

行政院及所屬各機關出國報告
(出國類別：考察)

「至越南考察合作管道及非法野生動物交易現況」

出國報告書

服務機關：國立屏東科技大學野生動物保育系

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出國地區：越南

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摘 要

民國 89 年 7 月 11 日，高雄關稅局在一艘來自越南的漁船上，發現剛出生不久的 4 隻瀕臨絕種的黃金頰長臂猿 (*Hylobates gabriellae*)，以及另外的 13 隻新生獼猴 (*Macaca spp.*) 等保育類動物。為協助黃金頰長臂猿有機會回到其原產國，並進一步了解越南當地非法野生動物交易的現況，屏東保育類野生動物收容中心參訪了位於越南寧平省之瀕臨絕種靈長類收容中心、河內大學、西貢動物園及胡志明市的寵物市場。寧平省之瀕臨絕種靈長類收容中心及西貢動植物園在越南都頗負盛名，在長臂猿的照養上相當專業，未來應可建立更密切的合作關係，共同進行黃金頰長臂猿的保育繁殖；不過前述的收容中心由於過於地方性（越南北部）且僅收容瀕臨絕種的靈長類，對越南整體非法野生動物交易的遏阻效果有限。至於胡志明市內的寵物市場則令人憂心，隨處可見民眾在路邊兜售懶猴，而在一般的寵物店也偶而可見待售的黃金頰長臂猿幼體。由於越南當地保育類野生動物收容作業嚴重不足，執法人員在取締非法行為上較不積極，建議可提供經驗和專業知識協助越南（尤其是南部地區）設置收容場所，以協助當地打擊非法，並有效減少野生動物的走私行為；同時，對於近年已成功走私進入我國的個體，部份南部的遊樂場所以「拾獲」作為藉口，規避法律責任，建議將所有近年來被「拾獲」的保育類個體依法交由收容單位收容，以宣示政府追擊走私的決心。

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出 國 行 程

- 二月八日 抵達越南河內省；
前往位於越南寧平省菊方國家公園〈Cuc Phoung National Park〉內之瀕臨絕種靈長類收容中心（Endangered Primate Rescue Center）。
- 二月九日 拜會並考察瀕臨絕種靈長類收容中心之營運管理。
- 二月十日 拜訪越南河內大學；下午前往胡志明市。
- 二月十一日 拜訪位於胡志明市之西貢動植物園（Saigon Zoo and Botanical Gardens）；下午探訪野生動物寵物市場。
- 二月十二日 探訪野生動物寵物市場；傍晚返回台灣。

正文

民國八十九年七月十一日上午，財政部高雄關稅局派員抄查新加坡籍來自越南胡志明港的 Saipan Premier (首相) 漁船時，查獲一批由越南籍船員 Ngu Yen Van Thang 走私的活體野生動物，其中包括有瀕臨絕種物種黃金頰長臂猿 (*Hylobates gabriellae*) 的新生個體四隻、獼猴 (*Macaca spp.*) 的新生個體 13 隻等保育類動物共 26 隻。當天下午，高雄關即派車將這些動物送來屏東科技大學保育類野生動物收容中心(以下簡稱本收容中心)辦理收容。該批動物在進入本收容中心時，即依照規定進行一系列的健檢即治療流程，唯部份個體因為受到船運過程中嚴重的脫水和飢餓，以及相當程度的緊迫，一直相當虛弱，在同年的八月六日以前，就有兩隻黃金頰長臂猿和七隻獼猴陸續死亡。所幸其餘個體在獲得適當的照料之下，到目前都相當的健康，且發育正常。

本中心自民國 85 年進行國內保育類野生動物之收容作業起，至今已收容照養近五百隻的本國產及非本國產的保育類野生動物，且目前平均每月尚須受理由各縣市政府、海關和檢警單位所移送的 20-30 件個案。本收容中心對於收容之動物個體除收容、醫療、照養外，更積極為健康狀況良好之個體尋求能提供更佳照養條件的外送地點。截至目前為止，本中心已移送 3 隻紅毛猩猩至馬來西亞太平動物園 (Taiping Zoo)、2 隻老虎至巴基斯坦叢林王國 (Jungle Kingdom)、3 隻馬來熊至印度內魯動物園 (Nehru Zoological Park)、1 隻紅毛猩猩至泰國斯拉喀尤動物園 (Sra Kaew Zoo)、13 隻紅毛猩猩至印尼紅毛猩猩復原計畫中心 (Orangutan Rehabilitation Project)、和 8 隻長臂猿及 1 隻紅毛猩猩至英國猿猴世界及猿類收容中心 (Monkey World - Ape Rescue Center)。

