CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

NOTIFICATION TO THE PARTIES

No. 2006/052 Geneva, 6 October 2006

CONCERNING:

Proposals to amend Appendices I and II

Consultation with range States

1. In Resolution Conf. 8.21 (Consultation with range States on proposals to amend Appendices I and II), the Conference of the Parties recommends that Parties that intend to submit proposals for amendment of Appendix I or II, and that do not intend to consult the range States, should submit them at least 330 days in advance of the next scheduled meeting of the Conference, for circulation to all Parties by the Secretariat. In the case of proposals to be considered at the 14th meeting of the Conference of the Parties, scheduled for 3-15 June 2007 in The Hague, the Netherlands, this deadline was 8 July 2006.

2. By that deadline the Secretariat had received a proposal from Cambodia to transfer all species of the genus *Nycticebus* (slow lorises) from Appendix II to Appendix I.

3. A copy of this proposal is attached (in English only, the language in which it was provided) and, in accordance with Resolution Conf. 8.21, interested Parties are invited to send their comments to Cambodia in order to allow it to submit a revised proposal at least 150 days before the 14th meeting of the Conference of the Parties, i.e. by 4 January 2007. Comments should be sent direct to the Management Authority of Cambodia whose contact details are as follows:

   Ministry of Agriculture, Forestry and Fisheries (MAFF)

   a) H.E. Uk Sokhonn
   Under-Secretary of State of MAFF
   200 Preah Norodom Boulevard
   Khan Chamcarmon
   PHNOM PENH

   Tel: + 855 (23) 21 59 83
   Fax: + 855 (23) 21 59 83

b) Cambodian CITES Secretariat
242 Preah Norodom Boulevard
Sangkat Tonle Basac, Khan Chamcarmon
P.O. Box 2467
PHNOM PENH

Tel: +855 (23) 72 64 41
Fax: +855 (23) 72 64 41; 21 59 83
Email: camcitesma@camshin.com.kh

4. The Secretariat noted that the current standard nomenclature adopted by the Conference of the Parties to CITES in Resolution Conf. 12.11 (Rev. CoP13) (Wilson, D. E. and Reeder, D. M. 1993. *Mammal Species of the World: a Taxonomic and Geographic Reference*. Second edition) recognizes only two species in the *Nycticebus* genus, namely *N. pygmaeus* and *N. coucang*, and does not recognize *N. bengalensis* as a separate species. Consequently it consulted the zoologist of the CITES Nomenclature Committee on the proposal as it refers to these three taxa. The Nomenclature Committee advised the Secretariat that, as announced at its meeting in Lima in July 2006, it would propose the new edition of *Mammals Species of the World* (Wilson and Reeder, 2005) for adoption at the 14th meeting of the Conference of the Parties as the standard reference for mammals. This revision recognizes three species under the genus *Nycticebus*: *N. bengalensis*, *N. coucang* and *N. pygmaeus*.

Annex (English only) / Anexo (únicamente en inglés) / Annexe (seulement en anglais

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និង នេសាទ

លេខ 3521 កសក

រាជធានីភ្នំពេញ, ថ្ងៃទី 04 ខែ 7 ឆ្នាំ 2006

Willem Wijnstekers
CITES Secretariat
International Environment House
Chemin des Anémones
CH-1219 Châtelaine, Geneva
Switzerland

02 July 2006

Dear Mr Wijnstekers,

Following on from my previous letter, I am writing to confirm that for the purpose of better protection for these species, the Cambodian CITES Management authority would like to submit the attached proposal for up listing the genus *Nycticebus spp.* from Appendix II of CITES to Appendix I.

Please find enclosed a copy of the complete proposal.

Sincerely,

Uk Sokhonn
Cambodia CITES Management Authority

អាសយដ្ឋានលេខ ២០០ មហាវិថីព្រះនរោត្តម សង្កាត់មន្ទីរសោភ័ ខ័ណ្ឌចំការមន រាជធានីភ្នំពេញ កម្ពុជា
N° 200 Preah Norodom Sangkat Tonle Basak Khan Chamkarmon B V D. Phnom Penh, Cambodia
ទូរស័ព្ទលេខ : (០២៣) ២១១ ៣៥១/២១១ ៣៥២ ទូរសារលេខ : (៨៥៥) ២៣-២១៧ ៣២
Phone : (023) 211 351/211 352, Fax : (855) 23 - 217 320

CoP14 Prop. xx

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Fourteenth meeting of the Conference of the Parties
The Hague (Netherlands), 3-15 June 2007

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

The genus *Nycticebus spp.* is proposed for uplisting from Appendix II to Appendix I of CITES in accordance with Article II, paragraph 1 of the Convention fulfilling the criteria A (i) and (v) as well as C (i) and (ii) in Annex 1 of Resolution Conf. 9.24 (Rev. CoP 13) for

Nycticebus bengalensis (Lacépède, 1800)
Nycticebus pygmaeus (Bonhote, 1907)

and criteria C (i) and (ii) of Resolution Conf. 9.24 (Rev. CoP 13) for

Nycticebus coucang (Boddaert, 1784)

B. Proponent

Cambodia

C. Supporting statement

Slow lorises, native to South and Southeast Asia, belong to the prosimians, an ancient group of primates. In many Asian countries they are in high demand for traditional medicine as well as for regional and international pet markets. Additionally, all *Nycticebus* species are seriously suffering from escalating habitat destruction. Due to economic changes and human population growth in many range states, an increasing demand for slow and pygmy lorises has been recently observed (Hilalludin 2005; Long *et al*. 2004; Nijman 2002). With their low reproduction rate wild populations of *Nycticebus* cannot withstand these large-scale off-takes and many authors report regional population declines or even local extinctions.

The most recent taxonomy recognises three species (*N. bengalensis, N. coucang* and *N. pygmaeus*), with each species having a far more limited distribution than originally thought (Brandon-Jones *et al.* 2004; Gursky 2002). The taxonomic discussion is still ongoing (Groves 2001, 1998), and several authors now also recognise *N. javanicus* a distinct species (loris conservation database 2006; IUCN Red List 2006; Roos 2003). As these systematic questions are not yet clarified and trade for food, pets and traditional medicine is not much discriminating between the different *Nycticebus* species, an Appendix I listing of the entire genus as a whole is justified.

The genus *Nycticebus* is one of the least studied Asian primates, due to its nocturnal lifestyle and its small body size (Groves 2006; Southwick & Siddiqi 2001; Srivastava & Mohnot 2001). During the last decade, e.g., *N. pygmaeus* has been mostly known from animals in trade (Streicher 2004; Duckworth 1994). Because of a lack of ecological and population data *N. bengalensis* and *N. coucang* are classified as “data deficient” in the IUCN Red List (2006), and *N. pygmaeus* only as “vulnerable”, although recent surveys indicate a much more serious situation (Fitch-Snyder & Vu

2002). These new data, the present volume of local, regional and international trade, combined with alarming habitat destruction and a low reproduction rate qualify this genus for listing in CITES Appendix I (Groves 2006). A large portion of the current trade with slow lorises is illegal, as they are theoretically protected in several range states (Streicher *et al*. in print). However, public awareness on both the protection and conservation status is scarce in many regions: Especially in remote areas slow lorises are not considered to be primates but squirrel-like animals and therefore would not be protected (Schulze, *pers. comm*. 2006; Streicher 2004). An Appendix I listing would not only result in higher fines and stronger international efforts, but also increase both public awareness and stronger national conservation measures.

Nycticebus bengalensis

1. Taxonomy

1.1 Class:	Mammalia	
1.2 Order:	Primates	
1.3 Family:	Loridae	
1.4 Genus, species:	*Nycticebus bengalensis*	(Lacépède, 1800)
1.5 Scientific synonyms:	*Nycticebus coucang bengalensis*	
	Nycticebus c. tenasserimensis	(Elliot, 1912)
	Nycticebus cinereus	(Milne-Edwards, 1867)
	Nycticebus incanus	(Thomas 1921)
	Nycticebus tardigradus	(Blanford 1888)
1.6 Common names:	English:	Bengal (slow) loris, northern slow loris
	French:	Lori lent du Bengale
	Spanish:	Perezoso de Bengala
	Chinese:	lanhou, fenghou
	Thailand:	ling lom, ling-long
	Vietnamese:	Culi Lón, cu lan, khi giom xau ho
1.7 Code number:	none	

2. Overview

Only recently *N. bengalensis* has been recognised as a valid species (Roos 2003; Groves 1998). Native to the Indian subcontinent and Indochina it is highly demanded in the pet trade, for medical purposes and as food (Hilaluddin *et al.* 2005; Long *et al.* 2004; Walker & Molur 2003; Southwick & Siddiqi 2001). Wild populations additionally suffer from serious habitat loss. It has been decimated in large parts of its range and locally extirpated in several regions (CSIS 2006; Long *et al.* 2004; Radhakrishna & Sinha 2004; Srivastava & Mohnot 2001). *N. bengalensis* fulfils criteria A (i), (v) and C (i) and (ii) of Annex 1 for a listing in CITES Appendix and several experts recommend this step.

3. Species characteristics

3.1 Distribution

It is native to Northeast India, Bangladesh, Cambodia, Lao PDR, Myanmar, Vietnam, southern China and Thailand (see Annex 1; Brandon-Jones *et al.* 2004; Gursky 2002; Groves 2001). In Bangladesh, it has been recorded e.g. from Chittagong Hill Tracts and from Garo Hills (WTB undated). In China, it is found in parts of Yunnan and in southwest Guangxi (CSIS 2006; Bangjie 1985). In India, it is present in Assam, Arunachal Pradesh, Mizoram, Nagaland, Meghalaya, Manipur and Tripura (Srivastava & Mohnot 2001; Choudhury 1992). Populations have been recorded in the North, central, and southern part of Lao PDR (Duckworth *et al.* 1999). In Myanmar, it is known from Bhamo, Sumprabum, Kindat, Chin Hills, Pathein, Thaungdaung and Pegu (Groves 1971). In Thailand, *N. bengalensis* is distributed over most of the country (Schulze & Groves 2004). In Vietnam, it is known from 12 24 protected areas (Long *et al.* 2000; SFNC 2000, Smith 2000; Dang 1998).

3.2 Habitat

The preferred habitats are tropical and subtropical evergreen and semi-evergreen rainforests with continuous dense canopies and forest edges (Srivastava & Mohnot 2001; Rowe, 1996).

3.3 Biological characteristics

Females give birth to one, rarely two offspring every 12-18 months. They reach sexual maturity at an age of about 20 months and live up to 20 years (Gupta 2001b).

