

The northern white-cheeked gibbon (*Nomascus leucogenys*) is on the edge of extinction in China

Fan Peng-Fei^{1,2} and Huo Sheng¹

¹ Institute of Eastern-Himalaya Biodiversity Research, Dali University, Yunnan, P. R. China.

² To whom correspondence should be addressed; e-mail: fanpf1981@gmail.com

We carried out a short interview survey of the northern white-cheeked gibbon (*Nomascus leucogenys*) in the Mengla and Shangyong Nature Reserves (Xishuangbanna prefecture, Yunnan province), which are believed to support the last white-cheeked gibbons in China. Before 1970, this gibbon species was common in Xishuangbanna and could be found in 29 out of 34 villages visited. By 1990, the populations had declined or even become locally extinct in most of the localities. Based on this interview survey, only three separate localities might still hold a very small gibbon population, and this species is on the edge of extinction. Most of the gibbon habitat inside the nature reserves is still intact, but illegal hunting by Chinese and Laotian hunters poses a serious threat to gibbons and other wildlife in the reserves. It seems that both nature reserves still hold a population of Phayre's leaf monkey (*Trachypithecus phayrei*), and macaques (*Macaca mulatta* or *M. assamensis*, and *M. arctoides*). The population of slow loris (*Nycticebus* sp.) may have declined during the past two decades because of conversion of forests at lower altitudes to rubber plantations. The pig-tailed macaque (*M. leonina*) is very rare in the nature reserves. There are eight captive northern white-cheeked gibbon individuals in the popular tourist location "Wild Elephant Valley" (Mengyang Nature Reserve) which could be used as a base to improve public conservation awareness.

Introduction

The northern white-cheeked gibbon (*Nomascus leucogenys*) occurs from southern Yunnan province to northern Laos and northern Vietnam (Fig. 1) and is listed as Critically Endangered by the IUCN's Red List assessment (Geissmann, 2007b; IUCN, 2008). In Vietnam, this species has been extirpated from several areas where it was previously recorded, and is now present only in a few localities in the northwest and north-central parts of the country (Geissmann *et al.*, 2000). While no population estimates from Laos are available, the species appears to be relatively common in the north of the country. In fact, the Laos might still hold most of the world's remaining population of the northern white-cheeked gibbon (Duckworth, unpublished data).

In China, the northern white-cheeked gibbon used to be found at Mengla, Jiangcheng and Luchun counties (Ma and Wang, 1986). The morning calls of gibbons could be heard in the Mengla county town in 1958 but has disappeared since the 1970s (Gao *et al.*, 1981). The estimated population of this species in China was 1,000 individuals in the 1960s (Tan, 1985) but decreased to 100 individuals in the 1980s (Tan, 1985; Fooden *et al.*, 1987; Ma and Wang, 1988). Yang *et al.* (1985) carried out a large scale gibbon survey in Yunnan province, covering 56 counties in 10 prefectures where gibbons had been previously recorded. Their survey reported 27 northern white-cheeked gibbon groups with 99-122 individuals in Mengla Nature Reserve and Shangyong Nature Reserve, Mengla county, at elevations between 800

and 1,600 m. No gibbons were found in Jiangcheng, and only black crested gibbons (*N. concolor*) were found in Luchun (Yang *et al.*, 1985). Combined information reported by Yang and Zhang (1987) and Hu *et al.* (1989) confirmed at least nine groups with 36 individuals distributed in seven forest patches in Mengla Nature Reserve and Shangyong Nature Reserve. Each patch supported only one or two groups and the distance between any two patches was about 20 km (Hu *et al.*, 1989).

