

USE OF COMMON LANGURS (*SEMNOPITHECUS* SPP.) AS GUARD ANIMALS IN INDIA: SOME LEGAL AND PRACTICAL ASPECTS

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ABSTRACT

The Human-Macaque Conflict has become a serious issue in many parts of India. The State Forest Departments are hard-pressed to find suitable and effective measures for mitigating this conflict. Use of common langurs (*Semnopithecus* spp.) as guard animals for scaring away troublesome macaques has evolved entirely through people's initiative to solve their own problems. Usefulness of the guard langurs is borne out by their large-scale deployment in the country. However, this practice has given rise to illegal capture and trade of common langurs. The animal right activists have also raised concerns about the welfare of the guard langurs. The advisory issued by the Wildlife Crime Control Bureau in October 2012 prohibiting the use of common langurs as guard animals has put the conflict-managers at a great disadvantage. The advisory is being violated even by the authorities at the highest levels. It has neither helped in ensuring welfare of the captive langurs nor in better compliance with the existing laws. A more pragmatic approach will be to regulate use of the guard langurs rather than ban it. This paper proposes a strategy for managing the Human-Macaque Conflict using the guard langurs in conformity with the provisions of the Wildlife (Protection) Act, 1972 and the Prevention of Cruelty to Animals Act, 1960 without compromising with the conservation status of the species in the wild.

Key words: Human-Macaque conflict; Guard animals; Common langur; *Semnopithecus*; Animal welfare; Wildlife (Protection) Act, 1972; Prevention of cruelty to animals Act, 1960.

Introduction

Humans have been deploying guard animals since time immemorial for protecting their assets including livestock and crops from burglars as well as marauding wild animals. Dogs are the most familiar guard animals. Mammals like donkeys, llamas and alpacas; and birds like geese, ostriches, emus, golden eagles and screamers are also known to be used as guard animals in different parts of the world (Stephan, 2008; Lamarque *et al.*, 2009). The State Forest Departments (SFDs) in Assam, West Bengal, Karnataka and Tamil Nadu often deploy trained elephants (*kunkis*) for scaring away wild elephants from agricultural fields and for capturing them whenever they pose threat to human life.

In recent years, 'common langur' has gained popularity in many parts of India as a guard animal against macaques committing nuisance in human localities. This is not a traditional practice and has been developed by some ingenious persons in the late 1980s. As reported in the media, the idea was first conceived by an owner of a mango orchard in Krishna district of Andhra Pradesh who made a fortune from capture and sale of langurs (1)*. In

due course of time, the practice spread to other parts of the country, mainly Delhi, Haryana, Chandigarh, Uttar Pradesh (UP), Andhra Pradesh and Telangana where Human-Macaque Conflict (HMC) is a serious issue.

Use of common langurs as guard animals in India has evolved entirely through people's initiative to solve their own problems. The Ministry of Environment, Forests and Climate Change (MoEFCC) of the Government of India and the SFDs, having the primary responsibility of resolving the HMC in the country, have not contributed in any meaningful way to promote, regulate or refine this technique. Although capture and sale of common langurs for use as guard animals is mostly carried out in violation of the Wildlife (Protection) Act, 1972 (WPA-1972), yet the wildlife managers have generally been looking the other way in view of the seriousness of the HMC and also because common langurs are not considered to be endangered. Situation changed in October 2012 when the Wildlife Crime Control Bureau (WCCB) of the MoEFCC issued an advisory warning various government agencies against use of common langurs. This paper discusses the embarrassing situation that has arisen as a result of this

Use of common langurs as guard animals against troublesome wild macaques is a people's innovation which should be regulated and refined rather than prohibited.

*Numbers in the parenthesis refer to notes from the media reports given at the end.

advisory. It also seeks to review the legal and practical aspects of using common langur as a tool for mitigating HMC and presents an alternative approach for improving the efficacy of this tool within the ambit of law.

Common Langurs in India

The term 'common langur' has been used in the WPA-1972 for the species *Presbytis entellus* (Anon, 2007) which, as a result of taxonomic revision, has been divided into seven species under the genus *Semnopithecus*, viz. *S. entellus*, *S. dussumieri*, *S. hypoleucas*, *S. ajax*, *S. hector*, *S. schistaceus* and *S. priam* (Groves, 2001; Sharma *et al.*, 2014). It follows, therefore, that 'common langur' signifies all the aforesaid species, though most of the langurs being used as guard animals belong to the species *S. entellus*. Common langurs are also referred to as 'Hanuman langurs' and 'Grey langurs' in the literature and the media. They are widely distributed in India with their range extending up to 4000 m in the Himalayas and also to the Thar desert (Agoramoorthy, 2013).

