B U L L E T I N

CITES IN GREENLAND

REPTILE TRADE IN SOUTHERN VIET NAM

IVORY CARVING IN MYANMAR, THAILAND AND VIET NAM

CITES PROPOSALS FOR CoP13

EU ENLARGEMENT

The Journal of the TRAFFIC network disseminates information on the trade in wild animal and plant resources The *TRAFFIC Bulletin* is a publication of TRAFFIC, the wildlife trade monitoring network, which works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC is a joint programme of



UCN

The *TRAFFIC Bulletin* publishes information and original papers on the subject of trade in wild animals and plants, and strives to be a source of accurate and objective information.

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Cover illustration: Ahaetulla prasina (WWF-Canon / Vin J. Toledo) This page, from top: Carved tooth (tupilak) of a Sperm Whale Physeter catodon (T. Hjarsen, EcoAdvise); Burmese Python Python molurus bivittatus (WWF-Canon / Urs Woy); Worked ivory tusk (D. Stiles)



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July 2004





▼ OUTHEAST ASIA, perhaps more than any other region in the world, encapsulates the full range of challenges facing the management of wildlife trade. World-renowned as a centre of diversity, not only of animal and plant communities, but also for culture, language, politics and religion, the region is also a trade hotspot, functioning as supplier, consumer and a general import-export emporium. Southeast Asian communities at all levels rely in some way upon wildlife resources for food, medicines, clothing and other products. A large proportion of this wildlife trade is domestic and does not cross international boundaries - for example, products such as medicinal plants, charcoal, wild meat and fisheries - and therefore is not regulated by international agreements such as CITES. But there are also huge volumes of international wildlife trade both within the region, and between Southeast Asian countries and external trading partners.

EDITORIAL

Come October 2004, when Thailand hosts the 13th meeting of the Conference of the Parties to CITES, close attention will be focused on a region at the crossroads. To protect its globally recognized biodiversity, Southeast Asia's governments are grappling with the conundrum of "where to from here?" Economic growth, expansion of infrastructure, free trade agendas and a general push for development are all factors that are contributing to a rapidly changing socio-economic dynamic. Under an increasingly liberalized trade policy environment, it is all too easy to treat wildlife as just another commodity rather than paying heed to the management needs of natural production systems. For the average consumer, the picture may look rosy for the short term, and indeed, conservation management concerns are often interpreted as favouring the survival of animals and plants over human needs. But the challenge remains: how to reverse such trends of over-harvesting and instead implement long-term management plans that, in turn, ensure these wild animals and plants, their by-products and derivatives, can help support the sustainable development of human societies?

It is appropriate, therefore, that the list of species proposed for consideration at CoP13, includes many flagships of concern from Southeast Asia (a list of proposals can be found on pages 21-24). Apart from continuing discussions on how to enforce existing trade controls for Asian big cats and domestic ivory markets (a paper on the ivory trade in selected Southeast Asian countries is featured on pages 39-43), many other species will be on the agenda.

Not surprisingly, the push continues to harmonize international trade regulations for all Asian species of tortoises and freshwater turtles facing wholesale demand for consumption (and in the case of the endemic Roti Snake-necked Turtle *Chelo-dina mccordi*, for the pet trade) with more than 10 additional species proposed for inclusion in CITES Appendix II (see pages 25-34 for an article on the reptile trade in southern Viet Nam).

Most significant for live reef fish consumers in Asia is the support from Fiji, Ireland (on behalf of the European Community) and the USA for the listing of Humphead Wrasse *Cheilinus undulatus* in Appendix II of the Convention. This species is in decline throughout most of its range, but as well represents the large-scale demand for live reef fish as food, by consumers in Hong Kong SAR and wealthy communities in the region of ethnic Chinese origin.

Management of Asian tree species in trade will also be debated in Bangkok, with the genera of *Aquilaria*, *Gonystylus*, *Gyrinops* and *Taxus* all under scrutiny. TRAFFIC's work on agarwood-producing species (*Aquilaria* spp., *Gyrinops* spp.) over the past decade has concluded that the majority of the global industry is currently supplied by wild stocks, of which coherent management of both the harvest and trade is in most cases lacking. Long-standing cultural, religious and medicinal use in the primary markets of East Asia and the Middle East depend on continuing supply of this valuable aromatic wood, of which only one species, *Aquilaria malaccensis*, is currently listed in Appendix II. Because agarwood is traded in the general form of wood chips, pieces, powder and oil, the proposal is to list all agarwood-producing species in Appendix II to promote harmonized management of the resource.

Indonesia, the proponent for the agarwood listing, is also proposing to amend the status of Ramin *Gonystylus* spp., which it listed in Appendix III in 2001. Concern over this valuable

> peat-swamp timber species has recently focused on the lack of management of the trade emanating from the tri-national nexus of export and re-export in Indonesia, Malaysia and Singapore. In addition to Indonesia's proposal, the aforementioned

three countries have recently committed to a tri-national taskforce to contain the illegal Ramin trade.

By proposing species for listing in CITES Appendix II, Southeast Asian range States and their co-proponents are voicing the need for better management of wildlife trade, rather than a ban on all trade. However, the successful balancing of conservation and sustainable use relies upon a solid platform of science-based management. Lack of implementation of such precautionary approaches has been the downfall of wildlife trade management in Southeast Asia in the past. It has led to various 'boom and bust' cycles of supply and demand, and caused great concern among the global CITES community about the future sustainability of Southeast Asia's wildlife trade.

Yet current regional, bilateral and national initiatives suggest that it is not all doom and gloom for the region. The CITES Secretariat and TRAFFIC worked together in 2003 to train delegates from 10 Southeast Asian nations, as well as delegates from a major consuming country, China, under a "Science in CITES" workshop module and to recommend further capacitybuilding needs. With TRAFFIC's support, Viet Nam and China have held two bi-lateral meetings on transboundary wildlife trade management since December 2003, and the leadership of these two countries led to the convening in June 2004 of the first wildlife trade meeting for countries in the Greater Mekong Subregion, which links China with the five countries of the Mekong River basin (Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam). In March 2004, Lao PDR acceded to the Convention, filling a crucial gap in CITES coverage in mainland Southeast Asia, and also within the Association of South East Asian Nations (ASEAN). And perhaps most significantly, as this edition of the TRAFFIC Bulletin goes to press, the Ministry of Agriculture and Rural Development is set to present the Prime Minister of Viet Nam with that country's first National Action Plan to Strengthen Control on Trade in Wild Fauna and Flora.

Much work has been done but the challenge of effective implementation of regulations and law enforcement remains daunting. Only by countries working together, and by relevant government departments engaging with civil society can Southeast Asia conserve its unique natural heritage for future generations.

James Compton, Director, TRAFFIC Southeast Asia

N E W S

UK INTELLIGENCE UNIT GETS Older and Wiser

The UK's National Wildlife Crime Intelligence Unit (NWCIU) was established in April 2002 to act as a centralized hub for intelligence-gathering and analysis to support the statutory enforcement agencies. It is based at the National Criminal Intelligence Service (NCIS) in London. In September 2003, a Memorandum of Understanding was signed between NCIS and TRAFFIC International to second a TRAFFIC staff for a provisional attachment to NWCIU on a part-time basis, with joint funding from the Department for Environment, Food and Rural Affairs (Defra) and WWF-UK. TRAFFIC has been

bulletin board

providing its expertise on wildlife trade and species in trade to the Unit since that time. With the announcement by the UK Environment Minister, Elliot Morley, that funding for NWCIU will be continued for another year, NCIS and TRAFFIC have also extended the MOU to continue the secondment for another year. In mid-2004 an intelligence officer from HM Customs and Excise will also join the unit on a part-time basis to enhance the expertise and multiagency approach of NWCIU.

The Unit works closely with enforcement agencies in the UK and overseas on a daily basis, developing intelligence for operational follow up, responding to enquiries and delivering intelligence packages to enforcement agencies. It is the only UK agency that proactively focuses on gathering and analysing wildlife crime information at the national and international level and plays a unique role in combating wildlife crime in the UK.

NWCIU has shown that a dedicated intelligence unit can make a big difference on many levels. To date the Unit has been instrumental in disrupting the illegal caviar trade in the UK, and a large number of illegal wildlife shipments have been thwarted owing to intelligence developed by the Unit for use by enforcement agencies worldwide. The head of NWCIU is the UK representative on the Interpol Wildlife Working Group, sits on the Europol Wildlife Crime Group, and acts as an Interpol trainer, specializing in CITES. Interpol has used the expertise generated by NWCIU to train police and regulatory officials from Bulgaria, Hungary, Romania, Russia and Ukraine, with plans for training in Poland, Russia and South Africa.

NWCIU exists due to funding from Defra, the Association of Chief Police Officers, the Scottish Executive and the Home Office.

traffic websites

http://www.traffic.org http://www.trafficj.org http://www.wwf.ru/traffic http://www.wow.org.tw http://www.trafficindo.org

This issue of the *TRAFFIC Bulletin* is available on http://www.traffic.org

TRAFFIC *produces* enforcement tool

TRAFFIC

Wildlife law enforcers often require specialist knowledge and access to a wide range of materials and resources. Even with the use of the internet, the most important resources are not held in one place for ease of ref-

erence. Many enforcers do not have easy access to the internet and it takes time to find and download resources.

In February 2004, the UK Environment Minister Elliot Morley launched a new tool for wildlife law enforcers, in a series of products generated by partners from the UK Partnership for Action against Wildlife Crime (PAW). TRAFFIC International - a partner since PAW was established in 1996 - has produced a CD-ROM *Electronic Library of Wildlife Law Enforcement Resources* with funding from other PAW partners, Defra and WWF-UK. The CD-ROM acts as a rapid information resource aimed at wildlife law enforcers in the UK. It contains pertinent reference materials, national and international legislation, species identification guides such as the CITES identification guides produced by the Canadian Wildlife Service, reports, newsletters, guidance notes and other resources.

The *Electronic Library* has put a wide range of relevant materials together in a menu-driven system that can be accessed, searched and read by any wildlife law enforcer with a computer. It is expected that this will be of particular relevance for officers operating in the field with access to a laptop computer, such as during search warrants.

The wide-ranging and enthusiastic feedback to the tool has been surprising. For example, it has been used in the UK on the intranet of several police forces to make it accessible to their officers. The demand for the *Electronic* >



Steven Broad, Executive Director, TRAFFIC International (left) and Trevor Swerdfager, Director General, Canadian Wildlife Service, sign the MOU which allows TRAFFIC to use the electronic versions of the *CITES Identification Guide Series* in the *Electronic Library*.

> Library has also extended beyond the UK's borders as much of its contents are of use to any enforcers that read English. There are plans to develop the *Electronic Library* for use more generally internationally and to tailor it to the needs of other countries. However, it will only be of use if it is updated regularly.

The production of the tool also meant that TRAFFIC has built a new partnership with the Canadian Wildlife Service of Environment Canada. A MOU was signed between the Director General of the Canadian Wildlife Service and TRAFFIC's Executive Director in April 2004 that allows TRAFFIC to use the electronic versions of the Canadian CITES Identification Guide series in the *Electronic Library*. This partnership embodies the concerns of both organizations to ensure that wildlife law enforcement is effective and has the right resources to make the work of the enforcer easier.

Crawford Allan, Global Enforcement Assistance Co-ordinator, TRAFFIC International

Sea Cucumber Fishing Rules Overturned

A judge in Ecuador has overturned limits set for fishing sea cucumbers in the Galapagos Islands following a request by fishermen for an injunction on the government's cap on this year's sea cucumber catch.

On 18 June 2004, the judge ruled that authorities must establish new regulations for sea cucumber fishing that will take into consideration the fishermens' need to earn a living. The Minister for the Environment has appealed this decision and the case will be heard by a tribunal. In the meantime the sea cucumber fishery in the Galapagos is closed.

Sea cucumber fishing is seasonal and prohibited for much of the year. Earlier this month the authorities in Ecuador set a catch quota of four million sea cucumbers during a 60-day period and have banned the catch for 2005 and 2006. Environmentalists say the limits are necessary to protect the species from overfishing.

Sea cucumbers are a popular source of food in Asian cuisine.

www.reuters.co.uk; TRAFFIC South America

New CITES Parties

The Lao People's Democratic Republic deposited its instrument of accession on 1 March 2004; this entered into force on 30 May 2004.

The Republic of Palau acceded to CITES on 16 April 2004, effective 15 July 2004, and brings to 166 the number of Parties to CITES. Palau has entered reservations with regard to 28 species included in the CITES Appendices.

CITES Secretariat, www.cites.org

On 6 January 2004, Palau authorities destroyed 455 kg of shark fins and more than a tonne of shark carcasses seized from a Taiwanese long-liner. Comprehensive marine protection laws passed in Palau in September 2003 outlawed shark fishing and banned the practice of cutting off the highly-valued shark fins. The vessel was released on payment of USD10 000, in part because it was the first violation of the new law which carries a maximum fine of USD500 000. Palau stated that it intends to prosecute to the fullest extent of the law any future violations of the shark finning ban.

AFP; www.infofish.org, 7 January 2004

• On 21 April 2004, the CITES Appendix II-listed Beluga *Huso huso* - source of the world's most expensive caviar - was listed as Threatened under the US *Endangered Species Act*. The listing, which will take effect in October, will bring the country's conservation requirements in line with existing international measures for the species under CITES. The US Government is currently writing a Special Rule for the species that would specify what types of activities will be allowed in relation to Beluga catch and trade and under what conditions.

http://international.fws.gov; TRAFFIC North America

• THE SALE OF PATAGONIAN TOOTHFISH DISSOSTICHUS ELEGINOIDES SEIZED FROM THE FISHING VESSEL MAYA V IN JANUARY 2004 (SEE PAGE 38) HAS FETCHED IN EXCESS OF AUD2 MILLION. THE AUSTRALIAN FISHERIES MANAGEMENT AUTHORITY CALLED FOR TENDERS FOR THE 191 T OF TOOTHFISH AND THE 64 T OF BAIT (SARDINES) FOUND ON BOARD THE VESSEL. THE AUSTRALIAN FISHING COMPANY AUSTRAL FISHERIES WAS NAMED AS THE SUCCESS-FUL TENDERER OUT OF SEVEN BIDDERS. ALL THE MONIES RAISED FROM THE SALE WILL NOW BE HELD IN TRUST UNTIL THE CONCLUSION OF THE LEGAL PROCEEDINGS RELATING TO THE CASE.

Australian Customs Service media release, 23 April 2004

• On 10 October 2003, the Government of South Africa issued a moratorium on the recreational fishing of abalone, or perlemoen *Haliotis midae*, until such time as the resource has recovered significantly and the commercial fishery is no longer under threat of closure (see page 36).

TRAFFIC East/Southern Africa

wildlife enforcement ENLARGEMENT OF THE EU



n May 2004, 10 countries (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia) joined the European Union (EU), increasing the number of Member States to 25. All 10 countries are party to CITES. A report recently published by TRAFFIC Europe examines some of the aspects related to the control of wildlife trade in the EU and looks at the possible impacts the enlargement of the Union may have on the regulation of wildlife trade. Expanding borders: new challenges for wildlife trade controls in the European Union is available online at www.traffic.org and a summary is presented below.

With their high standard of living and a total population of more than 370 million people, the original 15 EU Member States already represented one of the largest and most diverse markets in the world for wildlife and wildlife products. The expansion of the EU in May 2004 to 25 countries has undoubtedly increased the size of the EU single market and the Union's role as a major wildlife consumer. In terms of CITES-listed species for example, between 1996 and 2002 alone the 25 EU countries together imported six million live birds, 1.6 million live reptiles, around 10 million reptile skins, 21 million orchids and 579 t of sturgeon caviar.

The enlargement of the EU also shifts the Union's external borders further east, placing the new Member States on the frontline for controlling imports of regulated wildlife to the EU. The new EU eastern land borders have increased in size by one-third (from 2400 km to 3300 km) and are controlled by seven countries instead of just three. Inside the EU, border controls operating EU Member States as at 30 April 2004 Countries that acceded to the EU on 1 May 2004

between old and new EU Member States have disappeared and the movement of CITES-listed species and their products inside the EU has become easier. Due to the absence of internal borders and the establishment of customs union, there are no systematic border controls between EU Member States, and goods, including CITESlisted specimens, can be moved relatively freely among Member States; import or export documents for CITES-listed species are only needed for external trade with third countries.

euenla

Over the past 15 years, several of the countries which joined the EU in May 2004 have become globally significant transit points for wild animal and plant species and their products and derivatives from around the world. A large portion of this trade was driven by demand from western European countries. For example, around 70% of the reptiles legally exported by the new EU Member States between 1996 and 2002 were imported by the original Member States. Conversely, the original EU Member States have also exported significant volumes of CITES-listed specimens to the new Member States: for example, almost onethird of all parrots imported legally by the new Member States between 1996 and 2002 came from the EU.

From May 2004, the 10 new EU Member States also have to implement and enforce Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No. 1808/2001 (also referred to as the "EU Wildlife Trade Regulations") that implement CITES in the EU and are stricter than CITES requirements in several ways. The TRAFFIC Europe report highlights that the differences between CITES and the EU Wildlife Trade Regulations has resulted in traders legally importing species in the new Member States that have been banned from importation in the EU in recent years. There are concerns that illegally obtained specimens will be laundered into the EU single market, for example, by declaring them as captivebred or pre-Convention stock. Such practices are well known among enforcers in the EU and the control of such deceptions is particularly challenging as it requires special skills and expertise to detect.

The report further stresses the importance of improved and more efficient interagency co-oper-

ation and information exchange among the relevant enforcement agencies involved in controlling wildlife trade at EU level and urges the EU Member States to strengthen collaboration and co-ordination between themselves to meet the challenge of regulating wildlife trade in the enlarged EU.

The main recommendations of the report include the need to:

strengthen the role of the EU Enforcement Group¹ in co-ordinating and facilitating the work of EU wildlife trade enforcement agencies through the provision of adequate financial resources and appropriate representation by the individual Member States, as well as improved co-operation with other relevant bodies and agencies working on the enforcement of wildlife trade laws in the EU;

RGEMENT

- establish an EU Wildlife Trade Task Force that will work under the supervision of the EU Enforcement Group, and ensure secondment of experienced wildlife trade enforcement staff to assist with the development and co-ordination of operation of an EU Wildlife Trade Task Force;
- assist new and future Member States by ensuring the continuation and further development of capacity-building and training initiatives to build and strengthen national expertise and knowledge;
- enhance the effectiveness of the EU Wildlife Trade Regulations by compiling non-confidential information on seizures and confiscations of CITES-listed specimens in the EU; examine the different marking methods and procedures in place in the 25 EU Member States with the aim of achieving a more harmonized system at EU level; and, assess the legislative provisions in place in the Member States to enforce the EU Wildlife Trade Regulations, in particular those that concern penalties for violations, in order to identify discrepancies and provide guidance for a more uniform application.

Stephanie Theile, Programme Officer, TRAFFIC Europe

Expanding borders: new challenges for wildlife trade controls in the European Union

Stephanie Theile, Attila Steiner and Katalin Kecse-Nagy TRAFFIC Europe 2004. 29pp.

n 3 and 4 June 2004, Budapest in Hungary was host to a workshop convened by TRAFFIC to develop recommendations for improving the control and prosecution of wildlife trade-related crimes in the new EU Member States. The workshop entitled Strengthening the judiciary sector's role in implementing and enforcing EU Wildlife Trade Regulations - was attended by representatives from seven new EU Member States -Czech Republic, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia - as well as participants from Italy, UK, two Candidate Countries (Bulgaria and Romania), the European Commission, the CITES Secretariat, and more than 50 public prosecutors, judges and representatives of wildlife trade regulatory agencies.

One of the aims of the workshop was to examine the different approaches to enforcement of wildlife trade regulations within the EU and the nature of relevant national legislation. While most countries have adopted legislation to regulate wildlife trade, maximum penalties vary considerably among Member States - from three months to eight years, for example. Even where legislation provides for prosecution and strong sanctions, wildlife trade violations are often deemed insignificant and therefore the law is only rarely fully applied by judges.

Countries acknowledged that illegal trade can pose a serious threat to the survival of many species, particularly those in demand from collectors - rare cacti, reptiles and parrots, for example - and recognized the relative low probability of detection and inadequate penalties in comparison to the high profits that can be accrued.

Discussion focused on the examination of ways to improve co-operation and information exchange among enforcement agencies at national and EU level, to improve training of enforcement officials and the successful prosecution of wildlife offences.