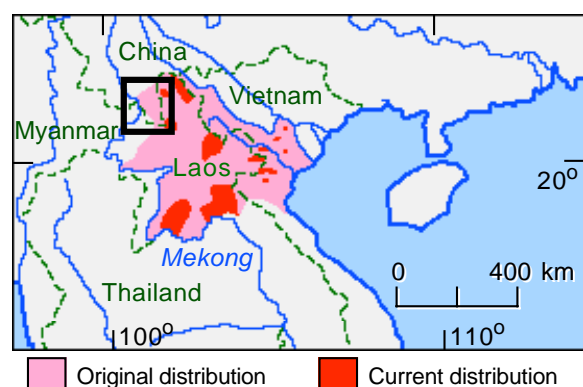


Fig. 1. Distribution area of the northern white-cheeked gibbon (*N. leucogenys*) and location of the survey area. After Geissmann (2007a). – Heutige (rot) und ursprüngliche (rosa) Verbreitung des Nördlichen Weisswangen-Schopfgibbons (*N. leucogenys*) und Lage des Untersuchungsgebietes.

Since the surveys conducted in the 1980s, no valid information on current existence, status and

population size of the northern white-cheeked gibbons in China is available. Some gibbon experts (e.g. Bill Bleisch, personal communication) think this species might have already become extinct in China.

We carried out a short interview survey in December 2008 to evaluate current population status, historic distribution and threats to the northern white-cheeked gibbons in China. In addition to information on gibbons, we also collected some preliminary distribution information on other primate species.

Methods

Our survey was carried out between 1 and 13 December 2008. The survey itinerary is shown in Table 1.

The last populations of *Nomascus leucogenys* are thought to survive only in Mengla Nature Reserve and Shangyong Nature Reserve, both located in Mengla county, Xishuangbanna prefecture (Yang *et al.*, 1985). Therefore, this interview survey focused on the villages either surrounding or inside these two nature reserves. In addition, we also visited captive white-cheeked gibbons in two localities of the Xishuangbanna area: (1) the Xishuangbanna Tropical Botanical Garden, located in Menglun township, Mengla county, and (2) the “Wild Elephant Valley” in the Mengyang Nature Reserve (N 100°53'29.66" E 22°2'41.69"). The survey area is shown in Fig. 2.

An interview questionnaire sheet was used to record the information (Table 2). We tried to interview two to three people in each village, but only interviewed one person in several villages because of one or several of the following reasons: 1) very few old hunters lived in small villages; 2) they worked in the field far away from the village; 3) they did not like to talk with us.

When analyzing the information from all interviewees of the same village, we tried to assess the following questions: 1) Have gibbons ever lived near this village? 2) When did they disappear? 3) Why did they disappear? 4) Do other primate species still occur near the village?

Results

Current population status

We visited 34 villages surrounding or inside the two nature reserves and interviewed 78 people (Table 3). Only three interviewees – of three different localities – reported having seen or heard gibbons in 2007 or 2008. These three localities (Nanman, Nangongshan, and Mankang) are separated by roads and many villages (Fig. 2) and belong to three different regions (Longmen region, Yaoqu region and Mengyuan region, respectively).

Table 1. Itinerary of interview survey of northern white-cheeked gibbon in Xishuangbanna prefecture. – *Reiseroute des Interview-Surveys zum Status des Nördlichen Weisswangengibbons in der Präfektur Xishuangbanna.*

Date, Dec. 2008	Activity	Days
1,2	Drive from Dali to Xishuanbanna	2
3	Wait for the permission to carry out the survey	1
4,5	Visit Hetu and Nanpin(g) in Mengman region	2
6	Visit Jinzhulin, Niupeng, Longmen, Pinghe, and Nanman in Longmen region	1
7	Visit Huilong, Nanshahe, Guangnali, Yeniudong, and Jingpiao in Bubang region	1
8	Visit Hongwei, Manyan, Jinchanghe, Longtanqing, Hongmaoshu, and Qiaotou in Mengban region	1
9	Visit Maocaoshan, Naxiu, Taoziqing, Kami, Panshan, and Longga in Mengban region	1
10	Visit Nangongshan, Guangming(yidui), Bujiao, Yiwanshui, Wangsi(xinzai), and Longba in Yaoqu region	1
11	Visit Naka, Nanpin(g), Mengyuan, and Mankang in Mengyuan region, Xiangming Forestry station, and Xishuangbanna Tropical Botanical Garden (Menglun township)	1
12	Visit the captive gibbons in “Wild Elephant Valley” of Mengyang Nature Reserve	1
13	Drive back to Dali	1
Total days		13

How reliable is this information? The occurrence of gibbons is reported by just one person per site, whereas it would be desirable to have information from several or all interviewees from these sites. Why are the results not more consistent? In other words: why were not more people at the same sites able to report gibbons? Two possible explanations should be considered: (1) the people who did not report gibbons were unfamiliar with the forest, or (2) the people who did report gibbons erred.