Efficacy of common Langurs as guard animals

Common langurs are not known to be antagonistic towards macaques in nature. In fact, there are records of playful interactions between the juveniles of rhesus macaques (*Macaca mulatta*) and adults of common langurs in the wild (Manohar and Mathur, 1990; Narlekar, 2012) and the two species occurring in mixed groups (Fooden, 2000). Some experts have also reported rhesus macaques to be more aggressive and successful in displacing common langurs (Lindburg, 1971; Fooden, 2000). But, with some training and in the company of their handlers, common langurs seem to be effective in scaring away macaques. Male langurs are more in use as guard animals than female langurs, perhaps indicating their relative effectiveness. There are also a few reports about the langur urine being used by residents around their homes for keeping the rhesus macaques away (2). But this method does not appear to be as prevalent and as effective as the direct engagement of a guard langur.

Common langurs have their limitations as guard animals. By scaring away troublesome macaques, langurs may not be solving the problem fully but only shifting it to some other area (2, 3). There may be occasions when a troop of macaques beats back a langur and its handler (4, 5). The langur-handlers may be required to fire crackers occasionally to scare away adamant monkeys (6). Macaques are also known to get conditioned to the timing of the guard langurs and adjust their activities accordingly (7, 8). A guard langur may succeed in running away from

captivity and may itself become a nuisance to the people if not handled properly (6, 9).

Not with standing their limitations, overall usefulness of common langurs as guard animals is borne out by their large-scale deployment. Common langurs have been deployed in government premises (8, 10-12); railway stations (13-15); hospitals and medical colleges (11, 16); academic institutions (6,7); ashrams (17); farm lands and orchards (1,18); and residential areas in villages and towns (9, 19, 20) in various parts of the country. The authorities have used common langurs to sanitise the Rajghat Memorial in New Delhi against macaques before visits by the foreign dignitaries (21). About 38 commonlangurs were put into service by the New Delhi Municipal Corporation (NDMC) during the Commonwealth Games in New Delhi in 2010 to keep the monkey menace in check (22). A thriving centre is reported to be existing at Vissannapet in Krishna district of Andhra Pradesh for capture of and trade in common langurs (1,13,18). The juvenile common langurs are also offered for sale at the famous Sonapur fair in Bihar (23). There are also reports of langurs being hired in Agra for guarding wedding functions against depredation by monkeys (24). Though no authentic information about the number of langurs being used as guard animals in India is available, a conservative guess will put the number above 1000.

Legal Issues

1. The WCCB issued an advisory vide its Memo. No. 12-10/WCCB/2008/Vol-VI/4088 dated 15.10.2012 cautioning various Central Ministries and Departments of the Government of the National Capital Territory (NCT) of Delhi against hiring of common langurs (WCCB, 2012). According to the advisory, common langur is listed under Schedule-II of the WPA-1972 and it cannot be owned, traded or hired. The officers hiring langur were warned that they could face a penalty of imprisonment up to three years or fine or both.
2. It looks rather odd that the MoEFCC took so long in noticing the illegality in the use of common langurs and to warn the government agencies about it. It is also intriguing that the advisory has been endorsed only to the Chief Wildlife Warden (CWLW) of Delhi and the Central Ministries located in Delhi as if the alleged violations of the WPA-1972 were confined to Delhi alone and that too within the government offices!
3. There is some vagueness about the legal status of *Symnopithecus* species representing common

langurs. The species *Presbytis entellus* presently mentioned in Part I of Schedule-II of the WPA-1972 ceased to be valid after the taxonomic revision mentioned earlier and the seven species of *Symnopithecus* that came into existence have not been formally included in the schedules. There is no clarification anywhere in the WPA-1972 that the entries in the schedules would cover the synonyms or the new scientific names and the enforcement officials, courts and even researchers are likely to interpret the matter in their own way (Bist, 1999). For example, in the checklist of mammals prepared by the ZSI (Sharma *et al.*, 2014), *S. entellus* alone has been shown under Part I of Schedule-II. The remaining 6 species have been shown as 'not covered' by the schedules, which practically puts them outside the control of the WPA-1972 and, therefore, outside the ambit of the WCCB advisory in question! However, in the interest of conservation, it is imperative that all the seven species in question should be covered by the WPA-1972 and further discussion in this paper is based on the presumption that all of them continue to be included in Part I of Schedule-II like their precursor, viz. *Presbytis entellus*.

4. The advisory presents a rather incomplete legal picture regarding common langurs inasmuch as it informs the government agencies that it is outright illegal to hire and use langurs and does not advise them how to procure common langurs in a legal manner. The fact is that common langurs, because of their listing under Part I of the Schedule-II, are governed by regulatory rather than prohibitive provisions of the Act. The position is explained below.
 - A. The WPA-1972 does not explicitly prohibit a person from owning or possessing a common langur—the restrictions / prohibitions on ownership / possession of wild animals contained in Sections 40-43 and 49C(7) apply only to species covered by Schedule-I and Part II of Schedule-II. The only restriction applicable to common langurs is contained in S.49 which stipulates that no person shall 'purchase', 'receive' or 'acquire' any captive or wild animal otherwise than from a dealer or from a person authorised to 'sell' or 'transfer' the same under the WPA-1972.
 - B. The WPA-1972 also does not explicitly prohibit trade in common langurs. All that it requires is that a person

desirous of dealing in common langurs should apply to the CWLW for dealership licence under S.44(1). It is for the CWLW to issue dealership licences for common langurs so that people can procure them legally.

