

森林脈搏

華南生物多樣性保育

通信刊物



Living Forests

A newsletter for biodiversity conservation in South China

本期內容：

Inside this issue:

鼎湖山自然保護區

Ding Hu Shan Biosphere Reserve

華南植物研究所生物多樣性研究

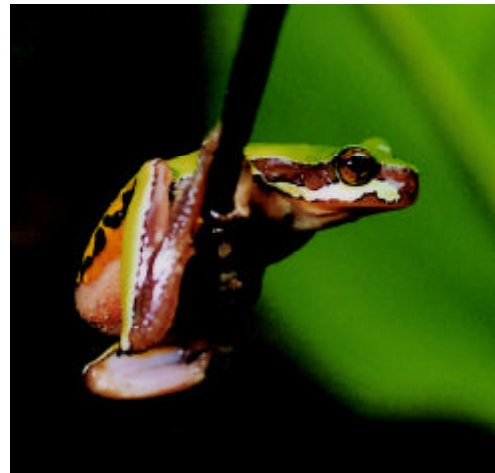
SCIB Biodiversity Studies

木論自然保護區

Mu Lun Nature Reserve

白頭葉猴

White-headed Leaf Monkeys



歡迎參閱第一期的「森林脈搏」，這是華南生物多樣性保育計劃的通信刊物。「森林脈搏」扎根於華南地區的大自然遺產，本刊物免費贈閱予投身於華南地區自然保育與生物多樣性研究工作的人士。

歷史上，華南的森林曾是那片延綿赤道海岸到北極永凍土的獨特森林其中的一部分。當同一緯度上，地球的另一個角落已成為沙漠的世界，太平洋的季風卻為這裏的北回歸線一帶帶來潮濕的夏季。華南地區的陸生生物因而得以在這片土地上生息繁衍數百萬年，並發展出類似東南亞繁茂的熱帶雨林、卻又別具特色的森林生態。在中國形形色色的生物群落中，廣東、廣西、海南這三個熱帶省份的生物多樣性佔有相當重要的位置，可與馳名的雲南、四川、西藏高原等地相比擬。

(續下頁)

Welcome to the first issue of *Living Forests*, a newsletter about biodiversity conservation in South China. It is issued free of charge to those engaged in conservation and biodiversity study in the region. Its roots lie in the extraordinary natural heritage of South China.

The southern China forests were part of a unique, uninterrupted tract of forest that stretched from the equatorial shores to the Arctic permafrost. The Pacific monsoon allows a moist summer climate around the Tropic of Cancer, which elsewhere in the world is straddled by deserts. As a result terrestrial life in South China has flourished and diversified over millions of years, and the forest biota has similarities to the lush rain forests of South East Asia, but with its own distinctive features. (cont'd on P. 3)

目錄

CONTENTS

1. 森林脈搏簡介	1
Introduction to <i>Living Forests</i>	1
2. BWG 華南會議	4
BWG in South China	5
3. 鼎湖山國家級自然保護區的管理	6
Management of the Ding Hu Shan	7
Biosphere Reserve	
4. 中國科學院華南植物研究所生物	8
多樣性研究現狀	
Current status of biodiversity studies in	9
the South China Institute of Botany,	
Chinese Academy of Sciences	
5. 廣西環江縣木論自然保護區植物	10
資源概覽	
Plant resources in Mu Lun Nature	11
Reserve, Huan Jiang, Guangxi	
6. 廣西白頭葉猴生存危機	12
Survival crisis for the White-headed	13
Leaf Monkeys in Guangxi	
7. 一九九八年在廣東、廣西和海南	15
記錄到在全球或國家受威脅的生物	
Records of globally or nationally	
threatened wildlife in Guangdong,	
Guangxi and Hainan, 1998.	
8. 新聞焦點	20
In the news	23
9. 書評	26
Book review	27
10. 近期出版書籍	28
A selection of recent publications	29
11. 難以對付的兩個問題	30
Two tough questions	31
12. 華南地圖 Map of South China	32
報告 Announcement	32

森林脈搏 簡介

(續上頁)

然而，華南地區氣候和暖、土壤富饒，這同時有利於區內的農業耕作，再加上區內急劇的經濟發展，自然環境無疑賠上了代價。今天，人類活動與自然界生息之間的矛盾威脅著整個東亞森林生物群落的存亡；許多情況下，物種還未被科學界發現就已經消失了，更枉論發掘它們對人類的潛在利益。此等生物多樣性的保育工作已成為當前一件刻不容緩，並且非常重要的事情。

我國政府對大自然的保護工作已實施了數十年，而國內首個自然保護區則在 1956 年設於廣東省鼎湖山。在未建立保護區以前，已有無數人士重視鼎湖山的自然資源，就如十七世紀的僧侶們，甘愿奉獻一生來保護她。自 1956 年來，廣東、廣西、海南三省合共設立了超過 160 個保護區，而餘下的森林，現在大部分也得到立法保護。可是，即使是在保護區裏，人類對短期利益的追求仍可能不利於保護森林與生物多樣性。要成功取得經濟發展與自然保育之間的平衡，便須對生物多樣性與生態學有深入的了解，對農業、林業、經濟等也得有所認識。這幾個範疇的專家也需要有一處能定期交流意見、互換信息的場合。我們期望「森林脈搏」能提供一個這樣的渠道。

嘉道理農場暨植物園是香港的一所慈善機構。早在 1951 年，嘉道理家族的兩兄弟，羅蘭士與賀理士，本著農業輔助的精神創辦本園，為從大陸移民來的貧困農戶開辦自力更生的援助計劃。該計劃幫助了超過三十萬名香港農民改善生活，並在尼泊爾和中國開展同類的扶貧計劃。這兩位嘉道理兄弟於九十年代先後辭世，但其家族傳統仍延續下來。嘉道理慈善基金會為中國和尼泊爾境內服務貧困社群的計劃提供資助，而嘉道理農場暨植物園則因應香港社會的轉型，現已建設成為一所自然教育與保育中心，並根據 1995 年通過的香港法例成為一家公益事業公司。本園推行的計劃有珍稀植物的保育、野生動物的護理和有機耕作等，而去年就有超過六萬名訪客。

編委：侯智恒、費樂思、劉惠宁、留佳宁、李倩毅、蕭麗萍 繪圖：李國誠

Editors: Billy Hau, John Fellowes, Michael Lau, Ruthie Lau, Harriet Lee, Gloria Siu

Illustrations: Kwok-shing Lee

1997年香港回歸後不久，本園董事局決定拓展其與國內各機構的良好合作關係，並將本園的自然保育與教育的工作延展至華南地區。於是華南生物多樣性保育計劃在1998年正式推行。此項計劃旨在盡量緩減生物多樣性的損耗。而本園新成立的華南生物多樣性研究隊期望能與任何秉持同類宗旨的個人或團體合作，並提供支援。「森林脈搏」是本計劃的通信刊物，希望能為致力於華南地區的自然保育工作的人士帶來資信、甚至啟發。換言之，這是屬於您的刊物。我們除了盼望收到您的稿件，也希望您能給我們寶貴的意見，令本刊更能切合您的需要。祝您閱讀愉快！

翻譯：留佳寧、黃景愉

Introduction to *Living Forests*

(Cont'd from front page)

Among China's diverse biomes, the tropical provinces of Guangdong, Guangxi and Hainan have a biodiversity importance comparable with the celebrated lands of Yunnan, Sichuan and the Tibetan Plateau.

But South China's climate and fertile soils have also favoured human agriculture, and the immense economic development in the area has inevitably had a toll on its natural heritage. Today the conflicts between human activities and natural processes threaten the very survival of the great East Asian forest biota; in many cases, it is likely that species are disappearing even before they are discovered by science, let alone explored for their potential benefits to humankind. The conservation of such biodiversity has become one of the most urgent and important issues of our time.

Government efforts to protect our natural heritage date back several decades, and China's first nature reserve was established in Guangdong in 1956, at Ding Hu Shan. Before this, countless individuals had, like the 17th century monks at Ding Hu Shan, realized the importance of this heritage, and dedicated themselves to protecting it. Since 1956 over 160 protected areas have been established in Guangdong, Guangxi and Hainan, and a large proportion of the remaining forests are now protected by law. But even in protected areas, short-term human needs

may not be conducive to forest protection and the conservation of biodiversity. Successfully balancing economic development and conservation will require applying a detailed understanding of biodiversity and ecology, as well as of agriculture, forestry and economics. Experts in these various fields require a forum for the regular exchange of views and information. It is our hope that *Living Forests* will provide one such forum.

Kadoorie Farm & Botanic Garden (KFBG) is a charity based in Hong Kong, with a tradition of agricultural aid dating back to 1951, when the two brothers Lawrence and Horace Kadoorie began a self-help scheme for poor immigrant farmers from China. This scheme was to help over 300,000 Hong Kong farmers to achieve a good standard of living; similar poverty relief work was undertaken in Nepal and China. Both brothers died in the 1990s, but the family's tradition continues. The Kadoorie Charitable Foundations fund projects that benefit disadvantaged communities throughout China and Nepal. KFBG, in response to changing priorities in Hong Kong, has become a centre for environmental education and conservation, enshrined by a Government Ordinance in 1995 as a public corporation. "The Farm" now has thriving programmes in rare plant propagation, wildlife rehabilitation, sustainable agriculture and other areas, and last year received over 60,000 visitors.

Soon after the Reunification in 1997, KFBG's Board of Directors resolved to expand on its good relations with organisations in the mainland, and extend the KFBG conservation and education activities into South China. Thus in 1998 the South China Biodiversity Conservation Programme was launched. The Programme's overall aim is to minimise the loss of biodiversity, and The Farm's new South China Biodiversity Team hopes to work with, and support, any individuals and organisations with similar aims. *Living Forests* is the newsletter of the Programme, and we hope it will play its part in informing, and perhaps inspiring, those dedicated to conservation in South China. In other words, it is *your* newsletter. So besides sending us articles, news and views, we hope you will give us feedback on how it can be more useful to you. Happy reading!

BWG 華南會議

生物多樣性工作組 (Biodiversity Working Group, 簡稱 BWG) 是中國環境與發展國際合作委員會 (China Council for International Cooperation in the Environment & Development, 簡稱 CCICED) 眾多工作組當中，專責向中央政府建議有關環境政策的工作組。上兩輪 BWG 會議均在華南舉行，分別是九八年四月的海南會議和九九年八月的廣東會議。會上，來自國內外的代表共同討論了生物多樣性保育所面對的威脅和契機，並為省和國家提供了一系列的建議。以下綜合了工作組對華南森林生物多樣性保育的主要建議：

策略與資金

- ◆ 中央政府增加對林區及其工作人員的財政撥款
- ◆ 將生物多樣性帶來的經濟收益轉投資在關鍵的保護工作上，以保障這些收益的持續性，並作為抵禦天災的長期保障
- ◆ 可考慮加徵自然保護區入場費，以資助相關的教育與研究工作
- ◆ 廣東省在國家計劃委員會領導下，配合有關單位的積極參與，擬訂生物多樣性的策略和行動計劃，其中須列明資金的籌集機制

保護和恢復自然生態系統

- ◆ 所有原生林和被局部砍伐的天然林以及大片的次生林應一併列入保護區系統
- ◆ 在森林修復和市區再綠化計劃中應選種原生植物；應控制具侵略性的外來植物的擴散
- ◆ 開辦大型的苗圃繁殖原生種樹苗
- ◆ 儘量避免在自然保護區興建水力發電站，倘若無可避免，亦必須謹慎進行
- ◆ 在自然保護區內進行具潛在破壞力的大型建設項目均須先接受獨立的環境影響評估

了解生物多樣性分佈與現狀

- ◆ 深入研究野生生物的交易量和貿易對生態的影響
- ◆ 自然保護區應制定對生物多樣性定期監察的時間表
- ◆ 實施對野生生物貿易的定期監察
- ◆ 建議海南聘請廣東和香港專家協助研究和培訓
- ◆ 建議廣東的科學家協助海南有關部門去培訓海南生物學家和保護區管理員並提供重要參考資料

預防物種滅絕 推廣持續利用

- ◆ 除根據可持續利用原則收採的物種外，嚴禁任何野生生物貿易
- ◆ 根據最新資料修訂保護物種條例
- ◆ 切實執行保護條例，製作有關合法與非法貿易物種的簡單鑑定手冊
- ◆ 海南省嚴禁狩獵一切陸生脊椎動物
- ◆ 成立一個具自我監察能力的野生生物貿易聯會
- ◆ 將人工繁殖野生生物的技術及收益轉移給當地民眾
- ◆ 鼓勵野生生物貿易公司投資在物種發源地民辦的小規模商業項目上
- ◆ 私營機構與政府合作為目前情況定出最有力的政策大綱
- ◆ 私營機構（包括野生動物園）應有系統地紀錄和交流繁殖方法

提高群眾對大自然的欣賞 宣傳自然保育

- ◆ 大力提高自然保護區的教育功能
- ◆ 自然保護區應為遊人提供物種名錄和教育資料，以彩色圖片和其他視象展品，取代已過時的標本展示方式
- ◆ 根據野生生物貿易的調查結果落實公眾教育項目
- ◆ 為自然保護區發展生態旅遊定出策略性指引
- ◆ 自然保護區的建設應個別規劃，使其各具特色
- ◆ 所有野生動物園均應制定全面的教育計劃
- ◆ 野生動物園應考慮按照生態區域展出本地的動植物

翻譯：區慧玲

BWG in South China

The Biodiversity Working Group (BWG) is one of a number of working groups in the China Council on International Cooperation in Environment and Development (CCICED), which advises the State Government on policies relating to the environment. The last two meetings of BWG have been in South China: in Hainan, in April 1998, and in Guangdong, in August 1999. At these meetings delegates from the region, the nation and overseas discussed threats and opportunities for biodiversity conservation, and produced a series of recommendations for the provinces and the nation. Below is a synthesis of some of the major recommendations as they apply to conservation of South China forest biodiversity.

