

The fate of diurnal primates in southern Sumatra

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During a short survey in southern Sumatra, we carried out observations on the occurrence of diurnal primates in various types of forest, their use as pets, and on the changes in the habitat. All diurnal species distributed in the survey area were kept, and available for sale, as pets. The majority of the pets were infants, suggesting that most captive primates do not survive more than a few months in captivity.

Introduction

In January 2001, we undertook a short survey of forest of southern Sumatra in order to tape-record calls of leaf monkeys (*Trachypithecus* and *Presbytis*) for a comprehensive study on the radiation of the Asian Colobines. This report summarises our observations on the occurrence of diurnal primates in various types of forest, their use as pets, and our observations on the pet market, and on the changes in the habitat. Although this short survey by no means can provide a comprehensive picture of the fate of primates in southern Sumatra, we have reason to believe that our anecdotal observations provide an impressionistic view of this topic that nevertheless appears to be symptomatic of what happens to primates and their habitat in many parts of Indonesia.

Six species of nonhuman diurnal primates occur in the area we visited. These include the long-tailed macaque (*Macaca fascicularis*), the pig-tailed macaque (*M. nemestrina*), the silvery leaf monkey (*Trachypithecus cristatus*), the Sumatran surili (*Presbytis melalophos mitrata*), the agile gibbon (*Hylobates agilis*) and the siamang (*Symphalangus syndactylus*). One species, the pig-tailed macaque is considered globally threatened and is listed as Vulnerable according to the IUCN threat criteria (IUCN, 2004).

We travelled by car from Bandar Lampung and Way Kambas National Park (Lampung province) to Baturaja and Lahat (Sumatera Selatan province), via Lake Ranau (on the border of Bengkulu province and Lampung) back to Bandar Lampung. A map of the study area and the forests we visited is shown in Figure 1.

Pet trade

In many parts of Indonesia, primates are widely kept as pets. In most villages and cities we passed, we casually asked to see captive primates, and in most places, we were readily offered primates for sale. Table 1 offers a summary list of the pet primates we saw. Some of them are shown in Figures 2-4.

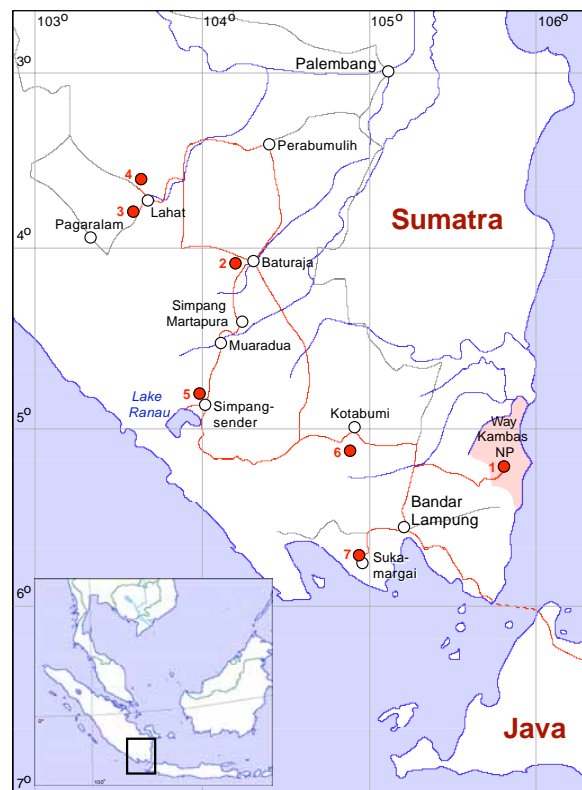


Fig. 1. Map of southern Sumatra showing our travel route (red line) and survey localities (red dots): (1) Way Kambas, (2) Bukit Pelawi, (3) Lahat Waterfalls, (4) Gunung Kembang, (5) Steenkool Protection Forest, (6) Pusaka Jaya, (7) Kedaung. Inset map: location of survey area in South-east Asia. – Die Karte von Südsumatra zeigt unsere Reiseroute (rote Linie) und die Orte, an denen wir Freilandbeobachtungen durchgeführt haben (rote Punkte). Kleine Karte: Lage der untersuchten Region in Südostasien.

