

Frankfurt Zoological Society: “Vietnam Primate Conservation Program” and the Endangered Primate Rescue Center, Vietnam - Report 2010

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Summary

The *Vietnam Primate Conservation Program* is a long-term project of Frankfurt Zoological Society in Vietnam and comprises several components to support the conservation of highly endangered primate species. The project focuses on the protection of primate habitats and wild populations with special attention paid to Delacour's langur (*Trachypithecus delacouri*), Hatinh langurs (*T. hatinhensis*) and as well as both red and grey-shanked douc langurs (*Pygathrix nemaeus*, *P. cinerea*).

The *Delacour's langur Conservation Project* continued in Van Long Nature Reserve as a focal point for the conservation of the “Critically Endangered” Delacour's langur. Primate surveys have mainly been focused on the monitoring of Delacour's langur populations in several areas. An ongoing decline of many subpopulations was recorded.

The *Red-shanked douc langur Conservation Project* in Son Tra Nature Reserve, Danang continued with the population study on this species. The study revealed an extremely high impact to the habitat of the langurs through intense road construction and the development of the area as a tourism spot.

The *Hatinh langur Reintroduction Project* in Phong Nha-Ke Bang National Park continued the ranger- and patrol activities, but activities to search and habituate the animals inside the semi-wild area have been extremely limited. This has now made it extremely difficult to locate the animals for the possibility to catch the animals for the planned and final release into the wild of the national park.

In January 2010, Frankfurt Zoological Society launched the *Grey-shanked douc langur Conservation Project* in the Kon Ka Kinh National Park. The capacity of the park's ranger was strengthened through training courses. The park's rangers and the FZS-project's staff patrolled about 12,000 ha of the park. 24 transects were set up in order to monitor endangered primates including the grey-shanked douc langur and the northern yellow-cheeked gibbon (*Nomascus annamensis*). About 720 school children attended lectures on wildlife conservation. Research on the population density and ecology of the grey-shanked douc langurs and northern yellow-cheeked gibbons was conducted.

The Endangered Primate Rescue Center was established in order to provide housing for confiscated endangered primates from the illegal wildlife trade. Captive breeding programs for several different taxa have been successfully employed. At the end of the year the EPRC keeps 151 primates in 16 taxa.

Based on a long-term agreement between Danang University and FZS a primate training course for students at the Danang University was organized. Thirty students attended the course.

To intensify the bonds of international cooperation and exchange experiences the “Second International Conference on Wildlife Rescue in East and Southeast Asia” was organized in Cuc Phong National Park. This conference was part of the Wildlife Animal Rescue Network (WARN) and had more than 70 participants making up different 16 nationalities.

Báo cáo năm 2010 – Hội Động vật học Frankfurt “Chương trình Bảo tồn Linh trưởng Việt Nam” và Trung tâm Cứu hộ Linh trưởng Nguy cấp

Tóm tắt

“*Chương trình Bảo tồn Linh trưởng Việt Nam*” là một dự án dài hạn của Hội Động vật học Frankfurt tại Việt Nam và bao gồm hỗ trợ nhiều hoạt động bảo tồn đối với một số loài thú linh trưởng có nguy cơ đe dọa bị tuyệt chủng cao. Dự án đã tập chung tới việc bảo vệ môi trường sống cho linh trưởng và bảo tồn các quần thể còn trong tự nhiên của một số loài như voọc mõng trắng, voọc Hà Tĩnh, chà và chân đỏ và chà và chân xám.

Dự án -*Bảo tồn loài voọc mõng trắng*- tại Khu bảo tồn thiên nhiên đất ngập nước Vân Long, tỉnh Ninh Bình vẫn được hoạt động tích cực nhằm bảo tồn loài voọc mõng trắng, một trong số những loài thú linh trưởng đặc hữu và nguy cấp cao. Các hoạt động ngoại nghiệp về linh trưởng hầu như được tập chung điều tra theo dõi các quần thể voọc mõng trắng còn trong tự nhiên. Các số liệu cho thấy sự tiêu giảm và có nhiều tác động tiêu cực đến nhiều tiểu quần thể của loài này.

Dự án -*Bảo tồn loài chà và chân đỏ*- tại Khu bảo tồn thiên nhiên Sơn Trà, thành phố Đà Nẵng vẫn được tiếp tục nghiên cứu các tiểu quần thể của loài này trên Bán đảo Sơn Trà. Sơ bộ nghiên cứu cho thấy sự tác động tiêu cực rất mạnh tới quần thể loài này tại đây là do các hoạt động xây dựng đường giao thông và gia tăng các khu du lịch mới.

Dự án -*Bảo tồn loài voọc Hà Tĩnh*- tại Vườn Quốc gia Phong Nha-Kẻ Bàng, tỉnh Quảng Bình vẫn được tiếp tục thực hiện với các hoạt động hỗ trợ lực lượng kiểm lâm thông qua công tác tuần tra rừng. Nhưng công tác theo dõi động vật được thả trong Khu bán hoang dã đã không được thực hiện liên tục, do vậy số liệu về hoạt động của chúng rất bị hạn chế. Đây cũng là một trong những khó khăn của Dự án bởi không xác định được vị trí trú ngụ của động vật để có thể tiến hành các bước tiếp theo nhằm bắt lại động vật cho việc thả động vật vào trong tự nhiên như đã dự kiến.