- C. A person can also procure a captive langur from another person who is in legal possession of that langur. The WPA-1972 follows a scheme for issuing ownership certificates under S.42 to the legitimate owners of wild animals but it generally applies to species covered under Schedule-I or Part II of Schedule-II and precludes common langur. Therefore, it may not be possible for a prospective buyer to ascertain whether the captive langur being offered for sale by another person is legal. A solution is provided by S.40 (4) which provides a procedure for issuing ownership certificate for a legally held captive langur (See Para E). But a further hindrance is provided by S.43(1) which prohibits an ownership-certificate holder from transferring the langur covered by such certificate by way of sale or by any other mode of consideration of commercial nature, though the said section does not object if the owner chooses to gift away the animal in question! There appears to be a case for relaxing the provisions of S.43 (1) if the MoEFCC and the SFDs wish to provide a person with a regulated yet legal way of procuring common langurs.
- D. The CWLW may, with the previous permission of the state government, permit any person to capture common langurs under S.12 for the purpose of scientific management which includes population management.
- E. The WPA-1972 provides the following options for dealing with common langurs which are already in captivity:
 - 1) The state government may issue a notification under S.40 (4) requiring the persons in possession of common langurs to declare the same to the CWLW within a stipulated period. Thereafter, the CWLW may proceed in accordance with S.41-42 for issuing a certificate of ownership to the owner.
 - 2) The CWLW may invoke S.54 to compound the offences relating to common langurs lying with their present owners and regularise the ownership.
 - 3) The CWLW may seize common langurs from their illegal owners under S.50 (1)(c) and get the same forfeited to the state government under S.51(2) after following due process of law.

Practical aspects of the WCCB advisory

As a result of the advisory issued by the WCCB, the government offices and local bodies in Delhi NCT are reported to have stopped hiring common langurs. There are also reports of a few common langurs having been seized by the Police and SFDs in Delhi and Chandigarh (25-27). But as gathered from various media reports, the langur-owners have still been functioning in a clandestine manner in Delhi and in a rather overt manner outside Delhi (5, 6, 9-12, 14, 15, 17, 23-26, 28, 29).

A scathing comment about the sanctity of the advisory issued by the WCCB is provided by the fact that it has been violated without compunction in case of the VVIPs and various government agencies. The NDMC was reported to have deployed 40 langurs in April 2013 to guard the homes of dignitaries including the Prime Minister, the Chief Justice of India and the Congress President (10). The district administration of Mathura had to hire 10 common langurs in November 2014 to keep monkeys at bay during the visit of the President of India to Vrindavan in UP (12). A common langur was hired in 2014 for similar reasons in the Chief Minister's office in Lucknow (11). The Indian Railway is learnt to have hired common langurs in Lucknow in November 2014 and Agra in March 2015 (14,15). Evidently, the advisory has turned out to be unrealistic and unworkable.

Neither the MoEFCC nor the SFDs have been able to provide an effective solution to the ever-increasing problem of HMC. After the WCCB's advisory, the NDMC is reported to have hired about 40 'human-langurs' -persons donning costumes to look like langurs, mimicking the call of aggressive langurs and equipped with slingshots and sticks - to scare away monkeys (30,31). A human-langur was deployed by the railways at Lucknow railway station but later on replaced by a real langur (14). Persons adept in making aggressive calls like langurs but without any costume were also deployed in Chandigarh for chasing away macaques (27). All this, ironically, is nothing but an endorsement of the usefulness of common langurs as guard animals against macaques. But apparently these human-langurs have not been as effective as the real ones (31) which are, therefore, still in use overtly or covertly.

Apparently the advisory was prompted by pressure from the animal-right activists (25, 32) rather than by any serious concern for conservation of common langurs. But it has helped neither in the welfare of captive langurs; nor in the better compliance with the WPA-1972; nor in the better management of the HMC. It is, therefore, necessary

to look for alternatives which are legal, practical and effective.

An alternative approach

It is obvious that common langurs have been providing a useful service as guard animals. A more pragmatic policy, therefore, will be to regularise the use of common langurs as guard animals rather than ban it. It is possible to do so within the scope of the WPA-1972 without compromising with conservation status of common langurs in the wild and by enhancing the level of their welfare in captivity. A strategy for this purpose is proposed below:

- I. Regulating possession and utilisation of the guard langurs
 - A. To begin with, the MoEFCC and the SFDs need to make a policy-choice:
 - a) Whether to permit the private owners to possess and utilise guard langurs.
 - b) Whether to distribute the responsibility of managing guard langurs between the private owners, government agencies and local bodies.
 - c) Whether to entrust the responsibility of managing guard langurs exclusively with the government agencies and the local bodies.
 - B. If the policy is in favour of (a) or (b), the first step will be to regularise the ownership of existing common langurs in captivity. As already explained, it can be done by invoking S.40(4) and S.40-41 of the WPA-1972 to issue ownership certificates to the persons who can provide a proof of having acquired langurs in a fair manner. Where a person has no such proof but is otherwise eligible to own a langur, the CWLW may compound the matter under S.54 before issuing an ownership certificate. In the remaining cases, the CWLW will have to seize the langurs from their owners under S.50 (1)(c) and get the same forfeited to the state government under S.51(2).
 - C. The common langurs covered under ownership certificates should be micro chipped to distinguish them from the animals captured illegally. Various government departments, local bodies and other interested persons / organisations should be advised to hire only such common langurs as are covered by an ownership certificate and have been fitted with microchips. The transfer of ownership and transport of common langurs covered by ownership certificates should be regulated under the provisions of the WPA-

1972.

