

Douc langurs camera trapped in Virachey National Park, Ratanakiri, Cambodia

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Observer: Gregory Edward McCann (camera trap installer).

Photographs by: Gregory Edward McCann.

Subjects identified by: Ben Rawson, Lois Lippold.

Location: Virachey National Park, Ratanakiri province, Cambodia.

Elevation: Camera trap station 1: 900 metres. Camera trap station 2: 872 metres.

Habitat: Dense semi-evergreen forest with patches of bamboo.

Date and time: November 2014 to July 2015.

Identity of subjects: Red-shanked Douc, *Pygathrix nemaeus* (Mammalia: Primates: Cercopithecidae).

Description of records: 12 camera trap photographs were acquired by the Habitat ID team in Virachey National Park (VNP) in two separate trigger events at camera trap station 1 (23 November 2014, 14:10 hrs and 07 December 2014, 12:35 hrs), and 4 camera trap photographs were acquired in two separate trigger events at camera trap station 2 (22 January 2015, 11:48 hrs and 18 July 2015, 06:06 hrs).

A single trigger event is defined here as one or more images taken at one camera-trap station, which are known or likely to show the same individual or other social unit, and have no gap longer than 30 minutes between successive images.



Fig. 1. Image from station 1, dated 23 November 2014, 14:10:07 hrs.

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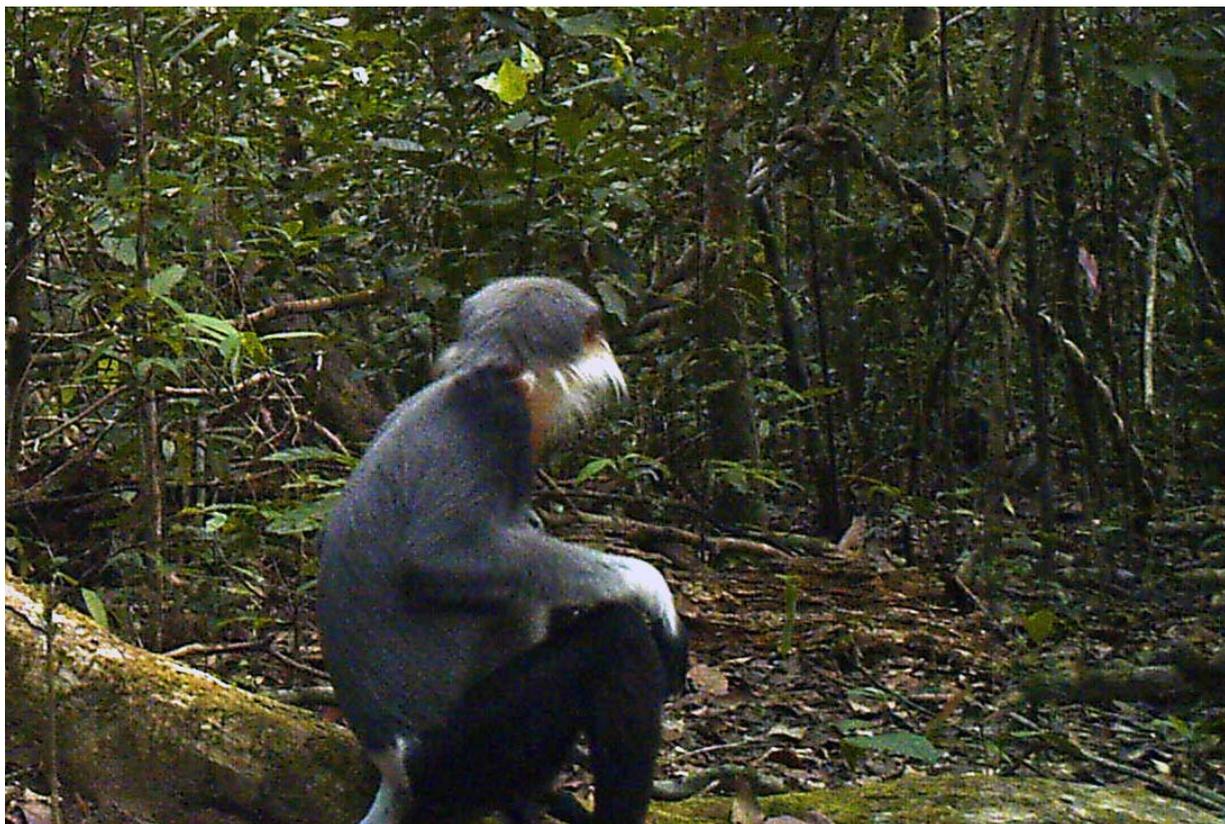


Fig. 2. Image from station 1, dated 23 November 2014, 14:11:53 hrs.