Table 1. Pet primates observed in southern Sumatra, 19-27 January 2001. – *Primaten in Gefangenschaft, angetroffen in Südsumatra, 19.-27. Januar 2001.*

| | Baturaja | Lahat | s G. Kem- bang | Simpang Marta- pura | Muara- dua | Suka- margai | Total |
|-------------------------------------|----------|-------|----------------------|---------------------------|---------------|-----------------|-------|
| <i>Macaca fascicularis</i> | 1 ad | | | | | | 1 |
| <i>Macaca nemestrina</i> | | | 1 juv | | | | 1 |
| <i>Trachypithecus cristatus</i> | | | | | 1 inf | | 1 |
| <i>Presbytis melalophos mitrata</i> | | | | | 2 inf | 1 inf | 3 |
| <i>Hylobates agilis</i> | | | | | 1 inf | | 1 |
| <i>Symphalangus syndactylus</i> | | 1 inf | | 1 juv | 1 inf | | 3 |
| Total | 1 | 1 | 1 | 1 | 5 | 1 | 10 |

ad = adult, juv. = juvenile, inf. = infant

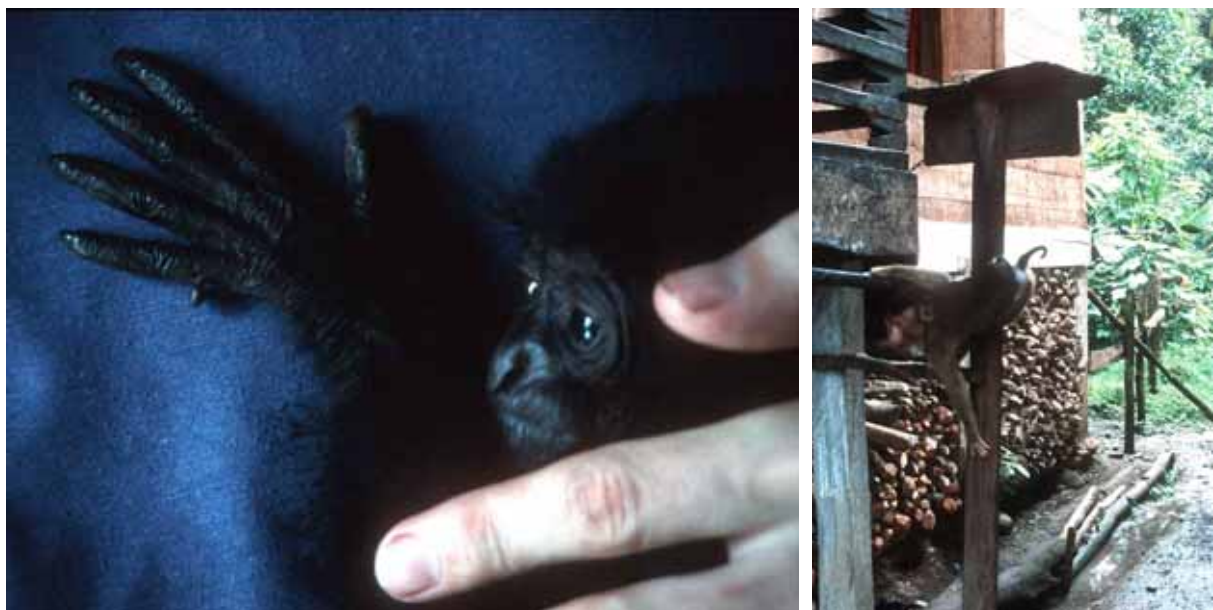


Fig. 2. Pet primates in southern Sumatra. Left: siamang (*Symphalangus syndactylus*) in Lahat. Photo: Robert Dallmann. Right: Pet pig-tailed macaque (*Macaca nemestrina*) in a small village south of Gunung Kembang. Photo: Thomas Geissmann. – *Primaten als Haustiere in Südsumatra. Links: Siamang in Lahat; rechts: Schweinsaffe in einem kleinen Dorf südlich von Gunung Kembang.*