為了評估是否可將這些倖存的黃金頰長臂猿及獼猴回送其原產國-越

南，並達到物種保育的目標，以及希望能夠了解在越南當地野生動物非法交易的現況，以期減少走私到我國的事件，本收容中心遂安排於民國九十年的二月間前往參訪及考察。同時，由於本中心與英國的合作機構「猿猴世界及猿類收容中心」已經展開分別在歐洲及國內建立黃金類長臂猿及白類長臂猿（*H. lucogenes*）圈養保育繁殖族群的工作，因此，本次參訪的過程亦有「猿猴世界及猿類收容中心」的負責人 Cronin 夫婦隨行。

壹、拜會瀕臨絕種靈長類收容中心 (Endangered Primate Rescue Center)

目的：

前往拜會並評估回送黃金類長臂猿及獼猴的可行性、加強與該中心的合作關係、了解越南北部非法野生動物交易的現況。

過程：

位於越南寧平省之瀕臨絕種靈長類收容中心，雖然絕大多數的經費均來自數個歐洲的民間動物科學組織，但仍然受到越南政府相當的重視，並提供菊方國家公園 (Cuc Phoung National Park) 內七公頃左右的土地供其使用；負責人為 Dr. Tilo Nadler 夫婦，目前總共還有其他的十三位工作人員 (包括一位全職的德國籍獸醫、十位越南籍的動物照養人員、和兩位來自歐洲的義工) 在中心照養動物。該收容中心目前共收容有五十餘隻的瀕臨絕種靈長類，主要是幾種當地原產的 douc langurs (*Pygathrix* spp.)，每個動物都有充分的活動空間、健康情形都很良好，尤其 douc langurs 是以幾種樹木的葉子為主食，該中心就地取材，每日都到野外採集需要的量來餵食，使得一般動物園都不易照養的 douc langurs 不但健康而且繁殖正常，照養的水準相當高。

另外，在長臂猿部份，雖然該中心仍然以籠舍為主要的飼養設施，但每個籠舍都有足夠的長度 (> 6 公尺) 和以竹竿搭建的架子供長臂猿擺盪，大大提高長臂猿在圈養狀況下的活動量及健康狀況；該中心同時也嘗試將一個面積大約一公頃、高度約五十公尺且長滿樹木的小山丘以電圍籬隔離，放養一對長臂猿及一群的 douc langur，成效不錯。值得本中心進一步的派員前往學習，並交換長臂猿照養的經驗。

事實上，該中心早在民國八十六年就曾應邀參加農委會和本收容中心

所舉辦的「第一屆南亞及東南亞野生動物收容中心經營管理研討會」，由 Dr. Nadler 代表出席並發表論文詳細的說明了當時越南境內的野生動物盜獵、非法貿易及收容的情形（附件一）。本次的參訪中，Dr. Nadler 告知越南北部野生動物走私到中國大陸的情形仍然相當嚴重，且有許多野生動物的走私是由左邊的柬埔寨或寮國經過越南北部前往中國大陸的。不過，由於一趟走私的量往往多達數千公斤（越南政府往往以走私動物的總重量而非以個體數作為統計的單位），即使有部份是保育類動物（多為靈長類動物，尤其以並非瀕臨絕種的獼猴居多），也非該收容中心所能應付，因此，該中心往往只能處理瀕臨絕種物種的個案。雖然，偶而 Dr. Nadler 或中心人員也會前往中部地區處理 douc langur 或長臂猿個案的收容，但多數時候均為被動的等待政府的通知，且以收容前述物種為主，因此，對於越南當地的野生動物非法交易的查緝幫忙有限。

心得與建議：

由於「瀕臨絕種靈長類收容中心」對黃金類及白類長臂猿無論在個體的辨識、醫療、營養或一般照養上均相當熟練，且已收容不少個體，是未來回送本收容中心內的黃金類長臂猿的理想地點，而未來亦可能與菊方國家公園合作，進行野放作業。同時，亦可與該中心建立長期的合作關係，共同建立亞洲的圈養保育繁殖族群，以強化我國及越南的黃金類及白類長臂猿的圈養繁殖族群。

另外，由於部份收容的個體很確定為野外捕獲的個體，亦可提供遺傳物質，作為種間差異研究的材料。此項研究將有助於開發技術用來鑑定目前圈養於世界各地動物園內的長臂猿個體的品種。由於長臂猿在圈養環境下（例如動物園）常發生同屬但不同種之間的雜交情形，且從外表特徵極難辨別，因此亟待研究由遺傳物質（例如細胞核染色體上的轉置現象）判定品種的方法和技術，以確保圈養保育繁殖的品質。