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Remarks: Douc langurs are a group of old world monkey, which are endemic east of the Mekong River in Indochina (Cambodia, Laos, and Vietnam); they are categorised as Endangered by the IUCN. Three species of douc langur are recognised: Red-shanked Douc *Pygathrix nemaeus*, Grey-shanked Douc *Pygathrix cinerea* and Black-shanked Douc *Pygathrix nigripes* (Coudrat et al, 2012).

Habitat ID are a team of amateur wildlife surveyors who assist local rangers in VNP with ongoing wildlife surveys and camera trapping, which ran from January 2014 to January 2017. Although the team and rangers have spotted douc langurs a number of times while trekking during expeditions, no photographs were acquired, and the 16 camera trap images discussed here are the only ones that were acquired in three years of camera trap surveying (albeit with limited camera trapping resources).

Diagnostic features of Red-shanked Douc in the field include long facial whiskers and white wrists, and it is on this basis that the individuals in these images are strongly considered to be Red-shanked Douc (Ben Rawson, pers. comm.). However, the “shanks” or lower legs of the individuals photographed at our camera stations show no obvious red pelage which is considered to be typical for the species, rather they appear blackish which raises the question as to whether these are Grey-shanked Douc, Black-shanked Douc or potentially a hybrid population.

Red-shanked Douc and Grey-shanked Douc have been known to hybridize in Vietnam (Rawson & Roos, 2008) and the area of extreme southern Laos (which is only about one kilometer from these two camera trap stations) is thought to possibly be a “hybrid zone” for douc langurs (Timmins & Duckworth, 1999).

However, in a paper on Cambodia’s first records of Red-shanked douc langurs in what is today Veun Sai-Siem Pang National Park (which is contiguous with VNP) Rawson & Roos write “Morphologically, the individuals did not look like typical *P. nemaeus*. Most showed no trace of red on their legs, except for one adult male which had red feet. Instead, the shanks and thighs were black, which contrasted with the fairly uniform grey colouration of the body” (Rawson & Roos, 2008). This description is consistent with the individual most clearly photographed in our image set, which has no red visible on the shanks (Figs 1 and 2).

Furthermore, Coudrat et al (2012) remark that “the available descriptions of animals from Phou Ahyon through Dong Ampham National Biodiversity Conservation Area (NPA) and Nam Ghong Provincial Protected Area (PPA) to north-east Cambodia are consistent with a gradual, perhaps clinal, dilution of brightness and extent of red in the shank patch, with decreasing latitude.” They also put forth that the Red-shanked Douc of this region could be of high genetic diversity. Nam Ghong PPA is the area of Laos directly north of VNP and is contiguous with it. The author has visited the border region many times and both sides are well forested, allowing for wildlife to cross back and forth easily, allowing transboundary movement.

Lois Lippold, a douc langur researcher and conservationist based in Vietnam, offered another perspective about the doucs in these images. She cited the similarity in appearance with doucs in Chu Mom Ray National Park (CMR), Vietnam, which is contiguous with VNP’s eastern flank (and which might be a hybridized group): from a distance (and in photographs) the shanks of some of these doucs look black, but upon closer inspection have red speckling. The latter are not Grey-shanked Douc, but have similar facial pelage, (Lois Lippold, pers comm.). Red-shanked Douc are found in Ratanakiri province, Cambodia, southern Laos, and southern Vietnam northwards to the Son Tra Peninsula (Lois Lippold, pers comm.).

Our wildlife survey team also found what resembled the remains of a dead douc at an abandoned poacher’s camp, about one kilometer from one of these camera trap stations.

In the VNP park office in the town of Ban Lung, there is a photograph on the wall that shows a group of doucs. The photo was taken from a distance across the O-Pong River however it is not clear which species is shown in the picture.

VNP could be an important site for the conservation of Red-shanked Doucs, and a research area to study potentially hybridized douc species. More research is clearly needed; a border road is being completed between Cambodia and Laos after which our study area will be a “formerly remote area” and will be at great risk of increased forest loss and increased wildlife poaching.

References:

- Coudrat et al. 2012. Distribution and conservation status of the Red-Shanked Douc (*Pygathrix nemaeus*) in Lao PDR: An Update. *American Journal of Primatology*: 74: 874-889 (2012).
- Lippold, L. K., Vu Ngoc Thanh & Hoang Trung Thanh. (2014) Douc langurs (*Pygathrix* spp.) in Chu Mom Ray National Park, Kon Tum Province, Vietnam: Status, Color Types and Conservation. Presentation to the International Primatological Society Congress, 2014 in Hanoi, Vietnam.
- Rawson, B. and Roos C. 2008. A new primate record for Cambodia: *Pygathrix Nemaesus*. *Cambodian Journal of Natural History* 2008 (1) 7-11.
- Timmins, R. & Duckworth, J.W. (1999) Status and conservation of douc langurs (*Pygathrix nemaeus*) in Laos. *International Journal of Primatology* 20, 469-489.