The workshop was organized by the TRAFFIC Europe-Candidate Countries Programme and financed by the Phare programme of the European Union.

¹a group established under the EU Wildlife Trade Regulations consisting of representatives from enforcement authorities of each EU Member State.

PRELIMINARY ASSESSMENT OF THE TRADE AND USE OF



Chihuahuan Desert, Mexico: stacks of harvested, wild Candelilla plants (top); processing Candelilla plants for wax production (below); the finished block of wax and plant from which it was extracted (opposite, inset)

> Photographs this page and inset WWF-Canon / Edward Parker



EUPHORBIA ANTISYPHILITICA

Candelilla *Euphorbia antisyphilitica* occurs in Mexico and southern USA, with its principal habitat in the Chihuahuan Desert, 80 per cent of which lies within Mexico. The species is collected from the wild in Mexico for the production of a high quality wax known as Candelilla wax¹. Like all succulent representatives of the genus, *Euphorbia antisyphilitica* is listed in CITES Appendix II owing to the demand for some *Euphorbia* succulent species in the live ornamental plant trade.

The most intensive harvesting of *Euphorbia antisyphilitica* takes place in the Mexican Federal State of Coahuila. The wax is processed for application in many products, including cosmetics, food additives, and as a separation wax and/or mould during the production of certain goods (see box). Apart from a very limited replanting of the roots of harvested specimens, there is no cultivation of the species for wax production. Between 60-80% of the annual wax production in Mexico is exported; the remainder is for domestic consumption. According to FAO data and information from traders, annual production amounts to approximately 3000 t a year. However, CITES annual report data show far less wax is being exported from Mexico (98 t of "extract" - a Customs declaration code used to describe the wax) in 2001 and 208 t of "wax" in 2002). Principal importers are the USA (1000 t/y) and the European Union (350 t/y). German imports of 175.5 t (2003) and 211 t (2002) are mostly for re-export, with a relatively small annual national demand of approximately 50 t/y, according to traders in 2004 (Barsch, 2004).

Harvesting regulations have been developed in Mexico, but are not applied consistently in rural areas. It is unclear if present levels of exploitation are a significant threat to Euphorbia antisyphilitica at the species level at this time; although there are no population estimates available, the species is still considered common in many parts of its range. However, owing to the direct and negative effect of use without management, many other populations of this species have declined or disappeared on a local and regional scale. Therefore, if present levels of harvesting and export continue without harvesting regulations being consistently applied and enforced by the Mexican authorities, this situation is likely to become a matter for significant concern. Despite the CITES listing of Euphorbia antisyphilitica, Candelilla wax imports are not recorded by most countries, with the exception of Mexico and Germany. It is possible that the connection between "Candelilla wax" and a Euphorbia species has not been made by other countries and, therefore, the CITES relevance has been overlooked by CITES enforcement authorities. Until sustainable sourcing of Euphorbia antisyphilitica in its Mexican range is ensured, a downlisting of the species from Appendix II, as has been suggested by several businesses, is not recommended. Furthermore, Mexican botanists regard the CITES listing as an important instrument for controlling harvesting and protection of the species in the wild.

Frank Barsch, TRAFFIC Europe-Germany/WWF-Germany

This preliminary assessment was commissioned by Bundesamt für Naturschutz (the Federal German Agency for Nature Conservation).

Reference

Barsch, F. (2004). Vorläufige Einschätzung des Handels und der Nutzung von *Euphorbia antisyphilitica* ZUCC [in German]. Unpublished report by TRAFFIC Europe-Germany/WWF-Germany, Frankfurt/M. 12pp, Appendix.

 $^{{}^{1}}A$ related species Pedilanthus pavonis is also used as source material for the production of this wax. Harvesting appears to be on a lesser scale but the proportion of this species used in wax production is not known.

CANDELILLA WAX

The whole plant Euphorbia antisyphilitica is harvested for the production of wax, including the rhizomes and roots. Collection of the plant material is very time-consuming and work-intensive for the harvesters, or candelillieros, who often have to cover distances of more than 20 km on foot to reach the harvesting areas owing to the decline or disappearance of many local Euphorbia populations. The processing methods are based on traditional techniques and are conducted mainly in rural communities. The raw material is boiled in water containing sulphuric acid to separate the crude wax; this procedure is repeated to remove the resin. Lower quality wax cerote - which contains some resin, is used for industrial applications (in electrical goods and polishes, for example). To produce highquality and valuable candelilla wax, additional refining and bleaching is carried out at an industrial level. The resin-free wax is mainly used in cosmetics (in emollients to protect the skin against water loss, lipsticks and lubricants, for example), as food additives (in chewing gum and other confectionery) and as a separation agent and/or mould (in the production of candles and chocolates, cakes and jellies). Both grades of wax are in significant demand in international trade. The wax-free organic material is dried in the sun and used as fire material for further refinings.

NEWS

The 20th Meeting of the CITES Animals Committee (AC20) took place from 29 March to 2 April 2004 in Johannesburg, South Africa. It was attended by some 130 people and discussions centred around a number of species-based issues, the Significant Trade Review in Appendix-II species, the registration of commercial captive breeding operations for Appendix I species and the relationship between ex situ production and in situ conservation.

Significant trade: Discussion of the Significant Trade Review process for specimens of Appendix-II species focused on three issues, namely: i) identifying the next steps regarding the review of Saker Falcon *Falco cherrug* in Phase VI; ii) developing a timetable and priorities for implementing an Action Plan for Madagascar; and, iii) selecting additional species for review under Phase VI and prioritizing these selections.

Delegates from the United Arab Emirates led the discussion on Saker Falcon and reported on their most recent efforts to control trade in the region. It was noted that a CITES workshop on falcon trade issues was to be held in Abu Dhabi in May 2004. Although not all Parties had reported on their efforts, it was generally agreed that the countries of major concern were Mongolia, Kazakhstan, Iran, Pakistan, Russia, Saudi Arabia, Turkmenistan, and Uzbekistan, and that the CITES Secretariat should consider these countries as urgent priorities for the next phase of review.

Discussions on the Madagascar Country Review were hindered by the fact that Madagascar was not present at the meeting but focused on prioritizing specific actions identified in an Action Plan developed in 2003 with the assistance of TRAFFIC, through support provided by the CITES Secretariat. 'Urgent short-term' actions within the work plan were identified to which Madagascar is required to respond and report to the CITES Secretariat prior to the 51st Standing Committee (SC51) meeting. Other short-term actions must be reported on to the CITES Secretariat prior to AC21. Concerns were raised over the lack of clarity about Madagascar's current wildlife export policy and as a result the CITES Secretariat agreed to contact Madagascar's Management Authority for clarification.

The following species were selected for review in Phase VI of the Significant Trade Review of Appendix-II species (the first five being identified as priority species): Grey Parrot *Psittacus erithacus*, Painted Batagur *Callagur borneoensis*, five species of Spinytailed lizards *Uromastyx:* Bell's Dabb Lizard *U. acanthinura*, Bent's Mastigure *U. benti*, *U. dispar*, Sahara Mastigure *U. geyri*, Eyed Dabb Lizard *U. ocellata*), three day-gecko species: Comoro Day Gecko *Phelsuma comoroensis*, Bright-eyed Day Gecko *P. dubia*, Boettger Day Gecko P. v-nigra; six species of giant clams: Boring Clam Tridacna crocea, Small Giant Clam T. maxima, Fluted Clam T. squamosa, Southern Giant Clam T. derasa, Giant Clam T. gigas and Bear Paw Clam Hippopus hippopus; Senegal Parrot Poicephalus senegalus; Hill Mynah Gracula religiosa; and, Comoro Islands Chameleon Furcifer cephalolepis.

In addition, discussions about the case for adding the Narwhal *Monodon monoceros* to the review process revealed that Denmark (Greenland) and Canada had not fully responded to recommendations made in 1996 during the species review in Phase III. Canada and Denmark (Greenland) agreed to respond by 31 July 2004.

Criteria: The Animals Committee reviewed proposed amendments to the criteria for amendment of Appendices I and II and the revised version of Resolution Conf. 9.24. A large number of changes to the document (available at *www.cites.org*) were proposed and will be discussed at CoP13.

Periodic review: At CoP12, the Animals and Plants Committees were tasked with streamlining the process of undertaking periodic reviews of animal or plant species included in the CITES Appendices to ensure that taxa are appropriately listed (Resolution Conf. 11.1 (Rev. CoP12), Decision 12.96 and SC49 Doc 20.1). The SC, at its 49th meeting, further requested these Committees to agree on a schedule and process for these reviews. At AC20, the Committee agreed to focus on species listed prior to the adoption of Resolution Conf. 9.24 and have suggested a process allowing the incorporation of a rapid assessment technique.

Captive breeding: The registration process for operations breeding Appendix-I species for commercial purposes is believed by some to be too onerous, resulting in relatively few operations applying for registration. The AC looked at simplifying the registration process but, after much discussion, agreed that at least part of the problem was not the actual registration process but rather that there was no perceived need for captive breeding operations to register. A number of suggestions for incentives to apply for registration included: that Management Authorities facilitate the application process; registered operations receive a certificate of approval to boost their status; a faster application processing time; reduced costs of export permit fees; and, that Management Authorities must ensure that trade is in strict accordance with Resolution Conf. 12.10 and Resolution Conf. 5.10.

In situ/Ex situ: The AC has also been charged with examining the relationship between *ex situ* production from registered operations and *in situ* conservation. Many of the points raised were controversial and a working group report was noted rather than adopted. Of the 115 responses made to the request for information, only 35 were received in time to be summarized for the

continued on page 13



The Ivory Markets of East Asia Esmond Martin and Daniel Stiles

A review by Tom Milliken, Director, TRAFFIC East/Southern Africa

Esmond Martin and Daniel Stiles are back with the third installment of their look at the status and impact of ivory markets around the world. *The Ivory Markets of East Asia* presents the results of some four months of research on the ivory trail in Japan, Hong Kong, China, Taiwan and South Korea in 2002. With this effort, East Asia comes into focus and continues an odyssey that commenced in Africa in 1999, with trade studies in 13 countries, and moved through South and Southeast Asia in late 2000 and early 2001, adding another eight countries. At this juncture, India, and perhaps the comparatively minor ivory markets of Europe, North America and the Middle East now remain the only trade centres that these intrepid travellers have not assessed as part of their growing list of ivory trade studies.

This is a welcomed volume as East Asia has always been the part of the world where ivory has reigned supreme as both an unsurpassed art form and a utilitarian, but luxury medium for a range of every day products. Here, artistic expressions of exuberance as well as subtlety by Chinese and Japanese masters have brought ivory to the pinnacle of its creative dimensions, with everything from intricate 35-layered Canton balls and elaborate dragon boats to the understated perfection of simple netsuke figures. Lesser craftsmen in these countries have also used ivory in bulk to support the mass-produced output of name seals, chopsticks, jewellery and other accessories and curios for local use and export all over the world. Since the 1970s, available trade statistics provide the evidential trail that this region, with almost no elephants of its own, has ultimately brokered the fate of many elephant populations in distant parts of the globe. Indeed, many conservationists will argue that the fortunes of elephants in Africa in the latter half of the 20th century have largely been shaped by the ivory trade industries of Japan and Hong Kong, and the global responses to them, and that China now seemingly holds the key to outcomes in the beginning of the 21st century.

Martin and Stiles comb the available literature and weave together a rich tapestry of historical insight and background. Appreciation of the depth and diversity of the cultural context for ivory in East Asia is important as a backdrop for understanding contemporary dynamics. Japan, we are told, has a recorded ivory history of over 1250 years and, in China, ivory artifacts have been found in Neolithic sites dating back to 5000 BC. In sum, East Asia's ivory trade today is a legacy of deeply rooted tradition, culture and artistic sensibilities combined with modern notions of wealth and status and global conservation realities and politics. Martin and Stiles aptly capture the flavour of this fascinating mix.

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That said, in some respects, this current effort seems to have been the most difficult of the three reports to date in that it comes at a time when the ivory trade in East Asia is undergoing profound changes. Gone are the days when one simply arrives in a city and heads for the nearest arts and crafts centre to record the current state of ivory play. One senses that far too many local dealers have naively opened their hearts and businesses to probing foreign investigators in the past, only to suffer consequences for having done so in subsequent sensational ivory trade exposés. It is telling, perhaps, that a prearranged visit to the workshop of what once was Beijing's largest ivory carving company was "abruptly cancelled" when it became known that the intended visitor was a Westerner. There are hints of ivory being carved in secret in China, Hong Kong and even Taiwan, but it is very difficult to actually locate these operations. This is not the fault of the researchers, but rather a sign of the times.

The fact of the matter is that East Asia's contemporary ivory trade now unfolds in a highly charged and politically sensitive context, making the ivory trade today less visible to outside observers than possibly at any point in recent history. The shift from formal structures and marketing mechanisms connected with government institutions to diffuse informal networks of carvers, sellers and buyers presents a huge challenge for any researcher attempting to document the trade primarily through observational means. China's vast physical size, huge human population and seemingly boundless economic transformation clearly afford abundant opportunities for trade in ivory. In the context of this study, visits to three key cities - Beijing, Guangzhou and Shanghai - have produced some interesting results, but one needs to remain cognizant of the fact that another 663 cities in the country were not visited. It is evident that the principal researcher undertaking the China study felt immense frustration in not being able to do a more extensive, in-depth survey.

In spite of these constraints, however, Martin and Stiles produce some very good results. On this journey through 11 cities in five countries or territories, they identified a total of 413 retail outlets featuring 54 430 ivory products, and uncovered evidence suggesting a total of 76 workshops manned by an estimated 300 ivory craftsmen. While these numbers perhaps look impressive at first glance, they nonetheless belie the fact that each of these ivory trade variables certainly reflects a significant decline from previous studies, even if comparative data are not always at hand.

The portraits of Japan, Hong Kong and China, the ivory trade heartland of East Asia, are perhaps the most revealing. There, in all cases, the traditional structures of the trade - the guilds of carvers and craftsmen and the associations of business - exhibit signs of decline if not outright disappearance. Overall, the number of ivory carvers identified in the present study indicate a reduction of more than 85 per cent of the estimated 2200 craftsmen believed to be working in East Asia in the late 1980s. Nowhere has the decline been as profound as in Hong Kong. Following an influx of immigrant craftsmen in the late 1940s, Hong Kong became the ivory centre of the world and alone had about 3000 carvers in 1970. Today, according to Martin and Stiles, only a handful, numbering no more than five or six parttime workers, remain. In China, too, the estimated peak of 1500



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IVORY CARVINGS:

Previous page: Drawing of a carving of *Zhongli Kwan*, a Chinese Immortal who carries a fan to revive the souls of the dead.

Top: This Buddha figure made by a master carver in Tokyo was priced at USD25 000 in 2002.

Above: Some Japanese like to attach ivory good luck charms to mobile phone and key rings, while many men wear ivory loop ties. Women's jewellery has become much less popular



Above: Ivory carvers in Japan still use hand tools for intricate work.

Photographs: Esmond Martin

carvers in 1985 has declined probably to fewer than 200 carvers today. And even in Japan, where the industry has perhaps the best chances of official survival into the future, barely one-third of the 300 carvers employed in 1980 remain on the job.

The retail side of the trade, the most visible face of the industry, appears to have fared no better. In Hong Kong, most of the well-known ivory speciality shops have closed, and those businesses advertising in the local telephone directory have plummeted from 264 in 1988 to only 38 in 2002. Even though 35 884 ivory products were counted in Hong Kong during the course of this survey, most dealers expressed a long-held desire to sell off their existing stock so they can move on to other, more profitable, enterprises. The same seems to be true in Taiwan, where its "surprisingly small" domestic ivory market continues to exhibit signs of decline amidst heightened efforts of control and regulation, while the ivory trade in South Korea's capital city, Seoul, is virtually nonexistent. Indeed, even in Japan, the current fortunes of the ivory trade are most graphically represented by the presentation of comparative data on the estimated retail value of the industry: what was valued at USD300-450 million in 1988, had dropped to USD38 million by 2001, a massive decline of some 90 per cent.

Things are less clear in China. The State-owned industries are indisputably, and probably irredeemably, in decline. Martin and Stiles tell us that undisclosed stocks of raw ivory still remain in the hands of several government-owned retail outlets and two remaining government factories, along with an estimated 20 t of worked ivory products. Under CITES, the degree of control over these stocks is currently an issue of contention, but they nonetheless remain eligible for local trade. On the other hand, the focus on private sector ivory processing and retail sales remains somewhat blurred for the reasons already described. Judging by the volume of ivory being seized at Chinese ports of entry over the last few years, there are serious indications that a rapid increase in private sector engagement in the ivory trade may be occurring, but further evidence and detail seems to become consumed within the folds of the Chinese landscape. The authors note that "private workshops do not advertise their presence, and ivory vendors will rarely give out information regarding the workshop names or locations." There is also the belief that "private ivory workshops are using for the most part smuggled African ivory", and this is yet another reason for the apparent shroud of secrecy.

Despite the uncertainty, however, Martin and Stiles ultimately declare that "China has become probably the largest ivory manufacturing and exporting country in the world." This declaration is the most impressive finding in the report, and one trusts that their instincts, which have been honed on an ivory trail stretching thousands of miles from Dakar to Tokyo, are accurate. While these authors arrive at this conclusion through a combination of empirical observation and subjective means, they nonetheless reach similar conclusions to those outlined in the ETIS analysis that was presented to the twelfth meeting of the Conference of the Parties to CITES (CoP12) in November 2002. Statistical modelling of 7817 ivory seizure records in ETIS, representing data from 67 countries or territories around the world, resulted in China being identified as the most important country driving illicit trade in ivory today. The ETIS analysis revealed an upward trend in ivory seizures globally since 1998, but attributed this development solely to the influence of an emerging ivory market in China. In fact, if the influence of China is removed from the ETIS data, there is no increasing trend whatsoever. The ETIS analysis essentially shattered the post-CITES ivory trade ban paradigm that has always held Japan as the preeminent country in the global ivory trade. Now, the latest report of Martin and Stiles gives further reason to believe that China has eclipsed Japan to become the country of primary importance.

Martin and Stiles are acutely aware of the CITES dynamic in the global ivory trade. Throughout their travels they attempt to assess the knowledge of, and reactions to, ivory trade events under CITES on the part of the businessmen they interview. They conclude that outside Japan, none of the dealers they encountered believed that recent CITES decisions "heralded a relaxing of the international ivory trade ban". In China, for example, there was ample knowledge of the one-off sale of raw ivory between three southern African countries and Japan in 1999, but equally there was awareness that "Japan had agreed not to re-export any ivory" and that they themselves would not be eligible for similar arrangements under CITES in the future. Not only in China, but also in Hong Kong and Taiwan, virtually all ivory vendors were pessimistic about the future. These findings contrast rather starkly with the view expressed by some at CITES CoP12 that the one-off ivory sale to Japan had created confusion amongst some Chinese people that the international ivory trade had legally resumed. According to Martin and Stiles, if the CITES ivory decisions sent a signal, they have only buoyed some modest hope amongst Japanese dealers for a future trade in ivory, but "ivory vendors in China, Hong Kong and Taiwan do not believe that CITES will ever approve a renewed international trade in ivory for their industries".

Although Martin and Stiles do not systematically assess the CITES requirements for the control of internal trade in ivory in Japan, they do report that "the country has the most effective control system of any in Asia". (That said, there is always room for improvement and, in March 2004, Japan subsequently faltered in an assessment by the CITES Secretariat to demonstrate compliance with all of the conditions noted in Resolution Conf. 10.10. In fact, remedial legislation addressing certain deficiencies is under consideration in Japan at this very moment). Martin and Stiles also provide evidence that Japan has complied with the trade requirement under CITES not to allow commercial exports of ivory. In their view "almost all of Japan's worked ivory

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production is bought locally and stays in Japan", and later state that "Japan and South Korea are not sources of significant movements of worked ivory across their respective borders", unlike China, Hong Kong and, at least in the past, Taiwan.

Commendably, Martin and Stiles have addressed past concerns that their analysis of ivory price data has been compromised by not taking inflation and other economic factors into account. In this volume, when they compare ivory prices between years, they have used the Gross Domestic Product (GDP) Inflator Index to adjust the data to assess the price trends more accurately. In general, once adjusted, the price of raw ivory seems to have declined in all countries since the late 1980s just prior to the ivory trade ban under CITES. Martin and Stiles attribute the decline to a "drop-off in demand for worked elephant ivory". Again, relating these findings to the CITES decision to allow a one-off ivory sale in 1999, many have argued that such a move would stimulate ivory prices in Asia and consequently fuel elephant poaching abroad. Martin and Stiles' evidence suggests this has not been the case in East Asia.

