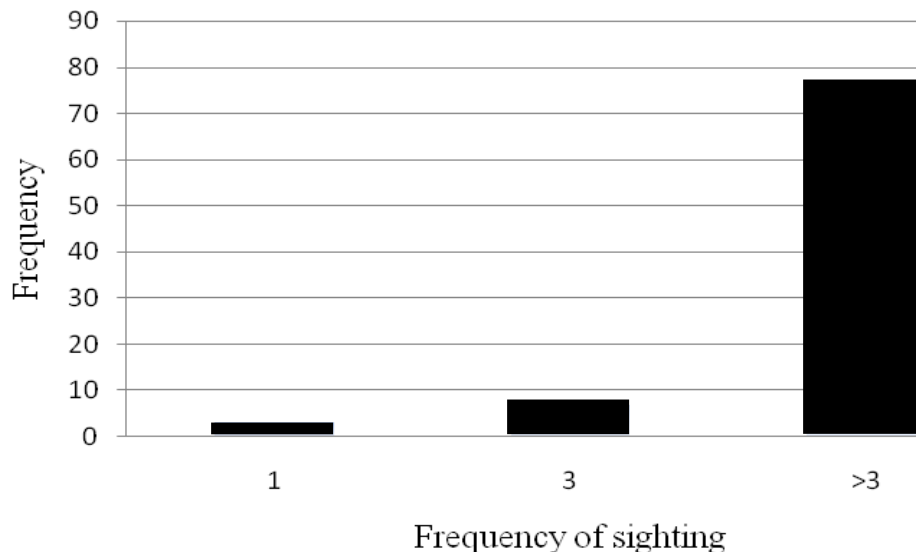
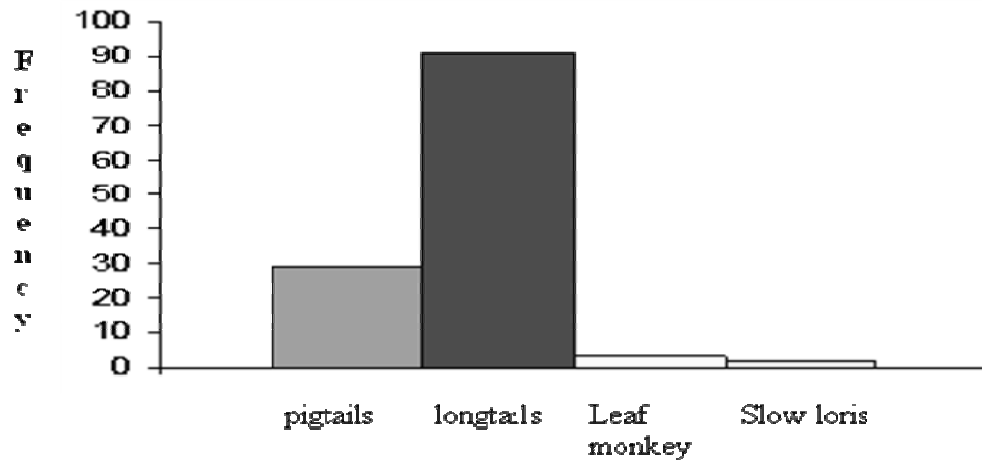


Figure 1. The direct sightings of primates at adjacent of the boundary of Way Kambas National Park.

There were four different primate species seen, long tailed (*Macaca fascicularis*) and pig tailed macaques (*Macaca nemestrina*), leaf monkey (*Presbytis melalopus*) and slow loris (*Nycticebus coucang*) (Figure 2). The high sightings on macaques showed that both macaques especially long tails as stated by Supriatna (2000), has high ability to adapt in habitat changes. It can live in the edge of the forest,

next to the settlement and farming which provide water, food and vegetation for shelter. The leaf monkey will be out of its natural habitat when water is limited. Furthermore Supriatna (2000) explained that leaf monkey prefers inland forest and slow loris likely be found in primary or secondary forests. While low sightings of slow loris may be also due to its presence only during the night.