Although Sumatran primates are often eaten by certain local ethnic groups (Shepherd et al., 2004), and Lampung has been identified as a centre for the trade in primates (mainly long-tailed macaques) (KSBK, 2001), those we saw were sold or kept as pets. These primates are often captured as young by killing the mother in order to take the infant which stays clinging to its dead parent. Shooting the mother often results in the death of the young if they are mistakenly shot, or are killed when the parent falls to the ground. Often surviving offspring are very young and have little chance of survival (Shepherd et al., 2004).

Only one of ten pet primates we observed was adult. The other age classes were represented as follows: subadult: 0, juvenile: 2, infant: 7. This age

distribution suggests that captive primates rarely survive long enough to reach adulthood. Many may even die before being sold on the pet market, as is suggested by our observation that several of the primates we were offered for sale did not appear to be in good health and one infant Sumatran surili offered for sale in Muaradua was nearly comatose and obviously moribund (Fig. 3, right). An agile gibbon infant also for sale in Muaradua had its foot recently cut off, with the wound still not having healed. These animals probably did not survive long after we saw them.

The two species of primate that are legally protected, i.e. the agile gibbon and the siamang, were not less frequently encountered than the non-protected species, nor were they less openly displayed.



Fig. 3. A silvery leaf monkey (*Trachypithecus cristatus*) (left) and a dying Sumatran surili (*Presbytis melalophos mitrata*, yellow colour variant) (right) are offered for sale in Muaradua. Photos: Robert Dallmann. – Ein Silberner Haubenlangur (links) und ein sterbender Grauer Sumatra-Langur (rechts) werden in Muaradua zum Kauf angeboten.



Fig. 4. Pet Sumatran surili (*Presbytis melalophos mitrata*, grey colour variant) kept in Sukamargai. Photo: Robert Dallmann. – Dieser Graue Sumatra-Langur wird als Haustier in Sukamargai gehalten.

Data from Java, Bali and Kalimantan (Indonesian Borneo) suggest that a considerable number of especially siamangs, agile gibbon, and Sumatran surili find their way to the animal markets in Java. (Note that although an even greater number of silvery leaf monkeys, long-tailed macaques and pig-tailed macaques are traded in these islands, because of their wide geographical distribution, it is difficult to pinpoint the exact location from where these animals originate). In fact, on Java, siamang, agile gibbon, and Sumatran surili are more commonly traded than the endemic Javan species (Javan gibbon *Hylobates moloch*, ebony leaf monkey *Trachypithecus auratus*, and grizzled surili *Presbytis comata*) (Malone et al. 2002; Nijman, 2005a, b; V. Nijman unpubl. data).

Observations on primate habitat and habitat destruction

The highest density of primates was observed in the Way Kambas National Park, one of the few remaining lowland primary forests of Sumatra. Here, even agile gibbons (i.e. those Sumatran primates which are most dependent on closed canopy forests and all-year-round fruit availability) were encountered or heard in relatively high numbers, and the related siamangs appeared to be abundant. In selectively logged forests, gibbons and siamang still occurred, but in lower numbers.

Siamangs appeared to be more resistant to forest degradation, as we encountered forests with siamangs

and without agile gibbons, but not the opposite. This is not surprising considering that siamangs are able to survive on a more folivore diet, whereas the smaller bodied gibbons need a higher proportion of fruits in their diet (Raemaekers, 1979; Raemaekers & Chivers, 1980).