3.4 Morphological characteristics

The Bengal loris has a round head, short ears, large eyes and a vestigial tail. With a length of 26-38 cm and a weight of 2 kg it is the largest *Nycticebus* species. The dense woolly fur, brown-grey with a white underpart, shows a clear dark stripe (Schulze & Groves 2004).

3.5 Role of the species in its ecosystem

N. bengalensis is an important seed disperser, pollinator, and is prey for several carnivores (Gupta 2001a). It is mainly frugivorous, but also feeds on gum, insects, snails, small birds and reptiles (Radhakrishna & Sinha 2004; Gupta 2001b). Loss of one or two species out of a primate community may lead to a chain of extinctions for a whole range of plant species. Preferring dense forests it is a good indicator of the health of an ecosystem (Gupta 2001a).

4. Status and trends

4.1 Habitat trends

All over its range the habitat has been seriously degraded: In Bangladesh, from 1990 to 2000 natural forest was decimated by 7% and only 9% of the original forest still existed in 2000 (Earth Trends 2003). In Northeast India, forest cover is disappearing at an alarming rate (Choudhury 2001) and formerly dense canopy has been lost by more than 55% in some areas (Ramakantha *et al*. 2003; Southwick & Siddiqi 2001). For the Indo-China region MacKinnon & MacKinnon reported already in 1987 a habitat decline for slow lorises of 75%. Since then, this trend continued: In north-eastern Cambodia, forests are increasingly cleared, with a loss rate of 6% for natural forest between 1999 and 2000 (Earth Trends 2003; NTFP 2003). Forests in South China have dramatically declined since the mid 1990s, e.g. Yunnan has lost 42% (Blount 2005). In Yunnan and Guangxi, only a few primary forests exist in isolated locations and most secondary forests have been seriously degraded (Dachang *et al*. 2003; Mantang *et al*. 2003; Yongqi *et al*. 2003). In Vietnam, war in the 1960s and 1970s reduced forest cover to less than 30%, and habitat destruction still runs rampant (Baker 1999). Of these 30% forest cover only 10% are closed-canopy forests (Streicher 2004). Between 1990 and 2000, Myanmar has lost 14% and Thailand 26% of their natural forest (Earth Trends 2003).

4.2 Population size

In its latest assessment the IUCN in 2000 classified Bengal lorises as “data deficient” (IUCN 2006). However, several authors describe *N. bengalensis* as seriously threatened (Ramakantha *et al.* 2003; Gupta 2001; Singh 2001). In Bangladesh, populations have been reported to be “critically endangered” (WTB undated), while others state “data deficient” (Walker & Molur 2003). In China, the Guangxi population was reported to be almost extinct (Bangjie 1985). In Yunnan, it is very rare with less than 50 individuals surviving in Wuliangshan and Ailaoshan, and 1,500-2,000 individuals in an area of 300-500 km² in south and west Yunnan (CSIS 2006), resulting in the national classification “vulnerable”. In Northeast India, numbers of *N. bengalensis* now are very small (Srivastava & Mohnot 2001). Recent surveys demonstrate that the Bengal lorises may occur only in few isolated populations and are in serious danger of becoming extinct in many parts of Assam and Meghalaya. Population density has been found to vary between 0.03 to 0.33 individuals per km² in different survey areas (Radhakrishna & Sinha 2004; Srivastava & Mohnot 2001. In Arunachal Pradesh it was found to be under serious threat (Singh 2001). For the Indo-Chinese sub region, the wild population of *N. bengalensis* (named as *N. coucang*) in 1987 was estimated at 923,337 specimens (MacKinnon & MacKinnon 1987). However, this figure is not only out of date, but was also based on estimates of suitable habitat

and not on a comprehensive census. Undoubtedly, the present population is much smaller due to further habitat loss and massive off-takes (Fitch-Snyder *et al.* 2001). In the status report of wildlife in Lao PDR, *N. bengalensis* (mentioned as *N. coucang*) has been described as "little known", but obviously locally common (Duckworth *et al.* 1999). In Vietnam, recent population surveys indicate several local extinctions (Long *et al.* 2004; Streicher 2004; Fitch-Snyder & Vu 2002).

4.3 Population structure

Bengal lorises live in small family groups.

4.4 Population trends

In India, populations have been declining: Whereas Choudhury in 1992 estimated the population size at 16-17,000 individuals (based on availability of potential habitat), recent publications report only small numbers to be left (Radhakrishna & Sinha 2004; Srivastava & Mohnot 2001). China: Populations have been seriously decimated and locally extirpated, e.g in several Guangxi counties (CSIS 2006; Bangjie 1985). In Vietnam, wild populations obviously are significantly depleted in several areas (Streicher 2004; Long *et al.* 2004). Dang (1998) reported a rapid decline in Vietnam. Populations are already becoming extinct in southern Quang Nam Province and parts of the highlands (Thanh 2002).

4.5 Geographic trends

China: In Guangxi, Bengal lorises have been extirpated in Ningming and only few specimens are left in Jingxi, Longzhou and Pingxiang (CSIS 2006; Bangjie 1985). In India, its geographical range had been considerably reduced (Choudhury 2001, 1992). Vietnam: Wild populations are becoming extinct south of Quang Nam Province and in parts of the Central highlands as well as in Song Thanh and Kon Cha Rang (loris conservation database 2006).

5. Threats

Trapping as pets, hunting and by deforestation are severe threats (Long *et al.* 2004; Walker & Molur 2003; Southwick & Siddiqi 2001). Decline is also caused by human interference and road construction (CSIS 2006; Walker & Molur 2003). Hilaluddin *et al.* (2005) found that increasing human urban populations correlate with increased hunting and wildlife consumption. Slash-and-burn cultivation is destroying its habitat in many parts of its range (Radhakrishna & Sinha 2004).

6. Utilization and trade

Reports often do not discriminate between national and international, legal and illegal trade.

6.1 National utilization

Cambodia: All parts are used in Traditional Khmer Medicine (Walston 2005). During spot surveys they were found by hundreds, in almost all shops and stalls visited in different provinces, making them the most or second most common mammal observed (Walston 2005; Martin & Phipps 1996). They were offered for US$ 0.85-6.25.

China: *N. bengalensis* is sold as pets (price US$ 2.5-6.3), e.g. at the bazaar of Mengla District, Yunnan Province. Additionally, it is used for medical purposes (see 6.3).

In Northeast India, hunting of *N. bengalensis* is pervasive (Radhakrishna & Sinha 2004; Chetry *et al.* 2003; Southwick & Siddiqi 2001). Infants are sold as pets and to zoos (Ahmed 2001).

In Lao PDR, they are often consumed as medicine and are kept as pets (Duckworth *et al.* 1999).

In Thailand, sale as pets is quite common, for US$70 (WFT 2005; Monkey World 2005b).

Vietnam: *N. bengalensis* is used for food, traditional medicine, or as pets (Streicher 2004; Long *et al*. 2004). It is offered in the traditional medicine market for a price of US$ 15 per specimen.

6.2 Legal trade

Trade data from UNEP-WCMC are not available separately for *N. bengalensis*, but are included in those for *N. coucang*. Please see section *N. coucang* and Annex 2 for these trade data.

Lao PDR: Large numbers are exported from Bolikhamxai and Khammouan Provinces to Vietnam (Duckworth *et al.* 1999), but only few are recorded in WCMC data (see section *N. coucang*).

Japan: Pet shops offer specimens at their websites for 450,000 Yen (Schulze 2006a), but WCMC data only record a few dozen specimens to be imported (see section *N. coucang*).

6.3 Parts and derivatives in trade

All parts, including skin, urine and brain are used in traditional medicine, e.g. to heal wounds and rheumatism (CSIS 2006; Walston 2005; Duckworth *et al.* 1999; Martin & Phipps 1996).

6.4 Illegal trade

Cambodia: There is an active wildlife trade route to Laos, Vietnam and Thailand, and from there to China (Walston 2005; Van Song 2003; NTFP 2003). A single vendor in Phnom Penh reported that he sells 10 slow lorises per month to Chinese medicine traders (Anon. 2001).

China: Surveys at different ports in Yunnan province report lorises to be commonly imported from Myanmar and Laos (Wang *et al.* 1996a). Also in Guangxi Province, large numbers are imported (Yiming & Dianmo 1997a, b; Wenjun *et al*. 1996). Occasionally, specimens originating from Myanmar and Hong Kong are confiscated (Schulze & Groves 2004; Wang *et al*. 1996b).

India: Trade routes include those from Assam and Meghalaya to Myanmar, while another route is from Tripura to Bangladesh (Abrah 2001).

Vietnam: There is a regular sale to middlemen for regional and international trade (Streicher 2004; Truong *et al.* 2003). Many of the specimens, which are frequently sold in restaurants and at markets originate from Cambodia and Lao PDR (Streicher & Nadler 2003; Van Song 2003).

6.5 Actual or potential trade impacts

Trading, together with habitat loss, is the most serious threat to the survival of Bengal lorises (Hilaluddin *et al.* 2005; Long *et al.* 2004; Walker & Molur 2003; Srivastava & Mohnot 2001; Southwick & Siddiqi 2001). They are targeted as food, for use in traditional medicine and as pets, leading to massive, unsustainable off-takes (CSIS 2006; Walston 2005; WFT 2005; Long *et al.* 2004; Duckworth *et al*. 1999; Martin & Phipps 1996). Accordingly, wild populations have been seriously decimated and further local extinctions are feared (Thanh 2002; Dang 1998). Due to increasing human populations and economic power in most of its range, the pressure on wild populations will even become even heavier in the near future.

7. Legal instruments

7.1 National

In China and Vietnam, it is strongly protected, and commercial trade is prohibited (Li & Wang 1999; Council of Ministers 2006; 2002a, b). India: It is listed under Schedule I of the Wildlife Act, 1972. In Cambodia, protection status is unclear: Whereas the Forest Law (2002) prohibits

to catch “rare tree species” or to hunt, possess, trade and export “rare and endangered wildlife species”, a limited capture is allowed for the use in traditional medicine.

7.2 International

The current CITES checklist does not recognise *N. bengalensis* as a separate species. However, all primates are listed in Appendix II of CITES.

8. Species management

8.1 Management measures

8.2 Population monitoring

8.3 Control measures

8.3.1 International

8.3.2 Domestic

Awareness for the need of loris conservation is poor, even among national park staff (Thanh 2002). In Vietnam, confiscated specimens are often released locally, although they originate from other countries (Streicher & Nadler 2003; Wang *et al*. 1996b).

