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## Kiangs (*Equus kiang*, Moorcroft 1841) in Sikkim, India

Natalia V. Paklina

*Severtsov Institute of Ecology and Evolution*, paklina@hotmail.com

Chris van Orden

*Enkhuizen, The Netherlands*

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## **Kiangs (*Equus kiang*, Moorcroft 1841) in Sikkim, India**

N.V. Paklina & C.van Orden

### **Abstract**

Between 5<sup>th</sup> and 10<sup>th</sup> March 2001 we made by car a 450 km route in Northern Sikkim. During the trip along southern slopes of the Himalayas and Sikkim Plateau we didn't see a single kiang. According to local people and militaries in Sikkim kiangs are known only in the limits of Sikkim Plateau, where wild animals have a possibility to migrate free over Chinese-Indian border. In winter only small groups of kiang incidentally come to Sikkim Plateau from South Tibet. But in May more of them come there and stay approximately till October-November, especially in eastern part of the plateau near the lakes. Sikkim Plateau is a breeding territory of kiangs, which spend winters in South Tibet. Local people and militaries don't hunt or catch kiang on Sikkim Plateau. Kiang migrations over Chinese-Indian border depend from the movements of nomad yak herders of Sikkim, who spend winter on the plateau and go to the southern slopes of the Himalayas in spring. Nowhere in other parts of the great range of this species kiangs breed in such a height (5,100 - 5,500 m above sea level). We suggest that it can be a reason of the small size of the southern kiang (*Equus kiang polyodon*). The best time for kiang surveys in Sikkim should be the end of August - beginning of September.

**Key words:** breeding, kiang, migrations, population, Sikkim Plateau, South Tibet

### **Introduction**

B.H. Hodgson, who worked for East-Indian Company from 1833 till 1843 in Katmandu and later in Darjeeling, sent to British Zoological Museum in London many kiang's skulls and skins from Nepal and Sikkim (DENZAU & DENZAU 1999). Examining of this material showed that kiangs caught near Tibetan border were much smaller than kiangs from Ladakh (GROVES & MAZAK 1967). This was a reason to put them in a separate subspecies – a southern kiang (*Equus kiang polyodon*). From 19<sup>th</sup> century till far in the 20<sup>th</sup> century there was not any information about kiangs in Sikkim. At that time appeared a hypothesis that kiangs in Sikkim live on the southern slopes of Himalayas and were during a long time isolated from other kiang forms by Himalayan and Transhimalayan ranges (BANNIKOV 1981).

### **Material and methods**

We visited Sikkim in February-March 2001 to check Bannikov's hypothesis and to get the recent information about kiang population in this region. Between 5 and 10 March we made 450 km autoroute in Northern Sikkim (Gangtok-Lachen-Tangu – Gurudogmar Lake - Lachung – Yumthang - Gantok). We interviewed local people in Lachen and Tangu, militaries, nomad people from Sikkim Plateau and monks from the monastery, situated on the coast of Gurudogmar Lake.

### **Results**

During the trip along southern slopes of the Himalayas and Sikkim Plateau we didn't see a single kiang. According the information we got from local people and militaries kiangs use only the

territory of Sikkim Plateau and were never seen on Himalayan slopes. In the limits of Sikkim Plateau wild animals have a possibility to migrate free over the Chinese-Indian border. Kiangs come to Sikkim from Tibet in May and stay there during whole breeding season, approximately till October-November. Kiangs prefer to stay in the eastern part of the plateau near the lakes Cholamu, Gurudogmar, Gaum Chona and Kangchung on altitude 5,100 m - 5,500 m above sea level. In winter only small groups of kiang incidentally come to Sikkim Plateau from Tibet.

Kiang migrations over Chinese-Indian border depend from whether conditions and from the movements of nomad yak herders in Sikkim. In mountainous regions herdsmen usually go to the high pastures in summer and go down in winter. But in Sikkim it is different: nomads spend winter on the high plateau and go down in summer, because there is a lot of snow on the southern Himalayan slopes in winter, and on the plateau snow is blowing away by wind.

Local people and militaries don't hunt or catch kiang on Sikkim Plateau.



Fig. 1: Gurudogmar Lake, Sikkim, India, 2001.

## Discussion

On a small territory of Sikkim (7096 sq. km) kiangs are known only in the limits of Sikkim Plateau (about 200sq.km). Kiangs never go to the southern slopes of the Himalayas, covered by forest, but they can easily cross the Chinese-Indian border. In Southern Tibet kiangs were recorded on the territory between Bhutan border and Yarlung Tsangpo, west of Butan and in Qomolangma Reserve (SCHALLER 1998). It means that there is not an isolated kiang population in Sikkim, estimated by Indian scientists as 74-120 individuals (SHAH 1995). There is the population of southern kiangs, which use the territory from both sides of the border. Animals of this population stay in winter in South Tibet and the rest of year they (or a part of them) spend on Sikkim Plateau where they have good conditions for breeding. This population of southern

kiang (*polyodon*) is separated from the population of eastern kiang (*holdereri*) not by the Himalayan and Transhimalayan ranges, as it was suggested (BANNIKOV 1981), but by agriculture and the many villages in the valley of Yarlung Tsanpo (SCHALLER 1998, PAKLINA & VAN ORDEN 2003).

Nowhere in other parts of its great range this species breed as high as on Sikkim Plateau (5,100 m - 5,500 m above sea level). It can be a reason of the small size of southern kiang (*Equus kiang polyodon*). The best time for kiang surveys in Sikkim should be the end of August - beginning of September, at the end of breeding season, before animals start to leave this territory. Knowledge about breeding and winter territories, as well as the ways of migrations is fundamental for the species conservation.

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## Addresses:

Dr. Natalia V. Paklina  
A.N. Severtsov Institute of Ecology and Evolution,  
Leninsky prospect 33,  
119071 Moscow,  
Russia

Dr. Chris van Orden  
Doelenstraat 44  
1601 G.L. - Enkhuizen  
The Netherlands

tel.: ++ (495) 6138134  
e-mail: paklina@hotmail.com

tel.: ++ (0228) 318175  
e-mail: paklina@planet.nl