The first explanation appears to be more likely, because few villagers have visited the forest in recent years due to two reasons: (1) the local people are forbidden to go into the core area of the reserves, and (2) villagers are increasingly wealthy and, since they have planted rubber trees, busy outside the forest. As a result, it is not surprising that only one person has confirmed gibbons at each site.

Additional information on the three interviewees who did report evidence on the continued occurrence of gibbons in Xishuangbanna may be helpful to assess the reliability of their reports. All three informants were well familiar with gibbons, but the informants from Nanman and Mankang appeared to be somewhat more reliable than the informant from Nangongshan.

Table 2. Interview table for northern white-cheeked gibbon survey in Xishuangbanna. – *Interview-Formular für den Survey zum Status des Nördlichen Weisswangengibbons in der Präfektur Xishuangbanna.*

Date:	Investigator name:
Village name:	Interviewee name:
Latitude:	Gender:
Longitude:	Age:
Altitude:	Nationality:

1. Have you seen any primates near your village?
2. How many different kinds of primates have you seen? Please describe their characteristics one by one (colouration, locomotion, calls, tail length, etc.).

If interviewee mentions gibbons when answering Question 2, then ask the following questions:

3. How many times have you seen gibbons?
4. When and where have you seen gibbons?
5. When was the last time you saw or heard gibbons?

If interviewee does not mention gibbons when answering Question 2, then ask the following questions:

6. Have you ever heard gibbon calls? Can you imitate it?
7. When and where did you hear the calls?
8. When and where did you hear the last call?
9. Why did gibbons disappear from the forest?
10. What is the current condition of the forest where gibbons used to occur before?
11. Which other primate species still occur in the forest around your village?
12. Do you know whether anybody has ever shot gibbons in the past? When and how many gibbons did they shoot? (Not asked everyone)