Tháng 1 năm 2010, Hội Động vật học Frankfurt đã chính thức triển khai Dự án -*Bảo tồn loài chà và chân xám*- tại Vườn Quốc gia Kon Ka Kinh, tỉnh Gia Lai. Nâng cao năng lực hoạt động cho cán bộ kiểm lâm đã được trải nghiệm qua các cuộc tập huấn. Cán bộ kiểm lâm của Vườn và cán bộ sinh học của dự án FZS đã hợp tác chặt chẽ trong công tác tuần rừng trên diện tích 12,000 ha. Thông qua công tác tuần rừng đã lập được 24 tuyến điều tra theo dõi linh trưởng của loài chà và chân xám và vượn má hung. Nghiên cứu về mật độ bầy đàn và tập tính sinh thái của loài chà và chân xám vẫn liên tục thu thập dữ liệu từ những năm trước. Về loài vượn má hung, sơ bộ điều tra đã ước tính có 40 đàn với khoảng 139 cá thể của loài này tại đây. Tất cả các số liệu điều tra và dữ liệu nghiên cứu linh trưởng này sẽ có giá trị khoa học quan trọng nhằm hỗ trợ cho công tác bảo vệ và bảo tồn tại Vườn Quốc gia Kon Ka Kinh. Có 720 lượt học sinh tham gia các buổi sinh hoạt bảo tồn thiên nhiên, tìm hiểu về động thực vật hoang dã được cán bộ kiểm lâm và cán bộ dự án phối hợp cùng các nhà trường trong địa bàn thực hiện.

Trung tâm Cứu hộ Linh trưởng Nguy cấp vẫn hoạt động với nhiệm vụ cứu hộ, phục hồi sức khỏe và chăm giữ thú linh trưởng sau khi được tịch thu từ những vụ săn bắt và buôn bán động vật hoang dã trái phép. Chương trình cho sinh sản một số loài và phân loài (taxa) thú linh trưởng nguy cấp cao vẫn được thực hiện thành công. Số lượng động vật đến cuối năm là 151 cá thể của 16 taxa.

Trên cơ sở hợp tác khoa học lâu dài giữa Đại học Đà Nẵng và FZS đã tổ chức thành công khóa tập huấn ngắn hạn trong mùa hè cho 30 sinh viên về kỹ năng ngoại nghiệp đối với lĩnh vực.

Nhằm tăng cường quan hệ hợp tác quốc tế trong khu vực, trao đổi kinh nghiệm cứu hộ và bảo tồn động vật hoang dã, Hội thảo lần thứ II về Cứu hộ Động vật hoang dã trong khu vực Đông và Đông Nam Á- đã được tổ chức thành công tại Vườn Quốc gia Cúc Phương trong tháng 11/2010. Đã có hơn 70 đại biểu đến từ 16 quốc gia tham dự Hội thảo.

Introduction

The *Vietnam Primate Conservation Program* is a long-term project of Frankfurt Zoological Society in Vietnam and comprises several components to support the conservation of highly endangered primate species. The project focuses on the protection of primate habitats and wild populations, which include the support of forest protection activities and education for communities surrounding such areas. In the past the intensified management of ranger activities to combat poaching and illegal wildlife trade led to an increase in the confiscation of endangered primate taxa. The Endangered Primate Rescue Center provides housing for such animals and has also started with breeding programs for further reintroduction projects.

Endangered Primate Rescue Center

Staff

The Vietnamese staff of 20 workers continued for the care of the animals. The workers are responsible for animal husbandry duties (i.e. feeding, cleaning, and cage maintenance) as well as the general up-keep of the center from landscaping to building maintenance.

The foreign head animal keeper Denny Lohse from Zoo Leipzig began his work in September 2009 and continued until August 2010. He was then replaced by Elke Schwierz who is also an animal keeper from Zoo Leipzig. Elke has worked for a total of five years at the EPRC.

Two volunteers from the German “DED-weltwaerts-Program”, Jonas Hagemann and Bastian Boge also worked from September 2009 until August 2010. In continuation of this program the volunteers Felix Schlieszus and Jonas Elsner began their work at the center in September 2010.

Jeremy Phan a volunteer from US worked from January to June in order to gain experience as an animal keeper. The four month period served as an internship to complete his Bachelor’s Degree in Zoology at Michigan State University.

Nguyen Thi Thu Hien continued her work as Vietnamese manager of the EPRC.

Primates housed at the EPRC

At the end of 2010 the EPRC housed 151 primates, including 122 langurs, 18 gibbons, and 11 lorises. In cooperation with Forest Protection Authorities in several provinces 7 douc langurs and 1 loris were confiscated (Fig. 1). During the year 13 langurs were born and 20 died this number



Fig.1. Confiscated red-shanked douc langur baby (*Pygathrix nemaeus*) in the care of an animal keeper at the Endangered Primate Rescue Center. Photo: Elke Schwierz.

includes 5 of the confiscated langurs. Despite intensive care and veterinary treatment the animals died due to severe injuries or due to the poor status of their health conditions.

Education

Mai Quang Tuan and Do Dang Khoa, working as animals keepers at the EPRC continued with their part time study at the Forest University Hanoi to receive diplomas as forest engineers.