- D. The SFDs and the local bodies should also set up their own squads of guard langurs with the help of the forfeited langurs and suitable handlers and deploy in areas having high levels of HMC. As stated earlier, many SFDs in the country maintain squads of trained elephants (*kunkis*) and *mahouts* and use them to manage Human-Elephant conflict. The langur squads can be managed on similar lines.
- E. If, however, the policy is in favour of (c), the SFDs must initiate action under S.50(1)(c) and S.51(2) to take possession of all the illegally held common langurs in captivity. The SFDs and the local bodies should set up their own squads of guard langurs with suitable handlers and deploy them in areas having HMC.
- F. The langurs and their handlers should be trained by experts to enhance their effectiveness against problem macaques.
- II. Regulating supply of the guard langurs
- A. S.9 of the WPA-1972 prohibits capturing of common langurs in general and a great part of present demand for guard animals is being met from illegal trappings from the wild. This malpractice can be controlled by improved policing in the forests along with introduction of the system of ownership certificates and microchips for the legally-held common langurs as suggested in the foregoing paragraphs.
- B. The following options are available to ensure future supply of the guard langurs legally:
 - a) Captive breeding of common langurs appears to be one way of augmenting the supply of the guard langurs. There are, of course, doubts that the captive-born langurs may not be as agile, strong and ferocious as their wild brethren are and, therefore, may not be effective against wild macaques. In comparison, female elephants in the camps of the SFDs frequently breed and produce calves, though most of such calves are sired by wild bulls and generally retain their wild traits.
 - b) As already mentioned, the CWLW may, with the previous permission of the state government, permit any person to capture common langurs under S.12 for the purpose of scientific management which includes population management. There are believed to be about 300 thousand common langurs in the country

(Mukherjee and Alfred, 2011). The IUCN Red List classifies *S. ajax* as 'Endangered', *S. hypoleucos* as 'Vulnerable', and *S. hector* and *S. priam* as 'Near Threatened' (IUCN, 2016). The remaining populations of common langurs are not threatened and it will not be a conservation threat to use some of them as guard animals for the langur squads under the control of SFDs and local bodies. A precedent of this kind is already available in case of elephants (Schedule-I) which have been captured by some SFDs with prior permission of the MoEFCC under S.12 and used as *kunkielephants*.

- c) Common langurs also indulge in conflict with humans and cause serious problems in various parts of the country (Molur *et al.*, 2003) (33, 34). The SFDs in West Bengal and some other states occasionally capture troublesome langurs in accordance with the powers available to the CWLW and the Authorised Officers under S.11(1)(b). It makes an ideal management strategy to capture some langurs from the problem populations and use them as guard animals against macaques. By way of analogy, it may be recalled that elephants posing threat to human life are occasionally captured by some SFDs with permission from the CWLW under S.11 (1)(a) and utilised as *kunki* elephants.
- d) As already stated (See Legal Issues), there is a case for relaxing the provisions of S.44 (1) [Dealership Licence] and S.43(1) [Sale of captive animals covered by ownership certificate] to enable the private owners of common langurs to dispose of their surplus stock to others in need of the same.
- III. Ensuring welfare of the guard langurs
- A. Welfare of common langur in captivity is primarily governed by the Prevention of Cruelty to Animals Act, 1960 (PCA-1960) and various rules made there under which are generally enforced by the Animal Welfare Board of India (AWBI); Societies for Prevention of Cruelty to Animals (SPCAs); and the Police. The term 'cruelty' has not been defined in the PCA-1960, but S.11 1) of the said Act describes certain acts of omissions and commissions in respect of animals which are punishable under the Act (GOI, 1960). These include: subjecting any animal to beating, kicking, and torturing; depriving any animal of sufficient food, water or shelter; confining any animal

to a cage which does not permit it a reasonable opportunity of movement; keeping any animal chained or tethered for an unreasonable time or in unreasonable manner; conveying or carrying any animal in such a manner as to subject it to unnecessary suffering; and willfully and unreasonably administering an injurious substance to any animal. Captive langurs are also governed by some special rules framed under the PCA-1960. For example, transport of all type of monkeys by road, rail and air is governed by rules 15-45 of the Transport of Animals Rules, 1978 which, inter alia, provide specifications of containers for transporting monkeys and stipulate that each consignment of monkeys should be accompanied with a health certificate issued by a qualified veterinary surgeon (GOI, 1978). Capture of common langurs is governed by Rule 3(1) of the Prevention of Cruelty (Capture of Animals) Rules, 1979 which stipulates that an animal shall be captured by the sack and loop method or, where it is not feasible, with the help of tranquilliser guns or by any other method which renders the animal insensible to pain before capture (GOI, 1979).

