

Illegal Trade, and Utilization of Primates in India

Alrar Ahmed

Introduction

The world market for wildlife and its derivatives is surprisingly large, worth 20 billion US\$ annually; of which at least 30–40% is illegal. In India except for some trade studies on certain large mammal species such as the tiger (*Panthera tigris*), elephant (*Elephas maximus*), rhino (*Rhinoceros unicornis*) and the musk deer (*Moschus moschiferus*), trade in other mammals and their parts has received little attention. India is home to 15 species of non-human primates, with all of them being recorded, in use one way or the other. Before the ban on export in 1978, India was the largest exporter of live Rhesus macaques (*Macaca mulatta*) to international markets. Despite the ban on hunting, trapping and selling of primates, poaching and trade continue in several parts of the country. Among the several live mammals in trade, primates comprise bulk of the trade in India. This paper focuses on the trade and utilization of primates in India.

International Trade

Annual international trade is reported to include 40,000 primates. According to Fitzgerald (1989), globally, as many as 80–90% of the primates used in biomedical research come

from the wild, with USA being the largest importer of primates in the world with imports of up to 13,000–17,000 live animals a year. However, recent studies point out that 70% primates used in research are from breeding farms while the rest are from the wild (Malik, 2000). The major countries of export are Indonesia and the Philippines. The international trade in various monkeys, lesser apes, Chimpanzees and Orangutans is accelerating the decline of these animals to the point of near extinction. There is a huge market for primates as pets in many southeast Asian countries.

Relevant Legislation

According to the Indian Wildlife (Protection) Act (WPA) of 1972 (as amended in 1991) all Indian primate species are protected. The export of primates is banned and import is controlled by the Convention on International Trade in Endangered Species of Fauna and Flora (CITES) regulation. All Indian primates are included in CITES and WPA (refer to A.K. Gupta in this issue). The Prevention of Cruelty to Animals Act, 1960, controls cruelty on monkeys and experiments with them. Killing, buying and selling any kind of primate can entail a fine of Rs 25,000 and imprisonment up to 7 years or both.



Methodology and Study Areas

This paper is based on a mixture of first-hand evidence collected during my live bird trade study of various Indian animal markets between October 1994 and March 2000. This communication also relies heavily on anecdotal and first-hand knowledge of the animal trade culled from interviews with animal traders, former exporters, zoo-keepers and primatologists. Published information, tour reports of the Trade Records Analysis of Flora and Fauna in Commerce (TRAFFIC India) investigators, informants and newspaper reports have also been considered.

Trade and Use of Primates in India

Regular hunting of primates for food is prevalent in the northeastern states of Arunachal Pradesh, Assam, Mizoram, Nagaland, Meghalaya, Tripura and Manipur. Hunting of primates is also prevalent in the Western Ghats. As a by-product of hunting, capture of young ones for pet trade is common. These orphaned animals are sold to visiting animal sub-dealers who in turn sell them to organized dealers in Patna, Kolkata and Bangalore.

In India, primates are primarily captured or poached for the following 8 reasons:

1) Bio-medical research: Primates are captured and traded for use in experiments in bio-medical research. Among animals experimented upon in Indian labs, monkeys form ca. 3%, of which 90% are Rhesus macaques, followed by the Hanuman langur and Bonnet macaque (8%), while the remaining 2% comprises other primate species (Dr Iqbal Malik, Primatologist, *pers. comm.*). The experiments range from infectious diseases to animal behaviour, with the Pig-tailed macaque in current demand for HIV (AIDS virus) research by medi-

cal laboratories (Srivastava, 1999). Rhesus macaques are used in investigations on toxicology, organ transplant, testing of drugs, tissue transplant, liver disease, caloric studies, drug abuse and several other diseases. Field interviews with traders suggest that several hospitals and laboratories obtain primates from dealers based in Varanasi and Lucknow.

2) Zoos: Capture of primates for zoos was common until the last 4–5 years, before the closure of travelling zoo and mini zoos. This caused the trade in primates to subside, as otherwise wild caught primates were regularly supplied to these zoos. However traders still report the request for purchase of endangered primates by certain zoos in India and abroad. Almost all Indian species of primates including endangered species such as the Golden langur, Hoolock gibbon, Lion-tailed macaque, Slow loris, Slender loris are all known to have come from animal dealers and zoo brokers. The main suppliers of primates to most zoos in India are the *Mirshikar-toli* traders in Patna (Bihar) and Burdwan (West Bengal).