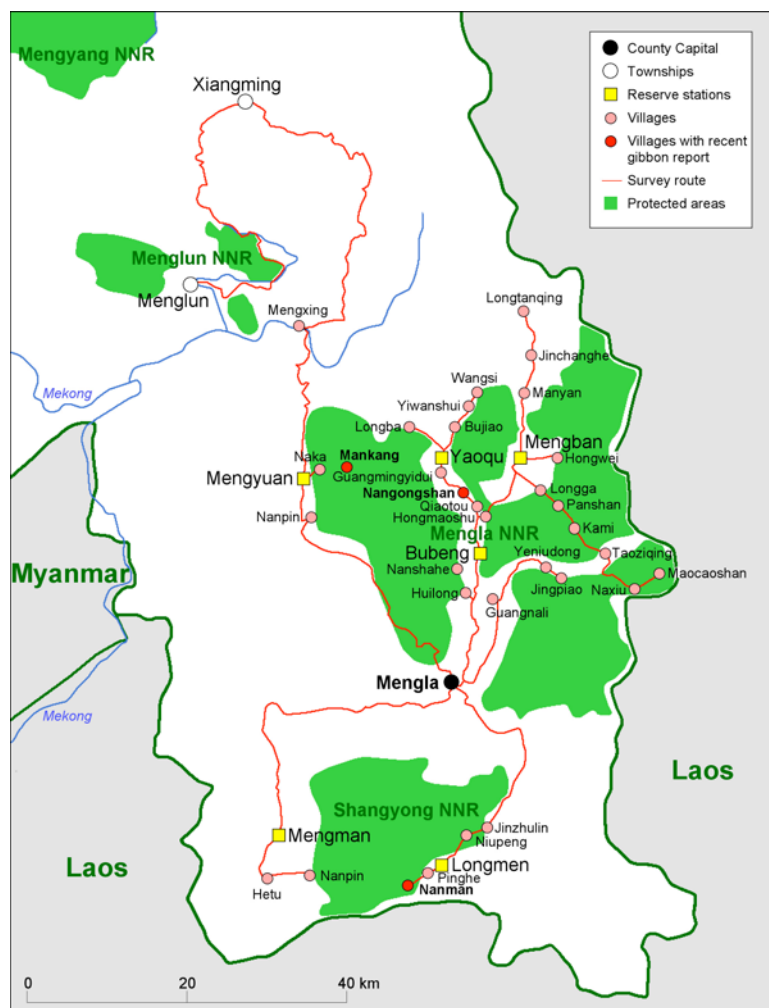


Fig. 2. The interview survey area in Mengla county, Xishuangbanna prefecture. – *Untersuchungsgebiet für den Interview-Survey zum Status des Nördlichen Weisswangengibbons in der Präfektur Xishuangbanna.*

Table 3. Distribution of different primate species in the survey area, Mengla county, Xishuangbanna prefecture, based on our interview data. Grey shading indicates localities with recent gibbon reports (2007-2008). – *Verbreitung verschiedener Primatenarten im Untersuchungsgebiet in der Präfektur Xishuangbanna. Zu den grau markierten Tabellenbereichen liegen Berichte über rezente Gibbonvorkommen (2007-2008) vor.*

Village	Coordinates		Elevation [m]	Number of interviewed people	Primates species ¹					
	N	E			<i>Nle</i> *	<i>Tph</i>	<i>Mmu</i> / <i>Mas</i>	<i>Mne</i>	<i>Mar</i>	<i>Nyc</i>
Hetu	21°16'25.9"	101°20'06.8"		1	1983	+	+			+
Nanping	21°16'36.2"	101°23'06.5"	740	3	2003	+	+		+	+
Jinzhulin	21°19'40.4"	101°35'48.2"	843	1	?		+			
Niupeng	21°19'15.8"	101°34'42.0"	925	2	2006	+	+		+	+
Longmen	21°16'58.7"	101°32'15.1"	924	1	1998 (Nanman)	+	+		+	+
Pinghe	21°16'49.9"	101°31'40.2"	947	2		+	+		+	+
Nanman	21°15'55.9"	101°30'06.9"	873	3	2008 (Zhaokan-liang)	+	+		+	+
Huilong	21°35'9.7"	101°34'34.8"	735	2	Before 1980	+	+			
Nanshahe	21°36'50.2"	101°33'57.4"	723	4	1989	+	+		+	+
Guangnali	21°34'41.4"	101°36'37.3"	670	3	1990	+			+	
Yeniudong	21°36'59.8"	101°40'16.4"	813	2	1979	+	+		+	+
Jingpiao	21°36'17.0"	101°41'17.5"	828	3	1984	+	+			+
Hongwei	21°44'12.4"	101°40'59.0"	812	2	1981	+	+	+	+	+
Manyan	21°48'29.7"	101°38'46.0"	789	3	1980	+			+	
Jinchanghe	21°50'50.2"	101°39'12.4"	854	1	1976	+	+			
Longtanqing	21°53'45.8"	101°38'37.8"	955	4	1980	+	+			
Hongmaoshu ²	21°40'18.6"	101°35'48.1"	692	4		+	+		+	+
Qiaotou ³				5						
Maocaoshan	21°36'42.3"	101°48'30.5"	1189	3	1986	+	+			
Naxiu	21°35'29.1"	101°46'40.6"	1050	2	Before 1978					
Taoziqing	21°37'51.8"	101°44'32.4"	1033	2	1982	+	+		+	
Kami	21°39'31.2"	101°42'10.7"	775	1	Before 1988					
Panshan	21°40'58.6"	101°41'11.3"	761	2	1982					
Longga	21°42'01.7"	101°39'50.6"	727	1	1980	+	+			
Nangongshan ⁴	21°41'56.9"	101°34'20.0"	836	4	2008	+				
Guangming	21°43'14.3"	101°32'33.9"	807	2	1993 (Leigongyan)	+			+	+
Bujiao	21°46'09.4"	101°33'41.7"	855	1	Before 1988	+	+			
Yiwanshui	21°47'35.2"	101°34'47.6"	947	2	1978	+	+			
Wanshixinzhai	21°48'23.5"	101°35'19.8"	966	3	1978	+	+			
Longba	21°46'17.7"	101°30'24.6"	967	2						
Naka	21°43'13.7"	101°23'56.6"	764	2	1972	+	+			
Nanping	21°40'26.2"	101°23'31.4"	769	2	1980	+				
Mengyuan	21°42'43.4"	101°22'50.7"	688	2		+	+			
Mankang ⁵				1	2007 (Leigongyan)	+	+		+	
Xiangming	22°16'	101°27'		3			+			
Xiaohaijiang	22°00'38.9"	101°15'53.0"	590	8					+	