- B. Welfare of captive langurs should be ensured by effective implementation of the provisions of the PCA-1960 and relevant rules by the enforcement agencies. It may also be useful to authorize the forest officers under the PCA-1960 for matters relating to common langurs. Suitable NGOs and veterinary doctors may also be entrusted with the task of monitoring the condition of the guard langurs in the custody of their owners and handlers.
- C. The state governments may frame special rules under S.64 (2)(f) of the WPA-1972 for the care of common langurs used as guard animals. It may be recalled that the governments of Kerala and Tamil Nadu have framed special rules for the management and maintenance of captive elephants. The central government is also empowered to make appropriate rules for captive langurs under S.38 of the PCA-1960. The rules should, inter alia, obligate the owners (viz.

private persons, SFDs and local bodies) to procure insurance cover for the common langurs and their handlers engaged in management of HMC. The rules should also provide for cancellation of ownership certificate in respect of a captive langur if its owner / handler is found to have violated the provisions of the PCA-1960 or the rules made there under more than once.

- D. CWLWs / AWBI should arrange suitable training programmes for the owners/ handlers of the guard langurs from time to time in order to sensitise them towards the welfare needs of common langurs. They should also organise periodic health check-ups for the guard langurs and their handlers.

Conclusion

The HMC has become a serious issue in many parts of the country. The MoEFCC and the SFDs are hard-pressed to find suitable and effective measures for mitigating this conflict. Efficacy of the guard langurs as a tool for managing the HMC is proved by their large scale use in the country albeit at the cost of violating certain provisions of the WPA-1972. These violations were generally overlooked by the wildlife managers until the WCCB issued an advisory in 2012 against the use of common langurs, apparently working under pressure from the animal-right activists. But this advisory has helped neither in the welfare of captive langurs; nor in the better compliance with the WPA-1972; nor in the better management of HMC. The use of the guard langurs continues in the country overtly or covertly. The advisory is being violated even by the authorities at the highest levels. A more pragmatic policy, therefore, will be to regularise the use of common langurs as guard animals rather than ban it. As discussed in the foregoing paragraphs, it is possible to do so within the ambit of the WPA-1972 without compromising with the conservation status of common langurs in the wild and by enhancing the level of their welfare in captivity. The MoEFCC, SFDs and researchers have so far ignored the importance of common langurs as guard animals. It is the high time that they play a meaningful role in promoting, regulating and refining this technique.

भारत में रक्षक पशुओं के रूप में आम लंगूर (*सीमोपिथीकस* प्रजाति) का उपयोग: कुछ कानूनी एवं व्यावहारिक पहलू
एस.एस. बिष्ट

सारांश

मानव-मैकाँक संघर्ष भारत के अनेकों भागों में एक गंभीर विषय बन गया है। इस संघर्ष के न्यूनीकरण हेतु उपयुक्त एवं प्रभावी उपायों को खोजने के लिए राज्य वन विभागों पर भारी दबाव है। उपद्रवी लघुपुच्छ वानरों को दूर भगाने के लिए रक्षक पशुओं के रूप में कॉमन लंगूर (*सीमोपिथीकस* प्रजाति) का उपयोग अपनी स्वयं की समस्याओं के समाधान हेतु लोगों की पहल के जरिए पूर्ण रूप से विकसित हुआ है। रक्षक लंगूरों की उपयोगिता देश

में इनके बड़े पैमाने पर फैलाव के द्वारा उत्पन्न हुई है। तथापि, इस प्रक्रिया ने कॉमन लंगूरों के अवैध बन्दीकरण एवं व्यापार को बढ़ावा दिया है। पशु अधिकार कार्यकर्ताओं ने भी रक्षक लंगूरों के कल्याण के बारे में चिन्ता व्यक्त की है। रक्षक पशु के रूप में कॉमन लंगूरों के उपयोग पर प्रतिबंध लगाकर अक्टूबर, 2012 में वन्यजीव अपराध नियंत्रण ब्यूरो द्वारा जारी परामर्श ने संघर्ष-प्रबंधकों को अत्यधिक असुविधा में डाल दिया है। यहां तक कि उच्च स्तरों पर प्रशासकों द्वारा परामर्श का उल्लंघन किया जा रहा है। इसने न तो बन्दी लंगूरों का कल्याण सुनिश्चित करने में और न ही विद्यमान कानूनों के बेहतर अनुपालन में सहायता की है। इस पर प्रतिबंध लगाने के बजाय रक्षक लंगूरों के उपयोग को नियंत्रित करना एक ज्यादा व्यावहारिक एप्रोच होगी। इस शोधपत्र में जंगल में प्रजाति के संरक्षण स्तर के साथ समझौता किए बिना पशुओं के प्रति निर्दयता की रोकथाम अधिनियम, 1960 और वन्यजीव (संरक्षण) अधिनियम, 1972 की व्यवस्थाओं के अनुसार रक्षक लंगूरों का उपयोग करके मानव-लघुपुच्छ वानर संघर्ष के प्रबंधन हेतु एक रणनीति का प्रस्ताव किया गया है।

