Establishment of a Primate Data Base at the Endangered Primate Rescue Center, Vietnam

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Summary

The fast development of Vietnam has had a substantial impact on natural resources of the country. All primate species in Vietnam are under high pressure, some of them on the brink of extinction. In particular, the Vietnamese endemic species are highly threatened. The nation of Vietnam is responsible for the guarantee of their preservation and survival. To support the biodiversity conservation a documentation of the historical and current changes of the fauna is necessary. A comprehensive data set for primates should support statements about the status of populations, threats, decisions about land use and protected areas.

The Endangered Primate Rescue Center at Cuc Phuong National Park has been involved in primate conservation work for more than ten years, and is also a center for the collection of information regarding to primates. The center purchased the special computer program “Bio-Office” and is going to establish a “Primate Data Base” which should contain relevant data about Vietnamese primates. This data base should be comprised of new results of surveys and research as well as historical information.

The EPRC would like to invite institutions, organizations, and scientists who are working on primate related fields to contribute publications, reports, and information. In exchange the information in the data base will be freely accessible in the future through a browser on the internet.

Thiết lập cơ sở dữ liệu về thú linh trưởng tại Trung tâm Cứu hộ Thú Linh trưởng Nguy cấp, Việt Nam

Tóm Tát

Sự phát triển nhanh chóng ở Việt Nam đã dẫn đến những tác động nghiêm trọng lên nguồn tài nguyên thiên nhiên của quốc gia. Tất cả các loài thú linh trưởng có ở Việt Nam đều trong tình trạng bị đe doạ nghiêm trọng, một số loài đang đứng trước nguy cơ tuyệt chủng. Đặc biệt là đối với các loài thú linh trưởng đặc hữu của Việt Nam. Chính phủ Việt Nam cần có biện pháp đảm bảo sự tồn tại và phát triển của các loài thú linh trưởng này. Nhà chức trách công cuộc bảo tồn đã đăng sinh học ở Việt Nam, dữ liệu về những thay đổi trong quá khu và hiện tại của hệ động vật là rất cần thiết. Một dữ liệu hoàn chỉnh sẽ giúp thấy rõ tình trạng bảo tồn, các mối đe doạ đối với thú linh trưởng ở Việt Nam, trên cơ sở đó những quyết định đúng đắn về các khu vực bảo vệ và sử dụng tài nguyên đất sẽ được đề xuất.


Trung tâm Cứu hộ Thú Linh trưởng Nguy cấp kinh mong các viễn nghiên cứu, các tổ chức và các nhà khoa học có nghiên cứu về linh trưởng đồng góp tài liệu, báo cáo và thông tin khoa học để
Introduction

Vietnam is the country with the fastest economic growth in Southeast Asia. This rapid growth has brought dramatic reduction in poverty and improvements in the material standard of living for most of its people. With development and continuously human population growth has also come expansion of urban areas, rapid land use changes, growing exploitation of natural resources, and intense pressure on the nature (Ministry of Natural Resources and Environment et al., 2005).

In the 19th century, Vietnam was richly endowed with high-quality forest, covering nearly the whole country probably 30 Mha of the country’s 33 Mha. By 1943, the forest cover had been reduced to only 14 Mha. From then on, forest area decreased very rapidly, in particular during the war, and in the period following the war, from 1976 to 1985. In 1990, the government estimated a decline to 11 Mha. Major national reforestation programs have turned around these negative trends, and in 2004 the forest cover increased to 12.3 Mha. But only 7 percent of the remaining forests are considered “primary” forests, and nearly 70 percent of remaining forests are considered to be poor quality and secondary forests (Ministry of Natural Resources and Environment et al., 2005).

The decrease of forest and forest fragmentation set a high pressure to forest dwelling animal species. Many, in particular larger mammal species, are additionally threaten through increasing poaching. Poaching is one of the most significant threats to many animal species. In 2002, the trade in wildlife within and from Vietnam amounted to approximately 3,050 tons and was worth over US$66 million (Ministry of Natural Resources and Environment et al., 2005)! A not negligible part is the primates. Nearly all 25 primate taxa in Vietnam are threatened with extinction, 7 listed as “Critically Endangered”, 9 as “Endangered”, 7 as “Vulnerable” and only two species fall into the category “Least Concern” (Southeast Asia Mammal Data Bank, 2006).

Quickly changing primate habitats – a result of various factors including population growth, deforestation and economic development – and the impact of poaching on primate populations make documentation, that will contribute to the conservation of the country's biodiversity, necessary.

This documentation allows for the monitoring of population development and status, aid decisions about conservation activities, land use planning and proper use of resources which avoid or minimize negative impacts to the threatened species.

The fast changing primate habitats trough various reasons and the impact on primate populations through poaching make a documentation necessary which allowed following up the development of populations, support decisions about conservation, land use planning and resource use to avoid or to minimize the impact to the threatened species, and to contribute to the conservation of the country’s biodiversity.

In 2006 the Endangered Primate Rescue Center established a data base for Vietnam's primates.

Content of the “Primate Data Base”

The Primate Data Base strives to provide a comprehensive overview of all primate related data that belongs to the country’s primate fauna. This should include:

• description of the taxa
• systematics, molecular genetics, anatomy
• distribution, population density, population dynamics
• ecology, habitat structures, feeding ecology, resources use
• behavior, social structures, ranging behavior, dispersal and inter group relations
• threats, habitat disturbance, poaching
• land use planning in the distribution area
• recommendations for conservation actions
• photo archive from primate species and primate habitats
The database should also contain all information from historical time regarding previous distribution and population densities. Historical publications and documents should be available in a scanned version.

Publications and documents, including reports of organizations which are available in an electronic version should be available in PDF-Format.

“BioOffice” program of the Primate Data Base

BioOffice is the software solution for the management of biological distribution data, for cartographic presentation, spatial analysis and interchange of data from field surveys as well as data collection. The comprehensive data model which BioOffice is based on allows the integration of spatial and factual information. It features both GIS and database functionality in one product. The digital recording of biological data in their spatial context and the presentation in maps puts them in a new perspective.

BioOffice surpasses conventional software tools currently available for the management of biological data, because it combines an extensive data base module – used for the documentation of factual characteristics of objects – with an integrated GIS module, which enables the gathering, representation and evaluation of the spatial relation of these objects – without requiring sophisticated software expertise.

The program is a tool for the visualization, evaluation and utilization of area-related biological data, for use in working with taxon based information in projects such as field surveys, biodiversity issues, monitoring and a support for resources management and land use planning.

Organisation of the Primate Data Base

In the beginning of the project, a Primate Data Base manager will collect all primate relevant sources for a reference catalog. The reference catalog should contain the complete papers, articles, books, and also unpublished reports and information.

Information about primate taxa (systematics, genetics, anatomy, distribution, population dynamics, biology, ecology, threats etc.) and about primate habitats (forest type and structure, protection status, climate, forest use, land use planning etc.) should be extracted from the reference catalog.

In a second step, contributions to the Data Base can made from participants through internet directly to the program as provisional data until the information is reviewed and involved in the program.

In addition to the data collection, a photo catalog about the primate species, habitats and habitat changes are also considered. Images are not for use in commercial purposes and are managed under strict commitments of the authors.

References