¹ Abbreviations: *Nle* Northern white-cheeked gibbon (*Nomascus leucogenys*), *Tph* Phayre's leaf monkey (*Trachypithecus phayrei*), *Mmu* / *Mas* Rhesus macaque (*Macaca mulatta*) or Assamese macaque (*M. assamensis*). These two macaque species are too similar to be distinguished through this interview survey. *Mle* Northern Pig-tailed macaque (*M. leonina*), *Mar* Stump-tailed macaque (*M. arctoides*), *Nyc* Slow lori (*Nycticebus* sp.)

² This village was relocated from the core area of Mengla Nature Reserve to its current location in 2006.

³ The people living in this village moved from Meizi, Ning'er county, to this current location to plant rubber. Five people confirmed their home town still has gibbons. One of us (FP) called a hunter who shot a gibbon in Meizi and who confirmed the gibbons in Meizi have black cheeks. This is a new distribution locality for *Nomascus concolor*.

⁴ This village was transplanted from the core area of Mengla Nature Reserve to its current location in 1988.

⁵ We did not visit this village because we found no road to access it, but one of us (FP) called and interviewed one ranger who lives in this village.

* Last record of gibbons in a village. The local name of the exact place where the informants observed the gibbons is indicated in parentheses.

+ Species still occurs around the village.

(1) The interviewee in Nanman assists soldiers in patrolling the international border between China and Laos about 8-10 times every year. He observed one adult male gibbon several times in 2007 and 2008.

(2) The interviewee in Mankang was a good hunter in past, and is now working as a ranger for the reserve. Several other interviewees recommended this man to us saying that he had the best knowledge of the forest and its animals. He confirmed the continued occurrence of a very small gibbon population in Leigongyan.

(3) At least four gibbon groups reportedly lived around Nangongshan before the 1980s and nearly everyone above age 30 knew gibbons from this area. One interviewee told us he saw three black individuals around August 2008 but did not hear the calls. Based on his description, these animals were gibbons, but several other interviewees living in the same village or nearby have not seen any gibbons in this area in recent years.

During the interview, one person said a small gibbon population may occur in Xiangming (far away from the nature reserves), so we visited Xiangming Forestry Station on 11 Dec. 2008. The staff members said they had never seen or heard gibbons and had also never heard other people reporting gibbons in this area. We inspected the plantation type in the forestry station. The forest is severely fragmented and the largest patch is about 5 km long and 2 km, wide and surrounded by two villages. Thus, it is unlikely to support a gibbon population. If there is a gibbon group, local people would easily hear its calls. We also interviewed a group of local people on the way from Xiangming back to Menglun town. They have only seen stump-tailed macaques (*Macaca arctoides*) in the Xiangming area.

One person from Qiaotou who had previously lived in Jianshe village, Meizi town, Ninger county (new name of Puer county since 2007), reported gibbons still occur in Meizi and these gibbons have black cheeks. If correct, this would be a new distribution locality for the black crested gibbon (*Nomascus concolor*).

Historical distribution

Before 1970, the northern white-cheeked gibbon was a common species in Mengla Nature Reserve and Shangyong Nature Reserve. Gibbons were reported to occur near 29 villages out of the 34 villages we visited, but since 1990 they have survived only in five localities (Nanping, Niupeng, Nanman, Nangongshan, Leigongyan). Of these, the gibbons in Nanping and Niupeng may have disappeared, as the local people have not heard any gibbon calls in recent years (Table 3).

Why have the gibbons disappeared?