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Notes

1. G.V.R. Subba Rao (28.8.2007) in his story "Langurs bring them big bucks" reports a flourishing trade of common langurs in Vissanapeta village of Krishna district in Andhra Pradesh. He also credits a local mango-orchard owner, nick-named as 'Kondamucchula Edukondalu' (Kondamucchula in Telugu means langur), for conceiving the idea of using captive langurs for scaring away wild macaques. <http://www.thehindu.com/todays-paper/tp-national/tp-andhrapradesh/langurs-bring-them-big-bucks/article1900250.ece> (accessed on 24.10.2016).

2. Gardiner Harris (22.5.2012) in his story "Indians feed the monkeys which bite the hand" reports that some residents in Delhi get langurs to urinate around their homes and the acrid smell of the urine scares the rhesus monkeys away for weeks. He also quotes the director of veterinary services to say that langurs simply pushed rhesus monkeys to ransack adjoining homes. http://www.nytimes.com/2012/05/23/world/asia/fed-by-indians-monkeys-overwhelm-delhi.html?_r=1 (accessed on 24.10.2016).
3. Simon Robinson (17.10.2006) in his story "Monkeys See, Monkeys Do" quotes the primatologist Iqbal Malik to say that the monkeys scared of langurs will simply move elsewhere in Delhi. <http://content.time.com/time/world/article/0,8599,1546980,00.html> (accessed on 24.10.2016).
4. Dean Nelson (8.8.2011) in his story "India's civil servants caught up in Delhi's monkey wars" refers to a wildlife scientist, an animal-right activist and a langur-handler on the issue of macaques hitting back at the guard langurs. <http://www.telegraph.co.uk/news/worldnews/asia/india/8689052/Indias-civil-servants-caught-up-in-Delhi-monkey-wars.html> (accessed on 24.10.2016).
5. James Tapper (21.7.2014) in his story "Shock tape and sticks: Delhi residents battle thousands of terrorising monkeys" reports about use of the guard langurs in Delhi despite a legal ban. He also refers to an incident of macaques mobbing a langur and beating him up. <http://www.nbcnews.com/news/asia/shock-tape-sticks-delhi-residents-battle-thousands-terrorizing-monkeys-n160976> (accessed on 24.10.2016).
6. M.V. Subramanyam (27.9.2015) in his story "Langurs on campus to fight monkey menace" reports about deployment of three guard langurs in an engineering college in Kurnool, Andhra Pradesh. One langur fled from the campus when its chain rusted and broke. The other two are on the job since a couple of years. He also reports that langur-handlers fire crackers occasionally to scare away a monkey or two which vehemently try to enter the campus. <http://www.thehindu.com/news/national/telangana/langurs-on-campus-to-fight-monkey-menace/article7694359.ece> (accessed on 24.10.2016).
7. The story "Monkey Business: Rhesus Outsmarts langur" (sify.com, 14.3.2011) refers to deployment of guard langurs in Punjab University campus in Chandigarh. It quotes the dean of the University to say that: "We are surprised to see that monkeys know the timing of the langurs and they attack a different place at that time". <http://www.sify.com/news/monkey-business-rhesus-outsmarts-langur-news-national-ldojEfcihgisi.html> (accessed on 24.10.2016).
8. Sandeep Unnithan (11.6.2007) in his story "India's most important office complex has a unique security force to keep monkey menace at bay" reports about deployment of guard langurs by the Ministries of Defence and External Affairs and the Prime Minister's Office. He also reports that the macaques come back after the office hours when the guard langurs leave. <http://indiatoday.intoday.in/story/unique-security-system-in-delhi-to-keep-away-monkey-menace/1/155590.html> (accessed on 24.10.2016).
9. The story "Langur: terror for monkeys then, humans now" (The Telegraph, 12.9.2015) reports that a male langur was brought by a farmer in Araidanga village of Malda district in West Bengal for scaring away troublesome rhesus macaques. It was found to be effective for some time before it escaped from captivity and became a menace itself by biting and scratching at least 30 persons in the region. http://www.telegraphindia.com/1150912/jsp/siliguri/story_42115.jsp (accessed on 24.10.2016).
10. The story "Langurs still in monkey business" (Times of India, 3.4.2013) reports that the New Delhi Municipal Corporation (NDMC) has 40 guard langurs on its rolls which are mostly deployed at the residences of VVIPs including the PM, the Chief Justice and Mrs Sonia Gandhi. <http://timesofindia.indiatimes.com/city/delhi/Langurs-still-in-monkey-business/articleshow/19352218.cms> (accessed on 24.10.2016).
11. The story "Langurs guard UP CM's office from monkeys" (The Sunday Guardian, UK, 23.8.2014) reports about deployment of guard langurs to protect the Chief Minister's office and two prestigious medical institutes in Lucknow (UP). <http://www.sunday-guardian.com/news/langurs-guard-up-cms-office-from-monkeys> (accessed on 24.10.2016).
12. Ishita Mishra (13.11.2014) in her story "Mathura Scare: Take off your glasses, Mr. President, or the monkeys will" reports about 10 langurs deployed by the district administration to keep the monkeys at bay during the President's visit to a temple in Vrindavan (UP). <http://timesofindia.indiatimes.com/india/Mathura-scare-Take-off-your-glasses-Mr-President-or-the-monkeys-will/articleshow/45129598.cms> (accessed on 24.10.2016).
13. G.V. Ramana Rao (1.9.2007) in his story "Monkey vs Monkey" reports about deployment of a guard langur to tackle monkey menace at a railway workshop near Vijaywada, Andhra Pradesh. He also reports about busting of a racket of langur trafficking in Krishna district. <http://www.thehindu.com/todays-paper/monkey-vs-monkey/article2015292.ece> (accessed on 24.10.2016).
14. Sanjay Pandey (14.11.2014) in his story "Langur gets Rs 1.41 lakh contract to scare monkeys" reports about deployment of a guard langur at Lucknow railway station. He also reports that the railways had in the past engaged a youth, who would paint his body like a langur and act like it. The youth had also succeeded in scaring monkeys away, but his services were later terminated. <http://www.deccanherald.com/content/441476/langur-gets-rs-141-lakh.html> (accessed on 24.10.2016).
15. Arvind Chauhan (19.3.2015) in his story "Railways hire langurs to curb monkey menace" reports about the railways' decision to deploy guard langurs at Agra Cantt., Raja Mandi, Agra Fort and Mathura railway stations. <http://timesofindia.indiatimes.com/city/agra/Railways-hire-langurs-to-curb-monkey-menace/articleshow/46626445.cms> (accessed on 24.10.2016).