貳、參訪越南國立河內大學生物學院 (Faculty of Biology, Vietnam National University, Hanoi)

目的：

尋訪當地野生動物學專長的教師，並討論未來在長臂猿野放後的追蹤研究，以及對當地原產長臂猿進行族群生態學研究上合作的可能性。

過程：

河內大學生物學院內，分設有無脊椎動物學系、脊椎動物學系、植物學系、微生物學系、人類生物學系、細胞生物學系...等 11 個學系。在院長 Dr. Vu Van Vu 的引薦下，我們與脊椎動物學系的講師 Mr. Vu Ngoc Thanh 交換了意見並進行討論。Mr. Vu Ngoc Thanh 現兼任該校動物博物館 (Zoological Museum) 的主任，是該學院中唯一在進行野生動物研究的師資，他近年來參予過數個靈長類的分類學，以及野外生物及生態學的研究，合作過的包括美國和歐洲的學者及研究人員。Mr. Vu Ngoc Thanh 也帶領我們參觀了動物博物館。

心得與建議：

整體而言，Mr. Vu Ngoc Thanh 所參予的野生動物研究多為基礎的野外觀察，並沒有深入的族群研究經驗，而對於較新的研究方法和研究工具所知也有限，因此，若與「瀕臨絕種靈長類收容中心」合作或本收容中心獨力在越南進行黃金類長臂猿或獼猴的野放作業，將需要大量的設備及研究人員的投入，才有意義；至於，越南國立河內大學的動物博物館中所典藏的長臂猿標本，由於都為數十年前所製作的，且保管條件不理想，將很困難作為遺傳研究的材料。不過，由於生物學院內其他學系已經擁有不錯的分子生物學相關設備，可以委託進行部份當地野生採集的長臂猿遺傳材料的分析。

參、拜訪胡志明市的西貢動植物園 (Saigon Zoo and Botanical Gardens)

目的：

前往拜會並評估回送黃金頰長臂猿及獼猴的可行性，以及討論未來在黃金頰長臂猿圈養保育繁殖上的合作。

過程：

在園長 Mr. Nguyen Quoc Thang 和副園長 Dr. Phan Viet Lam 的導覽下，我們參觀了西貢動植物園。該園是越南最大也最具規模的動物園，有超過一百年的歷史，面積約二十公頃，目前飼養有一百二十餘種、六百多隻的動物，而其中還包括有兩對的黃金頰長臂猿。這兩對黃金頰長臂猿在去年和今年分別順利的產下一隻後代，且發育正常。雙方初步同意未來合作進行長臂猿的圈養繁殖及遺傳物質的研究，而本中心也將協助該園與歐洲及我國的圈養繁殖族群結合，以發揮對黃金頰長臂猿最大的保育價值。另外，由於該動物園位於胡志明市內，而胡志明市又是野生動物走私出口重要的港口，因此，會談中亦談及西貢動物園可以考慮協助越南政府收容部份沒入的野生動物，或許如此將可提昇行政人員查緝不法的意願，唯受限於經費，該園目前並無法設立收容單位。

心得與建議：

整體而言，西貢動植物園在長臂猿的照養及繁殖上已有相當成果，而其副園長 Dr. Phan Viet Lam 亦曾經至德國進修，對歐洲的動物園有相當的了解，若能邀請參予長臂猿的保育繁殖計畫將對本計畫有極大的幫助，未來將與其草擬並簽署合作協議書。另外，還可以考慮透過適當管道，提供適當的經費及專業支援，協助該園設立並運作一小型的野生動物收容站，協助非法野生動物的查緝工作，相信對於查緝工作將有鼓舞的作用，並可因此而減少當地非法野生動物交易及走私的發生。

肆、探訪胡志明市的非法野生動物交易現況

目的：

根據了解，近年來仍有保育類的野生動物以船運的方式，由越南南方（尤其是胡志明市）走私進入台灣的南部，且有許多是靈長類的新生兒。為了了解越南當地的交易現況，因此以觀光客的身分，親自訪查了三處有名的野生動物寵物交易區。

過程：

在三處查訪的地點中，我們在位於第十郡（Quan 10）的 3 Thang 2 街邊的一家寵物店中，看到陳列展示的保育類疑似恆河猴（*Macaca mulatta*）活體一隻（店家要價約新台幣 8,000 元），以及幼年的黃金頰長臂猿活體一隻（約新台幣 8,000~8,500 元），這兩隻動物均提供為寵物。另外，該店還陳列有活體的黃喉貂（*Martes flavigula*）、白鼻心（*Paguma larvata*）（均為當地非保育類動物）各一隻，將提供食用，未提供價格。