Strategy & funding

- ◆ Central Government to invest a higher percentage of funds in support of forest areas & their staff
- ◆ Economic gains from biodiversity to be reinvested into vital protection operations, so as to secure sustainability of these services and as long-term insurance against natural disasters
- ◆ Raising of nature reserve entrance fees to be considered, to fund the related education and research
- ◆ Guangdong Province to prepare a Biodiversity Strategy and Action Plan, led by the State Planning Commission with active participation of relevant bodies, and specifying the funding mechanism

Protecting and restoring natural ecosystems

- ◆ All primary and partially cut natural forests to be added to the protected areas system, along with extensive areas of secondary forest
- ◆ Native plants to be used in reforestation and urban re-greening projects, and invasive exotic plants to be controlled
- ◆ Large nurseries to be developed for the propagation of native tree seedlings
- ◆ Development of hydroelectric power in nature reserves to proceed with caution if at all
- ◆ Any large-scale potentially disruptive project in nature reserves to be subject to an independent environmental impact assessment

Understanding distribution & status of biodiversity

- ◆ Volume and ecological impact of the wildlife trade to be comprehensively studied
- ◆ Nature reserves to establish regular monitoring schedules for biodiversity
- ◆ Regular monitoring of the wildlife trade to take place
- ◆ Hainan to recruit expertise from Guangdong & Hong Kong in surveys & training
- ◆ Guangdong scientists to support Hainan authorities, helping train Hainan biologists & field managers and providing vital data and reference collections

Preventing species extinctions, and promoting the sustainability of utilization

- ◆ Trade in wildlife to be banned except that in sustainably-harvested species
- ◆ Protected species legislation to be revised based on the most up-to-date information
- ◆ Protection legislation to be enforced, and a simple guide to legal & illegal species to be produced
- ◆ All hunting of terrestrial vertebrates to be banned on Hainan
- ◆ A self-regulating Wildlife Traders Association to be established
- ◆ Technology & benefits from captive breeding/propagation of wildlife to be transferred to local people
- ◆ Trading companies to invest in small ventures run by villagers at the source of biodiversity
- ◆ The private sector to work with government to determine the most supportive policy framework for current conditions
- ◆ The private sector (including wildlife parks) to systematically record & share breeding/cultivation methodology

Promoting public appreciation of nature and the need for conservation

- ◆ The education function of nature reserves to be greatly strengthened
- ◆ Nature reserves to produce species lists & educational materials for visitors, and exhibits to shift emphasis from outdated specimen collections to colour photographs and other visual aids
- ◆ A public education programme to be implemented based on the study of wildlife trade
- ◆ Strategic guidelines to be prepared for developing ecotourism in nature reserves
- ◆ Nature reserves to be developed in an individualistic manner so as to make each distinctive
- ◆ All wildlife parks to develop a comprehensive education plan
- ◆ Wildlife parks to consider exhibiting native fauna & flora on an 'ecoregion' theme

鼎湖山國家級自然保護區(N23°10', E112°32') 總面積 1133 公頃，東距廣州 84 公里，西離肇慶市區 18 公里。保護區建於 1956 年 6 月，為新中國第一個自然保護區，也是中國科學院所屬的唯一的自然保護區，亦是鼎湖山森林生態系統定位研究站所在地。1979 年參加 UNESCO 人与生物圈(MAB)保護區網。

保護區內擁有 40 公頃有 400 多年歷史的季風常綠闊葉林，被視為南亞熱帶地帶性的森林植被。但因保護區的前身為林場，大部分為灌木、荒地或稀樹殘林。因此，荒山造林、植被恢復，亦是保護區重要任務之一。鼎湖山一直是重要的科研基地，早在 50 年代便開始了本底調查和引種馴化研究。1978 年定位研究站成立以後，站、區與廣州 10 多家高等院校、科研單位合作，完成了保護區的本底調查，開展了森林生態系統的結構、功能、動態、物種多樣性及其保護和利用、人為活動對環境和生態系統影響等多學科研究。

鼎湖山自然保護區被劃分為 3 個功能區，各區採取不同的管理措施。

核心區：約占全保護區面積的三分之二。核心區受到嚴格的保護，區的進、出口處及區內均設有崗哨，24 小時有值勤人員據守保護，未經批准，不得入內。

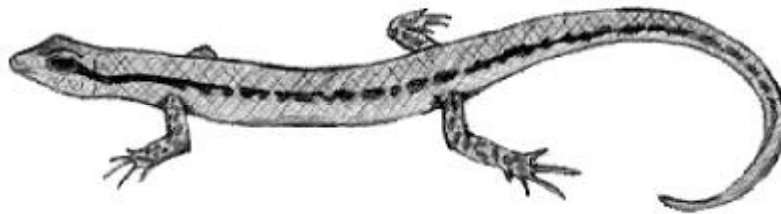
緩沖區：本區作為旅遊區對外開放，面積約占全保護區的五分之一。

過渡區：本區多與周邊農村接壤，其內允許割草、收取枯枝落葉和少量放牧。

保護措施有：

1. 建立森林治安隊伍。全區設有五個執勤點，一個瞭望哨，負責森林保護巡邏，防止偷獵盜伐和違規進入核心區。
2. 開設防火林道、種植防火林帶。在區內主要山脊修建了 18 公里防火道，每年除草維護一次。
3. 與附近單位、村鎮組織聯防。訂立合約，建立滅火隊伍，進行遵守保護區法規的教育等宣傳。

科普教育也是鼎湖山自然保護區的一個重要功能，通過建設展覽室和出版小冊子等，努力為提高中華民族的文化素質作出貢獻。



在鼎湖山新發現的蜥蜴，跟來自東南亞的滑蜥 *Scincella rupicola* 很相似。
A newly-discovered lizard from Ding Hu Shan. It is very similar to the skink, *Scincella rupicola*, from Southeast Asia.

Management of the Ding Hu Shan Biosphere Reserve

by KONG Guohui & HUANG Zhongliang
Ding Hu Shan Biosphere Reserve Management Office
Zhaoqing 526070, Guangdong

Translated by Ruthie Lau & Angel Wong

Ding Hu Shan Biosphere Reserve (23°10' N, 112°32' E) occupies 1,133 hectares. It is situated 84 km west of Guangzhou and 18 km east of Zhaoqing. Established in June 1956, it is the PRC's first nature reserve, the only one attached to the Chinese Academy of Sciences, and the site of the Ding Hu Shan Forest Ecology Permanent Research Station. In 1979, the reserve joined UNESCO's Man And Biosphere (MAB) nature reserve network.

The reserve is classified as a southern subtropical forest, with 40 hectares of monsoon broadleaf evergreen forest over 400 years in age. However, as the reserve was previously a tree farm, most of it is covered by shrubs, wasteland and forest remnants. Thus restoring forest and vegetation cover are both important missions of the reserve. Ding Hu Shan has always been an important research base. Baseline surveys started as early as the 50's, as did research in species reintroduction and domestication. Since the Permanent Research Station was established in 1978, the reserve management, in collaboration with over ten tertiary and research institutes in Guangzhou, completed a baseline survey of Ding Hu Shan. In addition, various research projects on the structure, function, and dynamics of forest ecosystem, biodiversity and its conservation and utilization have been initiated. Research studies on the impact of human activities on the ecosystems have also been started.

Zonation

The Ding Hu Shan Biosphere Reserve is divided into three functional areas, each with different management measures.

The Core Area occupies about two-thirds of the total reserve area. It is strictly protected. Security posts

are set up at the entrance and in various locations of the area, where officers are on duty 24 hours a day to guard against unauthorized entry.

The Buffer Area is the area open to tourists. It occupies about one fifth of the reserve.

The Transitional Area borders the surrounding villages. Here grass-cutting, collection of fallen leaves and branches, and small-scale grazing by livestock are permitted.

Conservation activities

The reserve's conservation measures include:

1. Establishing the forest police security team. Five duty points and one observation tower have been set up. The team is responsible for patrolling to prevent unauthorized hunting, logging or entry to the core area.
2. Building fire-breaks by clearing fire prevention paths and planting rows of fire-resistant trees. Eighteen kilometres of fire prevention paths have been built on major mountain ridges, with weeding and maintenance done once a year.
3. Organizing joint defence with nearby departments and villages. Agreements are signed with collaborating parties, and fire fighting forces are established. The joint defense also takes responsibility for educating the public to follow regulations of the nature reserve.

Another important role of Ding Hu Shan Biosphere Reserve is in promoting scientific education. Through the use of display rooms and brochures, the reserve has been contributing to enhancing the culture of the Chinese Nation.

中國科學院華南植物研究所生物多樣性研究現狀

葉萬輝 陳忠毅 / 中國科學院華南植物研究所 廣州 510650

生物多樣性的保護與持續利用是涉及人類社會生存與發展的關鍵問題，是當前生物科學研究領域的重要課題之一。華南植物研究所在生物多樣性研究方面具有堅實的基礎，在華南地區（包括港澳）開展過長期的植物分類學和植被生態學的研究工作。為了進一步加強生物多樣性研究工作的統籌與規劃，華南植物研究所於1997年成立了生物多樣性委員會，對生物多樣性的起源、演化與維持，生物多樣性保育和生物多樣性信息系統建設等方面的研究工作進行組織與實施。

在國家“八五”和“九五”期間，我所科研人員先後承擔國家、中國科學院、廣東省有關生物多樣性研究的重大、重點項目6項。其中“八五”期間參與並完成國家基礎性重大研究項目“中國生物多樣性保護生態學研究”，主持“南亞熱帶生態系統保護生態學研究”專題；“九五”期間主持中國科學院生物與技術研究特別支持費課題“鼎湖山南亞熱帶季風常綠闊葉林群落物種多樣性維持機制的研究”；參加中國科學院資源與環境

生態研究課題“中國生物多樣性信息系統建設研究”；主持“華南植物研究所信息源點建設”專題；主持中國科學院兩園特別支持費課題“華南特有、瀕危植物的保護生物學與持續利用研究”；主持廣東省環保局課題“廣東珍稀瀕危植物的保護研究”；主持廣東省林業廳課題“廣東省重點保護植物調查研究”。此外，還與香港嘉道理農場暨植物園合作開展“華南生物多樣性調查研究”。

為了進一步推動廣東省生物多樣性研究工作的深入開展，還對中國科學院華南植物研究所與廣東省環保局共建的“華南珍稀瀕危植物研究中心”進行了調整和規劃，構成針對珍稀瀕危植物保育與恢復研究的一個完整體系。該研究中心計劃在10年時間內，通過進行物種現狀評價、瀕危機制分析、瀕危物種保育（就地或遷地保育）、珍稀瀕危物種動態監測、珍稀瀕危物種持續利用等方面內容研究，使廣東省珍稀瀕危植物的保育與恢復工作規範化、系統化，達到國際同類研究的水平。



華南植物研究所及嘉道理農場暨植物園的植物學家於壩王嶺工作。

SCIB and KFBG botanists at Bawangling.

Current status of biodiversity studies in the South China Institute of Botany, Chinese Academy of Sciences

by YE Wanhui & CHEN Zhongyi
South China Institute of Botany,
Chinese Academy of Sciences,
510650 Guangzhou

Translated by Ruthie Lau & Angel Wong

Biodiversity conservation and its sustainable use are issues basic to the survival and development of mankind. They are also important areas of study for today's biological science. The South China Institute of Botany (SCIB) has a solid foundation in biodiversity study, with its long-term plant taxonomy and ecology research carried out throughout South China (including Hong Kong and Macau). In 1997, the SCIB's Commission of Biodiversity was established for better coordination and planning of biodiversity studies. The Commission aims at organizing and executing research work on the origin, evolution and maintenance of biodiversity and its conservation, as well as the setting up of a biodiversity information system.

During the period of the National 8th and 9th Five-year Plans (1990-1999), SCIB researchers have undertaken six major biodiversity research projects for the nation, the Chinese Academy of Sciences (CAS) and Guangdong Province. During the 8th quinquennium (1990-1994), we participated in and completed a major national foundational project titled "A Study of the Conservation Biology of Biodiversity in China", and hosted a research project named "A Study of the Conservation Biology of the Ecosystems of Southern Subtropics". During the 9th quinquennium (1995-1999), we took charge of the CAS specially funded biology and technology project "The Maintenance Mechanism of the Biodiversity of Ding Hu Shan Southern Sub-tropical Broadleaf Evergreen Monsoon Forests"; participated in the CAS Resource and Eco-environment research project "Constructing the Biodiversity Information System in China", and

hosted the project "Information Source Establishment in SCIB". We took charge of the project titled "A Study of the Conservation Biology and Sustainable Use of Endemic and Endangered Plants in South China" funded by the special funding of the 2 Gardens of CAS, and of the Guangdong Environmental Protection Bureau's project "A Study of the Conservation of Rare and Endangered Plants in Guangdong". We also took charge of the Guangdong Forestry Department's project "A Study of the Priority Protected Plants in Guangdong Province". In addition, we joined the collaborative effort of Kadoorie Farm & Botanic Garden in Hong Kong in launching the "South China Biodiversity Study".

In order to expedite biodiversity research in Guangdong, we have made reformation and plans for "the Research Centre for South China Rare and Endangered Plants" jointly established by the SCIB and the Guangdong Environmental Protection Bureau. This has developed into an integrated body focusing on the conservation and restoration of rare and endangered plants. The Centre aims to standardize and systematize its research on conservation and restoration of rare and endangered plants in Guangdong up to international standards within ten years. This will be achieved through various studies, namely the evaluation of current status, the analysis of endangerment mechanisms, the conservation (in-situ and ex-situ) of endangered plants, the monitoring of rare and endangered species, and the sustainable use of these species.

木論自然保護區屬於喀斯特林區，據初步考察，有維管植物 900 餘種，因野外考察時間均在秋季，有些種類未采到花標本，一時無法鑒定，如在春季再做一次調查采集，估計種類可增加到千餘種。從屬的地理分布區類型分析得知，以熱帶至亞熱帶成份為主，但從組織來看，卻以亞熱帶成分為主，其次才是熱帶至亞熱帶，熱帶成分不多，溫帶成分最少，這說明了本區系性質是屬於泛亞北極的。

林區面積不算大，但由於本區受獨特的石灰岩生境的影響，特有種相當豐富，僅限于保護區分佈的特有種，占區系植物種的 1.4%，其中卵果瓊楠 (*Beilschmiedia ovoidea*)、小果厚殼桂 (*Cryptocarya microcarpa*)、單花小檗 (*Berberis uniflora*)、厚葉雀舌木 (*Leptopus pachyphyllus*)、大苞半蒴苣苔 (*Hemiboea magnibracteata*)、多葉猴耳環 (*Pithecelobium multifoliolata*) 等 6 種已經正式發表。林區的稀有瀕危植物共 22 種，其中二類保護和未劃保護等級的各 6 種，三類的 10 種。值得一提的是，屬於二類保護的金絲李 (*Garcinia paucinervis*)，為大喬木，是桂西南石灰岩山上的一個重要樹種，原來分布的最北界線大

約在北緯 24°49' 的河池，而此次在林區的東北角大沙坡約北緯 25°10' 的一個山坡上被發現，樹高約 2.5 米，有 4 株，未見大樹，海拔為 550 米，主要伴生植物有密花樹 (*Rapanea neriifolia*)、九里香 (*Murraya paniculata*)、羊蹄甲 (*Bauhinia* sp.)、南方桂櫻 (*Laurocerasus australis*)、小刺櫻花 (*L. spinulosa*) 和貴州懸竹 (*Ampelocalamus calcareus*) 等。這是本種目前分布的最北界線。

本區森林保存較好，原生性較強，覆蓋率高 (94% 以上)，是中亞熱帶南緣除了貴州茂蘭保護區以外另一個保護得較完整的石灰岩森林，是不可多得的生物資源基因庫。該保護區已設立保護站 (在縣城)，人員也落實，保護工作已初見成效，但目前因經費短缺而使保護工作未能達到預期效果。原計劃在林區的東南部修建一個保護站，可有效地控制林區動、植物資源非法外流，此計劃至今未實現；另外，通往林區東北角大沙坡的公路路況很壞，無人保養，車輛難以通行，影響到護林員在林區外圍的巡邏，對林區的保護很不利。要解決以上問題，除了領導重視，提高生物多樣性的保護意識外，經費來源是決定的因素。



一九九八年七月，作者及嘉道理農場暨植物園華南生物多樣性研究隊攝於木論。

The author at Mulun in July 1998 with the KFBG team.

by WEI Fanan

Guangxi Institute of Botany

Guilin, Guangxi

Translated by Ruthie Lau & Angel Wong



硬葉兜蘭 *Paphiopedilum micranthum*, 中國特有种, 因被過量採集而受到威脅。Endemic to China and threatened by over collection.