**Primates seen in direct contact**

Figure 2. Primates seen out of Way Kambas National Park

Long tailed macaques showed higher out of the park activities ( $n_m = 88$ ) than pig tailed macaques ( $n_p = 29$ ). The differences indicated that long tailed macaques are adaptive towards the environmental change, capability of adaptation upon human presence as well as forest edge habitats. While pig tailed macaques are more adaptive to inland forest habitats (Supriatna, 2000, Tirtodiprojo, 1999)

According to the local people, out forest activities both macaques in the rainy season were low, and getting higher in the dry season. It is possible that the availability of the water both in the river and swamps of the park, and food resources during the rainy season, as the flowering of *Ficus sp* and fruiting season such as *Psidium guajava*, were began. Furthermore, during the dry season, wild fire occurred which pushed the wildlife out of the park, to the traditional plantation, settlements or just cross the boundary. It is also may be during the rainy season the local people had harvested their crop.

During the survey, there were direct sightings along the park boundary with long tailed macaques ( $n_m=8$ ) and with single slow loris ( $n_s=1$ ), mostly during the afternoon but no direct contact with pig tailed macaques. Long tailed macaques found between 16.00-18.00, either in group (5-20 individuals) or one individual, as Wilson and Wilson (1976) stated in Sumatera soliter macaque can be found. The difference in number of individuals per group may be related with the availability of food resources (Kohlhas and Southwick, 1996). The out forest activities of primates were recorded by local people in

other villages adjacent to the park with frequency of between 1-6 times.

#### **Sighting points of primates**

There were four sighting points, where the direct sighting of primate was spotted, with 50-100 meter distance in between. All of them were located in Labuhan Ratu VI. The first sighting point had vegetation type of low land forest, with a lot of trees including teak (*Tectonia grandis*) and less scrubs. Fifty meter in distance across the sighting point is cassava plantation. There were single long tailed macaque sighting and sound of jungle fowl, *Gallus gallus*.

In the second sighting point, which with dense swamp forest vegetation, twenty long tailed macaques were spotted and 10 jungle fowl. There was harvested cassava plantation in 50 meter in distance across the sighting point. The third sighting point with swamp vegetation such as *Nepofelis sp* with dense canopy, 10 long tailed macaques were seen and sound jungle fowl was heard. The fourth sighting point with low land forest type of vegetation, six long tailed macaques sightings were recorded.

Of four sighting points, the second point was the most frequent record. The local people reported that around 100 fussion-fission groups of long tailed macaques along the swamp. And the presence of the jungle fowls frequently noted on the sighting of long tailed macaques. Pig tailed macaques often raid in maize and cassava by group of 20 individuals.

## Crop raiding by primates

Most of the local people (60.4%) did not consider primates as crop raiders. The loss caused by primates (13.9%) were insignificant compared to Sumatran elephant (49.1%) and wild boar (37.0%). If it was, the disturbance usually occurred during dry season on fruit, maize, and cassava plantation by macaques. This finding should be taken in consideration as crop-raiding, habitat encroachment due to both subsistence agriculture means that many forests cannot support wildlife populations. Primates will raid nearby farms for crops such as maize, and cassava to supplement their diet and because human foods are often more nutritious. The life of the animal is put at risk and the livelihood of very poor local farmers is threatened.

Conservation attitudes are shaped by some factors include level of conflicts with protected areas, wildlife imposed constraints such as loss of livestock and theft, and socio-demographic factors such as age, education level, wealth, and household size (Kideghesho, *et al.*, 2007). Human-wildlife conflict is one of the main threats to the continued survival of many species, in many parts of the world, and is also a significant threat to many local human populations. If solutions to conflicts are not adequate, local support for conservation also declines. The frequent sighting of primates and the positive consideration of local people were important first step in conservation effort and in shaping peoples' attitudes towards the presence of primates in Way Kambas National Park.

## CONCLUSION

The primates spotted in the boundary of Way Kambas National Park were long tailed, pig tailed macaques, leaf monkey and slow loris. Compared to Sumatran elephant and wild boar, they were not considered as crop raider, but both macaques showed a potential threats of crop raiding.

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