16. The story "A langur to rescue patients from monkeys" (The Times of India, 30.10.2001) reports about deployment of guard langurs in three prestigious medical institutes, including the AIIMS, in New Delhi. <http://timesofindia.indiatimes.com/city/delhi/A-langur-to-rescue-patients-from-monkeys/articleshow/367479962.cms> (accessed on 24.10.2016).
17. The story "The langurs still being used at key ashrams in Hridwar, Rishikesh" (The Pioneer, 17.5.2014) reports about deployment of guard langurs at prominent ashrams in Haridwar and Rishikesh in Uttarakhand. <http://www.dailypioneer.com/state-editions/dehradun/langurs-still-being-used-at-key-ashrams-in-haridwar-rishikesh.html> (accessed on 24.10.2016).
18. G.V. Rao (12.8.2012) in his story "The Simian that is feared by the Rhesus Monkey" reports that common langurs have become invaluable assets to the owners of orchards. He also reports that business in common langurs has been continuing in Tatakuntla village on Vissannapeta-Chatrai Road in Krishna district (Andhra Pradesh) for decades despite several attempts by the Forest Department to end it. <http://www.thehindu.com/news/cities/Vijayawada/the-simian-that-is-feared-by-the-rhesus-monkey/article3756990.ece> (accessed on 24.10.2016).
19. The story "No monkey business this" (The Hindu, 17.4.2012) reports that the villagers of Babansahebgudem village in Nalgonda district (Telangana) pooled resources to buy a langur for Rs. 8,000 to get rid of monkey menace. The presence of langur created a scare among the monkeys, which soon did the disappearing act. <http://www.thehindu.com/todays-paper/tp-national/tp-andhra-pradesh/no-monkey-business-this/article3322227.ece> (accessed on 24.10.2016).
20. The story "Langurs to keep monkeys at bay" (cityplus.jagran.com, 15.9.2012) reports about deployment of guard langurs in some residential colonies of Gurgaon, Haryana. http://cityplus.jagran.com/city-news/langoor-to-keep-monkeys-at-bay_1347622734.html (accessed on 24.10.2016).
21. The story "No monkey menace on Obama's visit" (The Hindu, 6.11.2010) reports that the security officials sought the help of trained animal handlers from civic agencies so that no untoward situation was created during the President Obama's visit to the national capital including Rajghat which is infested by monkeys. <http://www.thehindu.com/news/cities/Delhi/no-monkey-menace-on-obamas-visit/article870932.ece> (accessed on 24.10.2016).
22. Jennifer S. Holland (August 2011) in her story "A monkey that knows no bounds: India's leaping langurs can be holy, helpful, or even pesky" reports that the municipal council of New Delhi used 38 Hanuman langurs to deal with monkey menace when the city hosted the commonwealth games in October 2010. <http://ngm.nationalgeographic.com/2011/08/langur-monkeys/holland-text> (accessed on 8.11.2016).
23. Abrar Ahmed (March 2013) in his report "Wildlife on Sale: An insight into the Sonepur Mela, Bihar" mentions about 11 juvenile Hanuman langurs offered for sale at the Sonepur fair in December 2012. http://awsassets.wwfindia.org/downloads/traffic_post_march_2013.pdf (accessed on 8.11.2016).
24. Ishita Mishra (1.2.2015) in her story "Brides hire langurs to keep monkey menace away" reports about hiring of guard langurs in Agra (UP) for protecting wedding functions against depredation by monkeys. <http://timesofindia.indiatimes.com/city/agra/Brides-hire-langurs-to-keep-monkey-menace-away/articleshow/46088937.cms> (accessed on 8.11.2016).
25. Imran Ahmed Siddiqui (22.1.2013) in his story "Langurs gone, monkeys on a roll Raisina hills under simian siege after sundown" reports about arrest of a langur-handler by the Parliament Police Station in New Delhi on a complaint filed by Mrs. Maneka Gandhi, MP and animal-right activist. http://www.telegraphindia.com/1130122/jsp/nation/story_16470910.jsp#.WAMQL4VOLNM (accessed on 8.11.2016).
26. The story "Langurs make madari millionaire, land him behind bars for illegal trade" (Deccan Herald, 4.7.2015) reports about the arrest of a leader of an inter-state gang of langur smugglers along with his four accomplices by the Delhi Police. The Police seized four langurs from his possession which were allegedly meant to be delivered to a cloth mill in Phagwara in Punjab. <http://www.deccanherald.com/content/487373/langurs-make-madari-millionaire-land.html> (accessed on 8.11.2016).
27. Rajinder Nagarkoti (4.4.2013) in his story "They have mastered langur's calls to shoo away monkeys" reports that the Chandigarh Forest Department took away langurs from a former handler and released them in Sukhna Wildlife Sanctuary. He further reports that the former langur-handler and his team was now being deployed for chasing away macaques by making aggressive calls like langurs. <http://www.tribuneindia.com/2013/20130404/cth1.htm> (accessed on 8.11.2016).
28. Bindu Shajan Perappadan (27.1.2013) in his story "Nothing legal about it, but---" reports about engagement of a guard langur in a government building despite ban imposed by the WCCB. <http://www.thehindu.com/todays-paper/tp-national/tp-newdelhi/nothing-legal-about-it-but/article4349709.ece> (accessed on 8.11.2016).
29. Abhimanyu Singh (9.8.2014) in his story "Langurs still used by monkey catchers, despite court ban" reports about use of guard langurs in Delhi and Haryana despite ban. <http://www.sunday-guardian.com/news/langurs-still-used-by-monkey-catchers-despite-court-ban> (accessed on 8.11.2016).
30. Moushumi Das Gupta (31.7.2014) in her story "Special brigade in langur uniform to scare monkeys away from Central Delhi" reports that the NDMC has deployed 40 persons dressed in a langur-like costume in government buildings in and around central Delhi. She further