In small forest patches and more heavily disturbed forests, and even in extensively used rubber plantations that still included some of the original forest trees, leaf monkeys (*Trachypithecus* and *Presbytis*) were observed, although gibbons and siamangs

were absent and probably extinct. No primates were encountered in monoculture rubber plantations (Fig. 5), although a group of long-tailed macaques was observed in the periphery of one of them, suggesting that this particular macaque species may have a particularly high adaptive flexibility.

Habitat distribution and logging were observed in virtually every forest we visited (Figures 6-7). These also included forests like the Steenkool Protection Forest which is legally protected (Fig. 8).



Fig. 5. Extended areas of monoculture rubber plantations near Perabumulih. No non-human primates survive in these areas. Photo: Robert Dallmann. – *Ausgedehnte Flächen von Gummipflanzungen in Monokultur in der Gegend von Perabumulih. In dieser Vegetation können keine Affenarten überleben.*



Fig. 6. A recently deforested and cultivated hill near Kedaung. Photo: Thomas Geissmann. – *Ein kürzlich gerodeter und landwirtschaftlich bepflanzter Hügel bei Kedaung.*



Fig. 7. A newly cleared area of former rainforest near Gunung Kembang. Photo: Thomas Geissmann. – *Frisch gerodeter ehemaliger Regenwald bei Gunung Kembang.*



Fig. 8. The process of deforestation: Only small patches of forest still remain in the valley of Steenkool Protection Forest (left). These forest patches still support isolated groups of agile gibbons, siamangs, and Sumatran surilis. The first hill chain (visible in the background) is nearly deforested, and logging has already begun in the valley behind the hill chain. Right: Timber wood is constantly being extracted from Steenkool Protection Forest (right). Photos: Robert Dallmann. – *Der Entwaldungsprozess: Nur noch kleine Waldreste verbleiben im Tal des Steenkool Schutzwaldes (links). In diesen leben immer noch isolierte Gruppen von Schwarzhandgibbons, Siamangs und graue Sumatra-Languren. Der erste Hügelzug im Hintergrund ist schon fast vollständig entwaldet, und der Holzeinschlag im dahinterliegenden Tal hat bereits begonnen. Holz wird ständig aus dem Steenkool Schutzwald herausgetragen (rechts).*

Discussion

Since Indonesia's transition from the autocracy of Soeharto to a democracy, illegal logging has accelerated, and in large parts of the country, forest is being lost at an alarming rate. This puts the survival of those species that fully depend on forest at risk, including all species of gibbons and most species of primates. Trade in these species, and the associated loss of individuals in the process of capturing and trade, may exacerbate these risks (Nijman, 2005a).

Although our survey was short in duration, and covered only the southernmost provinces of Sumatra, we are confident that what we observed can be considered representative for what is happening throughout Sumatra, and indeed other Indonesian islands. Habitat loss, and in particular the loss of lowland forest, has denuded large parts of Sumatra of its wildlife. In recent years, the area of lowland forest has seen a dramatic reduction largely due to illegal logging (Whitten et al., 2000). Consequently, populations of especially forest-dependant species such as the agile gibbon, siamang, and Sumatran surili must have seen an equal reduction, although little data are available.

In most of the villages, (pet-)primates were openly displayed or were shown to us without hesitation. This included those species that are legally protected by Indonesian law, suggesting that there is a general lack of law enforcement in southern Sumatra with respect to the protection of primates. Indeed, data from other parts of Indonesia suggest that few traders or owners of primates have been prosecuted for selling or keeping legally protected primates (Nijman 2005 a, b).

If primates are to survive in the relatively densely populated southern parts of Sumatra, both the local and national governments have to realise that both their habitats and the primates themselves need to be protected to a much higher degree than observed during our survey. Trade in primates, and keeping them as pets, needs to be discouraged much more than at present, and both protected and non-protected forest need to be managed in a more sustainable manner.