Mu Lun Nature Reserve consists mainly of karst forests. Preliminary surveys show that it harbours over 900 vascular plants. Since surveys to date have all been conducted in autumn when some species are not in flower, not all specimens have been identified. If a further survey is undertaken in spring, the species count may exceed 1,000. Analysis of the geographical distributions of the genus revealed that most species are tropical to sub-tropical. However, the dominant vegetation is sub-tropical, followed by tropical to sub-tropical species. Truly tropical species are not common and there is a small proportion of temperate species. Thus the flora belongs to the Palearctic Realm.

The Mu Lun forest is not very extensive, but with its unique limestone environment, it has plenty of endemic species. 1.4% of the species found are known only from the reserve. Six of these have been described, namely *Beilschmiedia ovoidea*, *Cryptocarya microcarpa*, *Berberis uniflora*, *Leptopus pachyphyllus*, *Hemiboea magnibracteata* and *Pithecelobium multifoliolata*. The Reserve has 22 plant species listed as rare or endangered, of which six are in Category II ten are in Category III, and six are unclassified. It is worth mentioning that the large tree species *Garcinia paucinervis*, a Category

II protected species, was found on a slope at about 25° 10' N at Da Sha Po ("Great Sandy Slope") at the northeastern tip of the forest area. This gives a new northern limit for the species. It is a major species in the limestone mountains of southwest Guangxi and its previously-known northern limit was He Chi, at about 24° 49' N. Four individuals were found, all approximately 2.5 metres tall, at 550 m altitude. No mature trees were seen. The major accompanying vegetation included *Rapanea neriifolia*, *Murraya paniculata*, *Bauhinia* sp., *Laurocerasus australis*, *L. spinulosa* and *Ampelocalamus calcareus*.

The forest in Mu Lun reserve is relatively well preserved. Where forest remains it is mainly primary, and has a high canopy cover of over 94%. The reserve complements the well-protected limestone forest of the nearby Mao Lan Nature Reserve in Guizhou, at the southern edge of the central subtropical region, which is a valuable gene pool. Mu Lun has established a reserve station in the County Town with staff in place. The conservation work has attained preliminary success, but has been unable to achieve targeted results due to a shortage of funds. The proposal to establish an additional reserve station on the southeastern edge of the forest has been suspended. Since this location is the exit point from the reserve, a station there could effectively control illegal extraction of animal and plant resources. In addition, the road to the Northeast corner of the forest at Da Sha Po is unmaintained and barely drivable. This has hindered the wardens' patrols which is unfavourable to forest security. Besides more attention from authorities and awareness of biodiversity conservation, funding is another essential factor in resolving the above matters.

白頭葉猴 (*Presbytis leucocephalus*)¹ 為我國一級保護動物，全世界僅分布于我國廣西的扶綏，崇左，寧明和龍州四縣境內的喀斯特石山區地帶，為廣西的旗艦物種，與金絲猴同等保護級別。廣西四縣境內白頭葉猴總數不足千只(吳名川 1987)。我們於 1991 年開始對扶綏縣白頭葉猴種群及數量進行了研究：扶綏縣白頭葉猴保護區弄廩片(170 公頃)及布遵片(130 公頃)，總共有白頭葉猴 28 群及 3 個獨猴(雄)共 166 只。最大群可達 16 只，最小群僅 3 只(獨猴除外)。當年觀察研究的 31 群猴中，除 8 群確定了猴的數量而無法區別年齡階段外，其餘 23 群 133 只白頭猴中，成年猴 88 只，占 68%；青年猴 25 只，占 20%；幼猴(體金黃色，黃色或灰黃色，由母猴攜帶) 20 只，占 12%。1995 年前，我們連續在布遵片觀察，獨山群成年猴 3 只，幼猴 2 只；另外三群各為 12 只，11 只，9 只。筆者於 1998 年 4 月 2 日再次到布遵觀察，發現的情況確實使人擔憂，山弄里的土地完全被開墾，山腳下岩石几乎完全裸露。原來的 5 只群僅剩 3 只成年猴；原 11 只群不知去向，它們居住的洞口，屎尿痕跡已不明顯，說明它們很久沒有來過。12 只群也只剩 6 只，僅有 2 只幼猴。

另外，根據昆明動物研究所李兆元博士連續兩年在弄廩觀察的 8 群猴共 50 余只，其中一群 5 只(1 雄 4 雌)，另一 5 只群全為雄性，獨猴 2 只，最大群也僅為 15 只。總共見一年齡幼猴 2 只，這些猴群的行為非常机警，有時整天都很難見到。

1992 年由於在弄更昌開鑿了隧道，農用汽車，拖拉機可以直接開到核心區的中心。農民開墾土地的面積不斷擴大，有的連山腳白頭葉猴唯一能獲取食物的樹木也被開墾、砍光。在弄廩片的核心區唯一尚存樹木的山弄 - 弄因，也是白頭葉猴唯一能尋找食物和隱蔽的山弄，其外面的弄王，今年已全面開墾，樹木砍伐殆盡。據農民的開墾計劃，1999 年將最後消滅有綠色的山弄。白頭葉猴即將失去白天隱蔽及覓食的樹林。

崇左縣白頭葉猴保護區分散在羅白，濼湍，馱蘆三個鄉，棲息區內高大樹木也非常稀少，周圍能開墾的土地也盡量在開墾，它們的取食範圍也在日益縮小²。

龍州與寧明兩縣交界處連成一片，山高林密的隴瑞保護區 1977 年統計約為 250 只左右，由於獨特的高山密林的環境本可成為白頭葉猴生存繁衍的最後棲息地。1998 年 5 月下旬華南生物多樣性研究隊及本省的有關學者再次進入隴瑞保護區進行考察時，連續兩天一只猴子也見不到，使我們失望而歸。寧明縣為開發旅遊業於八十年代在隴瑞保護區的山口修建了「觀猴亭」，如今只能望亭興嘆！

據護林員介紹，保護區尚存 5 群約 80 只左右，這兩年僅增加四只幼猴。為究其原因作者進行了一次暗訪，當地農民對我開始抱著懷疑的目光，當知道我是一名教授時，他們講了真話：偷獵是白頭葉猴銳減的主要原因。有的偷獵者也曾被判刑，但釋放後變本加厲，更加凶殘，他們趁黃昏白頭葉猴入洞時開槍射殺牠們，這些行為構成了廣西白頭葉猴的生存危機！

為保護這一珍稀物種免遭滅絕，政府部門應盡快解決野生動物是國家的而森林土地是農民群眾私有的矛盾。從群眾手中收(買)回保護區內的森林土地，還農為森林。盡快為白頭葉猴重新營造一個能夠生存繁衍的棲息地。

加快保護區的科研工作，特別是石灰岩山地生態系統的研究，為我國乃至世界人民留下這一珍稀的物種。

附註

¹ 有些作者認為白頭葉猴應為 *Presbytis* (或 *Trachypithecus*) *francoisi* 的亞種。

² 根據廣西區林業局的資料，在崇左的白頭葉猴共約 600 隻，是最大的僅餘種群。

Survival crisis for the White-headed Leaf Monkeys in Guangxi

by LU Liren

Guangxi Normal University, Guangxi

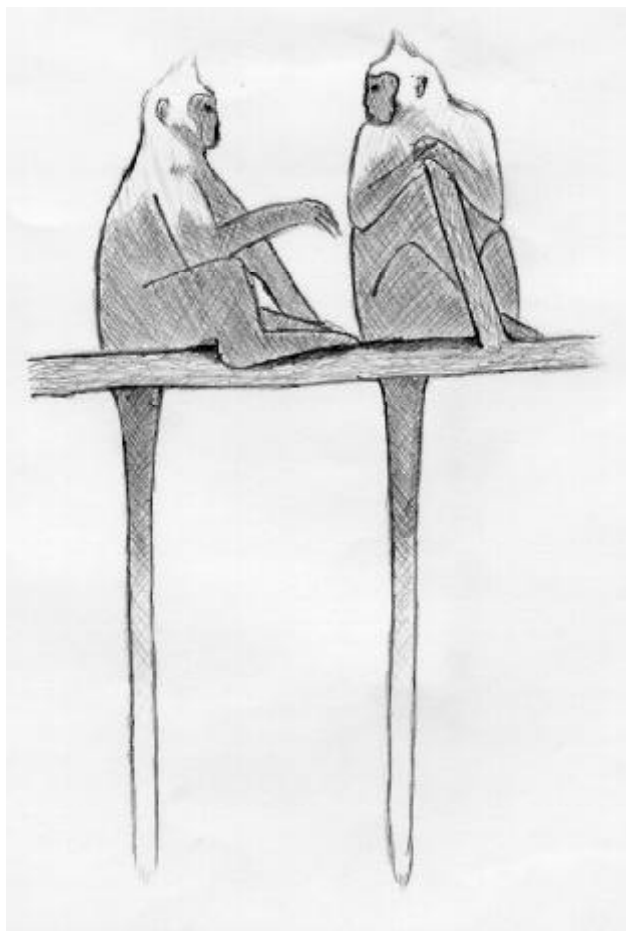
Translated by Ruthie Lau & Angel Wong

The White-headed Leaf Monkey *Presbytis leucocephalus*¹ is a Category I nationally protected animal in China. Its distribution is limited to the karst mountain belt in four counties of Guangxi, namely Fusui, Chongzuo, Ningming and Longzhou. The White-headed Leaf Monkey or Langur is a flagship species for Guangxi, with the same protected status as the Golden Monkey. The total number of White-headed Langurs in the four counties of Guangxi is less than 1,000 (Wu Mingchun, 1987). In 1991 we started a survey of the groups and population size of the Leaf

Monkeys in Fusui: at Nonglinpian (170 ha) and Buzunpian (130 ha) in the Fusui Leaf Monkey Reserve. There were a total of 166 monkeys, in 28 groups, and three solitary males. The largest group had 16 individuals while the smallest had just three (except solitary males). Of the 31 groups and individuals observed, age structure could not be determined for eight. Among the remaining 133 monkeys in 23 groups, 88 (68%) were adults, 25 (20%) were juveniles and 20 (12%) were infants (with golden, yellow or greyish yellow fur and

carried by their mothers). We continued our survey around Buzunpian up to 1995. At one hill (Dushan) there was a group of five (three adults and two juveniles), and other groups of 12, 11 and nine

individuals. The author went to Buzunpian again on 2 April 1998. The situation then was worrying. The valleys were completely cultivated, and the rocks at the foot of the mountain were almost all exposed. Only three adults remained in the former group of five. The former group of 11 had disappeared, and the faecal traces in front of their caves were no longer obvious, suggesting they had been gone for some time. Six monkeys were left in the group of 12, with only two infants.



At Nonglin, Dr Li Zhaoyuan of the Kunming Institute of Zoology has spent two years observing over 50 monkeys in eight groups. According to his survey, these include a group of five with one male and four females, an all-male group of five, and two solitary monkeys. The largest group was only 15. Only two yearling infants were seen. These monkeys were very alert and difficult to find.

In 1992 a tunnel was cut through Nonggengchang, enabling agricultural motors and tractors to drive directly to the core area. Farming has continued to expand

and sometimes the monkeys' only food plants at the foot of the mountain have been felled. Nongyin, the only still-vegetated valley in the core area of Nonglinpian, was then the only place where the White-

headed Leaf Monkeys could find food and shelter. However, its outer area Nongwang was fully opened up this year and all trees were felled. According to the farmers' plans, the vegetated valleys will finally disappear in 1999. Then, the White-headed Leaf Monkeys will lose their daytime refuge and feeding area.

In Chongzuo County the White-headed Leaf Monkey reserve is scattered among the three villages of Luobai, Laituan and Tuolu. There are very few tall trees in this reserve. The surrounding lands are cultivated as much as possible, so their foraging areas continue to dwindle.²

The high hills and dense forest at the juncture of Longzhou and Ningming Counties – Longrui Nature Reserve – could be the last habitat for the White-headed Leaf Monkeys. A survey in 1977 showed that there were around 250 monkeys at Longrui (now a section of the Nonggang National Nature Reserve). However in late May 1998, during a visit to the reserve by the author with the South China Biodiversity Team and other Guangxi scientists, no monkeys were observed in two consecutive days. This was disappointing. In order to develop tourism, in the 1980s Ningming built a 'Monkey Pavilion' in the mountain pass of the Longrui reserve. But now, the sight of the pavilion just made us feel sad!

According to the forest warden, there are still around 80 monkeys in five groups at Longrui. Only four young were added to the population in the last two years. In order to unravel the true situation, the author paid

a secret visit. At first, the farmers were suspicious, but when they knew the author was a professor, they revealed the truth: the main reason for the acute drop in the White-headed Leaf Monkey population was poaching. Some poachers were sentenced to imprisonment, but they became more aggravated after being released. They shot the monkeys as they returned to the cave at dusk – this, then, is the survival crisis of the Guangxi White-headed Leaf Monkeys!

To prevent the extinction of this rare species, government authorities should, as soon as possible, resolve the conflict between wildlife conservation and land use rights in Fusui and Chongzuo nature reserves. Although the wild animals belong to the country, the land and forests are privately owned. The government should redeem the reserve forest and land from respective owners, revert the farmland back to forest, and help restore a habitat where White-headed Leaf Monkeys can live and breed.