8.4 Captive breeding and artificial propagation

8.5 Habitat conservation

In Bangladesh, populations of *N. bengalensis* have been recorded in the Lawachara National Park (WTB undated). In China, reserves theoretically protect 80% of the Chinese population of *N. bengalensis* (CSIS 2006). In Northeast India, *N. bengalensis* is recorded in at least 43 protected areas (Walker & Molur 2003; Choudhury 2001). In Lao PDR, *N. bengalensis* has been recorded in 14 conservation areas (Duckworth *et al*. 1999) and in Vietnam in 24 protected areas (Dang 1998). However, these conservation measures are not species-specific and poaching and illegal logging in protected areas are common (Polet & Ling 2004; Chetry *et al*. 2003; NACOM 2003).

9. Information on similar species

N. bengalensis and *N. coucang*, which only recently were classified into two distinct species, are very difficult to distinguish (Schulze & Groves 2004). In international shipments, non-specialists may even mix Bengal lorises with pottos, bush babies and several sportive lemurs (Schulze 2006a).

10. Consultations

... to be done ...

11. Additional remarks

Conservation measures are urgently needed (Thanh 2002; Dang 1998). According to Prof. Dr. Colin Groves (2006) and Gupta (2001a) Bengal lorises are gravely threatened and should be raised to CITES Appendix I.

Nycticebus coucang

1. Taxonomy

1.1 Class: Mammalia

1.2 Order: Primates

1.3 Family: Loridae

1.4 Genus, species: *Nycticebus coucang* (Boddaert, 1785)

1.5 Scientific synonyms:

Nycticebus c. coucang:	(Boddaert, 1785)
N. c. hilleri	(Stone & Rehn, 1902)
N. c. insularis	(Robinson, 1917)
N. c. natunae	(Stone & Rehn, 1902)
Nycticebus c. javanicus:	(Geoffroy, 1812)
N. javanicus	(Geoffroy, 1812)
N. ornatus	(Thomas, 1921)
Nycticebus c. menagensis:	(Trouessart, 1898)
N. menagensis	(Trouessart, 1898)
N. c. bancanus	(Lyon, 1906)
N. c. borneanus	(Nachtrieb, 1892)

1.6 Common names:

English:	*Nycticebus coucang*: (Sunda) slow loris
	Nycticebus coucang coucang: Greater slow loris
	Nycticebus coucang javanicus: Javan slow loris
	Nycticebus coucang menagensis: Bornean slow loris
French:	Loris paresseux
Spanish:	lori perezoso
Indonesian local:	Malu-Malu, kukang, bukang, Kalamasan, malu-malu
Malaysian local:	konkang, kera duku

1.7 Code number: A-106.004.003.001

2. Overview

Until recently slow lorises were reported to be common and widely distributed in Asia. However, according to recent taxonomic changes at least three species are recognised, and both distribution and population size of *N. coucang* are far more limited than originally thought (Brandon-Jones *et al.* 2004; Gursky 2002; Groves 2001,1998). Wild populations are heavily exploited for the pet trade and traditional medicine (ProFauna Indonesia 2005, 2001; Shepherd *et al.* 2004; Grant 1999). E.g., *N. coucang* is one of the most abundant primate species on sale at Indonesian pet markets: Results from many snap-shot surveys indicate an annual turnover of several thousand slow lorises (den Haas 2006; Shepherd *et al*. 2004; Malone *et al*. 2002; Parlupi 2002; ProFauna Indonesia 2000; KSBK 1998). Due to their nocturnal lifestyle and their small body size slow lorises have been widely ignored by field studies and well-based data are lacking. Accordingly, the present IUCN Red List (2006) classifies this species as “data deficient”. Formerly high population estimates are only based on potential habitat availability, but recent field surveys and market observations indicate a serious situation: The extensive off-takes, combined with serious and progressive habitat destruction, already resulted in distinct population declines in Indonesia, Malaysia and Singapore (den Haas 2006; ProFauna Indonesia 2005; Wildlife Singapore 2005; Gursky 2002; MacKinnon & MacKinnon 1987) and populations in the Philippines are very limited (Dagosto & Gebo 1995). Ongoing human population growth and economic changes will increase both habitat destruction and demand for slow lorises in the trade. With this, *N. coucang* clearly fulfils the criteria C (i) and (ii) of Annex 1.

3. Species characteristics

3.1 Distribution

N. coucang lives in Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, and Thailand, (see Annex 1, figure 1 & 2) with the three subspecies being locally separated: *N. c. coucang* is found in Malaysian peninsular, Indonesia (Sumatra, North Natuna Islands, Tebingtinggi) and in the South of the Isthmus of Kra, Thailand; *N. c. menagensis* occurs in Brunei, Indonesia (Bangka, Belitung, Kalimantan), and Malaysia (Sabah, Sarawak), whereas *N. c. javanicus* is restricted to western Java (Groves 2001). In the Philippines, *N. c. menagensis* is found on the islands of Bongao, Sanga Sanga, Simunul and Tawi Tawi (Fooden 1991). In peninsular Malaysia it is known from the states of Selangor and Pahang (Elliot & Elliot 1967).

3.2 Habitat

Nycticebus coucang is a small nocturnal and almost entirely arboreal primate species. It typically lives in the main canopy of dense tropical evergreen rain forests (Roonwal & Mohnot 1977).

3.3 Biological characteristics

Slow lorises have a low reproduction rate, giving birth to a single offspring. Gestation length is 184-197 days, the inter-birth interval is 12-18 months, and lactation periods 175-213 days (Wiens 2002; Weisenseel *et al*. 1998). Slow lorises may live up to 20 years (Rowe 1996).

3.4 Morphological characteristics

Head and body length is 265-380 mm; the tail is vestigial (Nowak 1991). Slow lorises have large, round eyes. The fur is short, thick and woolly. Dorsal coloration ranges from light brownish to deep reddish brown, the ventral side is usually lighter. Most specimens show a dark midline along the neck (Nowak 1991). *N. c. javanicus* is the largest subspecies (798 g), followed by *N. c. coucang* (654 g) and *N. c. menagensis,* 511 g (Fitch-Snyder *et al.* 2001; Ravosa 1998). *N. c. javanicus* has a yellow-grey fur, the neck is creamy, dorsal stripe and head forks are sharply marked. Head forks of *N. c. menagensis* are less distinct (Groves 2001). Locally, colour variations seem to occur (Schulze 2006a).

3.5 Role of the species in its ecosystem

Slow lorises are mainly herbivorous, but also feed on molluscs, insects, spiders, and birds' eggs (Wiens 2002; Rowe 1996). They are prey to a variety of species (Wiens & Zitzmann 1999) (see also section 3.5 of *N. bengalensis*).

4. Status and trends

4.1 Habitat trends

In the 1980s the habitat of *N. coucang* in Indonesia was already reduced by 57% (MacKinnon 1987), and this trend is continuing (WWF 2005; EIA & Telapak 2003, 2002). Rainforest destruction in Java is rampant and almost no natural habitat of slow lorises is left (Indah 2006; Nijman 2002). Also in Sumatra, habitat is seriously affected by widespread logging (Shepherd *et al.* 2004). In Malaysia Peninsular, the habitat for *N. coucang* has been destroyed by 94%, while in the Philippines it has been reduced by 77% (MacKinnon 1987). Within the period 1990-2000 Thailand has lost 26% of its natural forest (Earth Trends 2003).

4.2 Population size

In its latest assessment in 2000 the IUCN classified *N. (c.) javanicus* as "data deficient" (IUCN 2006). *N. c. menagensis* has also been classified as "data deficient", *N. c. coucang* as "lower

risk", depending on further conservation measures (Brandon-Jones *et al.* 2004). In 1986, slow lorises were reported to be widely distributed in Indonesia and their number was estimated at 1.14 Mio. individuals (MacKinnon 1987). However, this number is only based on estimates of suitable habitat, not on a direct population census, and only 14% of suitable habitat was within protected areas. The present population is much smaller due to habitat loss and direct off-takes (Fitch-Snyder *et al.* 2001). Malaysia: In Sarawak, *N. c. menagensis* has been described as "insufficiently known" (Bennett *et al.* 1987). In Peninsular Malaysia, according to MacKinnon (1987) *N. coucang* populations should be considered endangered due to a habitat destruction of 94%. In the Philippines, *N. coucang* is described as "very limited" (Dagosto & Gebo 1995) and in Singapore as endangered, as only small populations remain (Wildlife Singapore 2005).

4.3 Population structure

Slow lorises live solitarily, but form stable social units ("spatial groups"), consisting of one male, one female and up to three younger individuals (Wiens 2002).

4.4 Population trends

Populations of *N. c. javanicus* have become rare and in trade are increasingly replaced by subspecies from Sumatra and Kalimantan, which now sum up to 75% of specimens on sale (den Haas 2006a,b; ProFauna Indonesia 2005). This indicates a serious decline of wild Javan slow loris. *N. c. coucang* on peninsular Malaysia has seriously suffered from large-scale deforestation (Gursky 2002; Barrett 1981). Singapore: According to Wildlife Singapore (2005) *N. coucang* was formerly common, but at present now only small populations remain.

4.5 Geographic trends

5. Threats

Slow lorises suffer from direct capture for traditional medicine, pet trade and as food, but also from severe habitat loss (den Haas 2006; Indah 2006; ProFauna Indonesia 2005; Wildlife Singapore 2005; Nijman 2002; MacKinnon & MacKinnon 1987). Large-scale off-takes for the trade already resulted in population declines in several range states (den Haas 2006a,b; Wildlife Singapore 2005; Long *et al.* 2000; Bennett *et al.* 1987). Regarding the fact that *N. coucang* is known to be impacted even by only moderate levels of selective logging (Gursky 2002), the massive habitat destruction in large parts of its range has had a serious impact on loris populations.

