

Primate crop-raiding: A study of local perceptions in four villages in North

Sumatra, Indonesia

Valérie Marchal
valmarchal@yahoo.co.uk
23 rue du Puits Chatel
41000 Blois, France

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Human-wildlife conflict has been highlighted by conservation organisations as a key issue to be addressed during the 21st century (World Conservation Union, 2004; Wildlife Conservation Society, 2004). To date, comparatively little information has been published about crop raiding by primates, though this is gradually being remedied. The main threats to the survival of primates in Sumatra are habitat destruction and persecution as pests. In addition, primate species are now facing another problem: conflict with local people when they cause damage to fruit crops and are thus a drain on local livelihood economies.

The research that I conducted aimed to characterize the perceived impacts of primate crop-raiding in four villages of North Sumatra. In order to achieve this objective, 98 interviews were completed. Data were collected on the crop species grown, the identity of the crop-raiding vertebrate species, the perceived extent to which each vertebrate species damaged crops and the preventative measures taken in the four villages. An independent assessment of crop damage to 168 trees, representing 13 crop species grown, was also conducted.

Farmers reported cultivating 16 different crop species and 85.7% of them grew rubber trees. Crop raiding by wildlife was perceived by 94.9% of interviewees as being the most important limit to crop yields. Thirteen vertebrate species were reported causing damage to agricultural production. Even though species such as squirrels, porcupines, pigs, deer and

elephants were identified as being significant pests, primates were perceived as damaging crops differently from the other vertebrate species. Long-tailed macaques (*Macaca fascicularis*) and Thomas' leaf monkeys (*Presbytis thomasi*) were considered to be the two most destructive crop-raiders in all locations. Contrary to what was expected prior to completion of the field study, only a small proportion of farmers complained about the Sumatran orang-utan.

Twenty crop protection techniques were reportedly used to prevent wildlife damage. Shooting and trapping were perceived to be the most successful preventative measures taken against primate crop-raiders. Nevertheless, using guns was not reported to be the most common protection method; a result which may reflect a fear of being punished if the interviewee confessed to shooting primates.

No single solution guarantees success in alleviating human-primate conflicts in Sumatra. Instead, a combination of techniques based on a co-operative partnership between local communities and wildlife management authorities may be the most effective way to mitigate the problem.

A longer period of research would allow for a larger number of villages where similar conflicts occur to be assessed and could contribute to the creation of a centralized database on the human-primate conflict issue in North Sumatra. Successful conservation of primates utilizing agricultural areas in Indonesia is likely to become a central issue, as increasing amounts of the remaining natural forest continue to be put under cultivation.



A female long-tailed macaque, *Macaca fascicularis*, one of the most destructive crop-raiders in all locations.