Lastly, more scientific research on the reserve, especially studies on the ecology of the limestone hills, should be done to help sustain this rare species for our country and for the whole world.

Notes

- ¹ Some authors consider the White-headed Leaf Monkey to be a subspecies of *Presbytis* (or *Trachypithecus*) *francoisi*.
- ² According to the Guangxi Forestry Department, Chongzuo now has the largest remaining population, with some 600 individuals.

一九九八年在廣東、廣西和海南記錄到在全球或國家受威脅的生物 Records of globally or nationally threatened wildlife in Guangdong, Guangxi and Hainan, 1998

以下是1998年專業隊員在嘉道理農場暨植物園主辦的野外調查所作的紀錄。

The following records were made by specialist team members during KFBG surveys in 1998.

國際瀕危等級是以世界自然保護聯盟提供的瀕危物種紅皮書為準；國家瀕危等級是以國內的瀕危物種紅皮書為準。

Global status is based on IUCN Red list of Threatened Animals and Plants; national status is based on respective Red Data Books.

關鍵詞 Key: CR = 極危 critically endangered; EN = 瀕危 endangered; VU = 易危 vulnerable; NT = 接近受危 near-threatened.

哺乳類

Mammals

黑長臂猿 *Hylobates concolor* (全球：瀕危) 四月七日，早上七時，在海南壩王嶺國家級自然保護區海拔 1035 米，聽到一隻雄猿的叫聲。第二日早上，在同一地點見到五隻(一隻成年雄性、兩隻成年雌性、一隻黑色未成年的和一隻幼猿)在一棵結了果的高山榕 *Ficus altissima* 上覓食。

Black Gibbon *Hylobates concolor* (Global: EN.) At Bawangling NNR, Hainan. 1 male was heard calling at 7 a.m. at 1035m. 7 Apr.; the next morning on the same site 5 Black Gibbons (1 adult male, 2 adult females, 1 black juvenile and 1 baby) were seen foraging on a fruiting *Ficus altissima*.



獼猴 *Macaca mulatta* (全球：接近受危) 五月二十三日在廣西弄崗國家級自然保護區的隴呼見到幾隻。

Rhesus Macaque *Macaca mulatta* (Global: NT.) Several at Longhu in Nonggang NNR, Guangxi, 23 May.

白頭葉猴 *Presbytis leucocephalus* (全球：易危) 五月二十八日，早上九時三十分，在廣西扶綏保護區海拔 220 米，見到六隻成年雄猴，半小時後在海拔 170 米，再見到一隻成年葉猴。

White-headed Leaf Monkey *Trachypithecus f. leucocephalus* (Global: VU.) At Fusui NR, Guangxi. On 28 May, at 9:30a.m. 6 adult males were seen at 220m, and about half hour later 1 adult was seen at 170m.

鳥類

Birds

黑翅鷲 *Elanus caeruleus* (中國：易危) 四月三日，在海南壩王嶺附近，見到一隻；九月十五日，在廣西大瑤山保護區，見到一隻；十月十四日，在廣西龍虎山，見到兩隻。

Black-shouldered Kite *Elanus caeruleus* (China: VU.) 1 near Bawangling Hainan, 3 Apr.; 1 at Dayaoshan NR., Guangxi, 15 Sep.; 2 at Longhushan, Guangxi, 14 Oct.

海南山鷓鴣 *Arborophila ardens* (全球：瀕危；中國：瀕危) 四月四日和六日，在壩王嶺的核心區和王下分別聽到一隻和兩隻；四月十一日在尖峰嶺聽到一隻。

Hainan Hill Partridge *Arborophila ardens* (Global: EN.; China: EN.) 1 at core area, 4 Apr., 2 at Wangxia, 6 Apr. in Bawangling NNR.; 1 at Jianfengling NR. 11 Apr.

鳳頭蜂鷹 *Pernis ptilorhynchus*

(中國：易危) 四月十日，在海南尖峰嶺保護區，見到一隻；十月十四日，在廣西龍虎山，見到一隻。

Oriental Honey Buzzard *Pernis ptilorhynchus* (China: VU.) 1 at Jianfengling NR., Hainan, 10 Apr.; 1 at Longhushan, Guangxi, 14 Oct.

黑冠虎班鵝 *Gorsachius melanolophus* (中國：瀕危) 五月二十和二十三日，在廣西弄崗國家級自然保護區，見到四隻。

Malayan Night Heron *Gorsachius melanolophus* (China: EN.) 4 birds were seen at Nonggang NNR, Guangxi, 20, 23 May.

紅腹角雉 *Tragopan temminckii*

(全球：接近受危；中國：漸危) 九月二十六日，在廣西大平山保護區，見到一隻。

Temminck Tragopan *Tragopan temminckii* (Global: NT.; China: VU.) 1 at Dapingshan NR., Guangxi, 26 Sep.

黃腹角雉 *Tragopan caboti*

(全球：易危；中國：瀕危) 九月二十二日，在廣西大瑤山保護區，見到兩隻。

Cabot Tragopan *Tragopan caboti* (Global: VU.; China: EN.) 2 at Dayaoshan NR, Guangxi, 22 Sep.



鳥類 (續) Birds (Cont/d)

原雞 *Gallus gallus* (中國：易危)五月二十和二十一日，在廣西弄崗國家級自然保護區，見到四隻；五月二十六和二十七日，在廣西隴瑞保護區，見到四隻；十月十五日，在廣西西大明山保護區，見到一隻。

Red Jungle Fowl *Gallus gallus*

(China: VU.) 4 at Nonggong NNR., Guangxi, 20, 21 May; 4 at Longrui NR., Guangxi, 26, 27 May;
1 at Xidamingshan NR., Guangxi, 15 Oct.



厚咀綠鳩 *Treron curvirostra* (中國：易危) 四月三至七日，在海南壩王嶺國家級自然保護區，有十一個記錄。

Thick-billed Green Pigeon *Treron curvirostra* (China: VU.) 11 records at Bawangling NNR., Hainan, 3-7 Apr.

紅翅綠鳩 *Treron sieboldii* (全球：接近受危)
五月二十八日，在廣西扶綏保護區，見到兩隻。

Japanese Green Pigeon *Treron sieboldii*

(Global: NT.) 2 at Fusui NR., Guangxi, 28 May.

山皇鳩 *Ducula badia* (中國：易危) 四月三至七日，
在海南壩王嶺國家級自然保護區，有十一個記錄；
五月二十八日，在廣西扶綏保護區，見到一隻。

Mountain Imperial Pigeon *Ducula badia* (China: VU.)

10 records at Bawangling NNR., Hainan, 3-7 Apr.; 1 at
Fusui NR., Guangxi, 28 May.

黃腳魚鴞 *Ketupa flavipes* (全球：接近受危)
八月，有一隻在廣西貓兒山附近；八月十九日，
在廣西花坪國家級自然保護區，有一條羽毛。

Tawny Fish Owl *Ketupa flavipes*

(Global: NT.) 1 near Maoershan Guangxi, Aug.; a
feather at Huaping NNR., Guangxi, 19 Aug

班頭大翠鳥 *Alcedo hercules* (全球：易危) 八月十七
及十八日，在廣西花坪國家級自然保護區，見到兩隻。

Blyth's Kingfisher *Alcedo hercules*

(Global: VU.) 2 at Huaping NR., Guangxi, 17 & 18 Aug.

冠班犀鳥 *Anthracoceros coronatus*

(全球：接近受危；中國：易危) 五月二十二日，在廣西弄崗國家級
自然保護區，見到五隻。

Oriental Pied Hornbill *Anthracoceros coronatus* (Global: NT.; China: VU.)
5 at Nonggang NNR., Guangxi, 22 May.

粉紅山椒鳥 *Pericrocotus
cantonensis* (全球：接近受
危) 九月二十四日，在廣西
大平山保護區，見到一隻。

藍翅八色鸚 *Pitta nympha*

(全球：易危) 八月十七日，在廣西花坪國家級自然保護區，有一些羽
毛；九月二十一日，在廣西大瑤山保護區，見到一隻。

Fairy Pitta *Pitta nympha*

(Global: VU.) Feathers at Huaping NNR., Guangxi, 17 Aug.; 1 at Dayaoshan NR.,
Guangxi, 21 Sep.

Swinhoe's Minivet
Pericrocotus cantonensis
(Global: NT.) 1 at Dapingshan
NR., Guangxi, 24 Sep.

麗色噪 *Garrulax formosus*

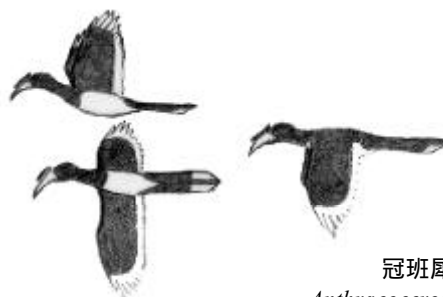
(全球：接近受危) 八月二十二日於廣西貓兒山保護區看到兩隻。

Crimson-winged Laughingthrush *Garrulax formosus* (Global: NT.) 2 at Maoershan NR., Guangxi, 22 Aug.

褐胸噪 *Garrulax maesi*

(全球：接近受危) 四月七日，在海南壩王嶺國家級自然保護區，見到四隻；四月十和十一日，在海南尖峰
嶺保護區，見到二十隻；八月十六和十七日，在廣西花坪國家級自然保護區，見到四十隻。

Maes' Laughingthrush *Garrulax maesi* (Global: NT.) 4 at Bawangling NNR., Hainan, 7 Apr.; 20 at Jianfengling NR., Hainan,
10 & 11 Apr.; 40 at Huaping NNR., Guangxi, 16 & 17 Aug.



冠班犀鳥
Anthracoceros coronatus

鳥類 (續) Birds (Cont/d)

赤尾噪 *Garrulax milnei*
(全球：接近受危) 八月二十二日於
廣西貓兒山保護區看見兩隻；九月
二十一日於廣西大瑤山保護區看見
十八隻。

Red-tailed Laughingthrush *Garrulax milnei* (Global: NT.) 2 at Maoershan NR., Guangxi, 22 Aug.; 18 at Dayaoshan NR., Guangxi, 21 Sep.

金額雀 *Alcippe variegaticeps* (全球：易危) 九月二十一日於
廣西大瑤山保護區看見二十隻。

Variogated Fulvetta *Alcippe variegaticeps* (Global: VU.) 20 at Dayaoshan NR., Guangxi, 21 Sep.

鵲鵲 *Oriolus mellianus* (全球：易危；中國：易危) 八月二十二
日，在廣西貓兒山保護區，海拔 1910 米，看見四隻。

Silver Oriole *Oriolus mellianus* (Global: VU.; China: VU.) 4 at Maoershan NR., Guangxi, 1910m, 22 Aug.

短尾綠鶇 *Cissa thalassina* (全球：接近受危) 四月七日，在海南壩王嶺國家級自然保護區，見到一隻。

Short-tailed Green Magpie *Cissa thalassina* (Global: NT.) 1 at Bawangling NNR., Hainan, 7 Apr.

灰藍鶇 *Urocissa whiteheadi* (全球：接近受危) 五月二十五日，在廣西弄崗國家級自然保護區，見到五隻；
五月二十七日，在廣西隴瑞保護區，見到九隻。

White-winged Magpie *Urocissa whiteheadi* (Global: NT.) 5 at Nonggang NNR., Guangxi, 25 May; 9 at Longrui NR., Guangxi, 27 May.

海南柳鶯 *Phylloscopus hainanus* (全球：易危) 四月
七日，在海南壩王嶺國家級自然保護區，見到四
隻；四月十日，在海南尖峰嶺保護區，見到兩隻。

Hainan Leaf Warbler *Phylloscopus hainanus* (Global: VU.) 4 at Bawangling NNR., Guangxi, 7 Apr.; 2 at Jianfengling NR., Guangxi, 10 Apr.

淡紫鶇 *Sitta solangiae* (全球：易危) 四月
七和八日，在海南壩王嶺國家級自然保護
區，見到五隻。

Yellow-billed Nuthatch *Sitta solangiae*
(Global: VU.) 5 at Bawangling NNR., Hainan, 7, 8 Apr.



藍翅八色鶇
Pitta nympha

爬行類

Reptiles



大壁虎
Gekko gecko

大壁虎 *Gekko gecko* (中國：易危) 五月，在廣西弄崗國家級自然保護區、攏呼保護區、攏瑞保護區和扶綏保護區，聽到幾隻；九月，在廣西大平山保護區，聽到一隻。

Tokay *Gekko gecko* (China: EN.)

Several heard at Nonggang NNR., Longhu NR., Longrui NR., and Fusui NR., Guangxi, May; 1 heard at Dapingshan NR., Guangxi, Sep.

地龜 *Geoemyda spengleri*

(中國：瀕危) 七月，幾隻在廣西九萬山保護區。

Black-breasted Terrapin *Geoemyda spengleri* (China: EN.) several at Jiuwanshan NR., Guangxi, Jul.

四眼斑水龜 *Sacalia quadriocellata*

(全球：易危；中國：易危) 四月，一隻在海南尖峰嶺保護區。

Four-eyed Terrapin *Sacalia bealei* (Global: VU.; China: VU.)

1 at Jianfengling NR., Hainan, Apr.

平胸龜 *Platysternon megacephalum*

(中國：瀕危) 四月，一隻在海南壩王嶺國家級自然保護區，一隻在廣東百涌保護區。

Big-headed Terrapin *Platysternon megacephalum* (China: EN.) 1 at Bawangling NNR., Hainan, Apr.; 1 at Baiyong NR., Guangdong, Apr.

鱷蜥 *Shinisaurus crocodilurus* (中國：瀕危) 九月，一隻在廣西大瑤山保護區。

Chinese Crocodile Lizard *Shinisaurus crocodilurus* (China: EN.) 1 at Dayaoshan NR., Guangxi, Sep.



鱷蜥
Shinisaurus crocodilurus

黑眉錦蛇 *Elaphe taeniura*

(中國：易危) 九月，一條幼蛇在廣西大瑤山。

Black-browed Racer *Elaphe taeniura*

(China: VU.) 1 juvenile at Dayaoshan NR., Guangxi, Sep.

灰腹綠錦蛇 *Elaphe frenata*

(中國：易危) 九月，兩條在廣西大瑤山。

Green-bellied Green Racer *Elaphe frenata*

(China: VU.) 2 at Dayaoshan NR., Guangxi, Sep.

王錦蛇 *Elaphe carinata*

(中國：易危) 八月，一塊蛇皮在廣西花坪國家級自然保護區。

Stink Racer *Elaphe carinata*

(China: VU.) 1 skin at Huaping NNR., Guangxi, Aug.