It is worth recalling just how far the world has come since Martin and Stiles issued their first volume on the status of domestic ivory markets in Africa in 2000. At that time, this reviewer applauded their effort to put "a much-needed contemporary focus back on the 'forgotten' ivory trade" represented by these so-called internal markets. Since then, others, including TRAFFIC, have assessed these markets in considerable detail. Importantly, at CoP12, the ETIS analysis demonstrated from a statistical point of view that illicit trade in ivory is most significantly correlated with the presence of large-scale, poorly regulated domestic ivory markets.

Now, all over the world, governments allowing domestic ivory markets are under pressure to demonstrate compliance with CITES trade controls. As a result of decisions taken at CoP12, 10 countries, including China and Japan, are currently part of an intersessional process to determine whether or not they fulfill their obligations to register all importers, manufacturers, wholesalers and retailers, have compulsory trade controls over raw ivory, and develop effective reporting and enforcement systems over worked ivory. For the first time, failure to demonstrate compliance with these CITES requirements could lead to punitive sanctions. In a recent development at the 50th meeting of the CITES Standing Committee, in March 2004, the scope of this exercise in Africa was broadened to include *all* countries allowing domestic trade in ivory, not just the major markets identified in the ETIS analysis.

Martin and Stiles can be proud of the fact that their work has repeatedly highlighted the importance of keeping a watchful eye on domestic ivory markets all over the world. The international community is finally paying attention and is addressing the problem with appropriate force and vigour.



For details of availability of *The Ivory Markets of East Asia*, contact:

PO Box 54667, Nairobi, Kenya, c/o Ambrose Appelbe, 7 New Square, Lincoln's Inn, London WC2A 3RA, UK.

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Report of the ivory carving industry in Thailand, Myanmar and Viet Nam, pages 39-43. continued from page 8

meeting. The balance of 80 case studies was, however, made available. Of major concern was the fact that, of the 35 case studies summarized to date, only three were submitted by non-zoos. It was felt that better representation was needed from the case studies before this issue could be taken forward.

Coral trade: No acceptable practicable scientific definition to distinguish fossilized coral from non-fossilized corals in international trade has been agreed to date. The AC adopted the suggestion that the annotation for corals be amended so that fossils - namely all categories of coral rock except live rock - would be exempt from the provisions of the Convention. Most significant of these exemptions would be coral substrate attached to non-CITES-listed species such as soft corals. The depository government has submitted a proposal to effect this change at CoP13.

Wildlife production systems: Discussions over the means to improve the control of captive breeding, ranching, and wild harvest production systems proved to be somewhat controversial. It was suggested that the definition of ranching be refined and extended and applied to describe management of Appendix-II species, rather than restricted to species transferred from Appendix I to Appendix II for ranching purposes. A proposal to this effect will be submitted at CoP13 and it was recommended that a document be prepared indicating which production systems are covered by the requisite source codes.

Tortoises and freshwater turtles: The AC noted a report containing eight recommendations that had been drafted by the working group on tortoises and freshwater turtles for consideration by the AC at CoP13 to guide future work in this area. These recommendations covered: material for enforcement officers; liaison with the World Customs Organization (WCO) regarding specific Customs codes for turtles and turtle products; developing specific guidance on making non-detriment findings; developing rescue centres; producing education materials; distributing proceedings of the Technical Workshop on Conservation of and Trade in Tortoises and Freshwater Turtles (Kunming, 2002); implementing the IATA guidelines for transport of live tortoises and freshwater turtles; and, encouraging the listing of threatened species in the CITES Appendices.

Four priority actions were identified for work relating to the Pancake Tortoise *Malachochersus tornieri*: i) investigate the genetic variability among wild populations and farm stock; ii) verify occurrence in States that are not currently recognized as range States; iii) inspect farms with regard to captive management conditions; and, iv) complete a desk-top review of the species. **Seahorses:** The Committee adopted the recommendation that a minimum size limit of 10 cm be adopted as a voluntary means of making non-detriment findings for seahorses *Hippocampus* spp. The seahorse listing came into effect on 15 May 2004.

Sea cucumbers: Recommendations arising from a CITES technical workshop held in March 2003 were reviewed and attention was given to drafting a discussion paper for CoP13 on the biological and trade status of sea cucumbers in the families Holothuridae and Stichopodidae. Concerns included the fact that the recommendations were not agreed to by all and the view held by some that the Food and Agriculture Organization of the United Nations (FAO), rather than CITES, was the more appropriate body to handle management of sea cucumbers. A number of recommendations concerning the need for co-ordination with FAO, with the World Customs Organization (WCO), and also co-ordination between national CITES and fisheries authorities on this issue were made. Further, Parties were urged to increase their efforts to manage sea cucumber fisheries for sustainability and identify voluntary measures for trade monitoring and export controls, where appropriate.

Sharks: In response to decisions from CoP12, the AC looked at the issue of the biological and trade status of sharks. Documents on the possible expansion of WCO harmonized codes for shark products were reviewed. Too complex a system was cautioned against and the need to liaise with FAO was noted. It was recommended that an update of a report by The World Conservation Union (IUCN) Species Survival Commission Shark Specialist Group on progress with implementation of the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) be submitted to CoP13. The need for capacity building in developing countries and high seas fisheries in relation to implementation of the IPOA was highlighted and FAO's capacity in this regard was noted. As recommended in Resolution Conf. 12.6, a provisional list of some key shark species requiring special management attention from Parties was prepared. These included: Sawfishes Pristidae, Gulper sharks Centrophorus spp. and School Shark Galeorhinus galeus.

A date was not set for the 21st Meeting of the Animals Committee.

Claire Patterson, Programme Officer, TRAFFIC East/Southern Africa SEAHORSE SUSTAINABILITY



minimum size-limit set for trade

s of 15 May 2004, trade in all species of seahorses *Hippocampus* spp. is regulated under CITES. The genus was listed in CITES Appendix II in October 2002, but implementation of the listing was delayed until 15 May 2004.

More than 75 countries are involved in the international seahorse trade. In 2002, at least 70 tonnes of dried seahorses were imported to Asia, representing approximately 24.5 million individuals. Another estimated 460 000 live seahorses are traded internationally each year, largely sourced from the Philippines, Indonesia and Brazil and exported to markets in the USA, Europe and Japan.

Singapore and Hong Kong are the major trading centres for seahorses. A total of 127 t was reported to be imported to Hong Kong in the past six years from 20 countries, with an average import of 21 t each year. While Singapore does not have a seahorse-specific code for Customs declaration, it is estimated that at least several tonnes pass through this city each year.

Following the listing, all CITES Parties exporting seahorses now have an obligation to demonstrate that no wild seahorse populations are harmed by their exports. The stipulation of a minimum size limit of 10 cm, takes into account the size of the seahorse at maturity and the maximum size for most species. This ensures persistence of wild seahorse populations and the need for continued trade. Under this management tool, 10 of the known 34 species of seahorses are recommended not to be allowed in trade since their maximum size is less than 10 cm. Nonetheless, most of those 10 species are either not found in trade or are traded in very low numbers.

An identification manual published by TRAFFIC and Project Seahorse has been made available to Customs agents and law enforcement officials in 165 countries to help Parties to implement the listing (see *www.traffic.org* and *www.projectseahorse.org*). As the first marine fishes of commercial significance to be listed by CITES, seahorses are setting an important precedent in the international effort to ensure sustainable trade and the protection of ocean ecosystems.

Samuel Lee, TRAFFIC East Asia

VIAGRA: NOTHING TO GET EXCITED ABOUT?

The following comment by Craig Hoover, Deputy Director of TRAFFIC North America was published in Environmental Conservation in 2003 in response to an earlier article in that publication entitled "Sex, drugs and animals parts: will Viagra save threatened species?" by von Hippel and von Hippel, and is reprinted here with permission.

Von Hippel and von Hippel (1998) suggested that Viagra has the potential to replace an existing demand for certain wildlife species used in traditional Chinese medicine (TCM) to treat erectile dysfunction (ED). Von Hippel and von Hippel (2002) attempted to show that this potential is becoming a reality.

The two data sets chosen for assessment in support of the notion that Viagra is having a positive impact on wildlife conservation are Alaska reindeer (*Rangifer tarandus*) antler sales and the Canada seal [primarily harp seals (*Phoca groenlandica*) and hooded seals (*Cystophora cristata*)] harvest. Unfortunately, the authors appear to be in search of data to support their hypothesis, rather than to test it, and thus they overlook a number of important factors.

Von Hippel and von Hippel (2002) note that the largest single reduction in Alaska reindeer antler sales since 1972 occurred from 1997 to 1998, coincident with Viagra's entry into the market. Though the authors identify other factors that may have contributed to the drop in antler sales, such as the Asian economic collapse and a drop in demand for meat, they conclude that Viagra must be a major contributing factor.

But analysis of the U.S. Fish and Wildlife Service's Law Enforcement Management Information System (LEMIS 2002), a database of USA wildlife trade, provides a broader assessment and a less compelling case for Viagra's influence. These data show that total exports of deer antler from the USA are largely consistent with the Alaska sales trend, with declining export figures hitting a low in 1998 before rebounding in 1999. However, analysis of USA imports of deer antler for 1995 to 2000 indicate a less consistent trend, peaking in 1996 at 79 tonnes/yr, followed by declines in 1997 and 1998 to a low of 24 tonnes/yr, and another increase in 1999 to 54 tonnes/yr. Even 2000 imports of 41 tonnes exceed 1995 and 1997 totals. Why would the USA, presumably the largest initial market for Viagra sales, be importing more deer antler after the release of Viagra than it did in two of the three years prior to its release? And if Viagra was a factor in the decline in antler sales in 1998, then why did both imports and exports of deer antler increase significantly in 1999?

Similarly, the case study of Canada's seal harvest raises more questions than it answers. The seal harvest has never been a directed harvest for genitalia used in TCM, but rather a harvest for skins and meat. The skin market had been in decline until 2001 (Department of Fisheries and Oceans 2002), and sealers have also had a great deal of difficulty marketing the meat, particularly due to the phase-out of government subsidies (Panel on Seal Management 2001). Ice conditions also play a significant role in harvest levels (Department of Fisheries and Oceans 2002). Though it may be that seal penis values have declined and not recovered (a question worthy of further study), this trade does not appear to be a driving force in seal harvest, as indicated by the dramatic increase in harvest from 2000 to 2001.

Beyond the specific questions raised by these two analyses, we question whether these case studies could ever be appropriate measures of demand for TCM products used to treat ED. Though both taxa are used for such purposes, the scope of these two data sets is extremely narrow. Trade in several other taxa, as well as broader assessments of reindeer and seal trade, would be more useful indicators of demand for TCM products used to treat ED.

Most of these indicators do not, however, appear to be as supportive of the underlying assertion that Viagra is the cause for decline. Seahorses (Hippocampus spp.) are among the other wildlife species used in TCM to treat ED, together with other health problems. In fact, concerns about the unsustainable catch and international trade recently led the 160 member nations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to list all seahorse species on Appendix II. This action was supported by trade data presented in the listing proposal, which showed seahorse consumption grew throughout the 1980s and was approximately 45 tonnes/yr in Asia in the early 1990s (Vincent 1996). Though trade is thought to have declined in 1998 and 1999, consumption in 2000 was estimated to be 70 tonnes (Vincent and Perry, in prep.). Dried seahorse exports from Thailand increased from 3.6 tonnes in 2000 to 10.5 tonnes in 2001 (Vincent and Perry, in prep.). Hong Kong imports of dried seahorses have increased from 13.4 tonnes in 1998 to 23 tonnes in 2000 (Vincent and Perry, in prep.). Taiwan's dried seahorse imports declined throughout much of the 1990s, just as von Hippel and von Hippel's (2002) two case studies did, and yet in 2000 Taiwan imported its second highest dried seahorse volume in 20 years (Vincent and Perry, in prep.).

Sea cucumbers (Holothuroidea) are yet another taxa used at least in part to treat ED. According to data from the United Nations Food and Agriculture Organization's Fishstat database (FAO 2003), global exports of sea cucumbers declined to 13.8 tonnes in 1998, the lowest point since 1991. But the decline was short-lived, as global exports were 15.8 tonnes in 2000 and 17.4 tonnes in 2001.

Common to all of these examples, as well as the Alaska reindeer and Canada seal case studies, is a significant drop in trade in 1998, the year Viagra was approved by the FDA and introduced to the market. Yet, in each of these examples, there was a significant recovery in 1999 or 2000, in some cases well beyond the levels for years immediately preceding the introduction of Viagra. These increases would not be consistent with the introduction and expanded availability of an admittedly well-received drug. A more parsimonious explanation surely lies in the Asian economic crisis, which began in 1997 and bottomed out in 1998 before rebounding strongly in most countries over the following years. Consistent with this view, these trade trends are very similar to those for non-TCM commodities exported to Asia. For example, USA exports of table grapes to Hong Kong and Taiwan follow the same trend of decline in 1998 and recovery in 1999 and 2000 (USDA Foreign Agricultural Service 2003).

Past research has shown a strong reluctance of TCM users to turn aside millennia of belief and switch to Western medicines (Lee *et al.* 1998). To date, we see little evidence to support the notion that Viagra is the exception to this general rule. Given the many species currently or potentially impacted by the demand for TCM for the treatment of ED, it seems that the little blue pill may not be the remedy for this conservation problem.

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Craig Hoover, "Response to Sex, drugs and animal parts: will Viagra save threatened species?" Environmental Conservation (2003), 30:317-318, Cambridge University Press, Copyright ©2003 Foundation for Environmental Conservation. Reprinted with permission.

A Tale of Two Cities: A Comparative Study of Traditional Chinese Medicine Markets in San Francisco and New York City

Leigh A. Henry

TRAFFIC North America. May 2004. 21pp.

The availability for TCM of wildlife parts and products in the Chinatowns of San Francisco and New York City is examined in a follow-up study to earlier surveys in 1996-97 and 1999. While availability for Tiger and rhino medicinals in New York was found to be high, there had been a decline in San Francisco, a factor attributed to better law enforcement and improved public awareness in response to a TRAFFIC campaign in New York to reduce demand for threatened species. Other products in both locations, however, had increased or were widely available.

Nowhere to Hide: The Trade in Sumatran Tiger

Chris R. Shepherd and Nolan Magnus

TRAFFIC Southeast Asia. March 2004. 96pp.

The Sumatran Tiger will become extinct in Indonesia unless urgent efforts are taken to control both the illegal trade in Tiger parts and logging which is leading to loss of the species' habitat. At least 50 Tigers were poached each year in Sumatra between 1998 and 2002. The latest available figures show that there are between 400 and 500 Tigers left in the wild in Sumatra.



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Shelled Out? A Snapshot of Bekko Trade in Selected Locations in Southeast Asia

Peter Paul van Dijk and Chris Shepherd

TRAFFIC Southeast Asia. March 2004. 29pp.

Shell products (bekko) of the Hawksbill Turtle Eretmochelys imbricata are banned from international commercial trade by CITES as well as from domestic trade in an increasing number of countries. Surveys undertaken in 2001/2002 in Indonesia and Viet Nam - two key countries involved in the bekko trade - show that, while trade appears to have declined in Indonesia, traders are awaiting an opportunity to resume trade if legal exports are allowed again. Trade has increased in Viet Nam from levels described in 1993 although inclusion of the species under protective legislation in 2002 has the potential to assist efforts to conserve remaining populations in that country.

The Trade in Marine Turtle Products in Viet Nam

Prepared for the Marine Turtle Conservation and Management Team TRAFFIC Southeast Asia-Indochina. March 2004. 48pp.

Over-exploitation for trade purposes is the principal cause for major population declines of five marine turtle species which occur in Vietnamese waters. The results of a market survey in the country in May 2002 indicate that the trade has increased considerably since similar surveys were carried out by TRAFFIC in 1992/93. Furthermore, the substantial international element to the trade evident in 2002 was not apparent in the earlier survey. About 98% of the almost 29 000 marine turtle items on sale in 2002 were derived from Hawksbill Turtle Eretmochelys imbricata, the majority for ornamental purposes.

A Survey of the Rhinoceros Beetle and Stag Beetle Market in Japan

Shoko Kameoka and Hisako Kiyono

TRAFFIC East Asia (in Japanese) 2003, with English translation, January 2004. 42pp.

With a growing market for exotic species and new breeding techniques, there has been a big increase in the number of people breeding exotic beetles in Japan. This report focuses on the present state of the market for rhinoceros and stag beetles in Japan, as well as on regulations to protect beetles, both in Japan and in source countries. Problems with the current trade are identified and recommendations are made to improve its regulation.

Managing risk and uncertainty in deep-sea fisheries: lessons from Orange Roughy

M. Lack, K. Short, A. Willock

TRAFFIC Oceania/WWF Endangered Seas Programme. November 2003. 84pp.

The Orange Roughy is a deep-sea species found from the south-west Pacific Ocean to the north-east Atlantic. It is long-lived, late to mature, slow-growing and of low fecundity and, as a consequence, is relatively unproductive, highly vulnerable to overfishing and potentially slow to recover from the effects of over-exploitation. Nearly half of the 30 fisheries identified in the report have been fished to below 30% of the prefishing biomass. This study examines the experience of Orange Roughy fisheries and uses this as a basis to draw conclusions on how future management of fisheries for deep-sea species can be improved.

Illustration above from A Survey of the Rhinoceros Beetle and Stag Beetle Market in Japan, TRAFFIC East Asia report.

In November 2003, WWF-Denmark published a report on Greenland's performance with regard to international environmental conventions, in particular CITES. The report, which received significant media coverage, was released in English in March 2004 (www.wwf.dk/db/files/greenland_report_1.pdf). This article is based on the findings of the report. A summary of the response to this article from the authorities in Greenland responsible for the implementation of CITES is published on page 20.

CITES in Greenland

Thor Hjarsen (M.Sc.), EcoAdvise

Introduction

reenland is a distinct community within the Kingdom of Denmark. Home Rule was introduced in Greenland in 1979 which means that it retains its powers of self-government while remaining under the Danish Crown. During recent years, questions have been raised concerning Greenland's administration of its natural resources. These concerns relate to unsustainable use of wildlife and poor implementation of international conventions. Some of these criticisms relate to CITES and cover:

- trade in and export of teeth and tusks from marine mammals of seriously over-harvested and depleted populations;
- apparently commercial transactions involving the export of meat and blubber to Denmark of Fin Whale Balaenoptera physalus (I), Minke Whale Balaenoptera acutorostrata (I), Narwhal Monodon monoceros (II) and Beluga Delphinapterus leucas (II);
- the lack of a Scientific Authority to advise that any export will not be detrimental to the survival of that species, as required by Article IV of the Convention.

To address these and other issues, WWF-Denmark initiated a study, the findings of which are summarized below.

Legal provision for CITES

The legal framework for CITES implementation in Greenland is fragmentary and spread over a number of regulations, but is principally provided for under Home Rule Government Regulation No. 14 of 10 December 1981. There is currently no provision for the confiscation of illegal specimens found at the border or within Greenland's territory. Although Regulation No. 14 is reported not to have been in use for some years, a Government official recently referred to it as evidence of such regulation when responding to criticism of Greenland's lack of CITES-implementing legislation. However, the obsolescence of the 1981 regulation is illustrated by Article 3 of the regulation document: "Article 3. Permits [for export from Greenland] are issued by the Danish Ministry for Greenlandic Affairs on behalf of the Greenland Home Rule." The Danish Ministry concerned closed down many years ago, since when Greenland has issued its own CITES permits. However, this procedure does not adhere to the requirements of the Convention which states, in Article IV, paragraph 2(a), that an export permit can only be issued following advice by a Scientific Authority of the State of export that such export will not be detrimental to the survival of that species.

At a 1996 meeting of the CITES Animals Committee, the Committee expressed concern about Greenland's stock of Narwhals and the export of tusks given that no monitoring programmes were being carried out. Further, the Committee was concerned that Greenland had not assessed whether the exports were detrimental to Narwhal populations in the wild.

At the 20th CITES Animals Committee meeting in South Africa in April 2004, Narwhal trade from Greenland was again on the agenda. Owing to a lack of information on this subject, the Animals Committee requested Greenland to submit relevant scientific data on Narwhal stocks before 31 July 2004.