Most of the people did not like to talk about this question or they did not know the reason. Twenty-

eight people believed that hunting was the main reason. Seven people confirmed that 15-17 gibbons were shot by them or other hunters between 1960 and 1985. The men of the Aini ethnic group like to shoot adult female gibbons (yellow individuals). A successful hunt of female gibbons was regarded as the standard of a good husband, and their wives used gibbon fur to weave cotton. Moreover, some hunters used the gibbon's elbow bones as chopsticks (Fig. 3).



Fig. 3. Gibbon elbow bones (ulnae) used as chopsticks in Guangnali, Mengla county. Photo: Fan Pengfei. – *Unterarmknochen (Ellen) von Gibbons, die in Guangnali (Mengla County) als Essstäbchen benutzt werden.*

In 1979, the Chinese government distributed muskets to local people to defend their home town when China was involved in the war with Vietnam. Most of these muskets were not used in the war but to hunt wild animals. Although the government took the muskets back between 1980 and 1983, the populations of some animals (gibbons, hornbills, and wild buffaloes) declined during those years to levels from which they could hardly recover. Staff members and rangers of the nature reserve told us that illegal hunting by Chinese and Laotian hunters still occurs within the nature reserves today. We have met three

people carrying guns near the nature reserve during this short survey.

Three people said gibbons disappeared because their population was small and their reproduction rate was slow. Two people thought deforestation was the main reason. One person in Yeniudong thought a serious disease was the main reason why gibbons disappeared. In 1979, when China and Vietnam were at war with each other, this previously unknown disease spread in the forests around Yeniudong. Many animals including monkeys, wild boars and mice died due to it. One person brought a dead wild boar back to the village and all the domestic pigs in the village died. After this disease incidence, no gibbon calls were heard from this village.

Captive gibbons in Xishuangbanna Tropical Botanical Garden and Mengyang Nature Reserve

Until recently, the Xishuangbanna Tropical Botanical Garden kept two gibbons on an isolated artificial island surrounded by a pool. One of the gibbons drowned in the pool about 3 years ago, and another male died the same way in 2008.

The “Wild Elephant Valley” in Mengyang Nature Reserve had eight northern white-cheeked gibbons, including three males and five females, at the time of our visit. One female changed to adult colouration in summer 2008. This female and one male were paired and released in the forest. They could sleep in the forest but still depended on food supply from the tourists (Fig. 4). The other six individuals were juveniles and were kept in two small cages housing three individuals each. A scientific management plan is needed for this captive population. We were unable to obtain information on the provenance of the captive gibbons from the management and staff members. No records of the gibbons were kept in the past. All of these eight individuals were infants when they arrived at the site, one male in 2003, two females and two males in 2004, and three females in August 2006.

Other primate species

Although gibbons have disappeared from many localities, *Trachypithecus phayrei*, *Macaca mulatta* or *M. assamensis*, and *M. arctoides* are reported to still occur around most of the villages visited (Table 3). Rhesus macaques (*M. mulatta*) and Assamese macaques (*M. assamensis*) look very similar, and therefore they cannot be told apart based on our interview survey.

Only one person confirmed the occurrence of *M. nemestrina* inside the Mengla Nature Reserve. This species may be very rare in the survey area, but a photograph of one family group of this species has been taken by Feng Liming using a camera trap, thus confirming the occurrence of *M. nemestrina*.

Nycticebus sp. was a common species in earlier times but may have disappeared from several villages in more recent years because most forest outside the

nature reserve has been transformed to rubber plantations.



Fig. 4. “Wild Elephant Valley” in Mengyang Nature Reserve: a released adult pair of northern white-cheeked gibbons still depends on the food supply provided by tourists. Photo: Fan Pengfei. – *Dieses Paar Nördlicher Weisswangen-Schopfgibbons wurde im Touristenort “Wild Elephant Valley” im Mengyang-Naturreservat weitgehend ausgewildert, es bedarf aber immer noch der Zufütterung durch die Besucher.*

Discussion

Threats to the gibbons in Xishuangbanna

In Xishuangbanna, most of the forest outside the nature reserve has been cleared for rubber plantation (Fig. 5). But deforestation has not been the main threat to gibbons since a large area of forest inside the nature reserve has been well protected and could still provide refuge for gibbons and other wild animals (Fig. 6). Despite this habitat protection, gibbons have disappeared.