Cooperation with Authorities to combat poaching and illegal wildlife trade

The Endangered Primate Rescue Center continued the cooperation with several provincial Forest Protection Authorities for the confiscation of primates (Fig. 2). A cooperation and exchange



Fig.2. Confiscated red-shanked douc langur (*Pygathrix nemaeus*) in a provincial Forest Protection Department prior to its transfer to the Endangered Primate Rescue Center. Photo: Tilo Nadler.

of information also exists with the Vietnamese Organization ENV (Education for Nature Vietnam) which is closely involved in the fight against illegal wildlife trade.

Delacour's langur Conservation Project in Van Long Nature Reserve

Van Long Nature Reserve continued as a focal point for the conservation of the "Critically Endangered" Delacour's langur. Several meetings with the province administration were organized in an effort to extend the area into the neighboring Hoa Binh Province. (Fig. 3, 4 and 5). For this reason the number of guards was also increased once more and is now at 27. As a very important step towards the protection of the area outside the future protected area of the nature reserve members of the community police and one hamlet leader were included as guards in the staff of the nature reserve. Hamlet leader and community police are powerful authorities in the communes in the control of gun use and forest encroachment.

FZS continues to pay salaries for the community guards who serve as the most important unit for the protection of the nature reserve. All guards also received new sets of uniforms.

Quarterly meetings with guards, commune leaders and commune police were organized to report protection activities, impact to the nature reserve, illegal activities and for the planning of protection activities (Fig. 6).



Fig.3. Event in the neighbouring Hoa Binh Province to Van Long Nature Reserve for the extension of the reserve. Photo: Tilo Nadler.



Fig.4. Discussion with authorities from communes of the proposed extension area for the nature reserve. Photo: Nguyen Thi Thu Hien.



Fig.5. The representative of the Forest Protection Authority of Yen Thuy District, Hoa Binh Province, Nguyen Manh Hong, and the representative of Frankfurt Zoological Society in Vietnam, Tilo Nadler, after a fruitful discussion about the extension of the nature reserve. Photo: Nguyen Thi Thu Hien.



Fig.6. Guards of Van Long Nature Reserve in preparation for a patrol. Photo: Tilo Nadler.

A gun control activity was organized by the Management Board of the nature reserve and the police in Dong Tam Commune. Guns were not confiscated, they are personal property, but the owners made commitments not to use the guns for hunting. The use of guns for hunting will be prosecuted by law.



Fig.7. The Vice Director of Van Long Nature Reserve, Mai Van Quyen, receives the certificate of the registration into the "Vietnamese Guinness Book of Records" for the protection of the worlds largest Delacour's langur population. Photo: Tilo Nadler.



Fig.8. The certificate of the "Vietnamese Guinness Book of Records" for the protection of the worlds largest Delacour's langur population. Photo: Tilo Nadler.

In December, Van Long Nature Reserve was rewarded with entry into the "Vietnamese Guinness Book of Records" for the protection of the highest existing Delacour's langur population (Fig. 7 and 8).

Red-shanked douc langur Conservation Project in Son Tra Nature Reserve

The PhD student Larry Ulibarri continued his study on the red-shanked douc langur population in Son Tra Nature Reserve on Son Tra Peninsula. The study revealed an extremely high impact to the habitat of the langurs through intense road construction and the development of the area as a tourism spot, including the construction of several resorts. The road contraction causes an increase in fragmentation of the douc langur population.

Hatinh langurs Reintroduction Project in Phong Nha-Ke Bang National Park

The ranger and patrol activities continued with the evaluation of the GPS coordinates collected during ranger patrols, especially for the designated release area for the Hatinh langur group currently at the semi-wild area.

Unfortunately activities to search and habituate the animals inside the semi-wild area have been extremely limited with the result that no information about the activities of these animals is available. The possibility to use the transmission of the radio collars carried by the animals at the groups inside the semi-wild area to identify sleeping places of the group failed. The radio transmission from radio collars has stopped after three years of the animals being released inside the large (20 ha) semi-wild area. This has now made it extremely difficult to locate the animals and sleeping places which could allow for the possibility to catch the animals for the planned and final release into the wilds of the national park. In the current situation it would take a great deal of time and expense to locate the animals and secure them for release.

Grey-shanked douc langur Conservation Project in Kon Ka Kinh National Park, Gia Lai Province (by Ha Thang Long)

In January 2010, Frankfurt Zoological Society launched a project in the Kon Ka Kinh National Park to save the grey-shanked douc langurs in the Central Highlands. The activity of the project has achieved several remarks:

The capacity of the park's ranger was strengthened through training courses. 20 rangers (of about 40 in total) from 7 stations and as well as from the head-quarter office were trained on biodiversity knowledge and the methodology of biodiversity monitoring. Skills for using orientation equipments such as GPS, maps, and compass for patrols were improved. Rangers also had a better understanding of biodiversity and forest protection laws.

The park's rangers and the FZS-project's staff patrolled about 12,000 ha of the park. 24 transects (about 84 km) were set up in order to monitor endangered primates including the grey-shanked douc langur and the northern yellow-cheeked gibbon.

The attitude of local people toward wildlife protection in Kon Ka Kinh National Park was improved. Since October 2010 the education team of the park conducted visits to the schools. About 720 school children attended lectures on wildlife conservation and the conservation the grey-shanked douc langurs. About 300 posters of the douc langurs and their conservation status were distributed.