6. Utilization and trade

6.1 National utilization

Indonesia: Slow lorises are specifically targeted as pets, for medical purposes, and as food (Shepherd *et al.* 2004; ProFauna Indonesia 2001; Grant 1999; Lau *et al.* 1996). For the pet trade, which has obviously increased in the late 1990s (Nijman 2002), slow lorises are sold as "tame" after their teeth pulled out (Shepherd *et al.* 2004). Many surveys found slow lorises to be one of the most frequent primates, with prices of US$ 6-10 (den Haas 2006; Subramaniam 2006; Malone *et al.* 2002; ProFauna Indonesia 2001a,b,2000; KSBK 1998). This trade has been estimated to be of high volume, e.g. in Palembang alone 40 slow lorises are traded per month (ProFauna Indonesia 2006). In many cities of Java, they are openly offered on the streets, at bird markets, and increasingly in supermarkets and malls (ProFauna Indonesia 2005, 2001a,b, 1998; Malone *et al.* 2002). *N. coucang* has been recorded in more than 90% of the survey counts and often relatively numerous, reaching up to 30-43 specimens during several spot surveys (Shepherd *et al.* 2004; ProFauna Indonesia 2001a). While such individual spot surveys only provide snapshots and anecdotic data, the annual turnover of pet markets in Indonesia alone probably sum up to several thousand specimens. Pramuka market in Jakarta alone is estimated to have a monthly turn-over of 200 slow lorises (den Haas 2006). Even at a very small peripheral market in Jakarta, 13 specimens have been recorded during a short visit in

February 2003 (Loris conservation data base 2006*)*. At Medan Bird Market Shepherd *et al.* (2004) recorded 692 specimens during their monthly surveys 1997-2001. They were also recorded at several markets in Sumatra and Sulawesi, where *N. coucang* was found to be by far the most abundant primate species (WWF Indonesia 2003; Parlupi 2002; ProFauna Indonesia 2001). Also during surveys at many markets in Bali and Kalimantan, *N. coucang* was found in abundant numbers (WWF Indonesia 2003; Malone *et al.* 2002; Parlupi 2002).

In Malaysia, slow lorises are on sale as pets (Bennett *et al.* 1987), with many of them having their teeth ripped off. Slow lorises cost about US$ 40 (Ray 2005). In Singapore, slow lorises have been offered on the Internet for US$ 480 (Siong & Lee 2004). For Thailand detailed data are scarce, although keeping of slow lorises as pets is quite common. *N. coucang* is on sale for little less than US$ 70 (WFT 2005; Monkey World 2005b).

6.2 Legal trade

According to UNEP-WCMC data (2006a) importing countries report a total of 1,678 *N. coucang* imports from 1977 to 2004, whereas the exporting countries only report 602 specimens. These data include both *N. bengalensis* and *N. coucang* (for details see Annex 2). Major importers are Singapore, Lao PDR, Hong Kong, Cambodia and Thailand. One of Indonesia's largest wildlife exporters, Penta Exomania offers *N. coucang* for sale on its website (Schulze 2006a).

6.3 Parts and derivatives in trade

Different body parts, including skin, feet, skeleton and skulls are traded (see Annex 2). In traditional Asian medicine the fur of slow lorises are used for wound healing, eye-balls as love potion, flesh to cure epilepsy, and meat to cure stomach ailments or asthma (Shepherd *et al.* 2004; Fitch-Snyder *et al.* 2001).

6.4 Illegal trade

Indonesia: Medan, through its international airport and seaport, is reported to have become the main smuggling channel for wildlife to Malaysia, Singapore and Thailand (Shepherd *et al.* 2004). In 2003, some 117 slow lorises were confiscated in Jakarta, destined for Japan and Kuwait (Smits *in litt.* 2003). In Singapore, smuggling and confiscations of wildlife, including slow lorises, has sharply increased since 2000 (AP 2002). In Thailand trade routes to Lao PDR are reported (loris conservation database 2006). Europe: Occasionally, slow lorises are confiscated in EU member states (loris conservation database 2006; Lowther *et al.* 2002). UAE: In 2002, six specimens were confiscated at Dubai Airport (Gulf News 2002).

6.5 Actual or potential trade impacts

N. coucang has dramatically suffered all over its range, due to serious habitat loss and overexploitation (den Haas 2006a; Nijman 2002; ProFauna Indonesia 2005; MacKinnon & MacKinnon 1987). It is one of the most abundant primate species in trade and through Indonesian pet markets alone, several thousands are obviously sold per year (e.g., den Haas 2006a; Shepherd *et al.* 2004; Malone *et al*. 2002; ProFauna Indonesia 2000; KSBK 1998). This enormous trade volume, combined with its low reproduction rate has likely decimated wild populations, as indicated e.g. by the low portion of Javan slow lorises at markets all over Java (den Haas 2006a; ProFauna Indonesia 2005). The demand of the pet trade is increased by a very high mortality rate in captivity and additional off-takes for replacement (den Haas 2006a; Groves 2006). Increasing human populations, combined with an increasing purchasing power in most range states, will have an even more serious impact on wild populations in the future.

7. Legal instruments

7.1 National

In Indonesia slow loris is protected by Decree of Agriculture Ministry No. 66 of 1973 and Gov. Reg. No. 7 of 1999 concerning the Protection of Wild Fauna and Flora, Act No. 5 of 1999. Malaysia: *N. coucang* is listed in Schedule I of totally protected wild animals.

7.2 International

N. coucang is listed in Appendix II of CITES.

8. Species management

8.1 Management measures

8.2 Population monitoring

8.3 Control measures

8.3.1 International

8.3.2 Domestic

In Jakarta only, hundreds of slow lorises are confiscated (Streicher 2004). Within 2 and a half years the Tegak Alur station has rescued over 200 slow lorises (den Haas 2006b).

8.4 Captive breeding and artificial propagation

Over 107 slow lorises live in captive breeding facilities (Duke University Primate Centre 2005).

8.5 Habitat conservation

N. coucang populations occur in several reserves in Indonesia, Malaysia and at Khao Banthat in Southern Thailand (Bennett *et al.* 1987; MacKinnon 1987). However, in many of these protected areas illegal logging and hunting takes place (WWF 2005; Gurmaya *et al*. 1994).

9. Information on similar species

N. coucang and *N. bengalensis* are easily mixed up. For non-experts a distinction between *N. coucang* and *N. pygmaeus* is also very difficult. Non-experts may even mix up slow lorises with African pottos, greater bush babies and several sportive lemurs (Schulze 2006a).

10. Consultations

... to be done ...

11. Additional remarks

According to primatologist Prof. Dr. Colin Groves (2006) and Den Haas (2006b) all slow lorises are gravely threatened and should be raised to CITES Appendix I.

Nycticebus pygmaeus

1. Taxonomy

1.1 Class:	Mammalia		
1.2 Order:	Primates		
1.3 Family:	Loridae		
1.4 Genus, species:	*Nycticebus pygmaeus*		(Bonhote, 1907)
1.5 Scientific synonyms:	*Nycticebus intermedius* *Nycticebus chinensis*		(Dao, 1960)
1.6 Common names:	English: French: Spanish: Vietnamese:	lesser slow loris, pygmy loris, pygmy slow loris Lori lent pygmée lori lento enano culi nhó, culi lun, cu lan	
1.7 Code number:	A-106.004.003.002		

2. Overview

N. pygmaeus has a limited distribution range, covering Vietnam, Yunnan Province in China, eastern Cambodia and Lao PDR. It heavily suffers from hunting and related trade, combined with severe habitat destruction (Blount 2005; Long *et al.* 2004; Streicher 2004; Thanh 2002; Baker 1999; Duckworth 1994; MacKinnon & MacKinnon 1987). Hundreds of pygmy lorises are monthly traded in major Vietnamese markets alone (Monkey World 2005; Hendrie 2000; Ratajszczak 1998). In China and Cambodia, it is also abundant on sale (Walston 2005; Li & Wang 1999; Wang *et al*. 1996a). With its low reproduction rate *N. pygmaeus* cannot withstand these enormous off-takes. In southern China, its number has been reduced to a few hundred specimens (CSIS 2006). In Vietnam, pygmy lorises are rapidly declining (Long *et al.* 2004; Streicher 2004; Dang 1998). The IUCN Red List (2006) classifies it as "VUA1cd" reflecting a population decline of more than 50% over the last 10 years or three generations, due to habitat loss and overexploitation. However, recent observations in the field and markets indicate an even more serious situation and the need of stronger conservation measures – especially because increasing human population growth and economic changes will further increase the demand for pygmy lorises (Long *et al*. 2004; Li & Wang 1999). Accordingly, since 2001, the EU has decided to stop imports of wild pygmy lorises from Lao PDR and Cambodia. *N. pygmaeus* meets the criteria A (i), (v) and C (i), (ii) for an uplisting in CITES Appendix I.

3. Species characteristics

3.1 Distribution

N. pygmaeus is distributed east of the Mekong River in Vietnam, eastern Cambodia, Lao PDR and Yunnan Province in southern China (Zhang *et al.* 2002; Fooden 1996; Duckworth 1994). In China it is only found in Pingbian, Hekou, Jinping and Luchun of Yunnan (CSIS 2006). In Vietnam, pygmy lorises are distributed all over the country (Nadler & Streicher 2004; Dang 1998). In Lao PDR, surveys confirmed populations in Phou Khaokhoay, Nam Kading, Nam Theun, Nakai – Nam Theun, Khammouan Limestone, Dakchung Plateau and Bolaven Northeast.

3.2 Habitat

N. pygmaeus has a nocturnal and arboreal lifestyle. It typically lives in semi-evergreen and secondary forests (Polet *et al.* 2004; Huynh 1998; Wolfheim 1983; Groves 1971).

3.3 Biological characteristics

Pygmy lorises have a low reproduction rate, giving birth to a single offspring. Life span is about 20 years (Kappeler 1991). Gestation length is 184-200 days, and lactation period lasts 123-146 days (Weisenseel *et al*. 1998).

3.4 Morphological characteristics

N. pygmaeus has a head and body length of 210-290 mm (Corbet & Hill 1992) and a weight of up to 800 g (Fitch-Snyder *et al.* 2001). The woolly hair is fine textured, short and thick, reddish buff, sometimes with silvery "frosted" hair tips and with a brown stripe along the spine. Head forks are often indistinct (Groves 2001). The presence or absence of a dorsal stripe and silvery hair tips appear to be a seasonal variation (Streicher 2003) and have in the past caused a discussion on the existence of an additional species, *N. intermedius* (Zhang *et al*. 1994).