Illegal hunting has been the main threat to gibbons in Xishuangbanna. The Yao and Aini ethnic groups in Xishuangbanna are traditional hunters and hunting is part of their life. They mostly hunt species of mammals including gibbons. Although the animals living in the nature reserve have been protected by law in China, these people still hunt endangered animals in the nature reserve. In one village, nine of the total 16 adult men were sent to jail for illegal hunting. Hunters from Laos have also posed a serious threat for endangered animals living close to the



Fig. 5. The forest outside of the nature reserve has been cleared for rubber plantation, as in this area near Jingpiao. Photo: Fan Pengfei. – *Der Wald ausserhalb der Naturreservate wurde weitgehend durch Gummibaum-Plantagen ersetzt. Bild aus der Nähe des Dorfes Jingpiao.*



Fig. 6. The forest inside the nature reserve has been well protected, as in this area near Niupeng. Photo: Fan Pengfei. – *Der Wald innerhalb der Naturreservate ist gut erhalten. Bild aus der Nähe des Dorfes Niupeng.*

border. The Chinese government has tried to catch the illegal hunters acting within the nature reserve, but this has been a difficult task given the hunters' familiarity with the topography of the area.

The future for the northern white-cheeked gibbons in Xishuangbanna

If the northern white-cheeked gibbon still occurs in Xishuangbanna – as suggested by some of our interview results – the population must be extremely small (few groups at best) and fragmented. The forest is relatively well-protected and provides a last survival chance for this gibbon and gives us some hope to conserve the species in China. If the government cannot stop illegal hunting, however, the protection of gibbons in Xishuangbanna will not be successful. Even if illegal hunting is stopped, however, it is questionable whether the gibbon population will be able to recover, due to the small size and fragmented distribution of the population.

Public awareness of the gibbons' plight is not high in China. The captive gibbon population in "Wild Elephant Valley" of the Mengyang Nature Reserve may provide an opportunity to improve the public's gibbon conservation awareness. "Wild Elephant Valley" is a very popular tourist spot in China. About 2,000-3,000 people visit it everyday to look for wild elephants. Gibbons could attract the attention of many tourists when elephants are absent (Fig. 7). Unfortunately, there are no billboards to introduce

gibbons to the tourists. In addition, local tour guides do not know the gibbon's conservation status and behaviour. We were able to discuss the gibbon situation with one of the leaders of the tourist site. He agreed that gibbons could be a tourist attraction, and he said he would like to contribute to gibbon conservation. A project including a training course to the tour guides, the installation of billboards, production of brochures and a management plan for the captive gibbons is needed. Not only northern white-cheeked gibbons would benefit from such a project, but other gibbon species in China as well.

Acknowledgements

We would like to thank the Gibbon Conservation Alliance for proposing and funding this survey, and Yunnan Forestry Bureau and Xishuangbanna Nature Reserve for permitting us to carry out this survey. We are grateful to Dr. Jiang Xue-long for his valuable help in obtaining the permission from Yunnan Forestry Bureau, and to Dr. Xiao Wen and Jimmy Chou for reading and commenting on the draft. We are grateful to Thomas Geissmann for editing this manuscript and the survey map. We also thank Yan Bing, Che Zhiyong, Bai Lingzhong, and Li Fuqiang for their help as guides and as interpreters during interviews in languages of local ethnic groups.



Fig. 7. Tourists attracted by the semi-wild gibbon pair in the "Wild Elephant Valley", Mengyang Nature Reserve. Photo: Fan Pengfei. – *Das weitgehend ausgewildert lebende Gibbonpaar im "Wild Elephant Valley" im Mengyang-Naturreservat zieht viele Besucher an.*