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Zusammenfassung

Zum Schicksal tagaktiver Primaten in Süd-Sumatra

In einer kurzen Studie in Südsumatra haben wir das Vorkommen der tagaktiven Primatenarten in verschiedenen Waldtypen, im Tierhandel und in der Haustierhaltung sowie die Veränderung des Lebensraumes der Primaten untersucht. Sechs Arten kommen im Untersuchungsgebiet vor: der Javaneraffe (*Macaca fascicularis*), der südliche Schweinsaffe (*M. nemestrina*), der silberne Haubenlangur (*Trachypithecus cristatus*), der graue Sumatra-Langur (*Presbytis melalophos mitrata*), der Schwarzhandgibbon (*Hylobates agilis*) und der Siamang (*Symphalangus syndactylus*). Alle diese Arten fanden wir auch in Gefangenschaft, wo man sie uns ohne zu zögern zeigte oder zum Kauf anbot. Die zwei gesetzlich geschützten Arten (der Schwarzhandgibbon und der Siamang) wurden dabei nicht seltener angetroffen als die nicht-geschützten Arten. Dies zeigt, dass die bestehenden Artenschutzgesetze in Südsumatra nicht durchgesetzt werden. Tatsächlich zeigen Daten von anderen Gebieten in Indonesien, dass Händler oder Besitzer von gesetzlich geschützten Primaten nur selten belangt werden. Die Mehrzahl der in Gefangenschaft gehaltenen Tiere waren Jungtiere, was darauf schliessen lässt, dass gefangene Primaten meist nicht länger als ein paar Monate überleben.

In allen untersuchten Waldgebieten konnten wir den Rückgang des Waldes beobachten. Dabei rea-

gierte von den beobachteten Affenarten der Schwarzhandgibbon offenbar am empfindlichsten. Da er auf ein geschlossenes Kronendach und ganzjährige Verfügbarkeit von Früchten angewiesen ist, ist er jeweils die erste Art, die bei Verschlechterung der Waldqualität in einem Waldgebiet ausstirbt. Seit dem Wechsel von der autokratischen Regierung unter Präsident Soeharto zu einer demokratischeren, aber weniger zentralistischen Regierungsform hat sich der illegale Holzschlag in Indonesien beschleunigt und die Wälder verschwinden in alarmierendem Tempo. Dies gefährdet insbesondere die Tierarten, die nur im Wald überleben können, wie die Gibbons und die meisten anderen Primatenarten. Der Tierhandel und der damit einhergehende Tod von Tieren, die beim Fang und im Handel sterben, erhöhen die Bedrohung dieser Arten zusätzlich.

Obwohl unsere Studie nur von kurzer Dauer war und nur das südliche Sumatra einschloss, gehen wir davon aus, dass die von uns beobachteten Verhältnisse für Sumatra und andere indonesische Inseln

typisch sind. Der Habitatverlust und ganz besonders der des Flachland-Regenwaldes, haben grosse Teile von Sumatra seiner ursprünglichen Fauna beraubt. In den letzten Jahren ist der Flachland-Regenwald vor allem durch illegalen Holzschlag dramatisch zurückgegangen. Dies hat zweifellos zu einem entsprechend drastischen Rückgang der waldbewohnenden Arten – wie der Schwarzhandgibbons, Siamangs, oder der grauen Sumatra-Languren – geführt, obwohl dazu wenig Zahlen vorliegen.

Wenn Primaten in den relativ dicht besiedelten südlichen Gebieten von Sumatra überleben sollen, müssen die lokalen wie nationalen Regierungen erkennen, dass sowohl ihre Primärwälder wie auch die darin lebenden Arten viel effizienter geschützt werden müssen, als dies während unserer Studie der Fall war. Der Handel mit Affen und die Haltung von Affen müssen viel stärker als bisher bekämpft werden, und sowohl geschützte wie nicht-geschützte Waldgebiete müssen in einer umweltverträglicheren Art und Weise verwaltet werden.