Research on the population density and ecology of the grey-shanked douc langurs and northern yellow-cheeked gibbons was conducted. A population of about 40 gibbon groups with 139 individuals is estimated to live in the park. A small population of grey-shanked douc langurs with about 45 individuals was found outside the park border.

Primate Surveys and Research

Primate surveys have mainly been focused on the monitoring of Delacour's langur populations. These efforts are extremely important for the reintroduction and possible translocations. The biologist Nguyen Van Linh continued primate surveys in Van Long Nature Reserve and other areas where the Delacour's langurs occur. He and the biologist Nguyen Ai Tam were working as assistants for a genetic population study in Van Long Nature Reserve. The population study was carried out by the German

biologist Anja Ebenau from March to July. To examine the population genetic structure of Delacour's langur within VLNR, fecal samples were collected for genetic analysis.

Since September, the biologist Nguyen Hong Chung was employed and was also involved in surveys for Delacour's langurs.

In March, a brief Delacour's langur survey was carried out in Cuc Phuong National Park. Only a few individuals could be recorded and this information confirmed the decrease of the population.

An outstanding research result, documented from researchers at the German Primate Center and the EPRC has been the discovery and scientific description of a new gibbon species – the northern yellow-cheeked gibbon *Nomascus annamensis*.

Education an PR activities

In August a one-week primate training course by Danang University was organized based on a long-term contract between Danang University and FZS. Thirty students attended the course which provided information about conservation strategies and methods, primate systematics, identification of Vietnamese primates, primate research and research techniques, wildlife trade, and wildlife protection laws of Vietnam.

The course also included two days field training and observation of primates in Son Tra Nature Reserve. FZS project leaders Tilo Nadler, Ha Thang Long and the PhD student Larry Ulibarri, who carried out the douc langur research in Son Tra Nature Reserve, served as lecturers of the course (Fig. 9 and 10).

In May a BBC-Team visited the EPRC to make a report about the keeping of rare and highly endangered primates (Fig. 11).

Vietnam TV visited two time the EPRC to report about the conservation work.



Fig.9. Participants at the primate training course at Danang University. Photo: Tilo Nadler.



Fig.10. Certificate for the students attending the primate training course. Photo: Tilo Nadler.



Fig.11. In May, a BBC Team visited the EPRC to report about Vietnam's rare and endangered primates. Photo: Tilo Nadler.

“Second International Conference on Wildlife Rescue in East and Southeast Asia”

On November 9th through the 13th the “Second International Conference on Wildlife Rescue in East and Southeast Asia” of the Wildlife Animal Rescue Network (WARN) took place in Cuc Phuong National Park and was organized by the Endangered Primate Rescue Center / Frankfurt Zoological Society in cooperation with the Forest Protection Authority of Vietnam and Cuc Phuong National Park.

This second conference should strengthen the newly established cooperation between rescue centres in the region and provide a platform to exchange information and experiences in rescue centre management and animal rescue issues.

More than 70 participants of 16 nationalities attended the conference (Fig. 12). During the three day conference 24 presentations were made about general and species-specific issues on wildlife rescue activities. Visits to the three rescue centres at Cuc Phuong National Park – for primates, turtles, small carnivores and pangolins – and a visit to Van Long Nature Reserve with observations made of the Delacour's langurs in the wild rounded out the program (Fig. 13).



Fig.12. Participants of the “Second International Conference on Wildlife Rescue in East and Southeast Asia” of the Wildlife Animal Rescue Network (WARN), on November 9th to the 13th at Cuc Phuong National Park. Photo: Luong Van Hien.



Fig.13. Participants of the “Second International Conference on Wildlife Rescue in East and Southeast Asia” visit the Endangered Primate Rescue Center. Photo: Tilo Nadler.

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International Primate Protection League and Arcus Foundation, USA

Zoological Society of Philadelphia, USA

Zoological Society for the Conservation of Species and Populations, Germany

German Primate Centre

We are grateful for this support which makes our work possible towards the conservation of primate species which are on the brink of extinction.

Publications, reports and presentations resulting from the FZS “Vietnam Primate Conservation Program” and the Endangered Primate Rescue Center

The fourth issue of the *Vietnamese Journal of Primatology* came out in 2010 with the description of a new gibbon species as its highlight. The Journal can be ordered at the EPRC but is also available on the website of the IUCN/Primate Specialist group and on the website of Frankfurt Zoological Society.

A number of articles resulted from the FZS “Vietnam Primate Conservation Program” were published.