灰鼠蛇 *Ptyas korros* (中國：瀕危)

四月，一條在廣東七星坑；九月，一條在廣西大瑤山保護區；十月，一條在廣西西大明山保護區。

Indochinese Rat Snake *Ptyas korros* (China: EN.) 1 at Qixingkeng, Guangdong, Apr.; 1 at Dayaoshan NR., Guangxi, Sep.; 1 at Xidamingshan NR., Guangxi, Oct.

銀環蛇 *Bungarus multicinctus*

(中國：易危) 七月，兩條在廣西九萬山。

Many-banded Krait *Bungarus multicinctus* (China: VU.) 2 at Jiuwanshan, Guangxi, Jul.

滑鼠蛇 *Ptyas mucosus* (中國：瀕危)

十月，一條在廣西西大明山保護區。

Common Rat Snake *Ptyas mucosus*

(China: EN.) 1 at Xidamingshan NR., Guangxi, Oct.

眼鏡王蛇 *Ophiophagus hannah*

(中國：極危) 四月，一條在海南壩王嶺國家級自然保護區；八月，一條在廣西花坪國家級自然保護區；十月，一條在廣西西大明山保護區。

King Cobra *Ophiophagus hannah*

(China: CR.) 1 at Bawangling NNR., Hainan, Apr.; 1 at Huaping NNR., Guangxi, Aug.; 1 at Xidamingshan NR., Guangxi, Oct.

眼鏡蛇 *Naja atra* (中國：易危)

四月，一條在海南壩王嶺國家級自然保護區。

Chinese Cobra *Naja atra* (China: VU.) 1 at Bawangling NNR., Hainan, Apr.

兩棲類 Amphibians

版納魚鵈 *Ichthyophis bannanica*
(中國：瀕危) 五月，一條在廣東七星坑。
Yunnan Caecilian *Ichthyophis bannanica* (China: EN.) 1 at Qixingkeng, Guangdong, May.

細痣疣鵈 *Echinotriton asperrimus*
(中國：易危) 七月，幾條在廣西木論保護區。
Granular Newt *Echinotriton asperrimus* (China: VU.) Several at Mulun NR., Guangxi, Jul.

瑤山髭蟾 *Vibrissaphora yaoshanensis*
(中國：瀕危) 八月和九月，在廣西花坪國家級自然保護區、貓兒山保護區和大瑤山保護區，都有蝌蚪。
Moustached Toad *Vibrissaphora yaoshanensis* (China: EN.) Tadpoles at Huaping NNR., Maoershan NR. and Dayaoshan NR., Guangxi, Aug & Sep.

棘胸蛙 *Rana spinosa* (中國：易危)
七月至九月，在廣西九萬山保護區、花坪國家級自然保護區、貓兒山保護區和大瑤山保護區，都有幾隻。

Giant Spiny Frog *Rana spinosa* (China: VU) Several at Jiuwanshan NR., Huaping NNR., Maoershan NR. and Dayaoshan NR., Guangxi, Jul. to Sep.

小棘蛙 *Rana exilispinosa* (中國：易危)
八月，幾隻在廣西花坪國家級自然保護區。
Lesser Spiny Frog *Rana exilispinosa* (China: VU) Several at Huaping NNR., Guangxi, Aug.

棘腹蛙 *Rana boulengeri* (中國：易危)
八月，在廣西花坪國家級自然保護區、貓兒山保護區和青獅潭保護區，都有幾隻。

Spiny-bellied Frog *Rana boulengeri* (China: VU) Several at Huaping NNR., Maoershan NR. and Qingshitan NR., Guangxi, Aug.

棘側蛙 *Rana shini* (中國：易危)
七月，幾隻在廣西九萬山保護區。
Spiny-sided Frog *Rana shini* (China: VU) Several at Jiuwanshan NR., Guangxi, Jul.

魚類 Fish

花鰻 *Anguilla marmorata*
(中國：瀕危) 四月，在海南壩王嶺雅加附近，村民捉到幾條。
Anguilla marmorata (China: EN.) Several caught by villagers near Yajia, Bawangling, Hainan, Apr.

異鰻 *Parazacco spilurus*
(中國：易危) 四月，在廣東七星坑和河尾山，都有記錄。
Parazacco spilurus (China: VU.) Recorded at Qixingkeng and Heweishan Guangdong, Apr.



蘭科植物 Orchidaceae

硬葉兜蘭 *Paphiopedilum micranthum*
(全球：瀕危) 七月，在廣西木論自然保護區記錄到兩小叢。中國特有種。

Paphiopedilum micranthum (Global: EN.) Two small clumps were recorded at Mulun NR., Guangxi, July. Endemic to China

海南蝴蝶蘭 *Phalaenopsis hainanensis*
(全球：極危) 四月，在海南昌江縣記錄到一成熟植株。中國特有種。

Phalaenopsis hainanensis (Global: CR) A mature plant was recorded in Changjiang County, Hainan, April. Endemic to China.

家國事

中國每年有四千四百平方公里的森林被非法砍伐，而去年一年內便有六十萬宗非法砍伐的記錄。國家林業總局副局長李昌健(音譯)表示，該局已下決心要杜絕此等侵害森林的行為，並會就此與公安部、最高人民法院、最高人民檢察院等緊密合作。國家林業總局將停止審批任何對林地的綜合開發或利用的計劃。該局亦將廢除對綜合森林企業的批核程序。李副局長又表示，所有1994年後伐林開墾的耕地都必須在2000年前植樹還原。(中國日報 14/09/98)

據國家林業總局透露，至公元2000年，國內現存天然林的百分之六十一，即五十三萬平方公里的林地將得到有效的保護。該局希望最終能保住現存天然林的百分之七十七。此護林計劃的誘發點在於今年夏天的特大洪災。1998年9月1日起，流經雲南、四川兩省的長江上游沿江一帶的天然林均嚴禁砍伐。雲南省七十三個縣的伐林工人悉數改行植林。到了年底，陝西、甘肅、新疆等地的伐林工人也會加入此項大型的森林再造工程。嚴禁砍伐天然林的禁令將逐步推廣至湖南、湖北、江西、海南等省份，以及重慶市一帶。中央政府計劃在2000年底為此提供一百九十億元人民幣(美金二十三億元)。現時已撥出款額共六十億元人民幣(美金七億二千萬元)，其中半數為發給前伐林者造林

的貸款。(中國日報，香港版 3/10/98)另一方面，中國的環境保護人士楊新(音譯)表示，除非中國政府能幫數以萬計受影響的群眾另謀生計，否則禁令不會見效。他續稱，由於四川是焦點所在，該地的森林在短期內應不會受到騷擾。楊新最後指出，國有林場應該會遵行禁令，但卻無法保證地方政府和集體擁有的林場也同時遵行禁令。(南華早報 4/10/98)

縱使華中地區一些省份禁止砍伐天然林的政令森嚴，然而北京國家木材進出口中心的一位高級工程師表示，由於木材儲存量豐富，預期本地和進口的木材價格均不會上漲。據聞東北地區的國有林場內存放了多達五百七十萬立方米的木材，足以供給未來兩年的需要。(中國日報，香港版 18/10/98)

據國家林業總局統計，中國現有自然保護區926個，其中屬國家級的有136個。國家直接聘用的保護區職員愈15,000人。(中國日報，香港版 9/11/98)

為慶祝中國第一條野生動物保護法頒布十周年，國家林業總局向北京市民發表了一封公開信，籲請大眾支持不吃野味。國家林業總局官員張廉友(音譯)表示，吃野味既是壞習慣，更是全無必要的。(中國日報，香港版 9/11/98)

廣東、廣西、海南

廣東省的林地保護法已於1998年10月18日生效。該法例嚴

禁為開展農耕而破壞森林。(中國日報，香港版 19/10/98)

海南省政府近來加強了保護島上的珊瑚。8月，全省沿海市縣開展了禁止採挖珊瑚礁的專項治理，兩個月來全省已有一百五十家以珊瑚為原料的石灰窯和二十四個出售珊瑚工藝品的攤位被拆除。9月，海南省人大常委會頒布實施了《海南省珊瑚礁保護規定》，根據這法規，採集及破壞珊瑚礁，以及生產以珊瑚為原料的產品都屬違法行為。(深星時報 10/11/98)

每年9月至11月期間，廣東省西南的雷州市均有大批候鳥被捕殺納入肉食市場。雷州市紀家鎮內十多條臨海的鄉村捕捉候鳥已超過十年，近年尤甚。每年捕殺量達十多萬隻。鄉村幹部貪圖眼前利益、不顧法紀，竟收費管理捕殺及販賣活動。一些風乾的候鳥每對售價十五元人民幣。(蘋果日報 14/11/98)

今年，二千二百多隻以灰鷺 *Ardea cinerea* 為代表的有關鳥類在廣東番禺市滴水岩自然保護區、蓮花山風景區、南沙高爾夫球場、新造等地繁殖、棲息。其中滴水岩保護區最多，約有兩千隻。番禺市政府近年大力提倡環境保護，一方面廣植林木，一方面禁止市民打鳥，並將沒收的野生動物如穿山甲 *Manis pentadactyla*、巨蜥 *Varanus salvator*、虎紋蛙 *Rana rugulosa* 等放回山林。(深星時報 5/10/98)

廣西北海市近日緊急頒布護鳥令，並緊急抽調警力，攜同林業部門聯合行動，取締走私候鳥市場二個，處理捕獵候鳥違法分子二十多人，收繳獵槍三十多支，解救放生大雁、貓頭鷹等珍稀鳥類一千一百多隻。(深星時報 3/11/98)

廣東省將於 1999 年起投入六億八千八百餘萬元營造生物防火林帶，一道總長八萬三千二百零九公里的森林、生態環境綠色屏障將在十年內崛起。為保證防火林帶如期完成，省政府已將其列入各市縣政府領導的任期目標責任，並定出嚴格的規定和獎罰制度。(文匯報 12/10/98)

10 月下旬，廣東省始興縣車八嶺自然保護區的一位護林員發現一頭華南虎 *Panthera tigris amoyensis* 在落株坪出沒。據估計，野生的華南虎約有 20 到 30 頭，而車八嶺有 2 到 3 頭。(深星時報 11/11/98)

香港商人邢詒前最近在自己家鄉海南省文昌縣東路鎮建立起名人山鳥類自然保護站。邢詒前自 1994 年起於名人山附近承包愈六十六公頃土地，廣植果樹。該保護站於 1998 年 10 月 1 日正式掛牌。(深星時報 3/10/98)

在海南，唐麗英(音譯)女士投資了人民幣 3,700 萬元(美金 450 萬元)在沿河的小城萬寧市興建國際綠色發展中心。該中心佔地 6.66 公頃，包括熱帶生態系統示範區、蘇格蘭古堡觀光區和生物資源開發區。唐女士的目的除了在於保護海南特有的植物外，也希望能把環境保護與經濟發

展相結合。(中國日報 27/9/98)

廣東茂名市公安局最近沒收了九十隻國家一級保護的巨蜥 *Varanus salvator* 和二十六隻國家二級保護的穿山甲 *Manis pentadactyla*。當地林業廳於 11 月 3 日在信宜縣大霧嶺自然保護區將所有動物放回自然(深星時報 11/11/98)。(編者按：孟加拉巨蜥 *Varanus bengalensis* 在華南地區的野生動植物市場上也常見，而且和巨蜥同用一個慣用別名。因此，上述九十隻巨蜥中，可能包括其中一種或兩種都有。)

近日海南省海口機場工作人員在跑道附近發現一窩五隻猴面鷹 *Tyto capensis* 幼鳥，他們立即將雛鷹送到海口金牛嶺動物園飼養。(成報 10/11/98)

華南點滴

湖南省將於 1999 年起，嚴禁在 780 平方公里的天然林區內伐木，並加強 3 萬平方公里水源林的管治，以防擅自進出或在林內進行農耕活動。為了控制水土流失和重建生態系統，省內 400 平方公里的農地上將於未來 5 年內植樹 300 萬株，計劃耗資人民幣 4,000 萬元(美金 500 萬元)。現時湖南省每年流失的表土達 1 億 7,000 萬噸。(中國日報 15/10/98)

將樂縣龍棲山自然保護區上月被國務院正式批准為國家級自然保護區。這是福建省繼武夷山、梅花山之後的又一國家級自然保護區。龍棲山自然保護區於 1989 年經省政府批准設立，面積一點四七萬公頃，森林覆蓋率達百分之九十七。(商報 8/10/98)

經過貴州省梵淨山國家級自

然保護區科研人員七年的艱苦調查，中國特有的瀕臨動物黔金絲猴 *Rhinopithecus roxellanae brelichi* 的全部數量僅七百六十四隻。黔金絲猴屬中國國家一級保護珍稀動物。(文匯報 10/10/98)

雲南維西縣薩瑪貢(音譯)森林發現 4 群逾 1,000 頭滇金絲猴 *Rhinopithecus bieti*。薩瑪貢森林海拔 3,500 米，距離另外 600 頭金絲猴棲息的白馬雪山 300 公里。(Beijing Review 21/09/98)

長江又傳出有物種面臨滅絕之聲。胭脂魚 *Myxocyprinus asiaticus* 已連續 3 年在江蘇、安徽兩省的鄱陽湖和長江裏絕跡。胭脂魚肉嫩味鮮，是中式宴席上的一道名菜。六十年代時，胭脂魚年產量 400 噸，在 1974 年更飆升至 1,575 噸。到了八十年代，胭脂魚供應量稀少，使價格上升到每公斤人民幣 800 元(美金 96 元)。國內專家認為，胭脂魚數量驟降的原因是長江流域上工業污染日益嚴重。(中國日報，香港版 17/10/98)

一項最新的資源普查表明，中國國家級自然保護區梵淨山保存著全國面積最大的珙桐 *Davidia involucrata* 林。珙桐是中國獨有的單型植物，樹型高大，可達二十餘米。現已發現的珙桐有十一個分佈片區，各片總面積近一百公頃。另，四川、湖南等地一些原始林區中亦有零星分佈。(澳門日報 12/10/98)

三隻來自蘇州動物園人工繁殖的華南虎 *Panthera tigris amoyensis*，來到福建梅花山國家自然保護區落戶。福建省政府希望待時機成熟時「放

虎歸山」，讓其招引野生華南虎，共同繁衍。(人民日報，海外版 12/10/98)

1998年10月7日凌晨一時許，福建梅花山國家級自然保護區內發現二至三隻雲豹 *Pardofelis nebulosa* 「做客」豬場，該豬場六隻小豬成了雲豹的美味「佳餚」。(澳門日報 12/10/98)