3.5 Role of the species in its ecosystem

N. pygmaeus feeds on ants, insects, and fruit. Additionally, tree gouging and feeding on exudates have been observed (Streicher 2004; Tan & Drake 2001; Duckworth 1994; Tan 1994). Pygmy lorises seem to be specialised gummivores (Tan & Drake 2001), which might help them to survive in times of food shortage (Streicher 2004). (see also 3.5 of *N. bengalensis)*

4. Status and trends

4.1 Habitat trends

The pygmy loris has suffered severe habitat degradation in large parts of its range: In north-eastern Cambodia, forests are increasingly cleared (NTFP 2003), with a rate of 6% within the decade 1990-2000 (Earth Trends 2003). In Yunnan, China, since the middle of the 1990s forest cover was reduced by 42% (Blount 2005). Nearly all primary evergreen forests have vanished and even secondary forests are heavily degraded (Mantang *et al*. 2003; Yongqi *et al.* 2003). In Vietnam, the war and the ongoing clearing of forests have resulted in a considerable loss of habitat (Baker 1999). Today, only 30% of the original forest cover is left (Earth Trends 2003). Of this only 10% are rich closed-canopy forests (Streicher 2004).

4.2 Population size

Due to unstable political situations in its range and its nocturnal, arboreal lifestyle, population data for *N. pygmaeus* are scarce. Accordingly, in its latest assessment in 2000 the IUCN classified pygmy loris as "vulnerable" (IUCN 2006). In China, a total population in Yunnan of less than 500 individuals is estimated (CSIS 2006). The Vietnam Red Data Book (2000) lists *N. pygmaeus* as "vulnerable". In the 1980s, the total population has been estimated at about 72,000 specimens (MacKinnon & MacKinnon 1987). However, others estimated the population at the same time to only 600-700 specimens (Huynh 1998). This enormous discrepancy underlines the difficulty to calculate population size without detailed field studies (Streicher 2004). Regarding ongoing habitat loss and recent reports on reduced numbers of sightings, present population numbers are probably much smaller than the optimistic estimates from the 1980s suggested (Nguyen 2004; Sang *et al*. 2004; Fitch-Snyder *et al*. 2002; Thanh 2002). Lao PDR: The wildlife status report of 1999 describes *N. pygmaeus* as "little known" and "common" (Duckworth *et al.* 1999), based on availability of potential habitat. The EU (2005) describes population status in Lao PDR as "apparently widespread, but not common anywhere".

4.3 Population structure

4.4 Population trends

In southern China, the species' number has been reduced to a few hundred individuals (CSIS 2006) and it appears to be locally extinct (Streicher 2004). Vietnam: Several authors report a very fast decline in the wild (Long *et al*. 2004; Dang 1998; Ratajszczak 1998) and this trend is reflected by decreasing numbers of pygmy lorises on sale (Streicher 2004). Dang warned that this species might become extinct if it is not successfully protected. In recent years field sightings have been reduced, and apparently it has vanished in large parts of its range (Streicher & Nadler 2003; Thanh 2002; Ministry of Science, Technology and Environment 2000).

4.5 Geographic trends

In Vietnam, it has vanished from areas with intense logging and agriculture (Ratajszczak 1998).

5. Threats

N. pygmaeus is seriously threatened by hunting, trade and habitat destruction (Long *et al*. 2004; Thanh 2002; Baker 1999; Huynh 1998; Duckworth 1994). Within the whole Indo-Chinese region, populations of pygmy lorises have drastically suffered from military activities, defoliant spraying, logging and massive offtakes (MacKinnon & MackKinnon 1987), especially in Vietnam (SFNC 2003, 2000; Long *et al.* 2000). The demand of the pet and the medicinal markets is enormously aggravating the situation, which is reflected by its abundance in many markets (loris conservation database 2006; Hendrie 2000; Baker 1999; Huynh 1998). This demand has recently even increased due to human population growth and a better economic situation in the range states (Long *et al.* 2004). With its low reproduction rate it cannot stand these off-takes in the medium-term.

6. Utilization and trade

N. pygmaeus is in trade for both medicinal and trade purposes (Streicher 2004; Nadler & Streicher 2003; Thanh 2002). Trade has dramatically increased in recent years (Long *et al*. 2004; Do 2003; SFNC 2003; Dang 1998) and it is one of the most abundant species on sale (Hendrie 2000). Hunting for food is mainly for local consumption, but there is also a regular sale for regional and international trade. Specimens are sold for US$ 2-10 (Truong *et al.* 2003; Hendrie 2000, 1999a).

6.1 National utilization

Cambodia: All parts of *N. pygmaeus* are used in Traditional Khmer Medicine (Walston 2005). During recent surveys at Cambodian markets *N. pygmaeus* represented the third most common mammal found on sale (Walston 2005). It was offered for US$ 0.85-6.25. China: During surveys in Yunnan Province, *N. pygmaeus* was also frequently recorded. The demand for medical purposes or as pets has increased rapidly in recent times (Li & Wang 1999). In Vietnam, *N. pygmaeus* is used for food, medicine, and often as pets (Thanh 2002) and is among the most frequently sold species. Formerly, hundreds of pygmy lorises were traded monthly in major markets (Monkey World 2005a; Ratajszczak 1998), but recently numbers seem to have decreased, obviously due to difficulties to supply (Streicher & Nadler 2003). In the South, lorises are among the most popular wildlife dishes in wildlife meat restaurants (Van Song 2003). In Lao PDR, consumption of lorises for food is low, but they are commonly used in medicinal preparations and are kept as pets (Duckworth *et al.* 1999).

6.2 Legal trade

According to UNEP-WCMC data (2006a) exporting countries reported a total of 111 *N. pygmaeus*, whereas importing countries reported 131 specimens internationally traded in 1977-2004 (for details see Annex 3). Lao PDR: Large numbers of native lorises are exported to

Vietnam (Duckworth *et al.* 1999). Japan: Pet shops occasionally offer *N. pygmaeus* for US$ 2,000-3,800 (Schulze 2006a). It remains unclear, whether these offers are legal.

6.3 Parts and derivatives in trade

There are also parts and derivates of pygmy lorises in trade, e.g. skin (see table in 6.2). All parts are used in traditional Khmer medicine (Walston 2005). In Vietnam, medicine such as bone glue of monkey, is mainly produced by local people, but a smaller portion is also destined for restaurants or sold to visitors (Truong *et al.* 2003). *N. pygmaeus* is especially used for the assumed medicinal value of its hair (Streicher 2004).

6.4 Illegal trade

Cambodia: Trade routes to Lao PDR, Thailand (e.g. at Preah Vihear and Siem Reap Province), and to Vietnam are known, and a significant portion of this trade is destined for China (loris conservation database 2006; Walston 2005). China: During surveys in 1998-1999 in Yunnan province an annual number of 80-90 specimens of *N. pygmaeus* were recorded to be imported through Hekou Port from Vietnam. This volume makes the pygmy loris the second most recorded mammal in the survey (Wang *et al.* 1996a). Large numbers are smuggled from Vietnam to Taiwan, which is indicated by occasional confiscations, e.g. a single shipment of 102 specimens in August 1993. Pygmy lorises may cost up to US$400 on the Taiwanese pet market (Eudey 1995). USA: Occasionally, pygmy lorises smuggled from Vietnam have been confiscated (Eudey 1995). Vietnam: Pygmy lorises are regularly smuggled to other countries, with a focus on China (Schulze & Groves 2004). The *Endangered Primate Rescue Centre* reports *N. pygmaeus* as the most often rescued species (Streicher & Nadler 2002), which reflects their abundance in trade. Europe: Illegal purchases have been reported from Germany, the Netherlands and Poland (Streicher 2004).

6.5 Actual or potential trade impacts

Trade is, especially combined with severe habitat degradation, the most serious threat to the survival of pygmy slow lorises. The trade in pygmy lorises has recently even increased due to economic changes and human population growth in many range states and their neighbour countries (Long *et al.* 2004; Li & Wang 1999) and this trend will continue. Decreasing sightings in the field but also on markets are alarming indicators that pygmy lorises with their low reproduction rate cannot stand these large-scale off-takes and wild populations are obviously depleting (Streicher 2004; Streicher & Nadler 2003; Thanh 2002; Dang 1998). Accordingly, conservationists and field biologists fear local extinctions in the near future (e.g. Thanh 2002; Dang 1998). High mortality rates of more than 30% after capture and in early stages of captivity (den Haas 2006a) result in replacement demand and additional captures from the wild.

7. Legal instruments

7.1 National

N. pygmaeus is protected in most of its range states: In Cambodia, China, and Vietnam hunting, capture and in the latter two cases also possession and storage are illegal (Sang *et al*. 2004; Li & Wang 1999). However, enforcement is poor and penalties are low and have no deterring effect (Walston 2005; Streicher & Nadler 2003). In Vietnam, all exploitation and use of *N. pygmaeus* is illegal (Council of Ministers 2006; 2002a, b; 1992).

7.2 International

N. pygmaeus is listed in Appendix II of CITES. In addition, since October 2001, the EU prohibits imports for all wild specimens of pygmy lorises from Lao PDR and Cambodia for conservation reasons (UNEP-WCMC 2006b).

8. Species management

8.1 Management measures

Vietnam: Confiscated specimens of pygmy lorises are regularly disposed to the Endangered Primate Rescue Centre in Cuc Phuong National Park, with the aim to reintroduce them into the wild (Streicher & Nadler 2003).

8.2 Population monitoring

8.3 Control measures

8.3.1 International

8.3.2 Domestic

Awareness for the need of *Nycticebus* conservation is still poor, even among national park staff (Streicher 2004; Thanh 2002). In Vietnam, pygmy lorises are confiscated in multiple provinces (Hendrie 1999b; Streicher 2004). During the last two decades the Endangered Primate Rescue Centre received 51 pygmy lorises (Streicher 2006).

8.4 Captive breeding and artificial propagation

About 175 pygmy lorises live in breeding facilities (Duke University Primate Center 2005).

8.5 Habitat conservation

In Vietnam, only 4.2% of the area is protected (Earth Trends 2003). *N. pygmaeus* has been recorded in at least 12 national parks and 12 nature reserves (Long *et al.* 2000; Smith 2000; Dang 1998). In China, Daweishan, Fenshuiling and Huanglianshan Reserve are keeping approximately 80% of the population of *N. pygmaeus* (CSIS 2006). However, even in protected areas they are increasingly being caught (Polet & Ling 2004). In Lao PDR, *N. pygmaeus* has been recorded in seven National Biodiversity Conservation Areas (Duckworth *et al*. 1999).

9. Information on similar species

Non-experts may not distinguish between *N. pygmaeus* und *N. coucang,* as both have similarly reddish fur, which is variable in colours (Schulze & Groves 2004). In international shipments pygmy lorises may be even mixed up with pottos or several lemurs (Schulze 2006a).

10. Consultations

... to be done ...