- Anonym** (2010): Die Verwandtschaft der Menschenaffen wird um eine Art reicher. ZGF-Gorilla 3/2010, 8-10.
- Benirschke K & Nadler T** (2010): Further observation on the placentas of leaf monkeys. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 109-113. Frankfurt Zoological Society & Conservation International, Hanoi.
- Dinh Thi Phuong Anh, Nguyen Dinh Hong Chung & Huynh Thi Nguyet Hang** (2010): Status and distribution of red-shanked douc langurs (*Pygathrix nemaeus*) and threats to their population at Son Tra Nature Reserve, Danang City. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 71-78. Frankfurt Zoological Society & Conservation International, Hanoi.
- Haus T, Vogt M & Forster B** (2010): Primate census in difficult to access karst forest in Phong Nha – Ke Bang National Park, Central Vietnam. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 53-61. Frankfurt Zoological Society & Conservation International, Hanoi.
- Ha Thang Long, Nguyen Thi Tinh, Tran Huu Vy & Ho Tien Minh** (2010): Activity budget of grey-shanked douc langurs (*Pygathrix cinerea*) in Kon Ka Kinh National Park, Vietnam. Vietnamese J. Primatol. Vol. 1 (4), 27-39.
- Ha Thang Long, Tran Huu Vy, Nguyen Thi Tinh** (2010): Feeding behaviour of grey-shanked douc monkeys in Vietnam. Presentation on the XXIII. IPS Congress, Kyoto. Primate Research 26, Supplement, 185 (Abstract).
- Houck ML, Benirschke K, Nadler T, Streicher U, Stanyon R & Ryder OA** (2010): Chromosomal studies of leaf-eating primates. In Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 115-120. Frankfurt Zoological Society & Conservation International, Hanoi.
- Kullik H** (2010): Water consumption of Delacour's langurs (*Trachypithecus delacouri*) and grey-shanked douc langurs (*Pygathrix cinerea*) in captivity. Vietnamese J. Primatol. Vol. 1 (4), 41-47.
- May E** (2010): The Pedicinus species (Insecta, Phthiraptera, Anoplura, Pediciniidae) on douc langurs (*Pygathrix* spp.). Vietnamese J. Primatol. Vol. 1 (4), 57-68.
- Nadler T** (2010): Color variation in Hatinh langurs (*Trachypithecus [laotum] hatinhensis*). Vietnamese J. Primatol. Vol. 1 (4), 13-18.
- Nadler T** (2010): Frankfurt Zoological Society: “Vietnam Primate Conservation Program” and the Endangered Primate Rescue Center, Vietnam – Report 2009. Vietnamese J. Primatol. Vol. 1 (4), 75-88.
- Nadler T** (2010): Status of Vietnamese Primates – complements and revisions. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 3-16. Frankfurt Zoological Society & Conservation International, Hanoi.
- Nadler T** (2010): Aktuelle Entwicklungen des Endangered Primate Rescue Center, Vietnam. ZGAP Mitteilungen 26, 17-21.
- Nadler T** (2010): Conservation of primates in Vietnam. Presentation on the Pre-Congress Symposium and Workshop in Inuyama. Primate Research 26, Supplement, 3 (Abstract).
- Nadler T** (2010): Status, threats and distribution of primates in Vietnam – and current conservation activities. Primate Research 26, Supplement, 109 (Abstract).
- Nadler T** (2010): Development and goal of the Endangered Primate Rescue Center, Vietnam. Presentation on the “Second International Conference on Wildlife Rescue in East and Southeast Asia”, Cuc Phuong National Park.
- Nadler T, Rawson BM & Van Ngoc Thinh** (2010): Conservation of Primates in Indochina. Frankfurt Zoological Society & Conservation International, Hanoi.
- Nguyen Xuan Nghia, Nguyen Xuan Dang, Nadler T & Le Van Dung** (2010): Feeding ecology of northern white-cheeked gibbons (*Nomascus leucogenys*) in a semi-wild enclosure at the Endangered Primate Rescue Center, Cuc Phuong National Park, Vietnam. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 211-220. Frankfurt Zoological Society & Conservation International, Hanoi.
- Schwierz E** (2010): Keeping langurs at the Endangered Primate Rescue Center, Cuc Phuong National Park. Presentation on the “Second International Conference on Wildlife Rescue in East and Southeast Asia”, Cuc Phuong National Park.
- Stefen C & Szokoli F** (2010): On the hairs and hair cuticle structure of douc langurs (*Pygathrix* sp.) and the Tonkin snub nosed monkey (*Rhinopithecus acuncululus*). Vietnamese J. Primatol. Vol. 1 (4), 49-56.
- Streicher U** (2010): The Douc of Danang. IPPL News, 37/3, 12-15.
- Van Ngoc Thinh, Mootnick AR, Vu Ngoc Thanh, Nadler T & Roos C** (2010): A new species of crested gibbon, genus *Nomascus* from the central Annamite mountain range. Vietnamese J. Primatol. Vol. 1 (4), 1-12.
- Van Ngoc Thinh, Nadler T, Roos C, & Hammerschmidt K** (2010): Taxon-specific vocal characteristics of crested gibbons (*Nomascus* spp.). In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 121-132. Frankfurt Zoological Society & Conservation International, Hanoi.

- Vogt M & Forster B** (2010): The Primate Reintroduction Program in Phong Nha-Ke Bang National Park, Central Vietnam. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 245-252. Frankfurt Zoological Society & Conservation International, Hanoi.
- Workman C & Le Van Dung** (2010): Seasonal effects on feeding selection by Delacour's langur (*Trachypithecus delacouri*) in Van Long Nature Reserve, Vietnam. In: Nadler, T. Rawson, B.M., and Van Ngoc Thinh (eds.): Conservation of Primates in Indochina; pp. 143-156. Frankfurt Zoological Society & Conservation International, Hanoi.