Greenland published a draft CITES regulation in 2003. This was discussed at a public hearing in October of that year. The outcome of the hearing and how this will affect the final regulation is not known. As at June 2004, the CITES regulation has yet to be approved by the Greenlandic cabinet. According to the draft regulation, the Greenlandic Institute of Natural Resources will be the Greenlandic CITES Scientific Authority.

The souvenir and meat trade

The export of raw and carved Narwhal tusks and teeth continues and the demand for products in the souvenir trade is reported to be higher than ever. Traders and souvenir shop owners have reported that they cannot meet the demand for carved teeth or tusks (see Table 1).

Despite increased demand, however, as mentioned above, there remains no Scientific Authority to assess the population data before commercial export permits are granted. According to current population knowledge, for example, Narwhals between Disco Bay and Inglefield Bredning in North West Greenland have declined by 50% in the last 20 years and no major restrictions in hunting or export have been enforced (www.nanoq.gl) (see also box).

According to the North Atlantic Marine Mammals Commission (NAMMCO) hunting in Greenland should not exceed 135 Narwhals per year. The current hunting level has been reported to be 600-700 Narwhals per year



(www.nanoq.gl). One of the main reasons for the significant hunting levels is the high price locally for blubber from Narwhal and Beluga which, together with the meat, is harvested for consumption. From 1991 to 2001 the wildlife meat company NUKA A/S purchased Narwhal and Beluga meat and blubber from Greenlandic hunters for circa USD6 million. NUKA A/S is owned by the Greenlandic Home Rule Government - the same authority that should be ensuring the sustainable use of wildlife. In fact, the total trade in Narwhal and Beluga products in Greenland is much higher since the trade data from NUKA A/S do not cover sales between hunters and private customers, restaurants, hotels and public institutions such as homes for the elderly.

Importation of whale meat into the EU is generally prohibited. However, Denmark has negotiated a special exemption so that Greenlanders living in Denmark are permitted to import whale meat and blubber for personal use only and with valid CITES import permits (N. Nielsen, in litt., March 2004). This exemption also extends to Danish nationals that either have lived in Greenland, or simply just have relatives or friends in Greenland¹. A limit of eight tonnes a year has been set for the export of whale meat (excluding Appendix I-listed species) from Greenland to Denmark for this purpose; this quota allocation has never been used up (N. Nielsen, in litt., March 2004). The weight limit imposed on these imports is 5 kg per shipment, but there is no limit on the number of shipments per person. According to the Danish CITES Management Authority, a total of 42 t has been imported from 1985 to 2001 (see Table 2). This is around 2.5 t annually. In the context of CITES, the purpose of the import is key and should not be for commercial purposes. The Danish and Greenlandic CITES Management Authorities are of the opinion that these shipments are not.

The Danish food authorities and CITES authorities issued new instructions in May 2004 which makes it possible for Danish residents to form an association or interest group for the purposes of importing and consuming. This could stimulate imports of whale meat and blubber. Whale meat in Greenland is very often available in open-air meat markets and supermarkets where it fetches DKK180-200/kg (USD25-29/kg). During the preparation of the WWF report it was demonstrated that it is possible to order whale meat at a supermarket in Nuuk and have it shipped to Denmark without the need to provide any documentation proving the requisite relationship to Greenland. A cargo agent representative even gave advice to the WWF investigator on how to circumvent the 5 kg per shipment limit.

The Danish CITES Management Authority/The National Forest and Nature Agency, in a letter dated 29 January 2003 (file no. SN 2001-3712-0187), states: "...whale meat ... import is permitted for noncommercial purposes to Greenlanders resident in Denmark in addition to families and friends [in Denmark] of Greenlanders and Danish nationals living in Greenland".

BELUGA (CITES Appendix II)

Biological data: Approximately 8000 in Western Greenland (4000-15 000 with 95% confidence limit) and approximately 13 000 in the Nordvatten [a large polynya between northern Canada and Greenland].

State of the population: Declining. The Greenlandic Institute for Natural Resources estimates a population reduction at 50-60% since the beginning of the 1980s.

Biological advice about hunting levels: Reduction of catch. Regional quotas are necessary. The catch must be reduced to 100 Belugas annually if further decline is to be avoided. If present catch levels continue the Beluga will probably be extinct in Greenland within the next 20 years according to a population model.

Catch statistics: 1996: 542; 1997: 570; 1998: 723; 1999: 493; 2000: 609; 2001: 398; 2002: 383.

The Greenlandic Institute for Natural Resources estimates that around a quarter of all hunted animals are either not reported or are lost during the hunt.

(Note: If IUCN's Red List categories were to be applied to the Greenlandic population of Beluga, the species would most likely be classified as Endangered, according to experts consulted by WWF-Denmark, since the decline is more than 50% over the last three generations).

Abstract from the website of the Greenlandic Home Rule: www.nanoq.gl

W A L R U S (CITES Appendix III)

"Aerial counts at the beginning of the 1990s indicate that there are no more than about 1000 walrus during the winter in West Greenland. This estimate also includes submerged animals. For the hunt to be sustainable, the take must be 20 to 70 animals a year. But hunting statistics (Piniarneq) show that since 1993 an average of 200 walrus from the West-Greenlandic population have been caught annually. There is little doubt about what this leads to, and this actual catch figure does not even take into account the number of walrus that are killed but lost during hunts. These animals are most likely not reported in hunting statistics at all. In 1995 the scientific committee of NAMMCO [the North Atlantic Marine Mammal Commission] assessed the walrus in western Greenland and recommended a reduction in the take. However, this has not yet happened; in fact the hunting statistics show the catch has increased."

Abstract from the website of the Greenlandic Institute of Natural Resources: www.natur.gl

Item (and CITES listing)	DKK
Beluga Delphinapterus leucas teeth (II)	50-100
Necklace made from Beluga teeth	250-400
Whole Narwhal Monodon monoceros tusk (II)	10000-12000
Necklace with Narwhal tusk (II)	350-600
Thule necklace with Narwhal tusk (App. II)	2000-4000
Polar Bear Ursus maritimus, hides, large/small (II)	c.15000/10000
Skull of large Polar Bear (II)	c.6000
Carved tooth (tupilak) of Sperm Whale	
Physeter catodon (I)	2500-4000
Walrus Odobenus rosmarus skull with tusks (III)	3000-5000
Bracelet/necklace with carved piece of baleen of	
Bowhead Whale Balaena mysticetus (App. I)	400
Wholesale prices for raw Narwhal tusks ¹	
Quality I: DKK800/kg (complete tusk in p	erfect condition);
Quality II: DKK700/kg (complet	e but broken tip);
Quality III: DKK300/	kg (broken tusk);
Quality IV: DKK200/kg (low qua	lity, "drift tusk").

Table 1. Unit prices (in DKK) for CITES souvenirs in tourist shops in Greenland (USD1=DKK6). Prices collected during several visits to souvenir shops in Ilulissat, Sisimiut, Nuuk and Kangerlussuaq in 2002 and 2003.¹Prices (DKK) paid by a Greenlandic trading company for Narwhal tusks in 2003. A tusk weighs 10-15 kg.

The CITES system

In 2001, the Home Rule Government introduced a new system for the management of CITES export permits. Today, these are pre-issued and submitted in large quantities to souvenir shops. For example, a shop may receive tens of pre-printed export permits for Narwhal or Walrus without any consideration given to the sustainability of this trade. According to Greenland's CITES annual reports, there has been a five-fold increase in the number of export permits used for tourist exports from Greenland during the period 2000 to 2002.

The recently published draft regulation on CITES that was discussed at a public hearing on 17 October 2003 seems to fulfil most of the requirements of the Convention. In addition to stipulating the requirement for a Scientific Authority, it creates a legal basis for enforcement of CITES by establishing provisions governing Customs control, internal inspections and confiscations.

Clearly, the new legislation will not do the job on its own, however. A large publicity campaign and education programme aimed at the tourist sector in Greenland is needed. Before such activities can be initiated, however, a more detailed study of the trade in CITES specimens in Greenland is necessary. Initiatives should also be made to develop alternative souvenir products.

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STOP PRESS: On 3 June 2004, the Greenlandic Home Rule Government set quotas for the hunting season 2004/2005 for Narwhals at 300 and at 320 for Beluga. The maximum sustainable quotas recommended for this period by scientists at the Greenlandic Institute of Natural Resources - the body that will become Greenland's CITES Scientific Authority - is 135 Narwhals and 100 Beluga.

Year	Fin Whale Balaenoptera physalus	Minke Whale Balaenoptera acutorostrata	Beluga Delphinapterus leucas	Narwhal Monodon monoceros	Pilot Whale Globicephala melas	Annual Totals
1985	0	2	0	0	0	2
1986	0	1819	5	0	0	1824
1987	0	1802	0	2	0	1804
1988	0	0	0	20	0	20
1989	0	2423	0	516	0	2939
1990	194	2190	808	100	0	3292
1991	0	1550	706	10	0	2266
1992	6	1751	2650	0	0	4407
1993	0	870	200	1052	60	2182
1994	5	1446	40	355	6	1852
1995	0	3200	1063	382	134	4779
1996	0	3039	579	1023	0	4641
1997	0	810	814	1093	735	3452
1998	0	3084	585	2558	332	6559
1999	0	346	0	0	0	346
2000	0	658	196.5	209.3	0	1063.8
2001	0	422	214.6	120.2	0	756.8
Totals	205	25412	7861.1	7440.5	1267	42186
Annual avera	age 12.1	1494.8	462.4	437.7	74.5	2481.5

Table 2. Denmark's imports (kg) of whale meat and blubber from Greenland, 1985-2001.

Source: CITES trade database, UNEP World Conservation Monitoring Centre, UK.

RAFFIC asked the authorities in Greenland responsible for CITES implementation to comment on the points raised by Thor Hjarsen in his article on pages 17-19. In response, the Ministry of Environment and Nature has provided some context to the challenge of implementing CITES in Greenland (M. Jensen, in litt., 6 April 2004). The Ministry states that sincere efforts are being made by Greenland to improve implementation of CITES. While acknowledging the inadequacy of earlier executive orders with respect to CITES implementation in Greenland, it outlines a number of developments that it believes will allow for effective adherence to the treaty. First, the difficulty many tourists in Greenland experienced in obtaining CITES export permits led to the establishment of a more decentralized system being introduced for the issuing of such permits. In 2001, it became possible to obtain CITES export permits at post offices, shops and municipal offices for handicrafts made from specific species, for personal use, and only under agreed conditions.

The CITES Management Authority in Greenland has just published its CITES annual reports for 2000, 2001 and 2002 which indicates that the new system has resulted in an increase in the number of permits being issued during that period (from 562 permits in 2000 to 2473 permits in 2002) and provides a more accurate picture of Greenland's exports.

The Ministry reports that, during the course of 2004, a CITES executive order will enter into force that will provide for the establishment of a CITES Scientific Authority under the Greenlandic Institute of Natural Resources, which has been advising the Greenland Home Rule Government on the management of its natural resources since 1995. A public awareness campaign will be launched to coincide with the adoption of this executive order.

In the meantime, on 1 January 2004, a new nature protection act (*Landsting Act No. 29 of 18 December 2003 on the Protection of Nature*) entered into force in Greenland, providing a framework to allow for better regulation of trade in species protected in Greenland, including some species that are covered by CITES.



Tupilak jewellery made from Narwhal tusk and Beluga teeth (both CITES Appendix II species) (top); Walrus teeth (CITES Appendix III) and Polar Bear skull (CITES Appendix II).

THIRTEENTH MEETING of the CONFERENCE of the PARTIES TO CITES

The 13th meeting of the Conference of the Parties to CITES will be held on 2 to 14 October 2004, in Bangkok, Thailand. The CITES Secretariat has received over 50 proposals for amendment of Appendices I and II. The list, presented below, has been adapted from the CITES Secretariat website at *www.cites.org*, where provisional assessments of the proposals in relation to the Secretariat's obligations under Article XV, paragraph 1, of the Convention, can be found. TRAFFIC's analyses and recommendations will be available at the TRAFFIC CoP13 Conference Room at *www.traffic.org* in early August 2004.

PROPONENT	SPECIES COVERED	PROPOSAL
Ireland ¹	Not applicable	Inclusion of a new paragraph after paragraph 4 in the Interpretation section of the Appendices, to read as follows (with the following paragraphs being renumbered): "5. The following are not subject to the provisions of the Convention: a) <i>in vitro</i> cultivated DNA ² that does not contain any part of the original from which it is derived; b) cells or cell lines ³ cultivated <i>in vitro</i> that theoretically at a molecular level do not contain any part of the original animal or plant from which they are derived; c) urine and faeces; d) medicines and other pharmaceutical products such as vaccines, including those in development and in process materials ⁴ , that theoretically at a molecular level do not contain any part of the products such as vaccines, including those in development and in process materials ⁴ , that
		original animal or plant from which they are derived; and
Switzerland ⁵	Not applicable	 e) fossils." Inclusion of a new paragraph after paragraph 4 in the Interpretation section of the Appendices, to read as follows (with the following paragraphs being renumbered): "5. The following are not subject to the provisions of the Convention: a) <i>in vitro</i> cultivated DNA that does not contain any part of the original; b) urine and faeces; c) synthetically produced medicines and other pharmaceutical products such as vaccines that do not contain any part of the original genetic material from which they are derived; and d) forcile."
Thailand Japan	Irrawaddy Dolphin Orcaella brevirostris Minke Whale Balaenoptera acutorostrata	Transfer from Appendix II to Appendix I. Transfer from Appendix I to Appendix II of the Okhotsk Sea-West Pacific stock, the Northeast Atlantic stock and the North Atlantic
USA Kenya	Bobcat Lynx rufus Lion Panthera leo	Central stock. Deletion from Appendix II. Transfer from Appendix II to Appendix I [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 1, paragraphs A. i) and ii) (for the populations of West and Central Africa), and C. i)]. NB: subspecies <i>Panthera leo persica</i> is already included in Appendix I
Namibia	African Elephant <i>Loxodonta africana</i> (Appendix II)	Amendment of the annotation regarding the population of Namibia to include: an annual export quota of 2000 kg of raw ivory (accumulated from natural and management-related mortalities); trade in worked ivory products for commercial purposes; and, trade in elephant leather and hair goods for commercial purposes
South Africa	African Elephant <i>Loxodonta africana</i> (Appendix II)	Amendment of the annotation regarding the population of South Africa to allow trade in leather goods for commercial
Swaziland	Southern Square-lipped Rhinoceros Ceratotherium simum simum	Transfer from Appendix I to Appendix II of the population of Swaziland with the following annotation: For the exclusive purpose of allowing international trade in: a) live animals to appropriate and acceptable destinations; and b) hunting trophies. All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be
USA	Bald Eagle Haliaeetus leucocephalus	Transfer from Appendix I to Appendix II [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 4, paragraph B. 2. b)]

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Indonesia	Lesser Sulphur-crested Cockatoo Cacatua sulphurea	Transfer from Appendix II to Appendix I [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 1, paragraphs A.i) and ii); B.i), iii) and iv); and C.].
Namibia, USA Mexico	Peach-faced Lovebird Agapornis roseicollis Lilac-crowned Amazon Amazona finschi	Deletion from Appendix II. Transfer from Appendix II to Appendix I [in accordance with
Mexico, USA	Painted Bunting Passerina ciris	Resolution Conf. 9.24 (Rev. CoP12), Annexes 1 and 4]. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a paragraph B i)]
Madagascar	Spider Tortoise Pyxis arachnoides	Transfer from Appendix II to Appendix I [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 1, paragraphs B. i). iii) and iv) and C. i)].
USA	Snail-eating turtle Malayemys spp.	Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a, paragraph B, i)].
Indonesia	Malayan Snail-eating Turtle Malayemys subtrijuga	Inclusion in Appendix II [in accordance with Article II, paragraph 2(a), of the Convention and Resolution Conf. 9.24
USA	Flat-shell turtle Notochelys spp.	(Rev. CoP12), Annex 2 a, paragraph B. 1)]. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24
Indonesia	Malayan Flat-shelled Turtle Notochelys platynota	(Rev. CoP12), Annex 2 a, paragraph B. 1)]. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24
USA	Soft-shell turtles Amyda spp.	(Rev. CoP12), Annex 2 a, paragraph B. 1)]. Inclusion in Appendix II [in accordance with Article II, paragraph 2. (a), of the Convention, and Resolution Conf. 9.24 (Rev. CoP12) Append 2 a, paragraph B. i)]
USA	Carettochelydidae spp.	(Rev. CoP12), Annex 2 a, paragraph B. i)]. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a, paragraph B. i)]
Indonesia	Fly River Turtle Carettochelys insculpta	Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12) Annex 2 a paragraph B i)]
Indonesia, USA	Roti Snake-necked Turtle Chelodina mccordi	Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a, paragraph B, i)]
Cuba	American Crocodile Crocodylus acutus	Transfer of the population of Cuba from Appendix I to Appendix II [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 4, paragraph B 2 e) and Resolution Conf.
Namibia	Nile Crocodile Crocodylus niloticus	Transfer from Appendix I to Appendix II of the population of Namibia [in accordance with Article II, paragraph 2 (a), of the Convention, and Resolution Conf. 9.24 (Rev. CoP12), Annex 4,
Zambia	Nile Crocodile Crocodylus niloticus	paragraph B. 2. b)]. Maintenance of the population of Zambia in Appendix II, subject to an annual export quota of no more than 548 wild specimens (including hunting trophies, including problem- animal control). This quota does not include ranched specimens.
Madagascar	Leaf-tailed geckos Uroplatus spp.	Inclusion in Appendix II.
Madagascar	Leaf-nosed Snake <i>Langaha</i> spp.	Inclusion in Appendix II.
Kenya	Mt Kenya Bush Viper Atheris desaixi	Inclusion in Appendix II. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12),
Kenya	Kenya Horned Viper Bitis worthingtoni	Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 al
Australia, Madagascar Fiji, Ireland ¹ , USA	Great White Shark <i>Carcharodon carcharias</i> Humphead Wrasse <i>Cheilinus undulatus</i>	Inclusion in Appendix II with a zero annual export quota. Inclusion in Appendix II [in accordance with Article II, paragraph 2 (a), of the Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a, paragraph B].
Switzerland ⁶	Birdwing butterflies <i>Ornithoptera</i> spp., <i>Trogonoptera</i> spp. and <i>Troides</i> spp. in Appendix II.	Deletion of the annotation "sensu D'Abrera".