11. Additional remarks

Prof. Dr. Colin Groves (2006) and Streicher (2006) stress the endangered status of *N. pygmaeus* and recommend an uplisting to CITES App. I to harmonise the protection status internationally and to intensify both awareness and enforcement in range and consumer states.

12. References

Ahmed, A. (2001): Illegal trade and utilization of primates in India. *In: ENVIS Bulletin*; Wildlife and protected areas: Non-human primates of India, 1(1): 177-184.

Alterman, L. (1995): Toxins and toothcombs: potential allospecific chemical defense in *Nycticebus* and *Perodicticus*. In: *Creatures of the Dark*, Alterman *et al.* (eds.), Plenum Press, New York: 413-424.

Anon. (2001): Southeast Asia's primates rapidly disappearing due to loss of habitat, poaching for food, traditional medicine, and the pet trade. ECES, www.eces.org/archive/ec/np_articles/static/99150120079541, seen 26th October.

AP (2002): Singaporeans keen on exotic animals. Article, *New Strait Times*, Singapore, dated 20th April.

Bangjie, T. (1985): The status of primates in China. *Primate Conservation* 5: 63-81.

Baker, L. (1999): The plight of Vietnam's primates. *IPPL News* 26(3): 15-20.

Barrett, E. (1981): The present distribution and status of the slow lorises in peninsular Malaysia. *Malaysian Appl. Biol*. 10: 205-211.

Bennett, E. *et al.* (1987): Current status of primates in Sarawak. *Primate Conservation* 8: 184-186.

Blount, W. (2005): Impact that deforestation and the logging ban has had to Yunnan Province. P.R.E.M.I.U.M. research report. http://forestry.msu.edu/China/New%20Folder/Willicia-Deforest.pdf, viewed 31st March 2006.

Brandon-Jones, D. *et al.* (2004): Asian primate classification. *Int. J. Primatol.* 25(1): 97-164.

Chetry, D. *et al.* (2003): Nonhuman primates in the Namdapha National Park , Arunachal Pradesh, India. *Int. J. Primatol.* 24(2): 383-388.

Choudhury, A. (2002): Survey of primates in West Kameng District, Arunachal Pradesh, India. ASP Bulletin 26(1): 12.

Choudhury, A. (2001): Primates in Northeast India: An overview of their distribution and conservation status. In: *ENVIS Bulletin: Wildlife & Protected Areas, Non Human Primates of India*, Gupta AK (ed.) 1(1):92-101.

Choudhury, A. (1992): The slow loris (*Nycticebus coucang*) in Northeast India. *Primate Report* 34: 77-83.

CSIS (2006): Data on *N. intermedius, N. bengalensis*. China Species Information Service, www.chinabiodiversity.com/seearch/english.

Corbet, G. & Hill, J. (1992): The mammals of the Indomalayan region: A systematic review. Oxford University Press, Oxford.

Council of Ministers (2006): Decree No. 32/2006/ND-CP of 30 March 2006, Vietnam.

Council of Ministers (2002a): Decree No. 48/2002/ND-CP of April 22, Vietnam.

Council of Ministers (2002b): Correction list No. 3399/VPCP-NN of June 21, Vietnam.

Council of Ministers **(**1992): Decree No. 18/HDBT of January 17 prescribing the list of precious and rare forest plants and animals and the regime of management and protection thereof, Vietnam.

Dachang , L. *et al.* (2003): Degradation and rehabilitation of evergreen broadleaf forest in Cangwu County, Guangxi. In: *Rehabilitation of degraded forests to improve livelihood of poor farmers in South China*. Dachang, L. (ed.), Center for International Forestry Research, Bogor, Indonesia.

Dagosto, M. & Gebo, D. (1997): Malagasy and Philippine primates: Similarities and differences in conservation problems. Sylvatrop, *The Philippine Forest Research Journal*, 5: 49-56.

Dang, N.X. *et al.* (2003): Evaluation of the wildlife trade in Ba Be and Cho Don Districts. PARC Project VIE/95/G31&031, Government of Vietnam, Hanoi.

Dang, H. (1998): Ecology, biology and conservation status of Prosimian species in Vietnam. *Folia Primatol.* 69, Suppl. 1: 101-108.

den Haas, F. (2006a): Loris monkeys near extinction: Java, Indonesia. Jakarta Post 20th January.

den Haas, F. (2006b): *in litt*. to Helga Schulze, dated 20th May.

Do, K. (2003): A thematic research group report in support of the National Action Plan on strengthening wildlife trade controls in Vietnam 2004-2010, unpublished.

Duckworth, J. *et al.* (1999): Wildlife in Lao PDR, 1999 Status Report. IUCN, WCS & CPAWM (eds.), Vientiane Lao PDR.

Duckworth, J. (1994): Field sightings of the pygmy loris, *Nycticebus pygmaeus*, in Laos. *Folia Primatol*. 63:99-101.

Duke University Primate Center (2005): Information on pygmy slow lorises and slow lorises. http://primatecenter.duke.edu/animals, viewed 19th April 2006.

Earth Trend (2003): Country profiles on Bangladesh, Brunei Darussalam, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam. http://earthtrends.wri.org, viewed 31st March 2006.

EIA & Telapak (2003): Profiting from plunder: How Malaysia smuggles endangered wood. London, UK; Bogor, Indonesia.

EIA & Telapak (2002): Above the law: Corruption, collusion, nepotism and the fate of Indonesia's forests. London, UK; Bogor, Indonesia.

Elliot, O. & Elliot, M. (1967): Field notes on the slow loris in Malaya. *J. Mammal*. 48: 497-498.

EU (2005): A study of species which are subject to import restrictions according to article 4.6 of Regulation 338/97. http://europa.eu.int/comm/environment/cites/pdf/report.pdf.

Eudey, A. (1995): Southeast Asian primate trade routes. *Primate Report* 41: 33-42.

Eudey, A. (1987a): Priorities in Asian primate conservation. *Primate Conservation* 8: 172-174.

Eudey, A. (1987b): Priority ratings for species for conservation action. In: *Action plan for Asian primate conservation 1987-91*. IUCN/SSC Primate Specialist Group: 13-19.

Fitch-Snyder, H. & Vu, N. (2002): A preliminary survey of lorises (*Nycticebus spp*.) in Northern Vietnam. *Asian Primates,* IUCN/SSC Primate Specialist Group (ed.), 8 (2): 1-6.

Fitch-Snyder, H. *et al*. (2001): Management of lorises in captivity. A husbandry manual for Asian Lorisines (*Nycticebus* & *Loris* spp.). Center for Reproduction of Endangered Species, Zoological Society of San Diego, Box 551, San Diego, CA 92112-0551.
Online edition: www.loris-conservation.org/database/captive_care/index.html

Fooden, J. (1996): Zoogeography of Vietnamese Primates. *Int. J. Primatol.* 17(5): 845-899.

Fooden, J. (1991): Eastern limit of distribution of slow loris, *Nycticebus coucang*. *Int. J. Primatol.* 12(3): 287-290.

Government of Malaysia (undated): www.bpfk.gov.my/pdfworddownload/pengkelasan% 20produk%20-%20english.pdf.

Grant, J. (1999): Rare species on market in Indonesia. Globe Newspaper Company, article dated 8th March.

Groves, C. (2006): *in litt*. to Pro Wildlife, 16th May.

Groves, C. (2001): Primate Taxonomy. Smithsonian Institution Press, Washington D.C.

Groves, C. (1998): Systematics of tarsiers and lorises. *Primates* 39: 13-27.

Groves, C. (1971): Systematics of the genus *Nycticebus*. In: *Proceedings of the Third International Congress of Primatology*, Zurich 1970, 1: 44-53.

Gulf News (2002): Six animals of endangered species seized. Article dated 25th Sep.

Gurmaya, K. *et al.* (1994): A preliminary study on ecology and conservation of the Java primates in Ujung Kulon National Park, West Java, Indonesia. In: *Current Primatology*, *Vol. 1,* Thierry *et al*. (eds.), Université Louis Pasteur, Strasbourg: 87-92.

Gursky, S. (2002): The population density of the Javanese slow lori, *Nycticebus coucang*. Primate Conservation Inc. grant proposal. Texas A&M University.

Gupta, A. (2001a): Non-human primates of India – an introduction. *In: ENVIS Bulletin*; Wildlife and protected areas: Non-human primates of India, 1(1): 1-29.

Gupta, A. (2001b): Status of primates in Tripura. *In: ENVIS Bulletin*; Wildlife and protected areas: Non-human primates of India, 1(1): 127-135.

Hagey, L. *et al.* (in press): Talking Defensively: A Dual Use for the Brachial Gland Exudate of Slow and Pygmy Lorises. In: *Primates and their Predators*. Nekaris & Gursky (eds) Developments in Primatology, Kluwer.

Hendrie, D. (2000): Compiled notes on the wildlife trade in Vietnam, January – May 2000. Cuc Phuong Conservation Project, Vietnam.

Hendrie, D. (1999a): Compiled notes on the wildlife trade in Vietnam, October 1999. Cuc Phuong Conservation Project, Vietnam.

Hendrie, D. (1999b): Compiled notes on the wildlife trade in Vietnam, November - December 1999. Cuc Phuong Conservation Project, Vietnam.

Hilaluddin, K. & Ghose, D. (2005): Conservation implications of wild animal biomass extractions in Northeast India. *Animal Biodiversity and Conservation* 28 (2): 169-179.

Huynh, D. (1998): Ecology, Biology and Conservation status of Prosimian Species in Vietnam. *Folia Primatol*. 69 (suppl 1): 101-108.

Indah Winarti (2006): *in litt.* to Pro Wildlife, dated 22th May.

IUCN (2006): IUCN Red List of threatened species. www.iucnredlist.org, downloaded on 9th May 2006.

Kappeler, P. (1991): Patterns of sexual dimorphism in body weight among Prosimian primates. *Folia Primatol.* 57: 132-146.

KSBK (1998): KSBK studies Indonesian animal markets. IPPL News 26(3): 3-8.

Lau, M. *et al*. (1996): Wildlife trade in southern China including Hong Kong and Macao. In: *Conserving China's Biodiversity*, MacKinnon *et al*. (eds.), China Environmental Science Press, Beijing: 141-159.

Li, W. & Wang, H. (1999): Wildlife trade in Yunnan Province, China, at the Border with Vietnam. *Traffic Bulletin* 18(1): 21-30.

Long, B. *et al.* (2004): Incorporating primate conservation into provincial policy and practice. WWF Indochina, Hanoi, http://assets.panda.org/downloads/longetal2004.pdf.