第二處同樣位於第十郡，在 Le Hong Phong 街上有許多的寵物店，在其中的一家店面看到非保育類漁貓（fishing cat）一隻（新台幣 750 元），和保育類 pygmy 懶猴（*Nycticebus pygmaeus*）一隻（新台幣 350 元）、獼猴幼體一隻（新台幣 1,000 元）、以及 douc langur 一隻（新台幣 10,000 元）。當問到是否有長臂猿時，店家立刻回答因為太敏感沒有陳列在店中，但可以安排於第二天帶到店裡供選購。第二天果然有三隻（兩公一母）年幼的黃金頰長臂猿被帶到店內供挑選（新台幣 8,000~8,500 元一隻），我們在留下記錄後離去。

第三處位於第四郡（Quan 4）Ben Chuong Duong 街上，沿路路邊有許多兜售野生動物的流動攤販。我們看到許多的 pygmy 懶猴在小籠子中當街待價而沽，且每隻價錢都在新台幣 750 元左右。不少的小販還宣稱可

以安排買賣長臂猿，但是因為他們均為流動攤販，時常轉換地點，因此我們並沒有進一步的與他們接觸。

返台後，我們已經將所有資料提供給「瀕臨絕種靈長類收容中心」的 Dr. Tilo Nadler，並希望他們能夠與越南政府合作，協助這些野生動物。
心得與建議：

本次在胡志明市短暫停留過程中，在寵物市場上就看到一些靈長類的非法買賣，而且雖然數量不多，但普遍存在的現象則令人驚訝，究其原因，很可能還是與當地（尤其市越南的南部）沒有足夠的收容場所，以致於查緝人員認真查察的意願不高。而由於這些動物在當地市場上的價格都很便宜，有心人非常容易在收購到一定數量的個體後，在走私出口。因此，建議我國或可協助在當地（例如西貢動物園）設置保育類野生動物收容場所，並進一步協助安置遭收容的個體，由於除了獼猴以外，其他的靈長類都有非常高的保育價值，無論是野放回森林或加入國際上現有的保育繁殖族群，均可發揮相當大的貢獻，因此對於收容中心的運作而言，只要後續安排合適，只需要一處小規模的收容場所即可。

同時，由於我國國內仍有需求，且近年陸續發現南部的大型遊樂場所紛紛聲明「拾獲」遭遺棄的靈長類（獼猴）幼體，並就地收容。事實上，這些遭「拾獲」的個體都極有可能是透過同一或類似管道，由越南南部走私來台的。建議權責單位將宣稱「拾獲」的個體依法都轉交由收容中心收容，以遏止這一股需求的歪風。如此或許也能有效的降低越南當地的盜捕壓力。

附件一、

Wildlife rescue centers and problems of confiscated wild animals in Vietnam

Tilo Nadler & Shane Rosenth/ The Endangered Primate Rescue Center

Each year a vast but unknown quantity of endangered and threatened fauna is traded in Vietnam. While some proportion is consumed within the country, much of it simply passes through on its way to China and other major consumers of meat and medicinal products derived from wild animals. Vietnam's geographical position and trade, much of which originates in Laos, Thailand, Cambodia and Vietnam itself. The trade is costly to these "source" countries, especially in terms of the damage it causes to ecosystems and biodiversity.

From forest to marketplace, there is virtually no control of the trade in wildlife. Throughout the region, a relatively young regulatory environment is supported with little in the way of institutional and physical capacity. Effective programs to protect wildlife habitats-the source of the trade – have only begun recently, and hunting remains an accepted part of subsistence economies in many forest areas. En route, efforts to halt animal shipments are virtually absent. Even when animals are confiscated, the knowledge needed to sort, care or dispose of them is usually lacking.

In addition to the trade's high cost to source countries, there are two other negative consequences warranting attention. The first of these is the ecological harm that is often caused when animals are released following confiscation. The Vietnamese authorities currently do not have an institutional and legal framework to ensure that animals are treated in accordance with internationally accepted guidelines. It is not uncommon for animals for animals to be released in protected areas.

Traditional Animal Use in Indochina

Animals and animal products in households and in domestic markets

The use of wild animals and their derivatives has a long tradition in the Indochina region, where demand for these products centers on food and medicine. While wild animal products are also used for ornaments, clothing and trophies, these are insignificant compared with the primary ones. A reason may be that these other products do not have a long life in the hot and humid climate that characterizes much of Indochina.

Over the years the importance of wild animals for food has become less and less significant, mainly due to reduced populations of wild animals rather than to changing preferences. The effort required to successfully hunt wildlife has over the years, such that domestic animals have become the main source of meat-not only in the cities but also in rural areas.