reports that Panjab University had hired a dozen such men on its campus last year. <http://www.hindustantimes.com/delhi/special-brigade-in-langur-uniform-to-scare-monkeys-away-from-central-delhi/story-A73O5uQxK0iS0eb6TvgvfM.html>(accessed on 8.11.2016).

31. K. Jayalakshami (1.8.2014) in her story "India: Men Playing the Monkey in Delhi to Protect Lawmakers from Real Simians" reports that according to the Delhi Fire Service and civic officials, the strategy to employ humans as langurs has not paid off given the men's limited ability, unlike langurs, to scale walls and trees. <http://www.ibtimes.co.uk/india-men-playing-monkey-delhi-protect-lawmakers-real-simians-1459282>(accessed on 8.11.2016).
32. Mrs. Maneka Gandhi, the MP and the animal-right activist (8.3.2013) in her blog "Langurs are as protected as bears and tigers" has written how she prevailed upon the Police in Delhi to arrest a langur-handler deployed by the Defence Ministry and took the langurs in her custody. She claims to have got 8 langur-handlers arrested and exhorts her readers to do likewise. http://www.andamanchronicle.net/index.php?option=com_content&view=article&id=218:community-newspaper-hamara-nicobar-second-edition213&catid=22&Itemid=192(accessed on 8.11.2016).
33. Kaumudi Gurjar (10.11.2011) in her story "Violent monkeys drive villagers in Satara indoors" reports about the terror unleashed by Hanuman langurs on Mhasave village of Satara district in Maharashtra. <http://www.mid-day.com/articles/violent-monkeys-drive-villagers-in-satara-indoors/141901>(accessed on 8.11.2016).
34. Rabindra Nath Choudhury (26.11.2014) in his story "Monkeys scare away tantric" reports about villagers in Gothul village of Rajnandgaon district in Chhattisgarh engaging a sorcerer to get rid of marauding langurs but in vain. <http://www.deccanchronicle.com/141126/nation-current-affairs/article/monkeys-scare-away-tantrik>(accessed on 8.11.2016).