3) Pets/Private collections: A large number of people are known to keep primates as companions. The most common species kept as pets are the Hanuman langur, Rhesus and Bonnet macaques and the Slender loris. In the Sonepur fair, each year the author recorded 80–100 young of the Hanuman langur and Rhesus macaques on sale. Even endangered species such as the Hoolock gibbon has been recorded as kept as pet. Given below are some records:

- The author recorded one individual of this in Allahabad in 1999 and one was reported from Vadodara, which was later seized. The accused reported to have purchased this from Mumbai's Crawford market (Snehal



Bhatt, People for animals, Vadora *in litt.* to TRAFFIC India, 1997).

- Stump-tailed macaques are commonly kept as pets in Nagaland and Hoolock gibbons in most of the northeastern states (Srivastava, 1999).
- One Hoolock gibbon kept as a pet was recorded in 1998 between Namdapha and Dibrugarh highway on the Arunachal–Assam Highway (Tariq Aziz, WWF India, *pers. comm.*).
- Nilgiri langurs are often kept as pets near several Protected Areas in Tamil Nadu and its neighbouring states (Arun Kumar, *pers. comm.*).
- Young Rhesus macaques are trained and used as watchmen by truck drivers, who tie them at the back of a truck or a carrier to guard their goods. Outsiders trying to pick anything would result in the monkey growling at the intruder, making the driver aware of such an activity. This kind of demand is common in the animal markets of eastern Uttar Pradesh and Bihar. On the Lucknow–Sitapur road, the author recorded such instances within a span of 3 hours during a field survey in 1994.
- On 2 occasions nearly 200 young Rhesus macaques and Hanuman langurs were recorded for sale as pets in the famous Sonapur fair in Bihar (November 1995 & November 1999). The author also recorded a minimum of 200 Rhesus macaques for sale in 12 surveys in *Nakhas* bazaar in Lucknow, *Baheliya toli* in Varanasi, *Mirshikar-toli* in Patna, *Hathibagan* market in Kolkata and *Kanta toli* in Ranchi between 1994 and 2000. Often Rhesus macaques were recorded for sale in Delhi's Jama Masjid bird market (Dr Iqbal Malik *pers. comm.*).
- In 1999, on 4 occasions, the author has recorded 17 Slender loris for sale, at Shivaji market in Bangalore, Crawford market in Mumbai and in Pakshirajpuram in Hunsur near Mysore, Karnataka.
- Malik *et al.*, (1997) recorded the sale of 3 Nilgiri langur as pets, the prices ranging from Rs 400–1,000 along with one Bonnet macaque for Rs 100 at Ukkadam market in Coimbatore.
- In Pollachi Malik *et al.*, (1997), recorded the sale of a Lion-tailed macaque for Rs 1,200, while Slender loris has been recorded in Coimbatore (Areendran, G., WII *pers. comm.*) as pets.
- Animal traders in Patna, Ranchi, Kanpur, Delhi, Lucknow, Varanasi, Bangalore and Mumbai claim to supply young Rhesus, langur and loris anytime at an advance notice.
- Hanuman langur are used by some Hindu priests as pets for religious purposes.
- In Umanada Island in Guwahati, the introduced Golden langur troop is reported to be of the lineage of a pair brought by a priest (Mohammad Firoz, Secretary Aryanak, Nature Club, *pers. comm.*).

4) Street performances: *Madaris*, *Kallanders* and sometimes *Jogi* and *Nath sapers* are some tribes that use the Rhesus macaque, Hanuman langur and Assamese macaque for their livelihood by teaching them simple tricks and using them in roadside performances and at tourist spots. A large numbers of young Rhesus are captured for this purposes. Field surveys by the author indicate that a minimum of 1,000 families in India earning their livelihood from such acts. In the south Indian states, roadside astrologers use Slender loris for taking out fortune cards. During 2 visits to



Bangalore in 1999 and 2001, the author encountered 3 individuals used for this purpose. Similarly Slender loris were also recorded in Thiruvananthapuram (R V Singh, Assistant Director, Wildlife Preservation). Sometimes Nilgiri langurs are also used for street performances in South India.