Nevertheless, one of today's main consumption centers for wild animals in Vietnam are specialty restaurants serving dishes such as snake and civet. These are particularly popular in cities, where consumption of these 'exotic' dishes is believed to more than twenty times higher than in the countryside. The other main use of animal products, as medicine, is the result of widespread belief in the benefits of certain animal products for ailments ranging from the common cold to impotence. Compared with most western countries the level of public health is low in Vietnam, and western medicine is often unknown, unavailable or very expensive. While animal products have for many years been cheaper than western alternatives, the fast decreasing supply is driving up prices, which may be fostering a sense that they are even more effective. Of course, some medicinal products derived from wild animals are not found in markets in a consumable form. Some consumers prefer to process the raw materials themselves, to assure they are getting the authentic product. They sometimes then sell or share them with their relatives and

neighbors. In markets it is often possible to see snakes, geckos, monkey
liqueur, deer horn liqueur, glands and dry sea horses.

Vietnam as a source and a transit country for animal trade

Not all wild animals traded in Vietnam are consumed there; Indeed, Vietnam is a source of animals and animal products for other countries in the region. Many wild animal populations in Vietnam have been reduced so much, however, that it has largely become a conduit for animals from Thailand, Cambodia and Laos. Following improvements in the political relationship between Vietnam and China, Cross-border traffic in wild animals has boomed.

Description of the animal trade

Species

The trade in wild animals embraces nearly all classes of animals. Information about trade in the lower classes of amphibians and reptiles does not usually differentiate species. Animals in these classes are used for food (frogs, snakes, turtles, monitors), liqueur (geckos, snakes), and medicine (e. g. snakes). Birds are caught for food and pets, however the market for pet birds is largely domestic, as very few are exported. Traded birds mostly belong to the families of Parrots (Psittacidae), Babblers (Timallidae), Magpies (Corvidae), Thrushes (Turdidae), Starlings and Mynas (Stumidae), Weavers (Plocidae) and Buntings (Emberizidae), but almost any species can end up in the market if caught by chance. Birds found in food markets are mostly herons (Ardeidae) from colonies, rails (Raillidae) and pigeons (Columbidae), and can be bought in large quantities.

Regarding mammals, only three groups are usually kept in captivity. Young gibbons and torts are desired as pets, and young bears are used for gall; they are kept for 18 to 24 months and then killed for their gall bladder. Other mammal species which are used either for food or medicine include:

1.Chiroptera: bats

Sometimes large numbers of fruit bats are caught in southern Vietnam for use as food.

2.Primates: primates (lorts, macaques, langurs, gibbons)

The two torts species in Vietnam are used for medicine, while macaques are used for medicine (mainly for “balm”) and food. Though not at all common, some restaurants have been known to serve the brain of live macaques. Langurs are used mostly to prepare “balm”. While gibbons are kept as pets, they do not usually live long and privately kept adult gibbons are very rare.

3.Pholldota: pangolins

Pangolins are used for medicine and food.

4. Rodentia: squirrels, porcupines

Squirrels and porcupines used for food, and porcupines are used for medicine also. Porcupine is a favorite wild animal meat and is sold in many wildlife restaurants. Squirrels are usually not transported far from their point of capture, rather, they are offered primarily in restaurants in or close to forested areas. This includes tourist destinations and even some protected areas or national parks in Viet Nam.

5. Carnivora: bears, weasels, otters, civets, cats.

The two Vietnamese bear species are traded mostly as young animals which are then raised for their gall bladder, and the meat is eaten. Weasels, otters and civets are used for food, and some civet glands are traded for medicine. Civet meat is a favorite and there are many restaurants specializing in civet dishes. Cats of all species are normally only used for medicine.

6. Artiodactyla: deer.

Five species of deer are used for food, and the antlers from large animals are used for medicine.

Quantity

The quantity of hunted animals in the trade is vast but unknown. Anecdotal information about traded or confiscated animals shows only a small part of the trade and does not allow for reliable estimations to be made. While the large quantities of commonly traded species are often alarming, less information is available about rare animals because they go mostly with a single transport and are seldom discovered by the authorities.