Long, B. *et al.* (2000): The mammalian and avian diversity of Che Tao Commune, Mu Cang Chai District, Yen Bai Province. Fauna & Flora International, Cambridge.

Loris conservation database (2006): www.loris-conservation.org/database, viewed March.

Lowther, J. *et al.* (2002): Crime and punishment in the wildlife trade. www.wwf.org.uk/ filelibrary/pdf/crime_and_punishment.pdf.

Malone, N. *et al.* (2002): Assessment of the sale of primates at Indonesian bird markets. Asian Primates 8 (1-2): 7-11.

Mantang, C. *et al*. (2003): Rehabilitation of degraded forests to improve the livelihood of poor farmers: A synthesis of four case studies in South China. In: *Rehabilitation of degraded forests to improve livelihood of poor farmers in South China*. Dachang, L. (ed.), Center for International Forestry Research, Bogor, Indonesia.

Martin, E. & Phipps, M. (1996): A review of the wild animal trade in Cambodia. *TRAFFIC Bulletin* 16(2): 45-60.

MacKinnon, K. (1987): Conservation status of primates in Malesia, with special reference to Indonesia. *Primate Conservation* 8: 175-183.

MacKinnon, J. & MacKinnon, K. (1987): Conservation status of the primates of the Indo-Chinese sub-region. *Primate Conservation* 8: 187-195.

Ministry of Science, Technology and Environment (ed.) (2000): Red Data Book of Vietnam (1) Animals, Hanoi.

Monkey World (2005a): Undercover in Vietnam. www.monkeyworld.co.uk/topic.php? TopicID = 106&Template, viewed 22nd March 2006.

Monkey World (2005b): Illegal wildlife trade dossier Thailand 2001-2003. www.monkeyworld.co.uk/topic.php?TopicID = 45&Template, viewed 22nd March 2006.

NACOM (2003): Secondary data collection for pilot protected areas: Lawachara National Park. Report submitted to the International Resources Group. USAID-Bangladesh & Ministry of Environment and Forest, Gov. of Bangladesh (eds.).

Nadler, T. & Streicher, U. (2004): Primates in Vietnam – an overview. In: *Conservation of Primates in Vietnam,* Nadler *et al.* (eds.), Haki Press, Hanoi: 3-11.

Nguyen, T. (2004): The status of primates at Pu Mat National Park and suggestions for sustainable conservation approaches. In: In: *Conservation of Primates in Vietnam,* Nadler *et al.* (eds.), Haki Press, Hanoi: 85-89.

Nijman, V. (2002): Forest and primates, a general introduction to the conservation of endemic primates in the Sundaic region. In: *Forest (and) primates: Conservation and ecology of the endemic primates of Java and Borneo*. Tropenbos Kalimantan Series 5, Tropenbos International (ed.), Wageningen, The Netherlands: 1-12.

Nowak, R. (1991): Walker's mammals of the world. Vol.1; 5th Edition, Johns Hopkins University Press, Baltimore, London.

NTFP (2003): Sustainable utilisation of forest and natural resources through community-based management – experience of the NTFP Project, Ratanakiri Province. www.ntfp.org/voices/voices5/article5_8.html.

Parlupi, B. (2002): Failed war on trade in endangered species. www.orangutan.org.au/news/news_more/article_failedwar.html, viewed 31st March 2003.

Polet, G. *et al.* (2004): Notes on the primates of Cat Tien National Park. In: *Conservation of Primates in Vietnam,* Nadler *et al.* (eds.), Haki Press, Hanoi: 78-84.

Polet, G. & Ling, S. (2004): Protecting mammals biodiversity: opportunities and constraints for pragmatic conservation management in Cat Tien National Park, Vietnam. *Oryx* 38 (2): 1-11.

ProFrauna Indonesia (2006): Each month 40 slow lorises and 20 leopard cats are being illegally traded in Palembang, Sumatra. Press release dated 19th May.

ProFauna Indonesia (2005): Trade of protected wild animals is a crime. www.profauna.org, viewed 22nd March 2006.

ProFauna Indonesia (2001a): The primate trade in North Sumatra. IPPL News 28(1): 5-7.

ProFauna Indonesia (2001b): Wild animal trade in Java, even in supermarkets. www.ksbk.or.id/primate.html, viewed 31st October 2001.

Radhakrishna, S. & Sinha, A. (2004): Population survey and conservation of the Bengal slow loris in Assam and Meghalaya, North-eastern India. Ecology, Behaviour and Conservation Group, Nat. Inst. of Advanced Studies, Bangalore.

Ramakantha, V. *et al.* (2003): Biodiversity of Northeast India – An overview. *In: ENVIS Bulletin*: Conservation of rainforests in India, 4(1): chapter 1, www.wii.gov.in/envis/rain_forest/index.html.

Ravosa, M. (1998): Cranial allometry and geographic variation in slow loris (*Nycticebus*). *Am. J. Primatol*. 45(3):225-43.

Ratajszczak, R. (1998): Taxonomy, distribution and status of the lesser slow loris *Nycticebus pygmaeus* and their implications for captive management. *Folia Primatol.* 69(1): 171-174.

Ratajszczak, R. (1988): Notes on the current status and conservation of primates in Vietnam. *Primate Conservation* 9: 134-136.

Roonwal, M. & Mohnot, S. (1977): Slow loris. In: *Primates of South Asia: Ecology, socio-biology, and behaviour*. Harvard University Press, Cambridge, Massachusetts: 57-61.

Roos, C. (2003): Molecular phylogeny of prosimians, langurs and gibbons. Dissertation, Lehrstuhl für Genetik, Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt, Technical University Munich.

Rowe, N. (1996): A pictorial guide to the living primates. Pogonias Press, New York.

Sang, N. *et al.* (2004): Biodiversity and socio-economic assessment of Nghia Trung State Forest Enterprise, Binh Phuoc Province, Vietnam. Cat Tien National Park Conservation Project, Dang & Osborne (eds.), Hanoi.

Schulze, H. (2006a): *in litt*. to Pro Wildlife, email correspondence April.

Schulze, H. (2006b): *pers. comm*. to S. Altherr, Pro Wildlife, 25th April.

Schulze, H. & Groves, G. (2004): Asian lorises: taxonomic problems caused by illegal trade. In: *Proceedings of the Int. Symposium Conservation of primates in Vietnam*, Cuc Phuong National Park, 18th-20th November 2003.

SFNC (2003): Hunting and Trading Wildlife: An investigation into the wildlife trade in and around the Pu Mat National Park, Nghe An province, Vietnam. SFNC, Vinh.

SFNC (2000): Pu Mat: A Biodiversity Survey of a Vietnamese Protected Area. Grieser Johns A. Ed. SFNC Project, Vinh, Vietnam

Shepherd, C. *et al.* (2004): Open season: An analysis of the pet trade in Medan, Sumatra 1997-2001. TRAFFIC Southeast Asia.

Singh, D. (2003): Conservation of tropical rainforest in Arunachal Pradesh. *In: ENVIS Bulletin*: Conservation of rainforests in India, 4(1): chapter 20, www.wii.gov.in/envis/rain_forest/ index.html.

Singh, D. (2001): Status and distribution of primates in Arunachal Pradesh. *In: ENVIS Bulletin*; Wildlife and protected areas: Non-human primates of India, 1(1): 113-119.

Siong, K. & Lee, T. (2004): Slow loris quick bust. News about nature and the environment in Singapore. Habitatnews, 7th November.

Smits, W. (2003): *in litt.* to H. Schulze, dated 30th January.

Southwick, C. & Siddiqi, M. (2001): Status, conservation and management of primates in India. *In: ENVIS Bulletin*; Wildlife and protected areas: Non-human primates of India, 1(1): 81-91.

Srivastava, A. & Mohnot, S. (2001): Distribution, conservation status and priorities for primates in Northeast India. *ENVIS Bulletin:* Wildlife and protected areas: Non-human primates of India, 1(1): 102-108.

Streicher, U. (2006): *in litt*. to Pro Wildlife, email-correspondence, April and May.

Streicher, U. (2004): Aspects of ecology and conservation of the Pygmy Loris *Nycticebus pygmaeus* in Vietnam. Dissertation, Tierärztliche Fakultät, Ludwig-Maximilians-Universität München, Oktober 2004.

Streicher, U. *et al.* (in print): Confiscation, rehabilitation, and placement of slow lorises. In: *Primates of the oriental night*. Shekelle, M. (ed.), Trembia, Special Issue.

Streicher, U. (2003): Saisonale Veränderungen in Fellzeichnung und Fellfärbung beim Zwergplumplori (*Nycticebus pygmaeus*) und ihre taxonomische Bedeutung. *Zoolog. Garten* 73(6): 368-373.

Streicher, U. & Nadler, T. (2003): Re-introduction of pygmy lorises in Vietnam. *Reintroduction News*, Newsletter of the IUCN Reintroduction Specialist Group, 23: 37-40.

Streicher, U. & Nadler, T. (2002): Aus der Arbeit des Endangered Primate Rescue Centre. *ZGAP Mitteilungen* 18(1): 7-9.

Subramaniam, G. (2006): Complied notes on wildlife markets in Jakarta – Observations at 23rd April and 7th May. Care for the Wild International SE Asia, unpublished.

Tan, C. & Drake, J. (2001): Evidence of tree-gouging and exudate eating in pygmy slow loris (*Nycticebus pygmaeus*). *Folia Primatol.* 72(1): 37-39.

Tan, C. (1994): Survey of *Nycticebus pygmaeus* in southern Vietnam. XVth Congress Intern. Primatol. Society: 136.

Thanh, V. (2002): The status and conservation of the loris species, *Nycticebus coucang* and *N. pygmaeus*, in Vietnam. Abstract P. 254 in: XIXth Congress of the International Primate Society, 4th-9th August 2002, Beijing, China.

Thanh, V. (1999): Biodiversity loss – lessons learned in Vietnam, report to UNDP Vietnam.

Truong, N.Q . *et al.* (2003): Evaluation of the wildlife trade in Na Hang District. PARC Project VIE/95/G31&031, Government of Vietnam, Hanoi.

UNEP-WCMC (2006a): Trade data for *N. coucang* and *N. pygmaeus*, 1977-2004.

UNEP-WCMC (2006b): EU suspensions and opinions on *Nycticebus pygmaeus*. Trade Information Query Tool. http://sea.unep-wcmc.org/isdb, viewed 22nd March.