5) Medicinal value: Although the pet trade consumes a large number of individuals, trade for local therapeutic purposes is prevalent in some parts of India especially the northeast. Species used for medicinal purposes are the Assamese and Rhesus macaques. Some treatment methods recorded by TRAFFIC India are:

- *Cure for rheumatism by eating a monkey brain from a live animal.*

For this purpose, a special table with a pre-fabricated holding device is used. The monkey's head is introduced through a hole on the top of the table and a chain tied to the bottom part of the table holds its legs. Boiling water is then poured over the head and face of the primate causing extensive scalding and peeling away of the fur and skin. A sharp rap with a small hammer cracks the skull and the 'doctor' pours several tubes of ointment into the skull. The patient who is seated at the same table inserts a spoon into the cranium of the monkey and eats the brain, alternately mashing and mixing, with the drugs therein (Vivek Menon, WTI, *in litt.*, to TRAFFIC India, 1993).

- *Cure for Asthma*

For this, the patient drinks the monkey's blood. The clientele of such clinics are mainly tribal; although tribal in a loose form means 'of tribal origin'. However clients include wealthy businessman to labourers who swear by the animal medicine.

Srivastava (1999) also mentions that the use of primates for their supposed medicinal value is common in the northeastern states. Tribes such as *Chakmas* and *Riangs* from these states, who do not eat meat, use primate body parts in traditional medicine for treatment of asthma, fever, body ache and abnormal blood pressure. Phayre's langur is hunted in areas around salt springs where the species has large gallstones because of the limestone. These gallstones (*bezoar*) are prized for their medicinal value by the Chinese (Srivastava, 1999).

6) Meat: The consumption of primate meat by certain tribal and non-tribal communities is still prevalent in the northeast and eastern India. According to Srivastava (1999) the main reason for hunting primates in the northeast appears to be protein requirements. He further mentions that many tribal cultures consider primates as a perfect source of meat and many prefer primates to larger and more traditional game. Starting from Assam, to Nagaland and Mizoram, all locally found primate species are poached using guns, bow and arrows tipped with some plant poison. The utilization of primates for food varies from area to area. For instances in Nagaland, Manipur and Arunachal Pradesh, Hoolock gibbon meat is considered a delicacy, while this species receives less attention in Meghalaya, Mizoram and Assam. Phayre's langur is hunted for food by *Lushai* and *Mizo* tribes in Mizoram and Tripura (Srivastava, 1999). Similarly Srivastava (1999) mentions that the Capped langur has been indiscriminately hunted to the brink of extinction for food almost in its entire distribution range. Meat as a by-product of primate hunted as agriculture pest is also common in the northeastern states (Srivastava, 1999). Some instances are:



- From the Kokrajhar forest in North Lakhimpur, the author recorded a Capped langur for sale in a weekly village market in January 2000. While on a weekly Sunday 'haaf' (weekly market), 14 poached Capped langurs were recorded for sale in Seojuli near Kakui Reserve forest in North Lakhimpur in Assam (Bikul Goswami, *pers. comm.*).
- It has been quite frequently reported that poachers from Nagaland come to Assam to kill monkeys, transport the meat to Nagaland where it is sold for Rs 80/kg. Even the endangered Hoolock gibbon is sometimes killed by poachers at the Hologapar Wildlife Sanctuary in Jorhat district for meat.
- In South India, the author recorded the sale of primate meat in the Aangamali and Malayatur villages near Cochin. In this region, poachers hunt the Nilgiri langur and the endangered Lion-tailed macaque.
- In the states of Bihar, Jharkhand and Orissa, the *Makariya* (Makar = bandar = monkey) tribe is totally dependent on the Common langur and Rhesus macaque for food. During a visit in the Bursua and Khandhar mines in June 1995, the author witnessed the activities of this tribe. *Makariyas* move in family groups of 15–20 members in the forested areas. The men are excellent nomadic primate hunters and the women are skilled in making ropes from tree barks. Groups of eight to ten people visit secondary jungle in search of primate troops. On seeing a group of langurs or rhesus they first try to locate an isolated tree. The primates are then driven towards this tree by the tribe members chasing the monkeys to the vantage point and by climbing the nearby trees. Several hanging nets surround this vantage tree. A few tribe members climb this

tree to drive the monkeys down towards the net, and using long powerful sticks, kill the animals. The head is cut and the skin is peeled. Some meat is consumed the same evening while the rest is dried for lean periods. Tribes are able to capture 4–5 primates by this method during a trip. The juveniles are sold as pets to the peripheral villagers and to visiting truck drivers. There is a common belief about this tribe as reported by the local villagers—this tribe is so wild that it may kill and eat its old members. Fearing such stories no villager wants to confront these tribe members. However investigations during my trip suggest no such practice, though it seems that old members may starve to death, as they are not taken care of by the group once they are quite old and unable to move with the clan.