The following are some examples that provide at least some indication of the quantity of animal trade (observation of T. Nadler, unless otherwise stated):

- a) Animals sold in Cau Mong market in Saigon (Bejuijen, M. R., 1994)
- b) Pigtail macaque (*Macaca nemestrina*) average daily turnover 8.3 animals.
Weekly turnover 58.1; monthly 232 animals.
- c) Pygmy torts (*Nycticebus pygmaeus*) average daily turnover 7.1; monthly 199 animals.
- d) Animals sold in one market in Hanoi (Dong Xuan) in 1993 (numbers are approximations): e.g. 300 pangolins, 80 torts, 160 macaques, 15 gibbons, 100 civets, 30 cats
In the second half of 1993: 250 pythons (body length over 2 m), 400 geckos, 150 monitors, 700 turtles
In the first half of 1994: 150 pythons (body length over 2 m), 400 turtles, 60 macaques
- e) In August 1993, 102 Pygmy loris smuggled from Vietnam were discovered at international Airport Taiwan and sent back to Vietnam. (Asian Primates, Vol 3, No. 1-2, p.5)

- f) In 1994 one lorry with 300 pangolins traveled from Hanoi to China every week.
- g) In December 1994, the forest guards at one frontier crossing point to China confiscated 2.3 tons of turtles, 100 parrots, 200 Pigeon, 200 pangolins.
- h) In November 1996 the same station stopped one transport with 200 macaques.
- i) In November 1996, forest guards at one station confiscated one animal transport with more than 100 civets, about 1000 snakes and 100 pangolins.
- j) In June 1997, the same station stopped one transport containing more than 750 monitor lizards of body-tail length greater than 1.5 m.
- k) In 1996, near the northern city of son La, private families keep 80 bears. The Young bears are caught after the mothers are killed, kept for 1.5 to 2 years, then killed for their gall bladders. The capture of 80 young bears means a loss to the wild population of about 100 to 140 animals.

Impact on wild Population

As exact numbers of traded animals are rarely available. It is difficult to make even rough estimates of volume. As for estimating the trade's impact on animal population in the wild, decreasing numbers of some species in the markets may provide a good indication of a negative trend. The trade in pangolins, for example, is large but declining; while in 1994 approximately 300 animals were transported every week from Hanoi to china, today this is down to about 50 animals. Also conspicuous is the reduced number of torts. Traders who collected animal shipments of 100 to 200 five years ago now receive only about 10% of this number in the same period of time.

Knowing the extent to which a wild animal population is in decline requires intensive observation; it is relatively easier to know if a population is extinct. For example, we have good information about the extirpation of macaque, gibbon and langur populations in many specific places. Yet data about species still in decline are very few, even for endangered species. The entire population of delacour langur (*Trachypithecus delacourl*), an endemic and critically endangered species and one of the rarest primates, consists of about 200 animals. By 1992 intense hunting had reduced the population by about 30 to 40 animals, and by another 10 to 15 animals (personal observation, T. Nadler). Over the last four years, the population of this species in Cuc Phuong National Park, which totals only about 25 to 30 animals, has lost about 9 to 11 animals to hunting (T. Nadler, in print).

Reducing and Controlling the Wild Animal Trade Laws & regulations

Vietnam has a good system of laws and regulation to protect wild animal populations and their habitats. Vietnam's Red Data Book (1992) lists

as Endangered 78 mammal species, 83 bird species, 54 amphibian and reptiles species, 75 fish species, 45 invertebrates and 4 insects. Decree No.18 (1992) (Ministerial Decision on the List of Endangered Forest Wild Fauna and Flora), provides protected status to the following species: 45 mammals, 9 birds, 6 amphibians and reptiles. The status is given to endangered mammals is generally sufficient, although there are a number of contradictions (ie. some species are listed in the law, but not in the Red Data Book) and there is some confusion due to differing nomenclature which could be corrected. Some species of other classes, especially birds and reptiles, should be incorporated in the law.

Decree No.18 strictly forbids the exploitation of protected animals and the destruction of their habitat. Additionally, three other regulations (Instructions from the Prime Minister on Urgent Measures for Wildlife Protection and Development (1996), Ministry of Forestry Regulation No.551 (1994), and People's Committee Regulation No.130 (1993)) forbid:

- a) selling wild animals (with and without protected status) or wild animal parts like horns, teeth, bones, skins, hides, antlers etc.
- b) producing products made from protected animals
- c) serving dishes made with wild animals in restaurants without special permission

Complementary to the laws and regulation for animal protection, there exists a very clear and uncomplicated system of penalties for violators. When compared with living standards, monetary penalties are high (e.g. hunting without permission can cost the violator USD5 to USD50; hunting in a protected area carries a fine of USD50 to USD200; and hunting protected animals can lead to a fine of USD200 to USD1000 -or to imprisonment).

CITES Implementation

Vietnam became a member of CITES in April 1994. All laws and decisions require that animal exports are in strict compliance with CITES regulations. However, when compared with the extensive coverage of the laws and regulations, the level of CITES enforcement is very low. Responsibility for legal enforcement lies with the Forest Protection Department. Problems with enforcement include many of the constraints listed in the next section.