References

- Fooden, J., Quan, G., and Luo, Y. (1987). Gibbon distribution in China. *Acta Theriologica Sinica* **7**: 161-167.
- Gao, Y., Wen, H., and He, Y. (1981). [The change of historical distribution of Chinese gibbons (*Hylobates*)]. *Zoological Research* **2**: 1-8 (Chinese text, English summary).
- Geissmann, T. (2007a). First field data on the Laotian black crested gibbon (*Nomascus concolor lu*) of the Nam Kan area of Laos. *Gibbon Journal* **3**: 56-65.
- Geissmann, T. (2007b). Status reassessment of the gibbons: Results of the Asian Primate Red List Workshop 2006. *Gibbon Journal* **3**: 5-15.
- Geissmann, T., Nguyen Xuan Dang, Lormée, N., and Momberg, F. (2000). *Vietnam primate conservation status review 2000 - Part 1: Gibbons (English edition)*, Fauna & Flora International, Indochina Programme, Hanoi, 130 pp.
- Hu, Y., Xu, H. L., and Yang, D. (1989). [The studies on ecology in *Hylobates leucogenys*]. *Zoological Research* **10** (Supplement): 61-67 (Chinese text, English summary).
- IUCN (2008). *2008 IUCN Red List of Threatened Species*. <www.iucnredlist.org>. Downloaded on 10 February 2009.
- Ma, S., and Wang, Y. (1986). [The taxonomy and distribution of the gibbons in southern China and its adjacent region - with description of three new subspecies]. *Zoological Research* **7**: 393-410 (Chinese text, English summary).
- Ma, S., and Wang, Y. (1988). [The recent distribution, status and conservation of primates in China]. *Acta Theriologica Sinica* **8**: 250-260 (Chinese text, English summary).
- Tan, B. (1985). The status of primates in China. *Primate Conservation* **5**: 63-81.
- Yang, D., Zhang, J., and Li, C. (1985). [A survey report on the number and distribution of gibbons in Yunnan]. *Medical Biological Research* **1985** (3): 22-27 (Chinese text).

Zusammenfassung

Der Nördliche Weisswangen-Schopfgibbon (*Nomascus leucogenys*) in China am Rande der Ausrottung

In den Naturreservaten von Mengla and Shangyong (in der Präfektur Xishuangbanna der Provinz Yunnan) werden Chinas letzte Rückzugsgebiete des bedrohten Nördlichen Weisswangen-Schopfgibbons (*Nomascus leucogenys*) vermutet, aber es ist unsicher, ob die Art in China tatsächlich noch überlebt. Wir haben in einen kurzen Interview-Survey Dorfbewohner in beiden Gegenden danach befragt, wann und wo sie zuletzt Gibbons gesehen oder ihre Rufe gehört haben. Die Interviews belegen, dass die Weisswangen-Schopfgibbons vor 1970 noch relativ häufig in Xishuangbanna vorkamen und um 29 der 34 von uns besuchten Dörfer herum verbreitet waren. Noch vor 1990 gingen die Gibbon-Populationen an den meisten dieser Orte zurück oder erloschen sogar völlig. Nur von drei Orten berichteten Dorfbewohner noch von Gibbonvorkommen für die Zeit von 2007 von 2008. Diese verbleibenden Gibbon-Populationen müssen, wenn die Angaben stimmen, sehr klein und am Rand des Aussterbens sein. Innerhalb der Naturreservate blieb das Gibbonhabitat noch weitgehend intakt, aber illegale Jagd durch chinesische und laotische Jäger stellt eine ernste Bedrohung für Gibbons und andere Wildtiere in den Reservaten dar.

In beiden Naturreservaten scheint es noch Populationen von Phayres Languren (*Trachypithecus phayrei*) und Makaken (*Macaca mulatta* oder *M. assamensis*, und *M. arctoides*) zu geben. Die Population der Plumploris (*Nycticebus* sp.) scheint während der letzten zwei Jahrzehnte zurückgegangen zu sein, weil Wald in den tiefer gelegenen Regionen den Gummibaum-Plantagen weichen musste. Schweinsaffen (*M. leonina*) sind sehr selten in den Reservaten.

Acht Nördliche Weisswangen-Schopfgibbons werden in dem bekannten Touristenziel, dem "Wild Elephant Valley", im Mengyang Natur-Reservat gehalten und könnten zur Aufklärung der Öffentlichkeit über die Bedrohung dieser Gibbons beitragen.