7) Pelts: The pelt of the Capped langur is commonly used for making the casing cover of swords locally known as 'dhow' in Arunachal Pradesh. The author counted a minimum of 40 such casing covers within one day of stay in Itahnagar in Arunachal Pradesh in January 2000. In the Garo hills in Meghalaya, pelts of the Capped langur are used for making caps (Srivastava, 1999). In eastern India *Makarias* sell the Rhesus macaque and Hanuman langur membranes to drum makers for a sum of Rs 15–30/skin. Malik *et al.*, (1997) recorded the sale of 2 Nilgiri langur skins at the Karmadai area and of a stuffed Slender loris at the Kinathukadavau area, near the Nilgiri Biosphere Reserve in South India. Sale of hoolock gibbon pelts was recorded in Roing in Dibang Valley, Arunachal Pradesh during 1995 (Areendran, G., WII, *pers. comm.*).

8) Witchcraft and Black Magic: Skulls of various species of primates are hung outside



tribal dwellings in Arunachal Pradesh and other northeastern states to ward off evil spirits or simply as objects of ornamentation. For instance the *Adi* tribe of Arunachal Pradesh displays monkey skulls at house entrances. Similarly the *Mizo* tribes of Champai district decorate their walls with monkey skulls (Srivastava, 1999). Charms prepared from dismembered digits of a monkey's paw strung together on a thread are believed to treat paralysis (Vivek Menon, WTI *in litt.*, to TRAFFIC India, 1993). Keeping Hanuman langur bones subjected to black magic rituals is considered auspicious and brings recognition. Similarly bones of a Rhesus macaque if kept in the house after performing black magic on them prevent any ill omen visiting the house owner. An eye of the Hanuman langur worn in amulets is believed to increase courage and strength (Tantrik Bhel, *pers. comm.*).

Trade Areas and Routes

The main organized primate trade centre where most stock for retailing reaches are *Mirshikar-toli* in Patna (Bihar); *Baheliya-toli* in Varanasi, Bagahi in Kanpur and Nakhas bird market in Lucknow (Uttar Pradesh); Dhuvraj diggi in Burdwan, Dangiapara in Siliguri and Narkul Danga in Kolkata (West Bengal); Bijohnagar and Duphdara villages on the Assam–Meghalaya border, Shivaji market in Bangalore (Karnataka); Crawford market in Mumbai (Maharashtra) and Chowk market in Hyderabad (Andhra Pradesh). Traders from these areas especially from Patna, Bangalore and Calcutta offer to supply any species of primates on order and have a well-organized nexus with all sub-dealers and primary collectors.

Patna's *Mirshikar-toli* is the most famous animal trade centre with an equally active trade

centre in Kolkata that has since shifted to Burdwan. Most of the stock from the north-east reaches either Patna or Burdwan via Siliguri. The other trade routes are from parts of Assam and Meghalaya to Nagaland and across the border with Myanmar for Southeast Asia with stocks stored between the Guwahati and Shillong highway. Hoolock gibbons are trapped in Meghalaya, North Cachar, Hameran in Arunachal Pradesh, Goalpara and the Garo Hills. Previously they were reported and stored in Guwahati, but are now kept in Boko, Bijohnagar and Duphdara and villages on the Assam–Meghalaya border. In Boko and Bijohnagar the author recorded 4 individuals of the Stump-tailed macaque in a trader's house. Similarly one Hoolock gibbon was recorded at Bijohnagar in 1996. Golden langurs come mainly from the Bhutan border and from pockets in Assam. In mid 1998, TRAFFIC consultant reported a few Golden langurs for sale at Guwahati, (Saumyadeep Dutta *in litt.*, to TRAFFIC India, 1998). From Patna, the stock reaches Kathmandu (*Bagh Bazaar*) from where the animals go to Bangkok (Southeast Asia) and markets in the Middle East. This is evident from the 3 live Clouded leopard cubs seized from a Patna dealer in Kathmandu in the mid 90s (Diwaker Sharma *pers. comm.*).