Enforcement

Effective enforcement of Vietnamese laws and regulations, including those relating to CITES compliance, is constrained by a number of factors. While these include a lack of physical infrastructure (e.g. communication, enclosure facilities, vehicles), perhaps the most serious is the small and untrained cadre of forest rangers charged with enforcement responsibilities.

- a) lack of information about existing laws and regulations

- b)lack of knowledge about animal species (including plant and tree species, which are clearly the second important pillar for nature protection activities)
- c)lack of guidebooks or other written information with which to identify species
- d)lack of enough power to impose the necessary punishment
- e)lack of enough cooperation with or support from the police in order to enforce the law, and not enough information by the police and local authorities about ht existing protection laws and regulations (for road checks and house searches police assistance is necessary)
- f)general misunderstanding about the forms and degrees of punishment. Specific penalties are set for violations, but normally the punishment given is much lower
- g)lack of resolve among forest guards to impose punishment (i.e. same village, same town or city), and corruption

Care and Placement of Confiscated Wild Animals

Confiscation, transportation and temporary placement

The most serious problems in dealing with newly confiscated animals are transportation and adequate temporary placement. Most confiscated animals are found while en route. In lorries and busses, and at bus stations, railway stations, frontier crossing points and airports. The first location to which confiscated animals are usually brought is the local ranger station of a provincial Forest Protection Department. While transporting a single animal is not usually a problem, large shipments necessitate the confiscation of the lorry or bus in which the animals were being transported. Support from police is often necessary for the Forest Protection Department authorities to take this action. In the event that forest guards are working alone (without police), they often encounter difficulties in stopping and confiscation shipments.

Ranger stations are not well equipped for dealing with confiscated animals. Most lack appropriate facilities for keeping even a single small animal, let alone a large shipment with many cages or sacks. Confiscated animals are often left outside without protection from the elements, and single animals are often kept in an office or garage. Forest guards rarely have any knowledge or experience in handling animals, and there is little comprehension of basic animal care (i.e. water provision) let alone the difficulties of food provision. Many animals are in very poor health when confiscated, and unfortunately the most basic veterinary treatment is almost always unavailable. Additionally, there is a serious problem with animals being teased and prodded which adds to the high level of stress most confiscated animals experience. Thus, arriving at a ranger station usually does little to ensure that an animal is out of harm's way.

With confiscation comes the dilemma of 'animal disposal', or what to

do with the animals. The Prime Minister's decision of 1996 discusses two options for confiscated animal: i) release back to original habitat, and ii) captivity for the purpose of breeding. While illustrating the government's commitment to resolving the problem of wildlife trade, implementation of this decision will require the establishment of much capacity. Some related issues are discussed below.

a) Release back to original habitat

Most animals are confiscated while being transported. Usually their point of origin is unknown, and the transport represents a collection of animals from different places in the country or even the region. Not only is it sometimes very difficult for forest guards to identify animal species in a confiscated transport. It is usually impossible to get information about their original habitat. Vietnam has high biodiversity and many different animal populations and subspecies, and knowledge about the distribution of subspecies is minimal. It is a common occurrence for confiscated animals to be released to the wild by well-meaning authorities, usually in the wrong habitat and sometimes very far from distinctive species (and very often in a protected area) which poses a serious threat to the integrity of the original population. Furthermore, virtually no attention is given to the health status of animals prior to release, thus posing serious disease risks.

b) Captivity for the purpose of breeding

With special permission it is possible to keep some species in captivity (this includes some protected species) for breeding in order to use offspring for food or animal products. This is not common however, and really concerns only farms for macaques, bears and snakes. In these cases the confiscated animals are normally used directly rather than waiting for offspring. For example, no bears have ever been born in captivity in Vietnamese bear farms, and all wild caught bears are killed after two years of keeping. In short, there are few government controls on breeding programmes. In the case of bears, families are generally permitted to keep single bears for co-called "breeding programmes". Animal welfare is rarely monitored, and in one such programme 75 out of 80 bears were housed alone.

Today the situation for most confiscated animals does not involve either release to the original habitat, or placement in a breeding center. Rather, ranger stations usually allow traders to buy back the confiscated animals and later to sell the wildlife-illegally-to markets of restaurants. However, a recent development in Vietnam has been the establishment of two animal rescue centers. These currently provide an alternative-albeit limited-to the breeding centers, re-release, or re-sale.