Italy and Slovenia ¹	Date Mussel Lithophaga lithophaga	Inclusion in Appendix II [in accordance with Article II, paragraph 2 a)]
Switzerland ⁷	Helioporidae spp., Tubiporidae spp., Scleractinia spp., Milleporidae spp. and Stylasteridae spp.	Amendment of the annotation to these taxa to read: "Fossils, namely all categories of coral rock, except live rock (meaning pieces of coral rock to which are attached live specimens of invertebrate species and coralline algae not included in the Appendices and which are transported moist, but not in water, in crates) are not subject to the provisions of the Convention."
Botswana, Namibia, South Africa	Hoodia (succulent) <i>Hoodia</i> spp.	Inclusion in Appendix II, with an annotation to read as follows: Designates all parts and derivatives except those bearing the label "Produced from <i>Hoodia</i> spp. material obtained through controlled harvesting and production in collaboration with the CITES Management Authorities of Botswana/Namibia/South Africa under agreement no. BW/NA/ZA xxxxxx)"
Thailand	Euphorbia Euphorbiaceae (Appendix II)	Annotation to read as follows: Artificially propagated specimens of <i>Euphorbia lactea</i> are excluded from the provisions of the Convention when they are: a) grafted on root stocks of <i>Euphorbia neriifolia</i> L.; b) colour mutants; or c) crested-branch forming or fan-shaped.
Thailand	Euphorbia Euphorbiaceae (Appendix II)	Annotation to read as follows: Artificially propagated specimens of <i>Euphorbia milii</i> are not subject to the provisions of the Convention when they are: a) traded in shipments of 100 or more plants; b) readily recognizable as artificially propagated specimens
Thailand	Orchids Orchidaceae in Appendix II	Annotation to read as follows: Artificially propagated specimens of Orchidaceae hybrids are not subject to the provisions of the Convention when: a) they are readily recognizable as artificially propagated specimens; b) they do not exhibit characteristics of wild-collected specimens; c) shipments are accompanied by documentation such as an invoice that indicates clearly the vernacular name of the orchid hybrids and is signed by the shipper. Specimens that do not clearly meet the criteria for the exemption must be accompanied by appropriate CITES documents.
Switzerland	Orchids Orchidaceae in Appendix II	Annotation to exclude artificially propagated hybrids of the following taxa, exclusively under the condition that specimens are flowering, potted and labelled, professionally processed for commercial retail sale and that they allow easy identification: <i>Cymbidium:</i> Interspecific hybrids within the genus and intergeneric hybrids; <i>Dendrobium:</i> Interspecific hybrids within the genus known in horticulture as " <i>nobile</i> -types" and " <i>phalaenopsis</i> -types," both of which are clearly recognizable by commercial growers and hobbyists; <i>Miltonia:</i> Interspecific hybrids within the genus and intergeneric hybrids; <i>Odontoglossum:</i> Interspecific hybrids within the genus and intergeneric hybrids; <i>Oncidium:</i> Interspecific hybrids within the genus and intergeneric hybrids; <i>Phalaenopsis:</i> Interspecific hybrids within the genus and intergeneric hybrids. The annotation to specifically read as follows: "Artificially propagated specimens of hybrids are not subject to the provisions of the Convention when: a) they are traded in flowering state, i.e. with at least one open flower per specimen, with reflexed petals; b) they are professionally processed for commercial retail sale, e.g. labelled with printed labels and packaged with printed packages; c) they can be readily recognized as artificially propagated specimens by exhibiting a high degree of cleanliness, undamaged inflorescences, intact root systems and general absence of damage or injury that could be attributable to plants originating in the wild; d) plants do not exhibit characteristics of wild origin, such as damage by insects or other animals, fungi or algae adhering to leaves, or mechanical damage to inflorescences, roots, leaves or other parts resulting from collection; and e) labels or packages indicate the trade name of the specimen, the country of artificial propagation or, in case of international trade during the production

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		labels and packages in an easily verifiable way. Plants not clearly qualifying for the exemption must be accompanied by appropriate CITES documents."
Switzerland ⁸	Orchids Orchidaceae in Appendix II	Amendment of the annotation regarding <i>Phalaenopsis</i> hybrids to read: "Artificially propagated specimens of hybrids within the genus <i>Phalaenopsis</i> are not subject to the provisions of the Convention when: a) specimens are traded in shipments consisting of individual containers (i.e. cartons, boxes or crates) containing 20 or more plants each; b) all plants within a container are of the same hybrid, with no mixing of different hybrids within a container; c) plants within a container can be readily recognized as artificially propagated specimens by exhibiting a high degree of uniformity in size and stage of growth, cleanliness, intact root systems and general absence of damage or injury that could be attributable to plants originating in the wild; d) plants do not exhibit characteristics of wild origin, such as damage by insects or other animals, fungi or algae adhering to leaves, or mechanical damage to roots, leaves, or other parts resulting from collection; and e) shipments are accompanied by documentation, such as an invoice, which clearly states the number of plants and is signed by the shipper. Plants not clearly qualifying for the exemption must be accompanied by appropriate CITES documents"
Colombia	Christmas Orchid Cattleya trianaei	Transfer from Appendix I to Appendix II.
Thailand	Blue Vanda Vanda coerulea	Transfer from Appendix I to Appendix II.
China	Desert-living Cistanche	Addition of annotation #1, i.e.: "Designates all parts and
	Cistanche deserticola	derivatives except a) seeds, spores and pollen (including
		pollinia); b) seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers; and c) cut flowers of artificially propagated plants."
Madagascar	Butterfly Palm Chrysalidocarpus decipiens	Transfer from Appendix II to Appendix I.
China, USA	Himalayan Yew Taxus wallichiana	Amendment of the annotation (currently annotation #2), to
		read: "Designates all parts and derivatives, except: a) seeds and
China LICA	Vou Tranca chinenaia	pollen; and b) finished pharmaceutical products."
Ciiiia, USA	Tew Taxus chinensis,	"Designates all parts and derivatives, except: a) seeds and
	T. tuana	pollen: and b) finished pharmaceutical products "
	T. sumatrana	[in accordance with Article II, paragraph 2, (a), of the
	and all infraspecific taxa of these species	Convention and Resolution Conf. 9.24 (Rev. CoP12), Annex 2
	* * *	a, paragraph B. i)].
Indonesia	Agarwood Aquilaria spp.9	Inclusion in Appendix II [in accordance with Resolution Conf.
	and Gyrinops spp.	9.24 (Rev. CoP12), Annex 2 a, paragraphs A. and B. i), and
		Annex 2 b].
Indonesia	Ramin <i>Gonystylus</i> spp.	Inclusion in Appendix II [in accordance with Resolution Conf. 9.24 (Rev. CoP12), Annex 2 a, paragraphs A and B i), and Annex 2 b, paragraph B] with annotation #1, i.e.: Designates all parts and derivatives, except: a) seeds, spores and pollen (including pollinia); b) seedling or tissue cultures obtained in vitro, in solid

process, the country where the specimen was labelled and packaged; and labels or packages show a photograph of the flower, or demonstrate by other means the appropriate use of

or liquid media, transported in sterile containers; and c) cut

flowers of artificially propagated plants.

¹on behalf of the Member States of the European Community. ²that is DNA that is assembled from its constituent materials, not solely extracted directly from plants and animals.³that is cultures of plant or animal cells, that are maintained and/or propagated in artificial conditions and do not contain any significant part of the original plant or animal from which they are derived.⁴that is products subject to a research or manufacturing process such as medicines, potential medicines and other pharmaceuticals such as vaccines that are produced under conditions of research, diagnostic laboratory or pharmaceutical production and do not depend for their production in bulk solely on material extracted from plants or animals and do not contain any significant part of the original plant or animal from which they are derived. ⁵as Depositary Government, at the request of the Standing Committee.⁶as Depositary Government, at the request of the Nomenclature Committee.⁷as Depositary Government, at the request of the Animals Committee. ⁸as Depositary Government, at the request of the Plants Committee. ⁹Aquilaria malaccensis is already included in Appendix II.

THE HARVEST AND TRADE OF REPTILES AT U MINH THUONG NATIONAL PARK, SOUTHERN VIET NAM



eptiles are heavily harvested and traded in Viet Nam for food and traditional medicine. This study, carried out in October and November 2000, examines the harvest and trade of reptiles by residents living inside or near the U Minh Thuong National Park in southern Viet Nam. A total of 21 reptile species, amounting to approximately 1900 individual reptiles, were found in reptile trade shops, of which 16 species were seen harvested by local people living in the park. The three most abundant species observed in trade were, in descending order, Sunbeam Snake Xenopeltis unicolor, Bocourt's Watersnake Enhydris bocourti, and Puff-faced Watersnake Homalopsis buccata. Of the 21 species found in trade, one species (Yellow-headed Temple Turtle Hieremys annandalii) is globally listed in the 2003 IUCN Red List as Endangered, two species (Malaysian Box Turtle Cuora amboinensis and Malayan Snail-eating Turtle Malayemys subtrijuga) are listed as Vulnerable, and the status of the Mekong Delta Watersnake Enhydris innominata, endemic to southern Viet Nam, is poorly known. The current harvesting practices in and around U Minh Thuong National Park are probably not sustainable for some of these 21 reptile species.

INTRODUCTION

Turtles, snakes, and lizards (especially monitors *Varanus* and geckos *Gekko*) are widely hunted and traded in Viet Nam for food and traditional medicine (Compton and Le Hai Quang, 1998; Hendrie, 2000; Jenkins, 1995; Le and Broad, 1995; Lehr, 1997; Li and Wang, 1999; Martin, 1992; Nash, 1997; Ziegler, 2002). These are consumed in Viet Nam or exported to markets in China (Compton and Le Hai Quang, 1998; Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000; Jenkins, 1995; Le and Broad, 1995; Li and Wang, 1999; Martin, 1992; Nash, 1997; Yiming and Dianmo, 1998). A recent review concluded that all species of freshwater turtles and tortoises in Viet Nam are seriously threatened in the wild by trade demands (Hendrie, 2000).

The demand for reptiles by Vietnamese wildlife traders extends not only throughout Viet Nam, but also into the neighbouring countries of Lao PDR (Laos) and Cambodia. Reptiles from Laos and Cambodia are exported to Viet Nam, often via a series of traders, where they join Vietnamese reptiles along northward trade routes to China (Compton and Le Hai Quang, 1998; Nash, 1997; Stuart et al., 2000b). Thus, reptiles observed in transport or in urban markets in Viet Nam may have originated from Viet Nam, Laos, or Cambodia. Consequently, observations on the reptile trade in Viet Nam are often confounded by the uncertain provenance of the animals. In one of the first studies on the exploitation of reptiles at a specific site in Viet Nam, Ziegler (2002) reported a large diversity of turtles, lizards and snakes in trade around protected areas in Ha Tinh Province.

During the course of an amphibian and reptile biodiversity survey at U Minh Thuong National Park in the Mekong Delta of southern Viet Nam in November 2000, data were obtained on the harvest and trade of reptiles by residents living inside or near the park boundary. These data consist of observations of people in the park in possession of harvested reptiles, and of surveys of the reptile trade shops near the park that purchased these reptiles prior to shipping them elsewhere.

BACKGROUND

U Minh Thuong National Park (UMTNP), classified as U Minh Thuong Nature Reserve during the study period, encompasses 22 918 ha in An Minh and Vinh Thuan Districts, Kien Giang Province, Viet Nam (Buckton et al., 1999). UMTNP lies in the U Minh Thuong peatland (Safford et al., 1998), and is the largest protected area in the Mekong Delta (Buckton et al., 1999; Figures 1 and 2). The park consists of a core area (8468 ha) surrounded by a buffer zone (+13 000 ha) (Buckton et al., 1999). The core area contains mature Melaleuca forest, seasonally flooded grassland and sedge communities, and open swamp. Artificial canals throughout UMTNP support a diverse community of aquatic plants. The buffer zone is largely unprotected and consists principally of cultivated paddy fields with small patches of *Melaleuca* forest (Buckton et al., 1999) and many human residents. Buckton et al. (1999) and Safford et al. (1998) concluded that UMTNP is one of the most important sites for biodiversity conservation in the Mekong Delta.

METHODS

Harvest Records

Between 20 October and 20 November 2000, harvested reptiles were observed in the buffer zone of UMTNP in the boats of hunters and fishermen or in containers at their homes. Fishing in the extensive artificial



Figure 1. Map of Indochina showing the Mekong Delta and approximate location of U Minh Thuong National Park in southern Viet Nam.

canal network in the park is a major livelihood for residents, and it appeared that many reptiles were caught incidentally in gillnets and lift-nets by people while fishing. Live and dead watersnakes were frequently observed entangled in lift-nets that had been temporarily raised out of the water. The method used for hunting and trapping reptile species that are not associated with water was not observed.

U MINH THUONG NATIONAL PARK HAS BEEN DESCRIBED AS ONE OF THE MOST IMPORTANT SITES FOR BIODIVERSITY CONSERVATION IN THE MEKONG DELTA



Cuora amboinensis > is seriously threatened in Viet Nam.

Hieremys annandalii > is considered to be one of the most immediately threatened species of turtle in Viet Nam.



Reptile Trade Shops

Five reptile trade shops at or near the boundary of UMTNP were visited on nine occasions between 29 October and 19 November 2000 (Tables 1 and 2). Shops were located by signs on the premises that offered to buy reptiles (Figure 3), or by asking local residents of their whereabouts. These shops were owned by "middlemen traders" that accumulated reptiles purchased from local hunters and fishermen prior to selling them in bulk to other traders for transporting elsewhere. Although the exact provenance of the reptiles in these shops cannot be ascertained, local fishermen and hunters were observed selling their catches in these outlets, suggesting that reptiles were accumulated locally. In the shops, reptiles were generally kept in crowded conditions in containers, often with individuals lying several layers deep. Thus it was often not possible to count accurately the number of individuals of each species, and numbers presented here are sometimes based on estimates.

Conventions

The global conservation status of species was taken from the 2003 IUCN Red List of Threatened Species (IUCN, 2003) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix listings (CITES, 2003); the English common and scientific names follow one or both of these publications. When available, trade values of species are presented in Vietnamese dong (VND) and are converted to the US dollar (USD) equivalent at the time of the study.

Results

Twenty-one species of seven families of reptiles, consisting of approximately 1900 individuals, were observed in the reptile trade shops near UMTNP (Table 2). Of these 21 species, individuals of 16 species (76%) were also seen in the possession of local people in the park.

SPECIES ACCOUNTS

GEOEMYDIDAE (Asian Freshwater Turtles)

Malaysian Box Turtle Cuora amboinensis

[2003 IUCN Red List: Vulnerable; CITES Appendix II] Local people in the buffer zone were seen in possession of two individuals of Cuora amboinensis. Ten were seen for sale at local reptile trade shops (Table 2). Hunters at a house in the buffer zone of UMTNP reported that C. amboinensis was sold to traders for VND20 000-40 000/kg (USD1.42-2.84/kg), depending on season and market demands. Cuora amboinensis is restricted to lowlands in the centre and south of the country. The species is seriously threatened in Viet Nam from heavy hunting pressure for trade and from habitat alteration, and "few if any viable populations of C. amboinensis are likely to exist in Viet Nam" (Hendrie, 2000). This species was reported in trade just south of UMTNP in Ca Mau (Le and Broad, 1995), to be commonly seen for sale in markets in Ho Chi Minh City (Jenkins, 1995), and in trade en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000).

Yellow-headed Temple Turtle Hieremys annandalii

[2003 IUCN Red List: Endangered; CITES Appendix II] Three juvenile Hieremys annandalii were seen being kept alive in outdoor water vessels at two houses in the buffer zone while awaiting sale to traders. Four individuals were seen for sale at local reptile trade shops (Table 2). Hunters at a house in the buffer zone of UMTNP reported that H. annandalii was sold to traders for VND20 000-40 000/kg (USD1.42-2.84/kg), depending on the season and market demands. Safford et al. (1998) photographed H. annandalii alive in captivity at a UMTNP office. Owing to its large size, which makes it easier to catch, and its association with low-lying wetlands in the south of the country, which also tend to harbour high densities of people, H. annandalii can be considered to be one of the most immediately threatened species of turtle in Viet Nam. The species is susceptible to heavy hunting pressure and habitat alteration, and "natural populations are unlikely to sustain present levels of collection" (Hendrie, 2000). This species has been reported in trade en route from southern Viet Nam to the border with China (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000).

Shop	District	Location	Dates Visited
1	Vinh Thuan	09°30'48"N 105°15'32"E	29 Oct, 11 Nov
2	Vinh Thuan	09°36'10"N 105°11'08"E	11 Nov
3	An Minh	09°38'52"N 105°08'35"E	29/31 Oct, 10/19 Nov
4	An Minh	09°45'04"N 104°59'35"E	31 Oct
5	An Minh	09°45'25"N 105°00'03"E	10 Nov

Table 1. Reptile trade shops visited near U Minh ThuongNational Park in Kien Giang Province, southern Viet Nam, inOctober to November 2000.

28	
TRAF	TRADE SH
FIC B	TAXON
Bulletin <i>Vol.</i> 2	GEOEMYDID Malaysian I Yellow-hea Malayan Sr
20 No. I (2	GEKKONIDA Tokay Gekk
004)	PYTHONIDA Burmaga Br

TRADE SHOP	#1		#2		#3			#4	#5	
TAXON	29 Oct	11 Nov	11 Nov	29 Oct	310ct	10 Nov	19 Nov	31 Oct	10 Nov	TOTAL
GEOEMYDIDAE										
Malaysian Box Turtle Cuora amboinensis	9	-	-	-	-	-	-	1	-	10
Yellow-headed Temple Turtle Hieremys annandali	<i>i</i> 1	-	-	-	-	-	-	2	1	4
Malayan Snail-eating Turtle Malayemys subtrijuga	<i>i</i> 6	-	-	-	-	-	-	30	8	44
GEKKONIDAE										
Tokay Gekko gecko	-	-	-	-	1	-	-	-	-	1
PYTHONIDAE										
Burmese Python Python molurus	1	-	-	-	-	1	-	2	-	4
XENOPELTIDAE										
Sunbeam Snake Xenopeltis unicolor	250	-	-	-	200	200	75	100	50	875
ANILIIDAE										
Red-tailed Pipe Snake Cylindrophis ruffus	5	1	-	3	1	2	-	-	-	12
COLUBRIDAE										
Oriental Whip Snake Ahaetulla prasina	-	-	-	-	1	-	-	-	-	1
Radiated Rat Snake Elaphe radiata	5	-	1	6	1	3	-	10	-	26
Bocourt's Watersnake Enhydris bocourti	250	7	-	20	-	20	40	2	2	341
Rainbow Watersnake Enhydris enhydris	30	10	-	-	20	30	50	10	-	150
Mekong Delta Watersnake Enhydris innominata	2	4	-	1	5	3	3	2	-	20
Striped Watersnake Enhydris jagorii	-	1	-	2	1	1	50	20	-	75
Tentacled Snake Erpeton tentaculatum	-	-	-	-	-	-	1	-	-	1
Puff-faced Watersnake Homalopsis buccata	20	3	-	10	40	40	30	30	-	173
Indochinese Rat Snake Ptyas korros	-	-	-	-	-	1	-	1	-	2
Common Rat Snake Ptyas mucosus	5	-	-	6	-	-	1	10	-	22
Chequered Keelback Xenochrophis piscator	6	3	-	10	20	25	20	10	-	94
ELAPIDAE										
Banded Krait Bungarus fasciatus	-	-	-	-	1	-	-	-	-	1
Monocellate Cobra Naja kaouthia	1	-	-	-	-	-	-	1	-	2
Indochinese Spitting Cobra Naja siamensis	30	-	-	-	-	-	-	10	-	40
TOTAL	621	29	1	58	291	326	270	241	61	1898

Table 2. Reptiles observed in trade shops near U Minh Thuong National Park in Vinh Thuan, An Minh Districts, Kien Giang Province, southern Viet Nam, in October to November 2000.



Malayan Snail-eating Turtle Malayemys subtrijuga [2003 IUCN Red List: Vulnerable]

Twenty-three Malayemys subtrijuga juveniles and adults were seen being kept alive in an outdoor water vessel at a house in the buffer zone, awaiting sale to traders, and two more juveniles were being kept in similar conditions at another house. One juvenile was seen in a lift-net after being fished from a canal in the buffer zone. Approximately 44 individuals were seen for sale at local reptile trade shops (Table 2). Hunters at a house in the buffer zone reported that M. subtrijuga was sold to traders for VND20 000-40 000/kg (USD1.42-2.84/kg), depending on season and market demands. Safford et al. (1998) photographed M. subtrijuga alive in captivity at a UMTNP office. Malayemys subtrijuga is one of the most frequently seen species of turtle in trade in Viet Nam, and Hendrie (2000) considered that "natural populations are unlikely to sustain present levels of collection." This species was reported to be the most frequently traded turtle in Ca Mau, a town south of UMTNP (Le and Broad, 1995), to be commonly seen for sale in markets in Ho Chi Minh City (Jenkins, 1995), and in trade en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000).

GEKKONIDAE (Geckos)

Tokay Gekko gecko

Gekko gecko is frequently traded for medicinal purposes in Viet Nam and China (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000; Li and Wang, 1999; Martin, 1992; Nash, 1997; Yiming and Dianmo, 1998; Ziegler, 2002). One individual was seen for sale in a jar of rice wine mixed with assorted snakes at a local reptile trade shop (Table 2).

PYTHONIDAE (Pythons)

Burmese Python Python molurus

[2003 IUCN Red List: Lower Risk, near threatened; CITES Appendix II].

A live adult pair of Python molurus was seen in captivity at a house in the buffer zone of UMTNP. The house owner reported that the 2.5 m female had been caught as a juvenile in the park three years earlier. The male had been borrowed from a nearby household for breeding. The female had already produced two clutches of about 20 eggs each, and the babies were sold to reptile traders for VND150 000 (USD10.64) each. The owner of the male received two free baby pythons as a fee. Four subadults and adults were seen at local reptile trade shops (Table 2), and these appeared to be wild-caught. The species has been observed for sale for meat and medicine in a Ho Chi Minh City market (Martin, 1992), in trade en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000), and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

XENOPELTIDAE (Sunbeam Snakes)

Sunbeam Snake Xenopeltis unicolor

Approximately 875 Xenopeltis unicolor individuals were seen for sale at local reptile trade shops, making this the most abundant reptile species in trade around UMTNP (Table 2). Traders at trade shop #3 sold X. unicolor for VND45 000/kg (USD3.19/kg). Fishermen in the buffer zone of UMTNP were seen in possession of one specimen.