Van Song, N. (2003): Vietnam's illegal trade in wildlife: why it flourishes. Research Report. Economy and Environment Program for Southeast Asia, Singapore. www.idrc.ca/uploads/user-S/10705050241SongRRlayout.doc.

Walker, S. & Molur, S. (2003): Summary of the status of Southeast Asian Primates. Conservation Assessment and Management Plan (CAMP) Workshop Report, Coimbatore.

Wang, Z. *et al.* (1996a): The status of wildlife trade near the port areas in Yunnan. *In: Conserving China's biodiversity (II)*, Schei *et al*. (eds.), China Environmental Science Press, Beijing, 197-210.

Wang, Z. *et al.* (1996b): Preliminary survey on transfrontier wildlife trade in Yunnan. *In: Conserving China's biodiversity (II)*, Schei *et al*. (eds.), China Environmental Science Press, Beijing, 188-196.

Walston, N. (2005): An overview of the use of Cambodia's wild plants and animals in Traditional Medicine Systems. TRAFFIC Southeast Asia – Indochina.

Weisenseel, K. *et al.* (1998): A comparison of reproduction in two species of *Nycticebus*. *Folia Primatol*. 69 (suppl.1): 321-324.

Wenjun, L. *et al.* (1996): A survey of wildlife trade in Guangxi and Guangdong, China. *TRAFFIC Bulletin* 16(1): 9-16.

Wiens, F. (2002): Behaviour and ecology of wild slow lorises (*Nycticebus coucang*): Social organisation, infant care system and diet. Dissertation, Faculty of Biology, Chemistry, and Geosciences, University Bayreuth.

Wiens, F. & Zitzmann, A. (1999): Predation on a wild slow loris (*Nycticebus coucang*) by a reticulated python (*Python reticulates*). *Folia Primatol*. 70: 362-364.

Wildlife at Risk (undated): Loris confiscation send message to illegal traders. Press release, www.wildlifeatrisk.org/index.php?lang = en&id = 6subid = 12, viewed 8th March 2006.

WFT (2005): Report on wildlife rescue and releases of lorises. Wildlife Friends of Thailand, www.wfft.org, seen at 28th March 2006.

Wildlife Singapore (2005): Slow loris, *Nycticebus coucang*. www.wildsingapore.per.sg/discover/factsheet/slowloris.htm, viewed 29th March 2006.

Wolfheim, J. (1983): Primates of the World. Distribution, Abundance and Conservation. University of Chicago Press, Oxford.

WWF Germany (2005): Borneo: Schatzinsel in Gefahr. Report, Frankfurt, Germany.

WWF Indonesia (2003): *pers. comm*. by C. Saleh to H. Schulze.

WTB (undated): Group structure, composition and age-sex ration of nonhuman primates of Lawachara National Park., Wildlife Trust of Bangladesh, www.wildlifetrust-bd.org/Rescher/abstract.html, viewed 28th March 2006.

Yiming, L. & Dianmo, L. (1997a): The investigation on wildlife trade across Guangxi borders between China and Vietnam. In: *Conserving China' Biodiversity*: Reports of the Biodiversity Working Group, CCICED (1992-1996), MacKinnon & Sung Wang (eds.) Beijing: China Environment Science Press: 118-127.

Yiming, L. & Dianmo, L. (1997b): Status and strategy for control of live wildlife trade across the Sino-Vietnamese border. In: *Conserving China' Biodiversity*: Reports of the Biodiversity Working Group, CCICED(1992-1996), MacKinnon & Sung Wang (eds.) Beijing: China Environment Science Press: 128-140.

Yongqi, L. *et al.* (2003): Reclaiming degraded forest lands in the dry, hot climate of Yuanmou County, Yunnan. In: *Rehabilitation of degraded forests to improve livelihood of poor farmers in South China*. Dachang, L. (ed.), Centre for International Forestry Research, Bogor, Indonesia.

Zhang, Y. *et al.* (2002): Past, Present and Future. The Primates of China: Biography and Conservation Status. China Forestry Publishing House, Beijing.

Zhang, S.-Y. (1998): Current status and conservation strategies of primates in China. *Primate Conservation* 18: 81-84.

Zhang, Y. *et al.* (1994): Mitochondrial DNA and karyotype evidence for the phylogeny of the genus *Nycticebus*. In: *Current Primatology*, *Vol. 1, Ecology & Evolution,* Thierry *et al*. (eds.), Université Louis Pasteur, Strasbourg: 379-385.

ANNEX 1

Figure 1: Distribution of *Nycticebus bengalensis* and *Nycticebus coucang* (copyright: Helga Schulze)

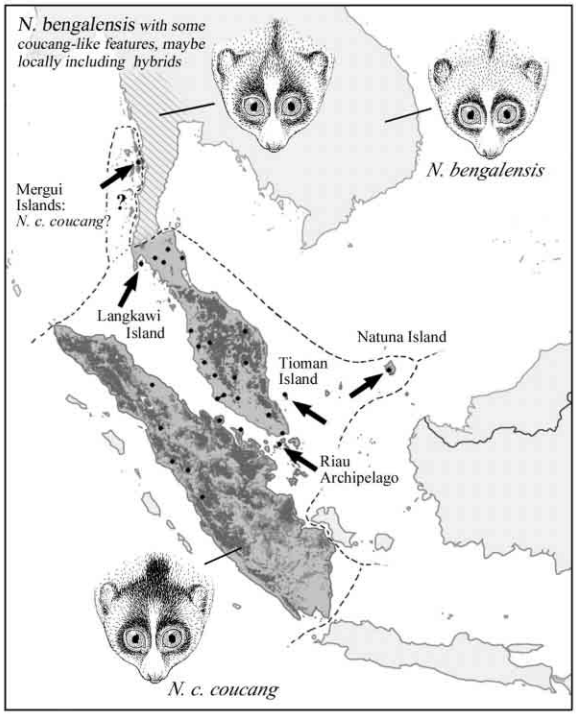
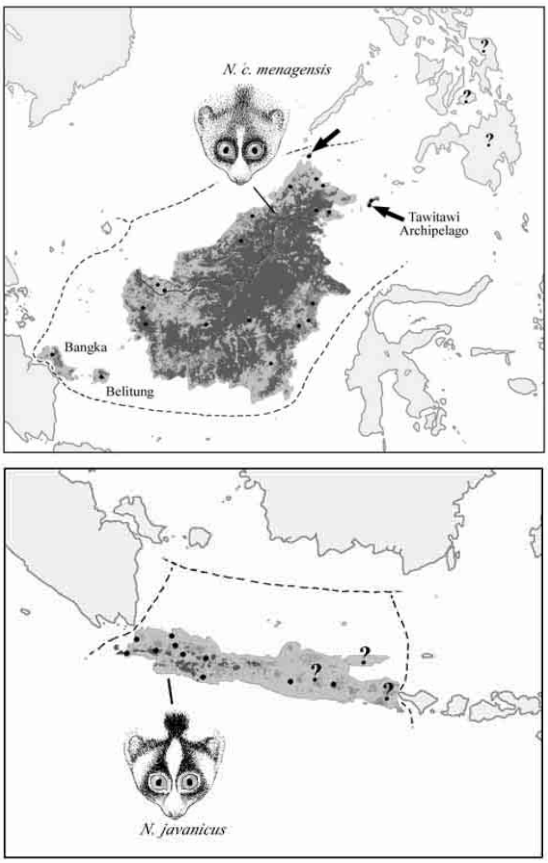


Figure 2: Distribution of *Nycticebus c. menagensis* (above) and *Nycticebus c. javanicus* (below) (copyright: Helga Schulze)



ANNEX 2

International trade data for *N. coucang* (data based on UNEP-WCMC 2006)

Export country	Export quantity	Import quantity	Purposes	Source	Term
AT	1	3	Z	unspecified	Live
AU	1	1	Z	I	Live
CA	2				
CH	1	7	Z, S	C, I, unspecified	Live, specimens
CN	18	18	T, unspecified	Unspecified, C	Live, unspecified
CZ	1	1	Z	C	Live
DE	3	3	Q, unspecified	O, unspecified	Skull, body
DK	1				
FR	4				
GB	2	9	T, S, unspecified	O, F, unspecified	Skulls, bones, specimens
HK	129	193	N, Z, unspecified	I, unspecified	Live, bodies, unspecified
ID	2				
IT		8			Live
JP	13	1	Unspecified, Z		Live, unspecified
KH		113	T, unspecified	I, U, W	Bodies, unspecified, skins
KR		2	I, unspecified		Bodies
LA		529	T, P, Z, unspecified	I	Live, skin, skeleton, feet, unspecified
MM	2				
MY	22	61	T, Z, unspecified	W, unspecified	Live, specimens
NL	2	4	Z, S, unspecified	W, C, unspecified	Live, specimens
PH	2				
RU	1				
SE	10	4	T, Z, unspecified	Unspecified, C	Live, unspecified
SG	360	581	T, Z or unspecified	Unspecified, O, U	Unspecified, live
TH		104	T, P, S, unspecified	W, I, unspecified	Live, bodies, skin, feet
US	25	8	Unspecified, E, M, S	Unspecified, F, C	Unspecified, bodies, specimens
VN		4	T, Z	W or unspecified	Live, skins
XX		24	Unspecified, P, N	I, unspecified	Live, bodies
TOTAL	**602**	**1,678**			

ANNEX 3

International trade data for *N. pygmaeus* (data based on UNEP-WCMC 2006).

Export Country	Export quantity	Import quantity	Purposes	Source	Term
BY	2		P	C	Live
CH	5	2	Z, unspecified	C, U, unspecified	Live
CZ	2	2	T	F	Live
DE	3	5	Z, unspecified	C, F, unspecified	Live, unspecified
FI	1	1	Z	U	Live
GB	1	6	Z, S	C, F	Live, specimens
HU	3	5	Unspecified, T, B	Unspecified, C	Live, unspecified
ID		2	P	I	Live
IL	4	3	Z, unspecified	C, I	Live
KH		4		W, I	Skin, bodies
LA		12	Z		Live
LV	3	3	T, Z	F, C	Live
NL		2	N	U	Live
PL	15	10	Unspecified, Z, S	W, C, F, O, U, unspecified	Live, bodies
RU	4		P, Z	I, O	Live
SE	40	23	T, Z, B	Unspecified, C	Live, unspecified
SU	2	2	Z		Live
US	26	5	Unspecified, S, B, Z	C, F, unspecified	Live, specimens
VN		38	Unspecified, S	I, W, U, unspecified	Live
XX		6	P	I	Live
TOTAL	**111**	**131**			