1998年10月起，浙江省內的狼 *Canis lupus*、野豬 *Sus scrofa* 等過去因危害農作物及家畜而遭人們捕殺的動物，現已被列入保護動物範疇。若是狼和野豬等動物危害人畜安全或破壞農作物，受損的單位或個人可向縣人民政府提出補償要求，經陸生野生動物行政主管部門核實後給予補償。(深圳特區報 14/10/98)

福建省最新開辦了一個容積7,000立方米的蝴蝶園。該園位於福建「熊貓世界」內，現有蝴蝶100多種。(文匯報 14/10/98)

兩名外國人攜帶三百隻蜥蜴，包括多個受保護品種，從泰國抵達台灣時，被台灣海關扣押。其中一名加拿大人是生物學家，1998年1月時亦曾因同類違法行為被判罪。(星島日報 16/10/98)

長江北望

1996年9月，李渤生教授帶領

的中外專家小組開始為西藏的珠穆朗瑪峰(額菲爾士峰)籌劃「珠穆朗瑪自然保護區生態旅遊總計劃」。制訂這項旅遊藍圖的工作由聯合國發展計劃資助、中國國際經濟科技交流中心主持。工作已於去年完成，並通過了西藏政府的審批，成為珠穆朗瑪自然保護區的正式生態旅遊指南。(中國日報，香港版 3/10/98)

黃河保育委員會現正草擬一份議案，以加強中央政府對水源分配的管制和大幅增加用水費。議案也會定出污染者的刑罰標準。今年華中地區洪汛雖猛，黃河卻依然有133日斷流。去年黃河斷流的記錄達226天。(南華早報 17/10/98)

有鑑於生態環境惡化、鼠類危害猖獗，四川省渠縣林業局於1994年投資二十萬元興辦渠縣蛇類繁殖場，至今已連續五年累計向大自然無償投放了十萬條小蛇。(新報 27/10/98)

為三峽工程受影響珍稀植物展開的遷地保護工作已初見成效。三十多種三峽珍稀植物經引種繁殖均獲成活，在宜昌大老嶺國家森林公園、海雲植物園和武漢植物研究所內長勢良好，庫區兩種珍稀瀕危植物的異地重返自然也獲成功。三峽區域內有國家級野生珍稀植物四十七種，有三十七種植物為庫區

所特有。三峽工程完成後，江水將上升六十七至一百米，受影響的植物將有五百五十五種。(澳門日報 5/10/98)

英國的Howletts and Port Lympne基金會捐贈10匹人工繁殖的野馬 *Equus przewalskii* 給中國，作為把該種馬重新引進甘肅、新疆戈壁沙漠之用。野馬是現代馴馬的先祖，最後一次發現其蹤跡已是六十年代的事了。國際機構如UNEP、FAO等都有為保護野馬制定方案。最近，國家環境保護總局與北京生物多樣性研究所共同開展了一項新計劃，在甘肅的安西縣把野馬重新引回大自然。(中國日報，香港版 16/11/98)

一種體型細小的新疆北鮠 *Ranodon sibiricus* 正面臨威脅。新疆北鮠祇在新疆和哈薩克有過記錄，估計全球約有4,000尾、半數在中國。這種鮠1989年在新疆溫泉縣被發現時，當時約有8,000尾。其後該處被開發成旅遊點。生境遭破壞和遊客的採集相信是導至新疆北鮠數量下降的原因。(文匯報 4/10/98)

鳴謝

世界自然(香港)基金會借出1998年8月至12月剪報。文中的動植物學名由編者提供。

歡迎讀者就所載新聞發表評論及意見。

NATIONAL

- Every year, 4,400 sq km of forests are illegally removed in China and 600,000 illegal logging cases were reported in 1997. Li Changjian, deputy director of State Forestry Administration (SFA) said that his administration was determined to put an end to the illegal encroachment on forests and would work closely with the Ministry of Public Security, the Supreme People's Court and the Supreme People's Procuratorate on this. SFA will no longer examine or approve any plans for comprehensive development and use of woodland. SFA will also abolish approval procedures for comprehensive forest businesses. Li also said that all the farmland that was developed on forest land after 1994 must be replanted with trees before the year 2000. (China Daily, 14/09/98)

- According to the SFA, 61% of China's existing natural forest covering 530,000 sq km of land will be brought under effective protection by the year 2000. The ultimate aim is to protect 77% of the existing natural forests. This forest protection project was triggered by the devastating floods this summer. A complete ban on logging natural forest was initiated on 1 September 1998 along the upper reaches of the Yangtze River in Yunnan and Sichuan. Loggers in 73 counties in Yunnan have switched from logging to planting trees. Loggers in Shaanxi, Gansu and Xinjiang will also join this massive reforestation programme by the end of the year. The complete ban on logging natural forest will ultimately be extended to Hunan, Hubei, Jiangxi and Hainan Provinces, along with Chongqing Municipality. The central Government plans to provide loans of ¥19 billion (US\$2.3 billion) by 2000. So far, ¥6 billion (US\$720M) has been allocated. Half of this money consists of loans for ex-

loggers to plant trees (China Daily, HK edition, 3/10/98). On the other hand, Chinese environmentalist Yang Xin said that unless the Government can help the tens of thousands of people affected to find an alternative way of living, the logging ban was not going to work. He added that Sichuan forests would be quiet for some time as it was still the centre of attention. He finally pointed out that national forest farms would follow the ban but there were no guarantees that those owned by local governments and collectives would do so. (SCMP, 4/10/98)

- Despite the firm logging ban on natural forests in certain provinces in central China, a senior engineer from the State Timber Exchange in Beijing predicted no surge in local and imported log prices, due to abundant timber reserves. As many as 5.7 million cubic meters are piled up in State tree farms in Northeast China, which is estimated to be enough to cover the demand for the next two years. (China Daily, HK edition, 18/10/98)

- According to SFA, China currently has 926 Nature Reserves (NRs), of which 136 are National Nature Reserves (NNRs). China directly employs over 15,000 NR staff. (China Daily, HK edition, 9/11/98)

- To celebrate the 10th Anniversary of China's first wild animal protection law, the SFA issued an open letter appealing to all Beijing citizens not to eat any wild animals. Zhang Lianyou, an SFA official, said that eating wild animals was a bad habit and was completely unnecessary. (China Daily, HK edition, 9/11/98)

GUANGDONG, GUANGXI & HAINAN

- The Regulations on Protecting Forest Lands in Guangdong Province are

effective from 18 October 1998. The regulations prohibit the destruction of forests for the purpose of farming. (China Daily, HK edition, 19/10/98)

- The Hainan Government recently strengthened the protection of corals on the island. In August, every coastal city or county set up a task force to stop coral collection and mining. In the next two months, the Government dismantled over 150 coral lime-kilns and 24 tourist stalls selling corals. In September, the People's Congress of Hainan Province passed a new law named "Hainan Coral Reef Protection Regulations". According to these regulations, coral collection, destruction of coral reefs and the manufacture of any items containing corals become illegal. (Shenxing Times, 10/11/98)

- Every year from September to November, a large number of migrating birds at Leizhou Municipality, Southwestern Guangdong, is hunted for the food market. Over ten coastal villages of the Jijia Town have been hunting migrating birds for over ten years and it has become even more popular in recent years. Over 100,000 birds are hunted every year. The Town Government is managing the hunting activities and bird market, breaking various wildlife laws for short-term profits. The selling price of a pair of dried birds is ¥15. (Apple Daily, 14/11/98)

- This year over 2,000 ardeids, especially Grey Heron *Ardea cinerea*, were found nesting in Dishuiyan NR, Panyu Municipality, Guangdong. Around 200 herons and egrets were also found at Lianhuashan Scenic Area, Nansha Golf Course and Xinzao. This is attributed to Panyu Government's increasing concern towards

environmental protection in recent years. Apart from large-scale reforestation and landscaping, Panyu has banned hunting birds and released confiscated animals (including Chinese Pangolin *Manis pentadactyla*, Water Monitor *Varanus salvator* and Chinese Pangolin (*Manis pentadactyla*), Water Monitor (*Varanus salvator*) and Bullfrog (*Rana rugulosa*) to the wild. (Shenxing Times, 5/10/98)

- Beihai Municipality, Guangxi recently issued an urgent order to protect birds. Police, together with Forestry officials, raided 2 migrant bird markets, arrested over 20 migrant bird hunters and confiscated over 30 rifles. More than 1,100 rare birds, including owls and geese, were released to the wild. (Shenxing Times, 3/11/98)

- Starting from 1999, the Guangdong Government will inject ¥688 million over 10 years to build an 83,209 km-long green belt for fire prevention and ecological restoration. To ensure that the green belt will be finished on time, the Provincial Government has listed this project as duties of all county chiefs during their office periods. Detailed regulations and a set of award/penalty system have also been set up for all counties to follow. (Wen Wei Po, 12/10/98)

- A forestry warden of Chebaling NR, Shixing County, Guangdong saw a South China Tiger *Panthera tigris amoyensis* at Luozhuping in late October. It is estimated that there are 20 to 30 South China Tigers living in the wild, and Chebaling has 2 to 3 individuals. (Shenxing Times, 11/11/98)

- HK businessman Mr. Xing Yiqian recently established the Mingren Mountain bird NR at his home town, Donglu Town, Wenchang County, Hainan. Since 1994, he has bought over 66 ha of land and planted many fruit trees for this NR. A management

station was officially opened on 1 October 1998. (Shenxing Times, 3/10/98)

- Ms. Tang Liying invested 37 million yuan (US\$4.5 million) to establish an international green development centre in Wangning, a small riverside city in Hainan. The 6.66 ha centre is composed of a tropical ecological system demonstration region, a Scottish ancient castle sightseeing area, and a biological resource exploitation region. Tang's aim is to protect the plants that are unique to Hainan and to combine environmental protection with economic development. (China Daily, 27/9/98)

- Ninety Water Monitors *Varanus salvator* (China Class I protected) and 26 Chinese Pangolins *Manis pentadactyla* (China Class II protected) were confiscated by the police at Maoming Municipality, Guangdong. The local Forestry Bureau released all of these animals at the Dawuling NR of Xinyi County on 3/11/98. (Shenxing Times, 11/11/98) (Ed.: The Bengal Monitor *Varanus bengalensis* is also common in S. China wildlife markets and shares the same common name as the Water Monitor. The above-mentioned 90 lizards might include either one or both species.)

- Five nestling Grass Owls *Tyto capensis* were found in a nest near the runway of Haikou Airport, Hainan. The young owls were immediately taken to the Jinniuling Zoo at Haikou by airport workers that discovered them. (Sing Pao Daily News, 10/11/98)

ELSEWHERE IN THE SOUTH

- Hunan Province will ban logging in 780 sq km of natural forests, and prevent access and farming activity in 30,000 sq km of catchment forests, at the beginning of 1999. About 3 million trees will be planted on 400 sq km of farmland in the next 5 years to control soil erosion and for ecological restoration. The province

plans to spend 40 million yuan (US\$5 million) on tree planting. Every year, 170 million tons of surface soil in the province is eroded. (China Daily, 15/10/98)

- Longqi Shan NR at Jiang Le County was upgraded to a National Nature Reserve last month. It is the third NNR in Fujian Province after Wuyi Shan NNR and Meihua Shan NNR. Longqi Shan was initially established as a Provincial NR in 1989. Its total area is 147 sq km with a forest cover of 97%. (HK Commercial Daily, 8/10/98)

- A 7-year study by nature reserve staff concluded that there were only 764 Guizhou Snub-nosed Monkeys *Rhinopithecus roxellanae brelichi* left in the wild in Fanjing Shan NNR, Guizhou. It is endemic to China under Class I protection. (Wen Wei Po, 10/10/98)

- Four groups of over 1,000 Yunnan Snub-nosed Monkeys *Rhinopithecus bieti* were discovered in Samagong forest in Weixi County, Yunnan. The Samagong forest is 3,500m above sea level and 300 km from the Baima Snow Mountain NR, where another 600 Snub-nosed Monkeys live. (Beijing Review, 21/09/98)

- Another Yangtze species is facing extinction. The Hilsa Herring, *Myxocyprinus asiaticus*, has not been found in Poyang Lake or the Yangtze River within Jiangsu and Anhui provinces in the last 3 years. It is a popular dish in Chinese cuisine for its soft texture and delicious taste. In the 1960s, about 400 tons were caught per year and in 1974, this went up to 1,575 tons. In the 1980s, the scarcity of supply drove its price up to ¥800 (US\$96) per kg. Chinese experts attributed the decline to serious industrial pollution along the Yangtze. (China Daily, HK edition, 17/10/98)

- A recent survey found the world's largest *Davidia involucrata* forest, at Fanjing Shan NNR, Guizhou. *D. involucrata* is the only species in Family Davidaceae and is endemic to China. It is a large tree that can grow over 20 m in height. Eleven patches of *D. involucrata*, each covering around 100 ha, have been discovered at Fanjing Shan. Smaller patches are also found in ancient forests in Sichuan and Hunan. (Macau Daily, 12/10/98)

- Three captive-bred South China Tigers *Panthera tigris amoyensis* were transferred from the Suzhou Zoo to the newly established breeding centre at Meihua Shan NNR, Fujian. The Fujian Government aims to reintroduce captive-bred tigers to the wild. (People's Daily, Overseas edition, 12/10/98)

- Six suckling pigs were believed to have been eaten by 2 to 3 Clouded Leopards *Pardofelis nebulosa* at Meihua Shan NNR, Fujian at 1 a.m. on 7 October 1998. (Macau Daily, 12/10/98)

- Wolf *Canis lupus* and Wild Boar *Sus scrofa*, both formerly considered agricultural pests, become protected species in Zhejiang Province starting from October 1998. If Wolf and Wild Boar cause damage to livestock and crops, the affected collective or person can apply to the Provincial Government for compensation. The relevant wild animal protection departments will offer compensation after inspection. (Shenzhen Special Zone Daily, 14/10/98)

- A 7,000 cubic metre butterfly garden was recently opened in Fujian. This new facility is situated inside the Fujian Dameng Shan Panda World. It currently has over 100 butterfly species. (Wen Wei Po, 14/10/98)

- Two foreigners were detained by Taiwan Customs for carrying 300

lizards of various protected species from Thailand. One of them was a Canadian Biologist who had been convicted for a similar offence in January 1998. (Sing Tao Daily, 16/10/98)

NORTH OF THE YANGTZE

- In September 1996, Professor Li Bosheng and his Sino-foreign expert team started to draw up the "Ecotourism Overall Plan for Qomolangma (Mount Everest) NR" in Xizang. This tourism masterplan was funded by United Nations Development Programme and administered by the China International Centre for Economic and Technological Exchange. The Plan was completed last year and approved by the Xizang Government. It has become an official guideline for ecological tour development in the NR. (China Daily, HK edition, 3/10/98)

- The Yellow River Conservancy Commission is drafting a new bill to increase central Government control over water allocation from the river and substantially increase prices of water use. The draft will also standardize punishment for polluters. Despite this year's floods in central China, the Yellow River dried up for 133 days. Last year, the river dried up for a record of 226 days. (SCMP, 17/10/98)

- In view of serious rat problems due to ecological degradation, the Forestry Bureau of Qu County, Sichuan Province invested 200,000 yuan to set up a snake breeding centre in 1994. So far, 10,000 snakes have been released to the wild in 5 years without charge. (HK Daily News, 27/10/98)

- The ex-situ conservation projects for rare plant species affected by the Three Gorges Dam have gained certain successes. Over 30 rare plant species were successfully propagated in Yichang Dalaoling National Forest

Park, Haiyuan Botanic Garden and Wuhan Institute of Botany. The re-introduction of 2 endangered plant species also proved successful. Three Gorges has 47 State-protected plant species and 37 species endemic to the area. Once the dam is finished, the water level will rise by 67 to 100 m, affecting 550 plant species. (Macau Daily, 5/10/98)

- Britain's Howletts and Port Lympne Foundation donated 10 captive-bred Wild Horses *Equus przewalskii* to China for re-introduction in the Gobi Desert in Gansu and Xinjiang. The Wild Horse is the ancestor of the modern domestic horses and the last Wild Horse was seen in the 1960s. International organizations like UNEP and FAO have also made plans to protect the Wild Horse. The State Environmental Protection Agency and the Beijing Institute of Biodiversity recently started a new programme to re-introduce Wild Horses to nature in Anxi County, Gansu. (China Daily, HK edition, 16/11/98)

- A small salamander *Ranodon sibiricus* is under threat. It is recorded only from Xinjiang and Kazakhstan. The world total is estimated to be 4,000, half of which are in China. When it was discovered in Wenquan County of Xinjiang in 1989, there were 8,000. Subsequent to the discovery of the species, the salamander site was designated as a tourist spot. Habitat destruction and collection by tourists are believed to be the causes of the population decline. (Wen Wei Po, 04/10/98)

Cuttings courtesy of WWF HK. Taken from newspapers in the period August to December 1998. All scientific names are given by the editors.