During the author's visit to Tripura, he was informed by local wildlife officers of the possibility of some primates reaching Dhaka in Bangladesh via the Tripura–Bangladesh border as Tripura shares 80% of its border with Bangladesh (Rohiming Linana, *Pers. comm.*). Even species such as Phayre's langur are smuggled through this route. Traders report that the primates reach Bangkok, and other foreign markets via Dhaka. This needs further verification.



Baheliya-toli in Varanasi is a famous trade supply area of Rhesus macaques to Indian laboratories and hospitals. Nakhas market in Lucknow is also known for this. Traders in Bangalore's Shivaji market were quite active until the last 2–3 years in supplying southern primate species like Slender loris to zoos and dealers throughout India. (M.K. Srinath, WWF, Bangalore, *pers. comm.*).

Hardly any study has been carried out on the quantum of trade of or the impact of trade on a primate species. Except for the Rhesus macaque that has spread all over after the ban on its export, most of the primate species continue to be threatened.

Prices

The price of primates recorded during my survey ranged from Rs 30 to Rs 10,000. A Rhesus macaque can sell for Rs 30–300. The Golden langur and Hoolock gibbon can fetch upto Rs 10,000 in the domestic market or zoos, while international prices can be higher. In a quotation of an Indian (Rampur based) animal dealer to an animal firm in Europe, the price of Rhesus infant was quoted at US\$ 80 per individuals (TRAFFIC Europe *in litt.*, to TRAFFIC India 1995). Current market prices for various species depend on the place, the availability and the degree of awareness. Stump-tailed macaques and Assamese macaques can sell for Rs 100–300 each. Similarly, Hanuman and Rhesus macaques have a unit retail price tag of Rs 300–800 for research lab and pet suppliers. The author recorded a price of Rs 50,000 for an albino Rhesus macaque at a trader's premises in Patna in 1995. Malik *et al.*, (1997) recorded the price of a live Nilgiri langur ranging from Rs 400 to 1,000, while the Lion-tailed macaque was recorded with a price tag of Rs 1,200.

Seizures

There are very few reported seizures of primates in India as 2 of the commonly found primates species namely the Rhesus macaque and the Hanuman langur are considered pets in several areas and in general, people do not consider anything wrong in revering captured animals. The Hindu religious sentiment attached to these 2 species makes them common pets. However, in early 1992, a consignment of primates was seized in Kumarpara market (Guwahati). The seizure comprised a Hoolock gibbon, 2 Stump-tailed macaques, and 2 Slow loris (Dr Anwaruddin Choudhury, primatologist, *pers. comm.*). In addition to this, some more primates were seized the same year, and included, 2 individuals each of the Golden langur and the Hoolock gibbon, along with a Leopard cat (*Felis bengalensis*) and some Hill mynas (*Gracula religiosa*) (Asim Chatterjee *in litt.*, to TRAFFIC India, 1993). In 1998, one Stump-tailed Macaque was seized from a mobile zoo at Tinsukia (Dr Anwaruddin Choudhury primatologist, *pers. comm.*). On 25 March 2001, 2 Bonnet macaques were seized from a bird shop in Crawford market, Mumbai (S. K. Neeraj, Regional Deputy Director (Wildlife) *in litt.* to TRAFFIC India, 2001). In South India particularly in Bangalore, seizures of Slender Loris are common. The animals are then sent to local animal shelters (Salim, People for Animals, Bangalore *pers. comm.*).

Discussion

Trade and the impact of poaching on wild populations of primates in India have received little attention. However, the inclusion of all Indian primate in CITES, is in itself an acceptance of trade in these species. Undoubtedly there has been an increase in the Rhesus macaque population after the ban



on export in 1978. Nevertheless, recent evidence suggests that poaching, habitat destruction and fragmentation has led to the decline of several primates that are on the brink of extinction. Srivastava (1999) mentions that 'Primate hunting is difficult to control as in many cases it is part of a traditional way of life and also because much of it occurs in remote areas.' He further says that the use of primates in medicine can pose a serious conservation problem. There is an urgent need to document trapping techniques for use in wildlife management. Documentation of traditional trapping techniques for translocation of problematic species such as the Rhesus macaques will not only help reduce man-animal conflicts but also rehabilitate traditional trappers and their skills. Laboratories must use primates from captive-bred centres as this will reduce the demand for primates from the wild (Iqbal Malik, *pers. comm.*). A systematic study of live mammal trade including primates is recommended, and it is also essential to gather similar information from Bangladesh and Nepal to get a more comprehensive picture of this very sensitive and underground trade.

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