ANILIIDAE (Pipe Snakes)

Red-tailed Pipe Snake Cylindrophis ruffus

Fishermen in the buffer zone of UMTNP were seen with two adult Cylindrophis ruffus. Approximately 12 individuals were seen for sale at local reptile trade shops (Table 2).

COLUBRIDAE (Typical Snakes)

Oriental Whip Snake Ahaetulla prasina

One Ahaetulla prasina was seen for sale in a jar of rice wine containing various snakes and one Gekko gecko at a reptile trade shop (Table 2).

Radiated Rat Snake Elaphe radiata

Approximately 26 Elaphe radiata were seen for sale at local reptile trade shops (Table 2). This species has been reported in trade in Ha Tinh Province (Ziegler, 2002), en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000), and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).



Red-tailed Pipe Snake Cylindrophis ruffus



Monocellate Cobra Naja kaouthia



.L. STUART

Tentacled Snake *Erpeton tentaculatum* (three colour phases)



Mekong Delta Watersnake Enhydris innominata



Common Rat Snake Ptyas mucosus hatchling

Bocourt's Watersnake Enhydris bocourti

Enhydris bocourti was the second-most abundant reptile species in trade around UMTNP, with a total of approximately 341 individuals seen at local reptile trade shops (Table 2). Hunters at a house in the buffer zone of UMTNP reported that *E. bocourti* was sold for at least VND150 000/kg (USD10.64/kg), and traders at trade shop #3 confirmed this by selling *E. bocourti* at their shop for VND155 000/kg (USD10.99/kg). A wildlife restaurant owner near trade shop #1 reported that many people catch or buy small individuals of *E. bocourti*, raise them in cages until they weigh about two kilogrammes, and then sell them into the trade. Fishermen at a house in the buffer zone of UMTNP claimed that in recent years *E. bocourti* is harder to find than in the past. This large species of watersnake has been reported in trade en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000), and is heavily exploited in Cambodia for export to Thailand, Viet Nam and China (Stuart *et al.*, 2000a).

Rainbow Watersnake Enhydris enhydris

Live and dead individuals of *Enhydris enhydris* were frequently seen entangled in lift-nets over canals throughout the buffer zone of UMTNP. Approximately 150 individuals in total were seen for sale at local reptile trade shops (Table 2). *Enhydris enhydris* is harvested in Cambodia for domestic trade (Stuart *et al.*, 2000a).

Mekong Delta Watersnake Enhydris innominata

Two *Enhydris innominata* were seen captured in gill nets by fishermen in the buffer zone of UMTNP. A total of approximately 20 individuals were seen for sale at local reptile trade shops (Table 2). *Enhydris innominata* is a very poorly known species that is endemic to southern Viet Nam (Saint Girons, 1972). Consequently, it may be exploited throughout most of its range. *Enhydris longicauda*, which is endemic to Tonle Sap, Cambodia, and considered part of the same species complex as *E. innominata* (Saint Girons, 1972), is harvested in Cambodia for domestic trade (Stuart *et al.*, 2000a).

Striped Watersnake Enhydris jagorii

Like *Enhydris enhydris*, live and dead individuals of *E. jagorii* were frequently seen caught up in lift-nets over canals throughout the park. Approximately 75 individuals in total were seen for sale at local reptile trade shops (Table 2). *Enhydris jagorii* is harvested in Cambodia for domestic trade (Stuart *et al.*, 2000a).

Tentacled Snake Erpeton tentaculatum

Three live *Erpeton tentaculatum* were seen in the possession of a fisherman who caught them from a canal in the buffer zone of UMTNP. Another was seen for sale at a local reptile trade shop (Table 2).

Puff-faced Watersnake Homalopsis buccata

Approximately 173 *Homalopsis buccata* individuals in total were seen for sale at local reptile trade shops, making *H. buccata* the third-most abundant reptile species in trade around UMTNP (Table 2). Traders at trade shop #3 sold *H. buccata* for VND31 000/kg (USD2.20/kg). Four dead and one live *H. buccata* were found entangled in a large net blocking a canal. This large species of watersnake is heavily exploited in Cambodia for international export to Thailand, Viet Nam and China (Stuart *et al.*, 2000a).

With the exception of the Ptyas mucosus hatchling, all snakes illustrated here were photographed during the course of the survey in U Minh Thuong National Park.

Indochinese Rat Snake Ptyas korros

Two individuals of Ptyas korros were seen for sale at local reptile trade shops (Table 2). This species has been reported in trade in Ha Tinh Province (Ziegler, 2002), en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000), and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

Common Rat Snake *Ptyas mucosus* [CITES Appendix II] Approximately 22 Ptyas mucosus were seen for sale at local reptile trade shops (Table 2). This species has been reported in trade in Ha Tinh Province (Ziegler, 2002), en route from southern Viet Nam to the Chinese border (Cuc Phuong Conservation Project and TRAFFIC Southeast Asia, 2000), and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

Chequered Keelback Xenochrophis piscator

Approximately 94 Xenochrophis piscator were seen for sale at local reptile trade shops (Table 2). In the buffer zone, fishermen were seen with one captured live individual, and two others were found alive in a large net across a canal.

ELAPIDAE (Cobras and Kraits)

Banded Krait Bungarus fasciatus

One Bungarus fasciatus was seen in the possession of fishermen in the buffer zone and sold for VND50 000 (USD3.55) each. A second was seen for sale in a jar of rice wine mixed with assorted snakes and one Gekko gecko at a local reptile trade shop (Table 2). This species has been reported in trade in Ha Tinh Province (Ziegler, 2002) and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

Monocellate Cobra Naja kaouthia [CITES Appendix II] Fishermen in the buffer zone were seen in possession of one Naja kaouthia. Two individuals were seen for sale at local reptile trade shops (Table 2). Hunters at a house in the buffer zone of UMTNP reported that cobras were sold for up to VND100 000/kg (USD7.09/kg) and were much rarer than they used to be. Other members of the Naja naja species group have been reported in trade in Ha Tinh Province (Ziegler, 2002) and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

Indochinese Spitting Cobra Naja siamensis [CITES Appendix II]

All records of Naja siamensis came from local reptile

trade shops, where approximately 40 individuals were seen (Table 2). None could be closely examined in the bags and cages, but were identified as N. siamensis from their pale coloration and indistinct hood markings (Wüster et al., 1997). Hunters at a house in the buffer zone of UMTNP reported that cobras were sold for up to VND100 000/kg (USD7.09/kg) and were much rarer than they used to be. Other members of the Naja naja species group have been reported in trade in Ha Tinh Province (Ziegler, 2002) and crossing the border from Viet Nam to China (Li and Wang, 1999; Yiming and Dianmo, 1998).

Figure 3. A sign outside reptile trade shop #1, near U Minh Thuong National Park.



DISCUSSION

The most significant finding of this study was the high taxonomic diversity of reptiles in trade. The hunting of turtles and snakes by local people was widespread at UMTNP and the surrounding area and did not appear to be species-specific. Rather, it appeared that all snakes and turtles had trade value, and even small snakes, such as newly born watersnakes, were seen in reptile trade shops. Hendrie (2000) reported that all species of turtles in Viet Nam were traded, and Ziegler (2002) reported a large diversity of turtles, lizards and snakes in trade around protected areas in Ha Tinh Province. Hunting for trade purposes appears to be the major conservation threat to reptiles in UMTNP. Safford *et al.* (1998) identified hunting, fire, drainage, clear-cutting, and conversion to agriculture as threats to biodiversity at UMTNP.

Stuart *et al.* (2000a) observed a large harvest and trade of homalopsine watersnakes at Tonle Sap Great Lake, Cambodia. Two species of watersnakes - *Enhydris bocourti* and *Homalopsis buccata* - were exported from Cambodia to Thailand, Viet Nam, and China (Stuart *et al.*, 2000a). These two species were the secondand third-most frequently traded species of reptiles at UMTNP, respectively. Like Tonle Sap, UMTNP is a source of snakes for the same trade to Viet Nam and China. The most frequently traded species at UMTNP - *Xenopeltis unicolor* - has not been previously reported to be traded in large numbers in Indochina.

Le and Broad (1995) reported a very active trade in turtles in Ca Mau, a town just south of UMTNP, where farmers searched for turtles in canals, swamps, mangrove forests, and *Melaleuca* forests using small boats. The farmers sold the turtles to traders in Ca Mau, who in turn sold them to traders in Ho Chi Minh City; these were then shipped to the north of Viet Nam for eventual export to China. Le and Broad (1995) estimated a weekly turnover by traders in Ca Mau of almost eight tonnes of turtles. At least one species of turtle, Cuora amboinensis, was specifically obtained by dealers in Ca Mau from sources near U Minh (the region surrounding UMTNP) (Le and Broad, 1995). It is likely that most of the reptiles observed in trade in the present study also travel to Ho Chi Minh City after leaving the vicinity of UMTNP, and are then moved north towards the Chinese border. Indeed, Cuc Phuong Conservation Project and TRAFFIC Southeast Asia (2000) reported on three illegal shipments of reptiles originating from southern Viet Nam that were intercepted by Forest Protection Department rangers in Ninh Binh Province, northern Viet Nam, en route to the Chinese border. One of these shipments originated from Kien Giang Province (the province where UMTNP is located), and the other two from nearby Ca Mau Province (the province where Ca Mau town is located) and Soc Trang Province. The three shipments largely comprised the same species reported in trade around UMTNP, some in considerable numbers (e.g. more than 1900 Malayemys subtrijuga and 560 kg of Enhydris bocourti).

Annam Leaf Turtles Mauremys annamensis were reported by Le and Broad (1995) to be abundant in trade in Ca Mau. However, this species, listed in IUCN (2003) as Critically Endangered, is endemic to central Viet Nam (Iverson, 1992). Jenkins (1995) found Le and Broad's report of M. annamensis in trade in Ca Mau to be surprising given that turtles in trade in Ca Mau are generally obtained locally, and trade routes in Viet Nam move northward, rather than southward, for ultimate export to China. Jenkins (1995) noted that records of M. annamensis in trade in Ca Mau would represent a significant southward extension of the species' range, and proposed the possibility that these turtles were misidentified by Le and Broad (1995). No evidence of *M. annamensis* was found during the present study. Based on the known distribution of this species and the direction of wildlife trade routes in Viet Nam, it is suggested here that the M. annamensis reported in Le and Broad (1995) were actually juvenile Hieremys annandalii, a species that was recorded in trade in UMTNP. Juvenile H. annandalii are distinct in shape and colour pattern from adults (Cox et al., 1998), and could be confused as a separate species. Black Marsh Turtles Siebenrockiella crassicollis were photographed in captivity at an office at Vo Doi Nature Reserve, in the U Minh Ha peatland very near to UMTNP (Safford et al., 1998), but the species was not recorded in this study.



It was learned that *Enhydris bocourti* was sometimes locally reared in captivity from wild-caught juveniles and sold into the trade as adults, and that *Python molurus* was sometimes locally bred in captivity. Because captive stock of *Enhydris bocourti* consisted of wildcaught animals, all of which were sold, and *Python molurus* continued to be hunted in the wild, neither practice is presently seen as contributing positively to the conservation of either species.

Population data are not available to allow conclusive statements to be made on the sustainability of current harvesting practices of reptiles in and around UMTNP. However, based on reports by local people that at least three species of snake are rarer now than in the recent past, and judging by the high levels of trade observed during this brief study, it is strongly suspected that viable populations of many of the species of reptiles reported here cannot be maintained in UMTNP under current harvesting levels. Turtles in particular are known to be very susceptible to even low levels of adult mortality (Congdon et al., 1993; Doroff and Keith, 1990). Crocodiles have already been extirpated from the wild in and around UMTNP, largely because of overexploitation by local people (Stuart et al., 2002). It is strongly recommended that managers of UMTNP curb the harvest and trade of reptiles within the park.



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A proposal has been submitted by Indonesia to the 13th meeting of the Conference of the Parties to CITES to include the Malayan Snail-eating Turtle Malayemys subtrijuga in Appendix II. This is the only species currently described in the genus Malayemys, which, as a whole is proposed to be included in Appendix II through a separate proposal, submitted by the USA.

The cases reported below represent a selection of recent seizures and prosecutions that have taken place worldwide. The sources of this information are cited at the end of each country section.

EUROPE

CZECH REPUBLIC

On 21 January 2004, at Ruzyne Airport, Prague, a Czech citizen returning from Indonesia was detained by Customs officials after X-ray inspection of his luggage revealed some 115 reptiles concealed within. These were found to be 55 Radiated Tortoises Geochelone radiata (CITES I), and the following CITES II-listed species: 18 Emerald Monitors Varanus prasinus, 2 Crocodile Monitors V. salvadorii, 2 Varanus sp., 19 Green Tree Pythons Morelia viridis, 3 Flat-backed Spider Tortoises Pyxis planicauda, 6 Spider Tortoises P. arachnoides, as well as 10 unidentified turtles. One Radiated Tortoise had died; the remaining reptiles, many in poor health, were sent to a rescue centre at Plzen Zoo. The importer, who claimed not to know anything about the reptiles in his luggage, is believed to be a courier. He was released but the case is under investigation.

Czech Environmental Inspectorate via the CITES Management Authority, Czech Republic, 21 January 2004

DENMARK

On 8 December 2003, at Copenhagen City Court, a Norwegian citizen was sentenced to a fine of DKK140 000 (EUR18 800) for violating CITES and laws relating to veterinary, tax and animal welfare. The man had brought 125 live juvenile Spur-thighed Tortoises *Testudo graeca* (CITES II) through Copenhagen Airport from Syria in 2002. He claimed they were for medicinal purposes and that the specimens were to be roasted and ground to a powder for ingestion to heal an aching back.

CITES Management Authority, Denmark

GERMANY

During November and December 2003, some 235 kg of caviar was seized in four separate cases: in November, at Cologne Airport, Customs officials seized a container arriving from Turkey, declared as "pulp". The strong odour coming from the cartons alerted officials who found 354 cans of caviar weighing 177 kg. During the same month, Customs inspectors in Cologne caught a Polish lorry driver handing over 48 kg of caviar to a middleman in a car park. Both men were detained. In December, Customs officials in north Germany stopped a Lithuanian lorry driver and found 27 kg of caviar hidden in his vehicle.



A German national illegally transported 790 spiders, including tarantulas, from Mexico to Switzerland, in plastic pouches in his luggage.

Following an investigation, it was found that the Dutch wholesaler had already illegally imported three tonnes of stony corals this year. Investigations are ongoing.

Zollfahndungsamt Essen, 4 December 2003; AFP, 4 December 2003; www.iol.co.za/index.php?click_id=3&art_id =qw1070552161146B265&set_id=1; Expanding borders: new challenges for wildlife trade controls in the European Union, TRAFFIC International, 2004; Pressemitteilung Zollfahndungsamt Essen, Oberfinanzdirektion Köln, No. 13, 6 May 2004; Nordrhein-Westfalen Customs press release, 6 May 2004, translated by TRAFFIC Europe

RUSSIA

On 19 March 2004, at the border crossing at Poltavka, Primorskiy Kray, on the border with China, Customs officials seized what is reported to be the largest haul of poached animal products apprehended in the country over the past decade. The animal parts, concealed in a lorry, included 768 paws (thought to be from the Himalayan Black Bear Ursus thibetanus (CITES I)), 24 bear gall bladders, over 5500 fur skins (including Siberian Weasel Mustela sibirica, Sable Martes zibellina, Raccoon Dog Nyctereutes procyonoides, Red Fox Vulpes vulpes and Red Squirrel Sciurus vulgaris), 280 musk deer pods, 64 deer penises, 142 deer antlers, 388 kg of sea cucumber Stichopus japonicus and 49 kg of frog fat (estimated to come from 100 000 frogs). The lorry was bound for China. The Chinese driver reportedly has been detained pending further investigation of the case.

TRAFFIC Europe; AFP, 22 March 2004; www.terradaily.com 2004/040322052702.son30vwd.html; Reuters

SWITZERLAND

In October 2003, after a two-year investigation, the Swiss federal veterinary office confiscated two tonnes of caviar that had been imported illegally in 2001. Investigations revealed that the shipment had been despatched to a duty-free warehouse in Geneva by a distributer based in the United Arab Emirates. Flawed Russian permits indicated that the caviar originated from Kazakhstan, although the trade was never authorized by Kazakh authorities; further the amount listed on the permit was much less than that which was seized.

"This is one of the most important cases of a CITES violation" said Thomas Althaus, head of the veterinary authority's conservation section. The full

confiscation of the caviar was allowed after a legal dispute with the Geneva-based importers and a "revolutionary" ruling by Switzerland's supreme court, the authorities said.

From now on "outlawed goods can be seized even if we can't prove that the importer knew that they were of illegal origin" said Amadeo Baumgartner, a legal expert with the veterinary office.

The true origin of the caviar remains unknown.

On 4 February 2004, Customs officials at Zurich Airport seized 790 live arachnids discovered in cartons inside two suitcases belonging to a German national travelling from Mexico via Frankfurt. The specimens included tarantulas *Brachypelma annitha*, Guerrero Orange Legs Tarantula *B. boehmei*, Mexican Black-cap Tarantula *B. emilia* and Mexican Red-kneed Tarantula *B. smithi* (CITES II), each contained in individual plastic pouches. The luggage was marked as personal effects. Following an investigation, it was discovered that the suspect owns an exotic animal business in Germany. He stated that he had chosen the Mexico-Frankfurt-Zurich route in an attempt to circumvent the vigilance of Customs officials.

www.terradaily.com/2003/031103123627.aam0pm8t.html; Swiss federal veterinary office press release, 3 November 2004: www.bvet.admin.ch, 3 November 2003; Swiss Customs Administration

UK

In December 2003, at Heathrow Airport, 98 Senegal Chameleons *Chamaeleo senegalensis* (CITES II) were seized from a reptile shipment in transit from Benin to the USA. The invoice and CITES permits incorrectly stated that the consignment contained 50 *C. gracilus* specimens.

In January 2004, 126 coral pieces were seized from a shipment of live corals from Indonesia. These were either excess to the accompanying CITES permits or were not covered by CITES permits.

In January 2004, after examination of a hunting trophy shipment in transit from Zimbabwe to the USA, an adult stuffed Lion *Panthera leo* (CITES I/II) and two mounted Chacma Baboon *Papio hamadryas* (CITES II) heads were seized owing to the absence of CITES permits.

HM Customs and Excise CITES Team, Heathrow Airport

In what is reported to be the largest-ever seizure of illegal coral imports to Germany, on 8 April 2004, Customs officials at Düsseldorf Airport seized 30 boxes containing 800 kg of stony corals, including *Acropora* spp. (CITES II), from a Dutch wholesaler arriving from Kenya. The shipment, labelled as "aquarium stones", also contained living marine organisms and was inspected since it was without the necessary documentation. All specimens have been placed in an aquarium in northern Germany.

AFRICA

SOUTH AFRICA

In January 2004, the Environmental Affairs and Tourism Department of South Africa seized 16 968 abalone *Haliotis midae* in four separate incidents and apprehended 41 people in its efforts to halt the illegal fishing of abalone. The offences took place in the Eastern Cape Province. Some 390 west coast rock lobsters *Jasus Ialandii* were also seized.

More than 95% of the abalone destined for countries overseas, especially China, is reported to be harvested illegally; such depletion is having a catastrophic effect on abalone populations in the country. The species is endemic to South Africa.

Horst Kleinschmidt, the Department's Deputy Director General for Marine and Coastal Management, said that the Department had significantly stepped up its compliance, monitoring and surveillance activities pertaining to abalone, in particular, and was at an advanced stage of developing a strategic plan for the management of the abalone resource in the Eastern Cape.

On 20 January 2004, at Clanwilliam Regional Court, three Japanese nationals Sindji Yamada, Yoshiyuki Abiko and Ryuji Sakamoto were each fined R106 000 (USD15 000) for the illegal collection of native wildlife. They were arrested near Clanwilliam in December 2003 following information received from farm workers who had been approached by the suspects requesting assistance in collecting wildlife. When apprehended, the trio had in their possession 14 Angulated Tortoises *Chersina angulata* (CITES II), maps, collecting equipment and snake anti-venom kits, as well as digital photographs of themselves poaching the tortoises.

Angulated Tortoises are protected and it is illegal to capture or sell them. The fines will go to the Cape Nature Conservation Board's crime enforcement unit.