Readers are invited to comment or elaborate on any of the news items.

Shackleton, DM. (ed.) and the IUCN/SSC Caprinae Specialist Group, 1997. *Wild Sheep and Goats and their Relatives. Status Survey and Conservation Action Plan for Caprinae*. IUCN, Gland, Switzerland and Cambridge, UK. 390 = vii pp.

書評由費樂思撰寫、由留佳宁及黃景愉翻譯

世界自然保護聯盟 (IUCN) 及其物種生存委員會 (SSC) 中 7,000 位來自世界各地的志願專家，攜手為需關注的動植物制訂了一系列的保育行動計劃。每個行動計劃都包括評估物種及其棲息地的保育狀況，和指出牠們的保育優先次序。現時這一冊是由世界自然保護聯盟 / 物種生存委員會羊羚亞科專家小組的主席 David Shackleton 以六年時間編纂，彙集了來自 70 個國家共 111 位作者的作品。

羊羚亞科是哺乳類的一個亞科，以綿羊和山羊為代表，共約 30 種，其中包括了兩種世界上最重要的家畜 (家山羊 *Capra hircus* 和家綿羊 *Ovis aries*)。羊羚亞科的多數物種由於種群隔離、對棲息地要求高、繁殖率低，加上其分佈區域內的生態系統正面臨不斷增加的人為壓力，以致大部分都在滅絕的邊緣。

此書共 12 章，前三章介紹了此書的佈局、羊羚亞科的重要性和所採用的分類法。隨後的 7 章介紹了世界上每個地區的羊羚亞科。最後的兩章分別介紹保育的優先次序和選擇，及有關保育的行動和實施的資料。此外，書內的附錄還有關於野生羊羚亞科的持續利用和管理的資料、作者的姓名和地址及 1994 年 IUCN 紅皮書的分類表。全書加插了羊羚亞科在各國的分佈圖和黑白相片。

「森林脈搏」的讀者最感興趣的應該是兩種原生的華南羊羚亞科，即蘇門羚 *Capricornis sumatraensis* 和班羚 *Naemorhedus caudatus*。

就像其他羊羚亞科一樣，這兩個種的分類學備受爭議，有些作者把蘇門羚歸入 *Naemorhedus* 屬，有些則將這個物種分開。蘇門羚和班羚兩者都是全球易危物種。

行動計劃的中國部份由中國北部的八位作者撰寫。難怪蘇門羚 (其分佈北緣為甘肅南部) 和班羚 (大部分分佈在南方) 在中國的狀況都不能確定。蘇門羚中稱為 *argyrochaetes* 的種群 (這裡確定為中國西南亞種 *C. sumatraensis milneedwardsii*) 包括了西自雲南，東至浙江的物種，在書內均被視為處於瀕危狀況。在中國南部和鄰近的中印地區內，由於缺乏活躍的哺乳類專家及其他原因，這些物種的總體現況仍是個謎。

一如所料，保育這些物種和很多其他羊羚亞科的建議措施包括：禁止所有可能會導致物種滅絕的狩獵和買賣活動，並為物種的分佈、種群數量和生態做研究。大體的保育目標還包括維持最大的遺傳基因多樣性和創造一個可供人類持續利用的環境。要達到這個目標就先要整理好這個亞科的分類工作，調查其野生種群數量和發展一系列的保育管理計劃。

正如本書提及，這些建議能否成功有賴「使用者」(獵人和當地居民)、政府和有關生物學家之間更緊密的工作關係。如果這本出色的參考書能帶來上述進程，雖然編纂時煞費苦心，但所花的心力也是值得的。

Shackleton, D.M. (ed.) and the IUCN/SSC Caprinae Specialist Group, 1997. *Wild Sheep and Goats and their Relatives. Status Survey and Conservation Action Plan for Caprinae.*

IUCN, Gland, Switzerland and Cambridge, UK. 390 = vii pp.

Reviewed by John R. FELLOWES

The World Conservation Union (IUCN), and its Species Survival Commission (SSC) of 7,000 voluntary experts worldwide, have produced a series of Action Plans on animal and plant groups of conservation interest. Each Action Plan assesses the conservation status of species and their habitats, and outlines the priorities for their conservation. The present impressive volume has been compiled over six years by David Shackleton, the Deputy Chairman of the IUCN/SSC Caprinae Specialist Group, with the input of 111 authors from 70 countries.

The mammal subfamily Caprinae, better known as the sheep and goats, is a group of some 30 species which include two of the world's most important livestock animals (*Capra hircus* and *Ovis aries*). Most species are especially vulnerable to extinction due to their genetic isolation, specialised habitat requirements and low reproductive rate, coupled with increased pressure from humans on their rangeland ecosystems.

The Caprinae Action Plan includes 12 chapters, of which the first three set the scene for the scope of the book, the importance of the animals, and the classification adopted. The following seven chapters comprise a world tour of Caprinae by region, followed by a chapter on conservation priorities and options, and another on conservation actions and implementation. There are also appendices on sustainable use, management of feral and wild Caprinae, names and addresses of authors, and 1994 IUCN Red List categories. Throughout there are country-wide distribution maps, and black-and-white photographs.

Of most interest to *Living Forests* readers are the two native Caprinae of South China, the Serow *Capricornis sumatraensis* and the Long-tailed Goral *Naemorhedus caudatus*. As with other Caprinae, the

taxonomy of these is disputed; some authors place the Serow in *Naemorhedus*, and some split the species. Globally both Serow and Long-tailed Goral are considered Vulnerable.

The China section of the Action Plan derives from contributions by eight different authors, all based in northern China. Not surprisingly, the China status of the Serow (whose northern limit is in southern Gansu), and the Long-tailed Goral (most of whose distribution is also in the south), are both given as Indeterminate. The Serow populations referred to as *argyrochaetes* (here assigned to *C. sumatraensis milneedwardsii*, the Southwest China Serow), which include those from Yunnan in the west to Zhejiang in the east, are considered Endangered. Overall though, in southern China as in neighbouring Indochina, the status of these species is shrouded in mystery, a situation attributable in part to the shortage of active mammalogists in the region.

The conservation measures proposed for these and many other Caprinae are also not surprising: to ban hunting and trade wherever it might lead to extinction, and to conduct studies of distribution, population and ecology. Overall the conservation goals include the maintenance of maximum genetic diversity, and creation of an environment that might enable sustainable use. Before this is possible it will be essential to revise the group's taxonomy, to census the wild populations and to develop conservation management plans.

As noted in the Report, the success of such recommendations depends on closer working relationships between 'users' (hunters and local residents), governments and professional biologists. Given such progress, this excellent reference volume will have been worth all the painstaking effort.

近期出版的書籍

書籍、報告

陳宜瑜等, 1998 《中國動物志：硬骨魚綱 鯉形目 (中卷)》，科學出版社，531 頁。

中國野生動物保護協會(主編)，1999 《中國兩棲動物圖鑑》，河南科學技術出版社。

傅桐生、宋榆鈞、高瑋等，1998 《中國動物志：鳥綱 第十四卷》，科學出版社。

高立士著，1999 《西雙版納傣族傳統灌溉與環保研究》，雲南民族出版社。

國家環境保護局，1998 《中國履行《生物多樣性公約》國家報告》，中國環境科學出版社。

汪松(主編)，1998 《中國瀕危動物紅皮書：獸類》，科學出版社。

樂佩琦、陳宜瑜(主編)，1998 《中國瀕危動物紅皮書：魚類》，科學出版社。

張孟聞、宗愉、馬積藩，1998 《中國動物志：爬行綱 第一卷》，科學出版社。

趙爾密(主編)，1998 《中國瀕危動物紅皮書：兩棲類和爬行類》，科學出版社。

趙爾密、黃美華、宗愉等，1998 《中國動物志：爬行類 第三卷》，科學出版社。

鄭光美、王岐山(主編)，1998 《中國瀕危動物紅皮書：鳥類》，科學出版社。

John Seidensticker, Sarah Christie and Peter Jackson, 1999 《騎虎 - 人類支配地域中的老虎保育》，英國劍橋大學出版社。(英文書)

Georgiana M.Mace, Andrew Balmford & Joshua R.Ginsberg, 1998 《生物保育系列一：在轉變中的世界保育》，英國劍橋大學出版社。(英文書)

卡遜、劉惠寧、鮑嘉天，1998 《香港兩棲類及爬行類》，臨時市政局。(英文書)

Malcolm L.Hunter JR, 1999 《森林生態系統的生物多樣性維護》，英國劍橋大學出版社。(英文書)

Volker Homes, 1999 《蹤跡：麝鹿保育 - 麝鹿的利用和歐洲在其貿易的角色》，野生物貿易研究委員會歐洲報告。(英文書)

Bascombe, M.J., Johnston, G. and Bascombe, F.S, 1999 《香港的蝴蝶》，學術出版社。(英文書)

劉國亮，1997 《香港蝴蝶》，Paul Lau Photography.

Lee, S., 1998 《香港的中國人對野生生物保育及其被用作醫藥和食物的看法》，野生生物貿易研究委員會(東亞，香港)印。(英文書)

Rabinowitz, A., 1997 《野外考察和保育野生生物訓練手冊》，美國野生生物保育會(紐約)印，281 頁修訂版及再版。(英文書)

Shackleton, D.M., 1997 (編者)及世界自然保護聯盟 - 物種生存委員會(羊羚亞科專家小組)，《野羊和山羊及其家族：狀況及保育措施》，世界自然保護聯盟，Gland，瑞士和英國劍橋印。(英文書)

聯合國發展計劃，1988 《生態地區性合作保育喜馬拉雅的生物多樣性》，聯合國發展計劃印。(英文書)

陳心啟等，1999 《中國植物誌》第 18 卷，科學出版社，463 頁。

吉占和等，1999 《中國植物誌》第 19 卷，科學出版社，485 頁。

科學論文

丁波、張亞平、侯意諦，1998 「根據蛋白電泳對雲南六個地區恒河猴遺傳多樣性的研究」。動物學研究 19(2)，171-172 頁。

胡剛、韋毅，1998 「白頭葉猴种群動態研究」。中國靈長類研究通訊 7(1-2)，10-11 頁。

黃乘明、孫儒泳、盧立仁，1998 「白頭葉猴的日間活動範圍與其季節性變化研究」。中國靈長類研究通訊 7(1-2)，7 頁。

Liu H., 1998 「兩個全新世亞洲犀牛種的地理分佈」。中國地理學報 8(1)，83-88 頁。(英文書)