Animal rescue centers

A 1996 Decision of the Prime Minister recommended the establishment of several pilot rescue centers. In 1993, the Ministry of Forestry signed a Memorandum of Agreement with a consortium of international organization to set up a rescue center for endangered primates at Cuc Phuong National Park. The Endangered Primate Rescue Center (EPRC) was the first such facility in Vietnam, and its focus has been on highly endangered endemic primate species. Currently the EPRC keeps about fifty primates of twelve species or subspecies. Four of these are only found in the EPRC. All animals are confiscated from the illegal trade, illegal private keeping or from hunters. Following the initial period of facility construction, it has been possible to establish some breeding groups and to breed several rare species two of them for the first time in captivity. These are the Delacour langur (*Trachypithecus delacouir*) and Hatinh langur (*Trachypithecus francoisi hatinensis*).

The EPRC plans to establish a stable population of several endangered species for eventual release of offspring to the wild. During the same time several projects are being carried out to augment protection of the habitat at Cuc Phuong, by reducing hunting pressure and studying a number of species in their original habitats. The idea is to eventually release captive animals to strengthen the natural population. The conditions under which the animals are kept are formulated with this aim in mind; natural conditions are maintained as much as possible, with groups kept together in large cages and leaf eaters provided with food collected every day in the forest.

To ensure a successful release, an additional step is being taken to study the primates in a semi-free facility. A hill close to the EPRC with 1.5 hectares of primary forest has been encircled with an electrical fence to enable training of primate groups prior to release. All expenses to set up and maintain the center are covered by international organization. Experienced foreign animal keepers train the Vietnamese staff of seven in keeping these sensitive species. Veterinarian health checks are regularly carried out by experienced foreign zoo veterinarians. To ensure that hybrids are not bred, and that species and subspecies are released in their original habitat, DNA analyses are also being carried out.

A second rescue center in Vietnam was established earlier this year close to the capital city Hanoi. This center has a mandate to receive all confiscated animals except endangered primates (which should go to the EPRC). The requirements on the Hanoi Rescue Center are vast, and currently the capacity is not sufficient to keep all confiscated animal under adequate conditions. Currently an agreement is being prepared between the Forest Protection Department and a German zoological organization for assistance. The German organization is likely to become involved in the training of animal keepers, veterinarian care and in making recommendations for

facilities. At present the Hanoi Rescue Center is overtaxed in terms of numbers of animals, problems of keeping, feeding and veterinarian care, as well as species determination. The current situation forces the authorities to release many of the confiscated animals, and to accept new ones quickly. Without careful health checks, species determination and an understanding of their eco-features.

Final animal placement

The process by which one of these options is deemed the most appropriate is described in the Guidelines. Due to concerns about habitat selection, ecosystem integrity, animal welfare, disease and cost, euthanasia would appear to be the most common decision. Only if the actual and potential costs are low and the benefits are sufficiently attractive, can there be a case for releasing animals into the wild. The same is true for maintaining animals in captivity; certain criteria must be met. Placement decisions are based on information about the species, its health, its habitat requirements. Its likely origin and the extent to which it is endangered. As mentioned earlier, this information is rarely available in Vietnam.

In Vietnam there is resistance to employing euthanasia, and other two alternatives are almost always chosen. Of course, this raises serious welfare issues for captive animals, and presents problems for animal welfare and ecological integrity in areas where animals are released. These are issues that will have to be addressed, and ones that would be partly resolved should the authorities decide to adopt euthanasia as a method for dealing with confiscated animals. While captivity is possible for some species, in Vietnam the most potential is initiatives aimed at captive breeding of rare and endangered species with eventual re-introduction. For other species, captivity can also be undertaken for the purpose of producing food or medical products, but herein lies a dilemma. If the objective of a wider effort to control wildlife trade is to reduce demand for food and medical products derived from wild animals, then promoting or condoning production of these products could be seen as duplicitous and counter productive.

Returning wild animals to natural habitats is the preferred choice in Vietnam, but for this method to be sound and successful several conditions must be present:

- a)adequate capacity to keep the animals over a quarantine time veterinarian health check
- b)adequate zoological knowledge about taxonomic status
- c)adequate knowledge about the eco-features in the areas for releasing suitable transportation capacity (often for long distance)

It will be some time before such capacity is available, and until then issues of animal welfare and the ecological integrity of reintroduction areas

will remain high priorities in Vietnam..

Three Alternatives for Animal Placement

- . Discourages trade
- . Low/no risk of disease
- . No problem of animal welfare
- . Low financial cost
- . Educational Value
- . Potential for captive
- . Potential cost recovery
- . Conservation benefits
- . Risk of losing unique behavioral, genetic or
- . Disease
- . Potential harm from escape
- . Animal welfare
- . Threat to existing populations/ecosystem
- . High financial cost
- . High "founder" numbers often

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