Appendix

Register of primates at the EPRC 2010 - (up to date 31.12. 2010)

(*species or subspecies only held in EPRC anywhere in the world)

No.	Date of arrival	Sex	Date born or estimated	Sire	Dam	Source	Current status
Delacour's langur <i>Trachypithecus delacouri</i> (*)							
1-01	Jan.93	M	1990	wild	wild	confiscated	EPRC
1-02	Jan.93	M	1990	wild	wild	confiscated	EPRC
1-04	17.5.94	M	1993	wild	wild	confiscated	EPRC
1-06	28.7.96	F	28.7.96	1-01	1-03	born EPRC	EPRC
1-07	21.2.98	M	21.2.98	1-01	1-03	born EPRC	EPRC
1-09	3.4.01	F	3.4.01	1-01	1-03	born EPRC	EPRC
1-10	4.6.01	M	4.6.01	1-02	1-05	born EPRC	EPRC
1-12	7.12.02	M	7.12.02	1-01	1-03	born EPRC	EPRC
1-13	9.7.03	F	9.7.03	1-02	1-06	born EPRC	EPRC
1-15	14.7.04	M	14.7.04	1-01	1-03	born EPRC	EPRC
1-16	1.6.05	M	1.6.05	1-04	1-08	born EPRC	EPRC
1-17	27.10.05	F	27.10.05	1-02	1-06	born EPRC	EPRC
1-18	19.4.07	M	19.4.07	1-04	1-08	born EPRC	EPRC
1-19	8.1.08	M	8.1.08	1-02	1-06	born EPRC	EPRC
1-20	30.1.08	M	30.1.08	1-10	1-09	born EPRC	EPRC
1-21	29.7.08	F	29.7.08	1-07	1-13	born EPRC	EPRC
1-23	20.5.10	F	20.5.10	1-02	1-06	born EPRC	EPRC
1-24	1.11.10	?	1.11.10	1-02	1-17	born EPRC	†2.11.10
Hatinh langur <i>Trachypithecus laotum hatinhensis</i> (*)							
2-01	11.5.93	M	1990	wild	wild	confiscated	EPRC
2-03	13.1.94	F	1993	wild	2-02	confiscated	EPRC
2-05	9.4.94	F	1994	wild	2-04	confiscated	EPRC
2-09	14.1.96	F	ad.	wild	wild	confiscated	EPRC
2-10	6.2.96	M	6.2.96	2-01	2-08	born EPRC	EPRC
2-11	27.4.96	F	27.4.96	2-01	2-04	born EPRC	EPRC
2-12	27.11.96	M	1995	wild	wild	from private	EPRC
2-13	28.3.97	M	28.3.97	2-01	2-09	born EPRC	EPRC
2-14	22.5.97	F	22.5.97	2-01	2-08	born EPRC	EPRC
2-15	15.10.97	M	1995	wild	wild	from tourists	†1.9.10
2-17	11.12.97	F	1994	wild	wild	from tourists	EPRC
2-20	11.3.98	F	1995	wild	wild	from tourists	EPRC
2-22	24.2.99	M	24.2.99	2-01	2-08	born EPRC	EPRC
2-23	9.4.99	M	9.4.99	2-01	2-09	born EPRC	EPRC
2-24	25.3.00	M	25.3.00	2-15	2-17	born EPRC	EPRC
2-26	20.11.00	M	20.11.00	2-15	2-11	born EPRC	EPRC
2-27	7.1.01	F	7.1.01	2-15	2-20	born EPRC	EPRC
2-32	4.4.02	F	4.4.02	2-15	2-17	born EPRC	EPRC
2-36	14.11.03	F	14.11.03	2-12	2-05	born EPRC	EPRC
2-41	28.11.04	M	28.11.04	2-01	2-09	born EPRC	EPRC
2-46	1.8.05	F	ca. 2004	wild	wild	confiscated	EPRC
2-47	27.11.05	M	27.11.05	2-12	2-05	born EPRC	EPRC
2-48	14.2.06	F	14.2.06	2-15	2-11	born EPRC	EPRC
2-49	29.6.06	F	29.6.06	14-01	2-14	born EPRC	EPRC
2-50	28.9.06	M	28.9.06	2-12	2-03?	born EPRC	EPRC
2-51	20.10.06	M	20.10.06	2-10	2-27	born EPRC	EPRC
2-52	31.10.06	F	31.10.06	2-10	2-32	born EPRC	EPRC

2-53	10.12.06	M	10.12.06	2-15	2-20	born EPRC	EPRC
2-54	30.3.07	M	30.3.07	2-15	2-17	born EPRC	EPRC
2-56	??9.07	M	??9.07	2-12	2-36	born EPRC	EPRC
2-57	18.3.08	F	18.3.08	14-01	2-14	born EPRC	EPRC
2-58	19.5.08	F	19.5.08	2-15	2-11	born EPRC	EPRC
2-59	29.12.08	?	29.12.08	2-12	2-03	born EPRC	EPRC
2-60	1.4.09	M	1.4.09	2-10	2-27	born EPRC	EPRC
2-62	???	M	??5.09	2-12	2-05	born EPRC	EPRC
2-63	4.6.09	F	4.6.09	2-15	2-20	born EPRC	EPRC
2-64	20.1.10	M	20.1.10	14-01	2-14	born EPRC	EPRC
2-65	21.1.10	M	21.1.10	2-01	2-09	born EPRC	†22.1.10
2-66	1.5.10	F	1.5.10	2-10	2-32	born EPRC	†6.5.10
2-67	8.5.10	F	8.5.10	2-47	2-46	born EPRC	†9.5.10
2-68	28.10.10	M	28.10.10	2-15	2-20	born EPRC	EPRC
2-69	27.11.10	M	27.11.10	2-01	2-09	born EPRC	EPRC

