

Study Delacour's langur in Van Long Nature Reserve, Vietnam

Delacour's langur currently is listed as one of the top 25 most endangered primate species of the world (Mittermeier et al., 2005), and as a Critically Endangered species as CR A2cd+3cd; C2a(i) ver 3.1 (2001) in IUCN Redlist 2006. This species is endemic to Vietnam and has been listed in Vietnam Red Data Book 2000 at the highest level: Endangered. The total number of Delacour's langur individuals is around 281-317, and the species distribution only stretches over 4 provinces in Northern Vietnam (Nadler, 2004). In 2001, the Vietnam government established Van Long Nature Reserve in Ninh Binh province, to make a safe habitat for a major number of Delacour's langurs. According to Nadler (2004), in the closing decades of 20th century, the langur's population seriously decreased due to hunting pressure, which caused the loss of over 316 individuals within 10 years, but this problem has been reduced significantly in Van Long Nature Reserve since 1999. However, habitat loss and food competition caused by development of domestic goats have become the elements that potentially forcing the langur to the brink of extinction (Nadler et al., 2003). Moreover, our initial surveys in 2005 and 2006 indicated that stone exploitation using tons of dynamite is currently a serious threat to the langur habitat and each langur group's distribution area (Nguyen Vinh Thanh and Le Vu Khoi, 2006). Our surveys also found that a large number of settlements are existing in the protected areas. Despite of ranger's prevention, illegal logging has occurred for a long time. Apart from cutting wood trees, people often collect small trees and rocks for decorating their houses, or selling to others. Nadler et al. (2003) predict a risk of genetic degeneration due to potential inbreeding, for its whole distribution area is now partitioned into many separate parts by local people's villages and other artificial areas.

Van Long Nature Reserve has a special terrain, which gives it a potential to become the best habitat for Delacour's langur. Extremely steep limestone mountain ranges with wetland areas around induce a lot of difficulties for hunters to approach the animals without being observed by the langurs, the rangers or local people. There are at least 52 individuals of Delacour's langur living in the nature reserve (Nguyen Vinh Thanh and Le Vu Khoi, 2006). That is the biggest population of the species. Base on this landscape, eco-tourism activities are being developed, bring more benefit to local people. Many of local people, and most of local authorities recognize the importance of Delacour's langur and the landscape to the eco-tourism. However, they can not prevent cement factories to distroy limestone mountain ranges surround the nature reserve.

Our study on behaviour and ecology of Delacour's langur has been carried out since April 2005 under support of Vietnam National University, Hanoi. Since 2006, we have been received support from Rufford Small Grant, Primate Society of Great Britain, and Born Free Foundation. In the field, our research team includes Vietnamese zoologists and botanists, and several rangers. Our project aims at following conservation purposes:

- Produce a list of food plants and a distribution map of food plants for the langur.
- Study the relationships between the langur behaviours and some ecological factors.
- Study the challenges to the species conservation, especially in its safety, habitat and food resource, and propose appropriate solutions.
- Propagate the sustainable and great advantage to local people and local authorities if Delacour's langur and its habitat will be well protected.

References

1. Mittermeier R. A., Valladares-P, dua C., Rylands A. B., Eudey A. A., Butynski T. M., Ganzhorn J. U., Kormos R., Aguiar J. M., and Walker S. (2005), *Primate in Peril: The World's 25 Most Endangered Primates 2004-2006*, IUCN/SSC Primate Specialist Group, International Primatological Society and Conservation International.
2. Nadler T., Momberg F., Nguyen Xuan Dang & Lormee N. (2003), *Vietnam Primate Conservation Status Review 2002 – Part 2: Leaf Monkeys*, Fauna and Flora International – Vietnam Program and Frankfurt Zoological Society, Hanoi, Vietnam.
3. Nadler T., (2004), Distribution and Status of the Delacour's langur (*Trachypithecus delacouri*) and Recommendation for its long-term conservation, In: T. Nadler et al. (eds.), *Conservation of Primates in Vietnam*, Vietnam, pp 63-71.
4. Nguyen Vinh Thanh and Le Vu Khoi (2006), Results of Study on Delacour's langur *Trachypithecus delacouri* (Osgood, 1932) in Van Long Nature Reserve, Ninh Binh province, *Journal of Science*, T. XXII, No3C AP, 2006, Vietnam National University, Hanoi, pp 73-78.