盧立仁，1998 「白頭葉猴的生存危機」。中國靈長類研究通訊 7(1-2)，13-14 頁。

史海濤、鄭光美，1998 「紅腹角雉的食性研究」。動物學研究 19(3)，225-229 頁。

楊茂發、李子忠，1998 「海南大葉蟬三新種(同翅目：葉蟬總科)」。動物學研究 19(4)，318-322 頁。

A selection of recent publications

Books and reports

- Chen Yiyu *et al.*, 1998. *Fauna Sinica: Osteichthyes: Cypriniformes II*. Science Press, Beijing. (531 pp., Chinese).
- The Chinese Wildlife Conservation Association (Chief Compilers), 1999. *Atlas of Amphibians of China*. Henan Science and Technology Press (Chinese).
- Fu Tongsheng, Song Yujun, Gao Wei *et al.*, 1998. *Fauna Sinica: Aves Vol. 14: Passeriformes: Ploceidae, Fringillidae*. Science Press, Beijing (323 pp. + 8 plates, Chinese).
- Gao Li-shi, 1999. On the Dais' Traditional Irrigation System and Environmental Protection in Xishuangbanna. Yunnan Nationality Press (Chinese & English).
- State Environmental Protection Agency, 1998. *The China National Report on Implementation of the "Convention on Biological Diversity"*. China Environmental Science Press, Beijing, 92 pp. (Chinese).
- Wang Sung, 1998. *China Red Data Book of Endangered Animals: Mammalia*. Science Press, Beijing, Hong Kong & New York (Chinese & English).
- Yue Peiqi & Chen Yiyu (Chief Compilers), 1998. *China Red Data Book of Endangered Animals: Pisces*. Science Press, Beijing, Hong Kong & New York. (247 pp. + 7 colour plates, Chinese & English).
- Zhang Mengwen, Zong Yu & Ma Jifan, 1998. *Fauna Sinica: Reptilia Vol. 1. General Accounts of Reptilia, Testudoformes and Crocodyliformes*. Science Press, Beijing. (213 pp. + 4 colour plates, Chinese).
- Zhao Ermi (Chief Compiler), 1998. *China Red Data Book of Endangered Animals: Amphibia & Reptilia*. Science Press, Beijing, Hong Kong & New York. (330 pp. + 4 colour plates, Chinese & English).
- Zhao Ermi, Huang Meihua, Zong Yu *et al.*, 1998. *Fauna Sinica: Reptilia Vol. 3: Squamata: Serpentes*. Science Press, Beijing (522 pp. + 12 plates).
- Zheng Guangmei & Wang Qishan (Chief Compilers), 1998. *China Red Data Book of Endangered Animals: Aves*. Science Press, Beijing, Hong Kong & New York. (346 pp. + 4 colour plates, Chinese & English).
- John Seidensticker, Sarah Christie and Peter Jackson, 1999. *Riding the Tiger- Tiger Conservation in human-dominated landscapes*. Cambridge University Press.
- Georgina M.Mace, Andrew Balmford & Joshua R.Ginsberg, 1998. *Conservation Biology Series 1: Conservation in a Changing World*. Cambridge University Press, UK.
- Stephen J.Karsen, Micheal Wai-neng Lau & Anthony Bogadek, 1998. *Hong Kong Amphibians and Reptiles*. The Provisional Urban Council, Hong Kong.
- Malcolm L. Hunter JR, 1999. *Maintaining Biodiversity in Forest Ecosystem*. Cambridge University Press, UK.
- Volker Homes, 1999. *On the Scent: Conserving Musk Deer-the Uses of Musk and Europe's Role in its Trade*, TRAFFIC Europe report.
- Bascombe, M.J., Johnston, G. and Bascombe, F.S, 1999. *The Butterflies of Hong Kong*. Academic Press, London, 664pp.
- Lau, Paul, 1997. *Butterflies of Hong Kong*. Paul Lau Photography. (Chinese & English).
- Lee, S., 1998. *Attitudes of Hong Kong Chinese Towards Wildlife Conservation and the Use of Wildlife as Medicine and Food*. TRAFFIC East Asia, Hong Kong (65 pp.).
- Rabinowitz, A., 1997. *Wildlife Field Research and Conservation Training Manual*. Wildlife Conservation Society, New York, USA (281 pp., revised and reprinted).
- Shackleton, D.M. (ed.) and the IUCN/SSC Caprinae Specialist Group, 1997. *Wild Sheep and Goats and their Relatives: Status Survey and Action Plan for Caprinae*. IUCN, Gland, Switzerland and Cambridge, UK, (390 + vii pp.).
- United Nations Development Programme, 1998. *Ecoregional Co-operation for Biodiversity Conservation in the Himalaya*. UNDP, New York, 396 pp.
- Chen Singchi *et al.*, 1999, Flora Reipublica Popularis Sinicae, Tomus 18, Science Press (Chinese) 463pp.
- Tsi Zhanhuo *et al.*, 1999, Flora Reipublica Popularis Sinicae, Tomus 19, Science Press (Chinese) 485pp.

Scientific papers

- Ding Bo, Zhang Yaping & Hou Yidi, 1998. Genetic diversity among *Macaca mulatta* from six regions in Yunnan Province based on protein electrophoresis. *Zoological Research* **19**(2), 171-172 (Chinese).
- Hu Gan & Wei Yi, 1998. Study on population dynamics of White-headed Langurs. *Chinese Primate Research and Conservation News* **7**(1-2), p.10-11 (Chinese) and 24 (English).
- Huang Chengming, Sun Ruyong & Lu Liren, 1998. Study on the day range and its seasonal change of White-headed Leaf Monkey. *Chinese Primate Research and Conservation News* **7**(1-2), p. 7 (Chinese) and 22-23 (English).
- Liu H., 1998. The change of geographical distribution of two Asian species of rhinoceros in Holocene. *The Journal of Chinese Geography* **8**(1), 83-88.
- Lu Liren, 1998. Living crisis of *Presbytis leucocephalus*. *Chinese Primate Research and Conservation News* **7**(1-2), p.13-14 (Chinese) and 30(English).
- Shi Haitao & Zheng Guangmei, 1998. The study on diet of Temminck's Tragopan. *Zoological Research* **19**(3), 225-229 (Chinese, with English abstract).
- Yang Maofa & Li Zizhong, 1998. Three new species of Cicadellidae from China's Hainan Province (Homoptera: Cicadellidea). *Zoological Research* **19**(4), 318-322 (Chinese, with English abstract).

難以對付的兩個問題

在和一些不關心環保甚至心存抵觸的人交談時，我經常碰到兩個問題。一個是：「你說對動物要講感情，那為什麼還吃雞吃鴨，宰豬宰羊？」

我認為，感情是在一定的政治、經濟、文化條件下的一種思想反映。一萬年以前，就是人吃人也被認為是合理的。因為那時候就是這個條件。隨著經濟和文化的進步，人吃人自然是不道德的了。人類的倫理、道德、感情也隨著客觀的條件而相應地發生變化。對待動物也是如此，人與動物之間，原本就和動物與動物之間一樣，只是食物鏈的關係，倫理學從來沒有超出人與人的關係。但是，人在倫理上關心人類逐漸延伸到關心自然，關心自然中相互聯系的各種生命，已經和正在經歷一個歷史的過程...也有一些素食主義者不是因為宗教的關係，也不是因為生理上的原因，而是因為熱愛動物，我就遇到過不少這樣的朋友。至於素食或者一種新的飲食方式會不會成為未來的潮流，我不知道；但不能因為我們吃了家養動物，就推論可以吃野生動物，特別是影響到物種多樣性的和生態平衡的珍稀動物。即使我們吃家畜，也要講點道德。如香港禁止倒提雞鴨，美國有的州禁止買賣活的動物食品，在德國如要買活魚回家，必需在塑料袋中裝水，還要放一片提供氧氣的藥片。而我們許多中國人不是這樣，以吃珍稀動物為榮，而且吃得越殘忍越「過癮」，甚至作為一種飲食文化加以宣揚。這不是文明，而是野蠻。

另一個問題是：當我們談到要保護某種植物或者某種動物的時候，而正是以破壞這些動、植物為生的人會出來質問我們：「你們是要保護人，還是保護動物？」說心裡話，第一，人太多了。數量超過了一

定界限，就成了質量的問題。世界上現有多少人口？中國已經超過十二億，真感到人多成災。想想我們，這麼多人要吃飯，要穿衣，要蓋房，要修路，要燒柴或用別的能源，許多人死了還要買一口棺材，佔一塊地，這對地球的壓力太大了。

第二，人做的壞事太多了。大地是我們的母親，生我，養我，教育我，給我一切，還嚴厲教訓我。但我們恩將仇報，把原始自然林淹成水庫；把坡鹿棲息地建成牧場；把熱帶雨林墾成橡膠園；把黃河的災難移植到長江和其他流域；把大片的耕地變成灰沙磚瓦和瀝青水泥所組成的「沙漠」，然後又去大規模地破壞森林、草原和沼澤；現在又有人主張在雅魯藏布江大拐彎的地方，修一個超世紀、超世界的大水壩。人啊，人啊，什麼時候你才變得老實一點呢？

第三，更可怕的問題是人還認識不到自己的錯誤，還給這種貪婪、無知、短視、狂妄披上了救世主的外衣，把自毀家園、造孽子孫說成是“現代文明”，其頑固根源就是總認為人是萬物之靈，人類高於一切，人的能量大於一切，所以人可以肆無忌憚地砍伐森林，消滅動物，污染河流、破壞臭氧層，把地球搞得面目全非。在這種情況下，難道我們不可以反省一下，把人類的感情、倫理、道德往動物和其他生命方面傾斜一點嗎？難道我們保護自然就是不保護人嗎？當然不是，覆巢之下，豈有完卵？保護自然本身包含著保護人及人的未來，只是有些人眼光短淺看不到就是了。世間有千千萬萬個物種，人只是其中的一個，我們不能為了保護一個物種而排斥其他的物種；如果其他物種都滅絕了，那麼人這個物種也只能同歸於盡。

節錄自唐錫陽、馬霞 瑪爾柯斯，《環球綠色行，中國卷》，
內蒙古人民出版社出版，1997年。

Two Tough Questions

When I talk to those who are not interested in or even against environmental conservation, I always encounter two questions. The first one is: **“You said we should show passion for animals, then why do we still eat chickens and ducks, and kill pigs and sheep?”**

I think passion, to a certain extent, is a spiritual reflection of political, economic and cultural conditions. Ten thousand years ago, cannibalism was considered reasonable under the conditions of the time. With advances in economy and culture, cannibalism has then become immoral. Ethics, morals and passions will change according to changes in conditions. The way to treat animals is the same. Originally, the relationship between humans and animals is, like that between animals themselves, as different levels on a food chain. This relationship was beyond the reach of human ethics. However, the extension of ethical concerns from people to nature and to the mutual links between various life forms on earth has gone and is going through a historical process. Some people become vegetarians because they love animals rather than for religious or physiological reasons. I have met a lot of such people. I am not sure if vegetarianism or a new eating style will become a future trend. But we cannot deduce that because we eat livestock we should eat wild animals, especially rare species that affect biodiversity and ecological equilibrium, as well. We have to be moral even when we are eating livestock. For example, Hong Kong prohibits carrying poultry upside down. Certain states in the U.S.A. prohibit retail trading of live animals as food. In Germany, you have to provide water and an oxygen tablet to a fish in a plastic bag if you buy it alive. On the contrary, a lot of Chinese people are still proud of eating rare animals, the more brutal the better. They even promote this as a culture of eating. In fact, this is not civilized but barbaric.

The second question I face is that while I am talking with friends about protecting a certain kind of plant or animal, those who rely on killing these plants and animals for a living will ask, **“Are you going to protect humans or animals?”**

To be perfectly honest, firstly, I think the world is over-populated. It becomes a quality issue when human population exceeds a certain level. How many people are

there in the world now? China alone has more than 1.2 billion. I really feel that this is a tragedy. With so many people, we need to find food and clothes, to build houses and roads, to collect firewood or to use other energy resources. Many people even buy coffins for their dead bodies and occupy some land after death. This is too great a pressure for the earth.

Secondly, human beings have done too many bad things. The earth is our mother. She brings us to this world and nurses us. She gives us education and everything. She also inflicts us punishments. However, we have requited her kindness with enmity. We have turned primary forests to reservoirs. We have ranches built on Eld’ s deer’ s habitat. We have cleared rainforests and turned them to rubber plantations. We have repeated the disaster we created at Huang He on the Yangtze and other rivers. We have turned a lot of agricultural land into concrete and bitumen deserts. We have then destroyed more forests, grasslands and marshes on a massive scale. Now, some people are trying to build the world’ s biggest dam at the big bend of Yarlungzangbo Jiang. Human beings, when will you be more humble?

Thirdly, the most horrible thing is that we human beings are still not aware of our fault. We even regard our greed, ignorance, shortsightedness and presumption as the elements to save the world. We destroy our home and bring misery to our future generations under the name of “modern civilization”. Humans are stubborn because we always think we are the ruler of all and are superior to all life forms on earth. We are so powerful that we relentlessly destroy forests, wipe out animals, pollute rivers and even destroy the ozone layer. We have completely changed the earth. Now, why don’ t we have a serious evaluation of what we have done? Can we be more passionate, ethical and moral to animals and other life forms? Does protecting nature mean not protecting humans? Of course not! No one can escape unscathed in a great disaster. Nature conservation actually includes protecting human beings and their futures. Some people are just too shortsighted to see this. Human beings are only one of the millions of species on earth. We should not destroy other species in order to save one. Should all other species become extinct, the human species will not be able to survive alone.

Extracted from Tang, X.Y., and Marks, M.B., 1997. *The World Green Tour: China Section*.
Inner Mongolia People’ s Press, China. (Chinese)
Translated by Angel Wong and Billy Hau

华南地图 Map of South China



報告 Announcement

1999 年度嘉道理農場暨植物園生物多樣性獎學金

嘉道理農場暨植物園於 1999 年推出生物多樣性獎學金計劃，本年度合共收到 22 份申請。各申請人研究的生物多樣性範圍非常廣泛，從基因到群落，從人造生境到天然生境的生物多樣性均有所涉及。生物多樣性獎學金旨在幫助年輕科學家汲取在野外進行動植物調查的工作經驗，增進在野外工作的知識和技巧。因此，能入選面試的都是在天然生境中進行生物多樣性調查的項目。今年 10 月下旬，6 位申請者在中國科學院廣州分院接受面試，面試結果下期公佈。

2000 年度嘉道理農場暨植物園生物多樣性獎學金

為了配合國內研究生的註冊時間，2000 年度的嘉道理農場暨植物園生物多樣性獎學金將於 2000 年 1 月起接受申請。我們仍將提供多達 6 個名額。有見華南地區缺乏年輕的野外動物考察專家，以下動物組別的生態或分類研究項目將獲優先考慮：

- 濕地及森林的爬行動物和兩棲動物；
- 林鳥；
- 大型哺乳類動物；
- 蝙蝠；
- 小型哺乳類動物；
- 森林溪流的魚類；
- 陸生蝸牛；
- 森林節肢動物

有意申請者請來信或電郵索取申請表格

地址：香港特別行政區 新界大埔 林錦公路 嘉道理農場暨植物園 華南生物多樣性研究隊；
或電郵：scbt@kfbg.org.hk

KFBG Biodiversity Studentship 1999

In 1999 KFBG launched a Biodiversity Studentship scheme. We received 22 applications to the KFBG Studentship 1999. These cover a wide range of biodiversity topics from the genetic to community levels, in man made as well as natural habitats. Since the primary aim of the Studentship scheme is to assist young scientists to acquire the knowledge and skills to survey plants and animals in the wild, only projects relating to biodiversity survey in natural habitats have been selected for interviews. Six applicants were interviewed at CAS, Guangzhou Branch, in late October. Results will be announced in the next issue.

KFBG Biodiversity Studentship 2000

In order to fit in with the postgraduate enrollment schedule in China, the KFBG Biodiversity Studentship for the year 2000 will be open for application in January 2000. Again, up to 6 studentships will be offered. In view of the shortage of young field zoologists in South China, special consideration will be given to research projects on the ecology or taxonomy of the following animal groups:

- Reptiles and amphibians in wetland and forest;
- Forest birds;
- Large mammals;
- Bats;
- Small mammals;
- Forest stream fishes;
- Land snails;
- Forest arthropods

Those who wish to apply please write or e-mail to the South China Biodiversity Team, KFBG for an application form.

Address: South China Biodiversity Team, Kadoorie Farm & Botanic Garden, Lam Kam Rd, Tai Po, New Territories, Hong Kong Special Administrative Region, China; or email: scbt@kfbg.org.hk