Black langur *Trachypithecus laotum hatinhensis* morph "ebenus" (*)

14-01	12.1.98	M	1996	wild	wild	from tourists	EPRC
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Laos langur *Trachypithecus laotum laotum* (*)

3-01	26.9.95	M	1995	wild	wild	confiscated	EPRC
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Grey langur *Trachypithecus crepusculus*

4-04	22.1.97	F	1996	wild	wild	from private	EPRC
4-05	14.4.00	F	1999	wild	wild	confiscated	EPRC
4-07	24.1.02	F	24.1.02	4-06	4-04	born EPRC	EPRC

Cat Ba langur (Golden-headed langur) *Trachypithecus p. poliocephalus* (*)

15-01	8.11.98	F	1998	wild	wild	Cat Ba NP	EPRC
15-04	2.6.03	M	2.6.03	15-02	15-01	born EPRC	EPRC
15-06	1.3.10	M	1.3.10	15-04	15-01	born EPRC	EPRC

Francois' langur *Trachypithecus francoisi*

17-01	8.1.02	F	1997	wild	wild	Na Hang NR	EPRC
17-02	30.9.05	M	2003	wild	wild	confiscated	EPRC

Red-shanked douc langur x Hatinh langur *P. nemaus* x *T. laotum hatinhensis* (*)

18-01	14.10.03	F	14.10.03	6-9/12?	2-03	born EPRC	EPRC
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Red-shanked douc langur *Pygathrix nemaus*

6-02	17.3.96	F	1992	wild	wild	confiscated	EPRC
6-05	8.5.97	M	ad.	wild	wild	confiscated	EPRC
6-06	24.5.97	M	1994	wild	wild	from tourists	EPRC
6-09	10.7.97	M	1997	wild	wild	confiscated	EPRC
6-12	28.11.97	M	1997	wild	wild	from tourists	EPRC
6-14	12.1.98	M	1996	wild	wild	from tourists	EPRC
6-16	2.4.98	M	1994	wild	wild	from tourists	EPRC
6-21	30.12.98	F	30.12.98	6-05	6-02	born EPRC	EPRC
6-28	19.8.00	M	1996	wild	wild	confiscated	EPRC
6-29	25.4.01	M	25.4.01	6-05	6-13	born EPRC	EPRC
6-30	6.6.01	F	6.6.01	6-06	6-02	born EPRC	†24.1.10
6-31	21.4.02	F	21.4.02	6-06	6-02	born EPRC	EPRC
6-32	24.2.03	F	24.2.03	6-06	6-02	born EPRC	EPRC
6-37	25.8.04	M	25.8.04	6-06	6-02	born EPRC	EPRC

6-38	13.12.04	F	ad.	wild	wild	confiscated	EPRC
6-39	13.4.05	M	ad.	wild	wild	confiscated	EPRC
6-41	9.5.05	F	9.5.05	6-12	6-21	born EPRC	EPRC
6-42	11.6.05	M	April 05	wild	wild	confiscated	EPRC
6-46	17.8.06	F	2001	wild	wild	confiscated	EPRC
6-53	17.10.07	F	2003	wild	wild	confiscated	EPRC
6-55	2.2.08	F	2.2.08	6-28	6-46	born EPRC	EPRC
6-56	6.2.08	F	6.2.08	6-08	6-30	born EPRC	EPRC
6-58	27.3.08	F	27.3.08	6-16	6-32	born EPRC	EPRC
6-60	20.7.08	M	2007	wild	wild	confiscated	EPRC
6-61	14.3.09	M	14.3.09	6-12	6-21	born EPRC	EPRC
6-62	17.3.09	M	17.3.09	6-28	6-31	born EPRC	EPRC
6-63	9.6.09	M	2002	wild	wild	confiscated	EPRC
6-64	31.3.10	F	ad.	wild	wild	confiscated	EPRC
6-65	7.4.10	M	ad.	wild	wild	confiscated	†8.4.10
6-66	21.4.10	M	ad.	wild	wild	confiscated	†5.8.10
6-67	2.5.10	M	2.5.10	6-16	6-38	born EPRC	EPRC
6-68	9.7.10	M	ad.	wild	wild	confiscated	†25.12.10
6-69	19.8.10	M	19.8.10	6-28	6-46	born EPRC	EPRC
6-70	21.8.10	M	21.8.10	6-16	6-38	born EPRC	EPRC
6-71	4.9.10	F	June 10	wild	wild	confiscated	†4.10.10

Grey-shanked douc langur *Pygathrix cinerea* (*)