On 4 February 2004, at Paarl Regional Court, cousins Albert Rautenstrauch and Günther Rautenstrauch were each sentenced to six years' imprisonment or a fine of R60 000 (USD9000) for collecting stag beetles *Colophon* illegally in the Western Cape. The pair and two friends, who received light sentences, were arrested on 9 January at a roadblock near Ceres. A search of the guest house where the men had been staying uncovered 211 *Colophon* beetles among a total of 842 insects seized, in addition to capture equipment and a map marked with the likely locations of the insects.

Colophon beetles are listed as Threatened in South Africa and any international trade in the species requires a CITES permit.

Cordylus cataphractus (CITES II), 1 Karoo Girdled Lizard *C. polyzonus* (CITES II) and 1 Bribron's Thicktoed Gecko *Pachydactylus bribronii.*

Business Day (Johannesburg), 22 January 2004; http://allafrica.com/stories/200401220402.html; The Cape Times (South Africa): www.capetimes.co.za, 21 January 2004; Mail and Guardian (South Africa), 27 January 2004; www.mg.co.za/Content/I3.asp?ao=30200; The Cape Times (South Africa), 4 February 2004; www.greenclippings.co.za; The Western Cape Nature Conservation Board press release, 21 April 2004; The Star (South Africa), 22 April 2004

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EAST ASIA China

On 8 October 2003, at a police checkpoint in Sansan, Angren County, officials seized skins of 31 Tigers *Panthera tigris* (CITES I) and 581 Leopards *P. pardus* (CITES I), 778 otters and two lynxes concealed in a lorry en route from India to Lhasa. Three Tibetans were arrested.

According to Li Jianwen, Vice Director of the Anti-Smuggling Bureau of Lhasa Customs, many of the Tiger skins had bullet holes and the size of some specimens suggest the animals were only a few months' old.

On 27 October 2003, police in Gansu Province arrested one man on the Turpan to Korla highway as he transported 7 Saker Falcons Falco cherrug (CITES II) by taxi. Two other men escaped. The birds, wrapped in white cloths and with their eyes sewn up, had been trapped in the Jiu-quan Area, an important area on the migrating route between Mongolia and Tibet. There is reported to be a decrease in the number of recorded incidents of Saker Falcons being caught illegally in China. This, it is said, may be explained by a change in the means of transport by foreign trappers and smugglers - from aeroplanes and trains to the use of taxis to cross the Chinese borders, which makes offenders harder to detect. There has also been a change in the trapping area and the smuggling route, with groups penetrating into the centre of the country, e.g., Qinghai, Gansu, Ningxia, moving inland from the border areas along the bird migration routes. Punishments imposed by China are stricter than other countries, and several poachers and smugglers have been sentenced to life imprisonment or even to death (TRAFFIC Bulletin 19(2):77).

According to Wan Ziming, an official with the State Administrative Office on Endangered Species Import and Export, the Chinese Government has intensified the crackdown on ivory smuggling, seizing a total of more than 40 t of ivory products over the past seven years. China has also launched projects to supervise and prevent poaching and illegal trade of elephant products, said Ziming.

Beijing Youth Daily (China), 14 February 2004, translated from Chinese into English by Wen Bo; Recent data on Saker smuggling in China, by Ming Ma, in Falco, the newsletter of the Middle East Falcon Research Group, 23 January 2004; Xinhua News Agency: news.xinhuanet.com/english/2004-03/10/content_1358268.htm, 10 March 2004

HONG KONG SPECIAL ADMINISTRATIVE REGION

In October 2003, Customs officers at Kwai Chung Container Terminal seized 279 African Elephant *Loxodonta africana* (CITES I) tusks (1932 kg) from a lorry. They had been concealed in 47 bags behind a shipment of wood, and declared as wood carvings. The items were reported to have been smuggled into Hong Kong from Tanzania via Indonesia. Two employees of a trading company in Western district on Hong Kong island, and the lorry driver, were arrested. Investigations revealed that the trading company was linked to a Taiwan-based establishment. Investigations are continuing.

On 5 May 2004, the proprietor of a shop in Kowloon was fined over HKD30 000 (USD3800) for possessing 0.863 kg of ivory products without a licence. The conviction follows investigations by the Environmental Investigation Agency in October 2003 into the ivory trade in Hong Kong Central and Kowloon, which uncovered two shops trading in ivory. Officials of the Agriculture, Fisheries and Conservation Department carried out investigations into both operations and visited one of the shops. Posing as buyers, it was confirmed that worked ivory seals were offered for sale in the shop. The items were found following a search.

The Standard (Hong Kong), 3 February 2004; www.thestandard.com.hk/thestandard/news_detail_frame.cfm?articleid=44977&intcatid=1; EIA Press Release, 1 June 2004; Agriculture, Fisheries and Conservation Department

SOUTH ASIA India

On 22 October 2003, in the area of Mannady, Chennai, police seized 6 kg of dead seahorses, reported to represent approximately 450 specimens. Two persons, who were arrested, allegedly had collected the seahorses from coastal areas around Ramanathapuram. They had been brought to the city reportedly to be handed over to 'couriers', who were to take them to Japan. Each specimen was about 12 cm long and weighed between three and six grammes. Seahorses Syngnathidae are mainly used as an ingredient in traditional medicine preparations. All species were listed in CITES Appendix II with effect from 15 May 2004.

www.hindu.com/2003/10/24/stories/2003102409730300. htm; TRAFFIC International

SOUTHEAST ASIA BRUNEI

On 24 September 2003, five Malaysians were gaoled for four months after pleading guilty to collecting agarwood *Aquilaria beccariana* (Vulnerable, *2003 IUCN Red List of Threatened Species*) illegally in Andulau Forest Reserve. They were also charged with illegally entering Brunei. The accused had entered Brunei via the jungles of Limbang and were picked up by a guide at the Kuala Lurah border. They spent two weeks in the forest scraping agarwood from trees and were arrested by police as they left the area with a plastic bag containing the wood scrapings. These were analysed and weighed 550 g. On 7 October 2003, the guide was found guilty of abetting the collection of agarwood and sentenced to eight months' imprisonment.

www.brudirect.com/DailyInfo/News/Archive/Sept03/240903 /nite09.htm; TRAFFIC International; BruneiDirect.com, 24 September 2003

On 21 April 2004, at Vredendal Regional Court, Western Cape, Japanese nationals Terutoshi Terada and Masato Araki were found guilty under the *Nature Conservation Ordinance* of three charges relating to the collection, possession and transportation of reptiles without the necessary permits. Each received a fine of R110 000 (USD16 500) or a four-year gaol sentence. The sentence follows their arrest in Vredendal by Cape Nature Conservation's environmental crime unit after they had been found in possession of 5 Angulated Tortoises *Chersina angulata* (CITES II), 51 Armadillo Girdled Lizards

On 8/9 March 2004, forestry police in Guangzhou, Guangdong Province, seized 595 kg of illegal ivory in the form of carvings, chopsticks and necklaces while carrying out inspections at seven antique shops.

INDONESIA

On 25 January 2004, police in Bintuni arrested 15 Malaysians for illegal logging in the Tohiba sub-district, Papua, and confiscated some 10 000 logs of Merbau Intsia palembanica - a much sought-after timber species - as well as three boats and logging equipment. The suspects were reported to have been hired originally by a logging company in Bintuni to clear nearby forests. The director of the timber company is being sought. Illegal logging is reported to be rampant in Papua. Early last year, nine Malaysians were arrested for alleged illegal logging in the province and another Malaysian was arrested in December for similar offences. Between 19 February and 10 March, police arrested another 38 suspected illegal loggers in Kalimantan and seized over 20 m³ of processed logs and 22 886 raw logs, boats and guns. The operation included raids on several locations, mostly in Mount Palung National Park in West Kalimantan and on the border with Malaysia. According to National Police deputy spokesman Brigadier General Soenarko, his forces have been working together with the West Kalimantan police and forest rangers to curb illegal logging in the area. With so many locations to observe, police will be conducting more operations and mobilize forest rangers, helicopters, and speedboats. He stated that the police and forest rangers in Kalimantan would form a joint team, comprising some 300 task force personnel.

On 15 February 2004, police in Jambi city, Sumatra, arrested six men suspected of trading in Sumatran Tigers *Panthera tigris* (CITES I). Three days later two suspected hunters and a middleman were also arrested. The arrests came just days after the release of TRAFFIC's report *Nowhere to Hide: the Trade in Sumatran Tiger* which urges the Indonesian Government to take urgent action to stop Tiger poaching and the destruction of the species' habitat (see page 16).

The one-month-old live hatchlings are being kept in Tegal Alur animal transit centre in West Jakarta. The species is protected in Indonesia and listed as Vulnerable in the *2003 IUCN Red List of Threatened Species.*

www.thejakartapost.com, 30 January 2004; New Straits Times (Indonesia), 31 January 2004; The Jakarta Post (Indonesia), 3 March/12 April/2 March 2004; Agence France Presse, 19 March 2004

MALAYSIA

On 7 October 2003, at Penang Magistrates' Court, Marlina Sitepu, a textile trader from Indonesia, pleaded guilty to two counts of illegally possessing 186 exotic birds of 12 species protected under the *Wildlife Protection Act 1972*. These included 2 Moluccan Cockatoos *Cacatua moluccensis*, 4 Palm Cockatoos *Probosciger aterrimus*, 15 Goffin's Cockatoos *Cacatua goffini* (all CITES I), and the following CITES II species: 8 Blue Crowned-Pigeons *Goura cristata*, 1 Umbrella Cockatoo *Cacatua alba*, 9 Greater-Sulphur-crested Cockatoos *C. galerita*, 9 Leadbeater's Cockatoos *C. leadbeateri*, 2 Blue-eyed Cockatoos *C. ophthalmica*, 10 Chattering Lories *Lorius garrulus*, 90 Black-capped Lories *L. lory*, 34 Olive-headed Lorikeets *Trichoglossus euteles* and two Brown Lories *Chalcopsitta duivenbodei*. Most of the birds had been smuggled from Papua New Guinea.

Sitepu was bailed to appear in court at a later date and ordered to surrender her passport.

On 2 May 2004, marine police arrested 16 Chinese fishermen for suspected poaching after discovering some 160 marine turtles aboard a trawler. The suspects were arrested off the north-eastern coast of Borneo. They are believed to have poisoned the waters with cyanide to catch the turtles which were to be sold as decorative ornaments. The specimens consisted mostly of Hawksbill Turtles *Eretmochelys imbricata* and Green Turtles *Chelonia mydas* (both CITES I). The fishermen were to be charged with illegally entering Malaysian waters and catching protected species.

New Straits Times (Malaysia), 9 October 2003; New Straits Times (Singapore) 5 May 2004

THAILAND

On 1 November 2003, police carried out a series of raids on Chatuchak Weekend Market in Bangkok, marking the start of a campaign against trade in protected wildlife. About 300 police and forestry officials seized some 1000 wild animals. The operation was spearheaded by the Protection and Suppression Unit of the National Park, Wildlife and Plant Conservation Department and was prompted by the discovery of animal carcasses and body parts in a slaughterhouse outside Bangkok by police and forestry officials. These included carcasses of Tigers *Panthera tigris* (CITES I), bears, a pair of Orang-utans *Pongo pyg-maeus* (CITES I), snakes, turtles and birds.

On 9 September, a 120-day amnesty period for wildlife owners to report and register specimens of wild species they kept, came to a close. During this period, 1.1 million protected animals are reported to have been recorded.

On 18 November, 509 Malayan Pangolins, contained in 102 boxes, were intercepted at the airport. The shipment was travelling the same route as the earlier consignment.

Xinhua News Agency, 3 November 2003: news.xinhuanet. com/english/2003-11/03/content_1156841.htm; Agence France Presse, 14/18 November 2003; www.terradaily.com

OCEANIA

AUSTRALIA

On 10 October 2003, the Australian Fisheries Management Authority (AFMA) charged five foreign nationals with the illegal fishing of Patagonian Toothfish *Dissostichus eleginoides* within the 200-nautical mile Australian fishing zone. This follows the seizure of the Uruguayan-flagged vessel *Viarsa 1* in August 2003 (see *TRAFFIC Bulletin* 19(3):152). Four of the suspects are senior crew members of the vessel - the Uruguayan captain, three Spanish nationals and a Chilean. All have been charged with offences under the *Fisheries Management Act 1991*. The vessel, the 92.4 t catch and equipment were formally seized by the AFMA under the provisions of the *Fisheries Management Act*.

On 20 April 2004, all five crew members appealed their bail conditions but this was refused by the Federal Court except in the case of one crew member who was permitted to return home for family reasons. He must return to Australia for the trial which has been set for October 2004.

On 15 October 2003, at the District Court of New South Wales Criminal Jurisdiction, Sydney, two men were convicted and given a two-year suspended sentence after being found guilty of attempting to export wildlife specimens illegally on 29 December 2002. The pair had been found with 289 *Laprima insularis* and 20 *Figulus howei* beetles that they had collected from Lord Howe Island (see *TRAFFIC Bulletin* 19(3):152). They were also each fined AUD200 (USD140) and placed on good behaviour bonds for three years and required to appear for sentencing if called upon to do so. Their passports were seized and will not be returned as a condition of their bail.

On 18 October 2003, at Mascot, Sydney, air freight workers alerted Customs officials after becoming suspicious of cargo during a routine x-ray. Upon examination 47 native lizards were found to be concealed inside computer hardware, reportedly destined for the Czech Republic. Customs investigators also searched a residence at Arncliffe, Sydney, and made further seizures. The following lizards were deposited at Taronga Zoo's Veterinary Quarantine Centre: 14 Lesueur's Velvet Geckos Oedura lesueurii, 11 Tryon's Velvet Geckos O. tryoni, 3 Thick-tailed Geckos Underwoodisaurus milii, 3 Granite belt Thick-tailed Geckos U. sphyrurus, 14 Shingleback Lizards Tiliqua rugosa, 1 Cunningham's Skink Egernia cunninghami, and 1 Nobbi Dragon Amphibolurus nobbi. A Shovel-nosed Snake Brachyurophis fasciolatus found in the consignment was also confiscated.

A Czech national pleaded guilty and was convicted on 3 December 2003 under the *Environment Protection and Biodiversity Conservation Act 1999.* Owing to the time spent in custody prior to the hearing, the defendant was released without further penalty.

Following information received from a member of the public who had noticed a man catching wildlife and reported the incident to the Customs Hotline, a joint investigation carried out between the Western Australian Department of Conservation and Land Management and Customs officials led to Linley's arrest as he attempted to board a flight at Perth International Airport. Some 219 reptiles and frogs were concealed in his luggage, including Marbled Geckos *Christinus marmoratus*, Clicking Froglets *Crinia glauerti*, Squelching Froglets *C. insignifera*,

On 29 February 2004, Customs officers, assisted by forestry ministry officers and environmental activists, foiled an attempt to smuggle 309 Fly River Turtles *Carettochelys insculpta* through Soekarno-Hatta International Airport. One person - a courier for a fish company - was arrested. He confessed to attempting to smuggle 100 Fly River Turtle hatchlings in early February and 390 two weeks earlier, which had also been seized. All consignments were bound for Japan.

On 13 November 2003, wildlife officials at Bangkok Airport seized 288 Malayan Pangolins *Manis javanica* (CITES II) packed in 72 boxes travelling from Malaysia, bound for Lao PDR, and believed to be destined for the food trade in China. No arrests were made.

On 12 December 2003, at Perth District Court, Michael Linley, a British national, was fined AUD8000 (USD5724) for attempting to export more than 200 native reptiles on 20 October 2003.



One of the more than 300 stag beetles illegally removed from Lord Howe Island, seized in Sydney, Australia, in 2003.

Desert Tree Frogs *Litoria rubella*, Western Bearded Dragons *Pogona minor minor*, geckos *Diplodactylus* spp. and *Strophurus* spp., skinks and snakes.

Linley, a wildlife film maker, who had pleaded guilty, was also fined a further AUD2000 (USD1430) under the *Environment Protection and Biodiversity Conservation Act 1999* for exporting two Spinytailed Geckos *Strophurus ciliaris* in January 2003.

All the animals have been returned to the wild.

On 1 April 2004, at Perth's Court of Petty Sessions, 32 crewmen from *Maya V* were each fined AUD1000 (USD760), placed on a five-year good behaviour bond and have been deported. A further three crew members have pleaded not guilty and a trial date for their hearing has been set for 15 November. The senior crew members will face trial on 13 August.

On 18 June 2004, raids on five complementary medicine outlets in Sydney, Melbourne and Brisbane yielded one of Australia's largest illegal wildlife hauls to date. The raids formed part of a joint operation by the federal police, the Department of Environment and Heritage, the Australian Customs Service, and the Australian Quarantine and Inspection Service. Among the items seized were products labelled as containing bear bile, Tiger bone and rhinoceros horn (all from CITES I-listed species) and American Ginseng *Panax quinquefolius* (CITES II).

Australian Fisheries Management Authority: MercoPress (Falklands/Malvinas), 10 October 2003; www.falklandmalvinas.com/; Australian Customs Service; Customs media releases, 24 October/12 December 2003/18 June 2004; TRAFFIC Oceania; www.news.bbc.co.uk/1/hi/uk/ 3313385.stm; www.news.com.au; www.enn.com; www. heraldsun.news.com.au; Veterinary Quarantine Centre, Taronga Zoo; Nature Protection Branch, Conservation and Land Management, Western Australia

NEW ZEALAND

On 27 February 2004, at Manukau District Court, Czech nationals Cestmir Cihalik, Dean of the Faculty of Medicine at Palackeho University, Olomouc, and Jindrich Smitak, an environmental inspector with the Czech Environmental Inspectorate, Brno, were found guilty of collecting some 363 wild plants, including 93 endemic orchids (representing 23 species), predominantly from national parks. Both men are amateur botanists and members of the Czech Orchid Society. The plants included *Carex* sedges, mixed native beeches and podocarps -*Podocarpus totara* and *Phyllocladus trichomanoides* and ferns. The orchids (including epiphytes) included *Pterostylis australis, P. banksii, P irsoniana, P. venosa, Orthoceras novaezeelandiae* and *Microtis unifolia*.

Both were convicted under the *Trade in Endangered Species Act* and each fined NZD7500 (USD5100) and a further NZD1000 (USD680) towards the cost of prosecution. These charges related to the attempted export of the orchids. Smitak was further charged and convicted with removing plants from national parks, an offence under the *National Parks Act*. No penalty was imposed for this offence, but the conviction was entered. The Judge stated that if clear evidence of an intent to trade/sell had been established she would have had no hesitation in imposing a custodial sentence for both persons.

The investigation began in August 2003 when Cihalik approached the Department of Conservation (the CITES Management Authority) to obtain permission to collect and export *Carex* grasses (unprotected) and to photograph orchids and ferns. Permission for the pair to remove any flora/fauna or parts thereof was not granted. They were advised that non-protected plants may be taken from private land with the owners' permission. Most of the samples came from Crown-administered land.

The Czechs were closely monitored during their travels in the country; on 18 January they were intercepted as they attempted to leave Auckland Airport. Both live orchids (and therefore capable of propagation) and pressed orchids (complete with flowers and developing seed) were found in their luggage, together with hundreds of other plants.

New Zealand Wildlife Enforcement Group

AMERICAS

CANADA

On 26 March 2004, at the Ontario Court of Justice, Mr Choo-Sin Chang of Ontario pleaded guilty to unlawfully possessing American Black Bear *Ursus americanus* (CITES II) gall bladders at his business premises in Toronto and to exporting Black Bear gall bladders unlawfully to the USA. He was fined CAD32 000 (USD24 000) and a mandatory victim surcharge of CAD8000 (USD6000).

The charges were brought under the *Fish and Wildlife Conservation Act* and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA). They follow an investigation by Quebec and Ontario wildlife officers that effectively dismantled a bear gall bladder poaching and trafficking network operating from Quebec.

Bear gall bladders are sought after in traditional Asian medicine. Canada has the largest remaining American Black Bear habitat in the world.

Environment Canada news release, 26 March 2004; TRAFFIC International

GUAM

Guam seafood company, Polar International, was fined USD20 000 for receiving 1360 kg of illegal shark fins offloaded from a Taiwanese fishing vessel. The vessel owners were fined USD10 000.

The weight in fins probably represents thousands of sharks. The number of shark carcasses on the vessel did not come close to the estimated 29 000 kg of carcasses that should have accompanied the fins.