7-01	31.8.95	M	1992	wild	wild	confiscated	†27.12.10
7-04	4.8.97	M	1994	wild	wild	confiscated	EPRC
7-09	13.2.01	M	ca.1996	wild	wild	confiscated	EPRC
7-11	15.12.01	F	ca. 1997	wild	wild	confiscated	EPRC
7-13	12.7.02	F	ad.	wild	wild	confiscated	EPRC
7-14	18.8.02	M	1998	wild	wild	confiscated	EPRC
7-16	11.12.02	M	ad.	wild	wild	confiscated	EPRC
7-19	13.3.03	M	subad.(1998)	wild	wild	confiscated	EPRC
7-24	15.1.04	F	15.1.04	7-04	7-13	born EPRC	EPRC
7-25	9.11.04	M	2000	wild	wild	confiscated	EPRC
7-28	6.6.05	F	6.6.05	7-01	7-11	born EPRC	EPRC
7-29	14.8.05	F	ca. 2005	wild	wild	confiscated	EPRC
7-30	9.11.05	F	ad.	wild	wild	confiscated	EPRC
7-31	5.3.06	M	5.3.06	7-04	7-13	born EPRC	†25.9.10
7-34	19.10.06	F	2000	wild	wild	confiscated	EPRC
7-35	3.11.06	F	ad.	wild	wild	confiscated	EPRC
7-37	24.12.06	M	2003	wild	wild	confiscated	EPRC
7-39	17.3.07	M	2003	wild	wild	confiscated	EPRC
7-40	10.10.07	M	10.10.07	7-09	7-34	born EPRC	EPRC
7-43	5.5.08	M	5.5.08	7-01	7-11	born EPRC	†8.9.10
7-45	5.12.08	F	2007	wild	wild	confiscated	EPRC
7-46	4.3.09	M	2005	wild	wild	confiscated	EPRC
7-47	11.3.09	M	2004	wild	wild	confiscated	EPRC
7-48	8.3.09	F	8.3.09	7-19	7-30	born EPRC	EPRC
7-49	8.4.09	M	2009	wild	wild	confiscated	EPRC
7-52	25.2.10	M	2005	wild	wild	confiscated	EPRC
7-53	31.3.10	M	ad.	wild	wild	confiscated	EPRC
7-54	8.4.10	M	ad.	wild	wild	confiscated	†17.4.10
7-55	6.5.10	M	6.5.10	7-09	7-34	born EPRC	EPRC

Black-shanked douc langur *Pygathrix nigripes*

13-05	15.3.01	M	1996	wild	wild	confiscated	EPRC
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Northern White-cheeked gibbon *Nomascus leucogenys*

8-01	30.9.94	F	1993	wild	wild	from foreigner	EPRC
8-03	28.5.02	M	1999	wild	wild	confiscated	EPRC
8-08	19.11.04	F	2001	wild	wild	confiscated	EPRC

Southern white-cheeked gibbon *Nomascus siki*

9-02	18.9.93	F	1993	wild	wild	from foreigner	EPRC
9-05	10.11.94	M	1992	wild	wild	from foreigner	EPRC
9-06	24.2.95	F	1993	wild	wild	from tourists	EPRC
9-07	30.10.96	M	1996	wild	wild	from tourists	†16.5.10
9-08	1.12.98	F	1998	wild	wild	from tourists	EPRC
9-09	23.6.99	M	23.6.99	9-05	9-02	born EPRC	EPRC
9-11	25.7.02	F	25.7.02	9-03	9-06	born EPRC	EPRC
9-12	17.12.02	M	17.12.02	9-05	9-02	born EPRC	EPRC
9-13	21.11.06	F	21.11.06	9-05	9-02	born EPRC	EPRC
9-15	15.7.09	M	15.7.09	9-05	9-02	born EPRC	EPRC

Northern Yellow-cheeked gibbon *Nomascus annamensis* (*)

20-01=10-02	6.2.97	F	1994	wild	wild	confiscated	EPRC
20-02=10-09	9.7.10	M	2005	wild	wild	confiscated	EPRC

Southern Yellow-cheeked gibbon *Nomascus gabriellae*

10-02 = now identified as <i>N. annamensis</i> 20-01							
10-04	3.6.01	F	1997	wild	wild	confiscated	EPRC
10-05	11.6.04	F	2001	wild	wild	confiscated	EPRC
10-06	21.5.04	F	2003	wild	wild	confiscated	†12.4.10
10-07	7.10.06	F	2005	wild	wild	confiscated	EPRC
10-08	7.10.06	F	2005	wild	wild	confiscated	EPRC
10-09 = now identified as <i>N. annamensis</i> 20-02							

Slow loris *Nycticebus bengalensis*

11-09	20.11.07	F	ad.	wild	wild	confiscated	EPRC
11-10	22.6.08	F	ad.	wild	wild	confiscated	EPRC
11-11	9.5.09	F	ad.	wild	wild	confiscated	EPRC

Pygmy loris *Nycticebus pygmaeus*

12-36	22.2.01	F	22.2.01	12-09	12-04	born EPRC	EPRC
12-70	24.2.06	F	ad.	wild	wild	confiscated	†15.9.10
12-72	24.2.06	F	ad.	wild	wild	confiscated	EPRC
12-88	17.5.07	F	ad.	wild	wild	confiscated	EPRC
12-97	12.4.08	F	ad.	wild	wild	confiscated	EPRC
12-99	7.1.09	F	ad.	wild	wild	confiscated	†19.12.10
12-100	14.3.09	F	ad.	wild	wild	confiscated	†29.8.10
12-101	Febr.09	M	2/2009	wild	12-98	born EPRC	†23.2.10
12-102	Febr.09	F	2/2009	wild	12-99	born EPRC	EPRC
12-103	Febr.09	M	2/2009	wild	12-99	born EPRC	EPRC
12-110	6.8.09	M	2008	wild	wild	from private	EPRC
12-112	29.4.10	M	ad.	wild	wild	confiscated	EPRC