This is the third case of illegal fin importation into Guam in less than a year. US law prohibits fishing vessels and companies from offloading shark fins without the corresponding shark carcasses. This law is intended to promote a more humane takingprocess, and prevent fishing vessels from removing fins and dumping the often still-living sharks back into the water to die. The fins, which are considered a delicacy in Southeast Asia, are enormously more valuable than the carcasses.

Pacific Daily News, 11 December 2003; www.guampdn. com/news/stories/20031211/localnews/11596.html

USA

On 11 December 2003, at Orlando, Florida, Lawrence Wee Soon Chye, of Singapore, was sentenced to 37 months' imprisonment after pleading guilty to charges of smuggling several hundred protected species into and out of the country in 2002 and 2003 (*TRAFFIC Bulletin* 19(3):152). The animals, discovered in express mail packages in Memphis, Tennessee, mislabelled as "books and magazines", included Fly River Turtles *Carettochelys insculpta*, Indian Star Tortoises *Geochelone elegans* (CITES II), and Radiated Tortoises *Geochelone radiata* (CITES I): many specimens had died. Chye was arrested after arriving in Orlando to meet buyers.

On 5 March 2004, at Milwaukee District Court, Wisconsin, Leong Tian Kum of Singapore was sentenced to 41 months' in gaol for wildlife smuggling and money laundering. On 16 April, also at Milwaukee District Court, Reid Turowski was sentenced to 10 months' imprisonment and fined USD500 for his role in smuggling 183 reptiles into the country. He was also ordered to serve two years' probation following his gaol term and to reimburse the government USD2223 for costs it incurred to care for live reptiles seized from him during the investigation.

Between September 2002 and June 2003, Kum and associates in Thailand and Singapore obtained more than 150 protected wildlife species and shipped them to animal dealer Turowski in the USA via express mail, for further distribution to customers. Specimens included Radiated Tortoises *Geochelone radiata* (CITES I), the following CITES II-listed species: Indian Star Tortoises *G. elegans*, Burmese Starred Tortoises *G. platynota*, Hermann's Tortoises *Testudo hermannii*, Pancake Tortoises *Malacochersus tornieri*, as well as Fly River Turtles *Carettochelys insculpla*. Funds received in exchange for the shipments were wired to a bank account in Thailand.

Kum's sentence was heavier than guidelines advise for such a wildlife offence owing to the fact that the authorities also found evidence that he conspired to smuggle women from Thailand to Singapore to work as prostitutes.

US Fish & Wildlife Service news releases, 11 December 2003/5 March/16 April 2004; The Atlanta Journal-Constitution, 21 December 2003: www.ajc.com

On 22 March 2004, at Perth Court of Petty Sessions, the captain and crew members of the ship *Maya V*, operated by a Uruguayan fishing company, were charged under the *Fisheries Management Act* with the unauthorized use of a foreign boat within the Australian fishing zones. The ship had a record 191 t of Patagonian Toothfish *Dissostichus eleginoides* when apprehended in January (see page 3). On 21 May, the vessel was forfeited to the AFMA after its owner did not challenge the forfeiture of the vessel within the legislated timeframe.

UPDATE ON THE IVORY INDUSTRY

IN THAILAND, MYANMAR AND VIET NAM

Daniel Stiles

BACKGROUND

Martin and Stiles (2002) reported on the status and trends of ivory markets in eight South and Southeast Asian nations in late 2000-early 2001. In a review of that report, Milliken (2002) concluded that its message rang clear: "Whether in Asia or Africa, illegal and unregulated domestic ivory markets are the single most destructive element in elephant conservation today". Since that study was undertaken, further research into the ivory carving industry has been carried out in the three largest ivory markets of South and Southeast Asia - Thailand, Myanmar and Viet Nam¹. The findings of this research, sponsored by the National Geographic Society, are summarized below.

INTRODUCTION

The smugglers of raw and worked ivory who ship or carry illegal ivory around the world are extremely difficult to investigate, for obvious reasons, and the great number of retail outlets make this type of ivory trade indicator equally unsuitable for regular monitoring. Tracking down ivory workshops and retail outlets, moreover, involves an enormous amount of work and, combined with the amount of time needed to record the data, leaves less time than would be desirable to learn full details about ivory manufacturing. Ivory carving workshops are relatively few in number, however, and all raw ivory, whether legal or illegal, must pass eventually through a workshop to render it saleable. This makes them ideal monitoring sites. During the 2000/2001 survey of South and Southeast Asia, Phayuha Kiri (Thailand), Mandalay (Myanmar) and Hanoi (Viet Nam) were identified as the three most important ivory carving centres in the region (Martin and Stiles, 2002). In order to assess the status of and recent trends in the elephant ivory trade, further investigation of the industry was undertaken in these three countries during December 2002 to February 2003. The historical, cultural and artistic aspects of some of this research are reported on in Stiles (2002 and 2003).

Myanmar, Viet Nam and Thailand are all party to CITES.

OBJECTIVES AND METHODS

The research aimed:

1. to find out how many ivory carvers are active in Mandalay (Myanmar), Hanoi (Viet Nam) and Bangkok, Phayuha Kiri and Chiang Mai (Thailand).

- 2. to determine how much raw ivory is being used in carving; where it comes from; how it is obtained; the wholesale and retail prices according to the quality of the ivory and the carving; the rates of turnover; who the buyers are; and, where the ivory is going.
- 3. to look at changing patterns in the type of items being carved in response to a changing client base and to ascertain what type of items are sought and by whom.
- 4. to document the different types of ivory (i.e which part of the tusk, African v. Asian, etc.) are used in the manufacture of various objects (e.g. figurines, name seals, beads, etc.); the sources of this ivory and the criteria used for pricing; the different tools and techniques used to carve the different motifs; the meaning of the carved symbols and subjects; the different styles or schools; and, the historical background of ivory use and of the ivory carving families.
- 5. to find out the attitudes of the carvers and shop owners towards elephant conservation.
- 6. to elucidate what strategies might work to stop carvers from working ivory, or at least to reduce ivory consumption.

Information was gathered via interviews and participant observation.

RESULTS

Knowledge of the history of ivory carving and use in a country provides important information on the cultural and artistic value of the craft. This is a pertinent factor in formulating ivory trade policy, thus a synopsis of the historical background of each country's ivory carving industry is presented. This information is presented in descending order of scale of the industry in those countries.

Thailand

History: The first users of Thai carved ivory were the royal family, specifically Rama V, starting in the late nineteenth century (Stiles, 2003). Items consisted of various types of containers, sword and knife handles, parts for musical instruments, official seals, chess pieces, jewellery, buttons, dolls and even small elephant howdahs (seats for riding on an elephant's back). In the

¹The current scale of India's ivory industry is unknown, but Menon and Kumar (1998) and TRAFFIC (Anon., 2003a) make clear that in the late 1990s up to 2001 the ivory trade was still active. Milliken et al. (2002) provided evidence that India is still an important actor in illegal international ivory movements. While these reports provide some idea of the scale of the trade in certain areas in India, an updated survey of the whole country using a quantitative methodology is needed to establish a comprehensive baseline status of the scale so that trends can be discerned in future.

SHORT COMMUNICATIONS

early twentieth century the aristocracy and upper classes began patronizing the royal carvers as well, and combs and ivory handles for utensils became popular. Religious ivory sculpture was also important early on, mainly Buddha figurines and Buddhas carved on tusks. Ivory carving started up in the 1930s, near Nakhon Sawan, in central Thailand after an artistically gifted Buddhist monk was asked by his senior to carve Buddhas on the tusks of deceased temple elephants. Carved ivory use spread to other temples in the area and in 1937 the monk left monkhood, married and moved to Phayuha Kiri, where he trained others to carve ivory to meet an increasing demand for amulets and temple carvings. Thailand's commercial ivory carving centre developed from this base. Thais still use ivory amulets, which are considered to bestow protection on the wearer, but only uncarved, polished tusks are used to adorn shrines today. Since the 1970s, increasing tourism has stimulated the production of ivory trinkets and curios.

The legal position of the ivory trade: Technically, it is legal to purchase tusks or tusk tips that come from domesticated elephants and to work and sell the ivory. In practice, however, since mid-2002 the Thai Government has been taking stricter measures against ivory carvers. Revelations in Martin and Stiles (2002) and Stiles and Martin (2002) about the large-scale use of ivory illegally imported from Africa and Myanmar resulted in visits to the country by journalists and a CITES Mission in July 2002 to Phayuha Kiri. The report of the CITES Mission highlighted continuing concern about the ivory trade in Thailand and was presented to the twelfth meeting of the Conference of the Parties in October 2002. In December 2002, between 12 and 15 million baht (USD280 000-350 000) worth of ivory was confiscated in Phayuha Kiri from about a dozen retail shops and 30 workshops.

There is currently an "Elephant Law" being proposed by legislators that covers the responsibility of the mahout (the elephant-driver or -keeper) towards his elephants and their care, amongst other actions, and would ban all ivory working and sales.

Sources and prices of raw ivory: One informant in Phayuha Kiri said that "black Americans" brought in consignments of African tusks weighing a total of between 200 kg and 500 kg to sell in Bangkok, usually to a single middleman, who then transported the ivory to Phayuha Kiri to sell to carvers. The author believes that the "black Americans" were almost certainly Africans, as nationals of African countries have been involved in ivory smuggling in several countries, and no Americans have in recent times been connected with ivory smuggling in Asia. Supporting this conclusion, 65 tusks (501 kg) from Africa (country undisclosed), addressed to a Malian, were seized at Bangkok's airport in July 2003 (Anon., 2003b). An informant in Bangkok said that perfect 5-10 kg tusks sell for USD500/kg, but that they were extremely rare. Prices for two- to five-kilogramme African ivory tusks ranged from USD140 to



* a master ivory carver in Mandalay, Myanmar, sketches the outline of a subject onto a tusk for an advanced apprentice to carve.

[^] a workshop near Phayuha Kiri, Thailand, which produces knife handles and belt buckles made from ivory and horn.

 one of several shops in Mandalay, Myanmar, that display hundreds of ivory carvings for sale to tourists.

PHOTOGRAPHS: D. STILES

USD209/kg in Phayuha Kiri and USD280/kg for similarly sized Asian tusks. Prior to the crackdown in 2002 not more than 200 kg of raw ivory was being consumed a month in Phayuha Kiri and probably less than 20 kg a month was being processed elsewhere, mainly in a



workshop manufacturing ivory handles for guns and knives and belt buckles sold to gun shops in the USA. On occasion, tusks or raw ivory pieces originating in Myanmar or Lao PDR are brought to Phayuha Kiri by traders.

Numbers of carvers and workshops: Of the approximately 20 carvers working in Bangkok in 2001, only one or two were still active in 2003. While there had been close to 100 ivory carvers operating in Phayuha Kiri in 2002, none was working in the city in February 2003, according to two informants. Three ivory carvers in two workshops were found in rural settings outside Phayuha Kiri and one was found in Bang Sai, near Ayutthuya. There were no ivory carvers active in Chiang Mai.

Trend: Raw ivory prices for pieces of between two and five kilogrammes had risen from USD91-182/kg in 2001 to USD140-209/kg in early 2003, probably reflecting decreased supplies owing to increased seizures of illegal ivory. The number of active ivory carvers and workshops had drastically declined from 2001 because of the government crackdown. Worked ivory was still plentiful in Bangkok in 2003 and there was no apparent change seen from 2001, though only a sample survey was made in 2003. If production does not recover, stocks of worked ivory will presumably fall. Traders must think carving will pick up, however, as up to the end of July 2003 some 1000 kg of tusks had been seized during the year at Bangkok International Airport (Anon. 2003c). If the "Elephant Law" is passed, retailers will have to dispose of their stocks.

Mandalay, Myanmar

History: Ivory carving began in the north under King Mindon in the 1860s and under the British Raj in Rangoon (now Yangon) and other parts of the south at about the same time. The earliest users were the royal court and Buddhist monks in the north and British and Indian colonial administrators and merchants in the south. Descendants of first generation ivory craftsmen from the royal court and from Yangon carve today in Mandalay. Contemporary ivory sculptures of cultural value are mainly religious in nature: the Buddha and stories of Buddha's life (Jataka), for example. Of secondary importance to the people of Myanmar are carvings of historical figures (royalty, military heroes), naturalistic carvings of Myanmar life (cane ball players, dancers, fishermen, etc.) and game pieces. Everything else, including jewellery (excluding Buddha amulets and bead rosaries), tusks carved to form elephant trains, animals, Chinese figurines, name seals, chopsticks, cigarette holders, etc., were introduced for the tourist market, though some Chinese citizens of Myanmar buy Chinese subjects e.g. Kwan Yin (the Buddhist goddess of compassion), Maitreya (Happy or Laughing Buddha), and Daoist figures.

The legal position of the ivory trade: Domestic carving and trade are legal, but only the owners of domesticated elephants may sell tusks or pruned tusk tips to workshops. Possession of or trade in wild elephant ivory is illegal (Anon., 2002a). The government no longer gives support to the ivory industry and has stopped sponsoring ivory carving competitions.

Sources and prices of raw ivory: Most ivory is reported to originate within Myanmar, much of it poached. Tusks are also smuggled in from India, mainly by Chin tribesmen. During a period of two months, the author saw all new raw ivory at four workshops and examined the registration books at two of the largest workshops which recorded the provenance of their ivory. None was reported to come from Africa. Moreover, not a single vendor nor carver reported handling African tusks. The price for a 5-10 kg tusk had risen from 100 000 kyat/kg (USD141) in February 2001 to 195 000 kyat (USD173) in February 2002. Only local currency is used to purchase ivory, so the near doubling in price in one year reflects increasing scarcity, as market demand was declining slightly.

Number of carvers and workshops: While 45 ivory carvers had been reported via interviews to be working out of four main workshops in 2001, a detailed census in early 2002 revealed there to be 32. Six workshops (four main workshops and two smaller ones), as reported in Martin and Stiles (2002), is still an accurate number. Between 40-45 kg of raw ivory was being worked on average per month in Mandalay in early 2002, but quantities processed in earlier periods could not be estimated reliably.

Trend: Business had been declining because of necessary retail price increases due to raw ivory price rises, but was still relatively good. The number of retail outlets and items for sale had not changed significantly. A major ivory retailer, who also dealt in antiques, was planning to stop selling ivory and shift completely to antiques, as he saw no long-term future in ivory.

Hanoi, Viet Nam

History: The selling of carved ivory started up in Hanoi in the 1920s in response to requests by French colonial administrators who wanted religious sculptures they had seen in stone and wood to be carved in ivory. Chinese mandarins also began ordering Chinese subjects made of ivory. The first carvers came from Nhi Khe, a traditional woodcarving village in Th'u'ong Tin District, and as demand grew ivory carving spread to other villages and workshops in Hanoi. Ivory is not a traditional material in Vietnamese art and culture and virtually all buyers today are foreign visitors: Chinese, Americans and French were mentioned as the main buyers. Chinese subjects prevail and painted or filigreed screens and astrological compasses are specialities. There is also the usual assortment of jewellery items, chopsticks, name seals, etc. The legal position of the ivory trade: A prohibition on the trade in products derived from protected species, which includes elephants, is laid down in several decrees (1989, 1992 and 1996) and the *Environmental Protection Law* of 1993 (Martin and Stiles, 2002). According to informants, enforcement of those laws governing ivory carving and sale had increased.

Sources and prices of raw ivory: Raw Asian ivory had all but disappeared from the market, but even so the price for a 5-10 kg tusk had dropped from USD500/kg in 2001 to USD350/kg in 2003, reflecting lowered demand. The main source of elephant ivory was Angola, with cut blocks of ivory being brought to Hanoi by Vietnamese working in Angola and returning via Moscow. Vietnamese also brought mammoth ivory from Russia, possibly as a means to disguise any elephant ivory they were importing, since trade in mammoth ivory is legal. It sold for USD350/kg, a slight increase on the price for mammoth ivory in 2002, which sold for USD300/kg (Anon., 2002b). In early 2002 insignificant quantities of raw ivory were being processed each month.

Number of carvers and workshops: The main ivory workshop in Hanoi was temporarily closed owing to raw ivory scarcity and low demand for worked pieces, according to the owner. Most carvers live and work in the Th'u'ong Tin District, 20-30 km south of Hanoi, in small, walled villages. Only one workshop run by a father and his son was found to be carving a little ivory (small amulets) at the time of the 2002 study. All other carvers had shifted to wood and bone carving. Ivory middlemen in the Th'u'ong Tin District and Hanoi had small stocks of raw ivory and many unfinished and finished worked ivory pieces, but they had no buyers.

Trend: The number of retail shops selling ivory had dropped from 13 in 2001 to eight in 2002, and the number of pieces displayed in many shops had also decreased. Many shopowners said they were phasing out selling ivory. The number of active ivory carvers had dropped from about 20 to only two.

CONCLUSIONS

In the three largest ivory markets of South and Southeast Asia - Thailand, Myanmar and Viet Nam - research into the ivory carving industry in 2002 and 2003 indicated that ivory processing was stable in Mandalay (approximately 500 kg a year), falling in Hanoi (about 10 kg a year, though much higher previously) and had collapsed in Phayuha Kiri (previously around 2400 kg annually), though small quantities (approximately 240 kg a year) were being processed elsewhere in Thailand.

Most of the carvers in Myanmar and Thailand, particularly the older ones, have a high regard for the elephant and did not want their work to be the cause of any elephant mortality. Many prayed at Buddhist shrines for the future well-being of elephants. Their support for elephant conservation is out of religious conviction rather than any considerations for the conservation of biodiversity. Vietnamese carvers did not seem to be as concerned about the fate of the elephant, though at one temple near Nhi Khe elephants are painted on the outer wall and ceremonies for elephants are held annually.

None of the ivory carvers interviewed wanted to switch from ivory to other materials because ivory provided the greatest income. The study of ivory carving history showed that there are two distinct categories of products: those that require great skill and are accordingly more highly priced, and those of low- to mediocrequality consisting of mostly ornamental or utilitarian items. Only a few 'master carvers' are capable of producing the top quality items, though assistants can help in roughing out the design before the master carver takes over the fine finishing with hand tools. These items usually have some cultural significance to the people of the producer country and are considered works of art by foreign buyers. They consist mainly of religious or traditional subjects. Carvings of lesser quality, which make up the great majority of processed ivory, comprise functional items such as name seals and chopsticks or tourist curios consisting of jewellery, animals, elephant train tusks, animals and figurines carved in profile made from the outer bark of the tusk, ersatz religious or traditional motifs and knick-knacks. These are made by less skilled craftsmen, often using electric tools. The utilitarian and tourist items could just as well be made from ivory substitutes such as bone, bone powder mixed with resin, jade or even plastic.

In spite of the CITES ban on the international trade in ivory, there remains a hard core, base-level market for ivory. It seems that there will always be willing buyers of worked ivory and that this demand will motivate the acquisition of raw ivory by whatever means are necessary, legal or illegal. Therefore, a strategy to conserve elephants through ivory trade control should include a pragmatic component to lower ivory demand. Limiting supply through anti-poaching, anti-trade measures needs to be continued, but it should be recognized that this approach has its downside in that it requires considerable resources and is difficult to sustain at an effective level.

RECOMMENDATIONS

- Recognizing that an elephant ivory market will always exist, CITES Parties should devise strategies and policies that will permit a sustainable international trade of elephant ivory while concomitantly including economic disincentives to poach.
- The most cost-effective place to control the ivory trade is with the ivory carvers. Their co-operation can result in a significant reduction in the amount of ivory being processed. Governments and conservation organizations should develop co-operative working relationships with ivory carvers.

- Only ivory pieces that have cultural and artistic value and which are of high quality should be considered for legal ivory manufacture. This would reduce the demand for raw ivory while satisfying some of the consumer demand for worked ivory. The majority of raw ivory is used to produce items that have no cultural or artistic value. Such items most jewellery, utilitarian pieces and tourist curios could easily be made from other materials. Governments should therefore work with the ivory industry to eliminate the use of elephant ivory in the manufacture of such objects.
- Governments need to formulate and enact legislation and procedures to put into place registration of master carvers and their assistants and a system to monitor ivory manufacturing sites.
- Governments should, if they have not already done so, enact legislation to conform with the recommendations laid out in CITES Resolution Conf. 10.10 (Rev. CoP 12) for the control and management of domestic ivory markets. These recommendations to CITES Parties cover, principally, the marking of tusks and cut ivory pieces; the control of internal ivory trade; assistance to elephant range States through improved law enforcement; surveys and monitoring of wild populations; and, quotas for and trade in raw ivory.
- CITES Parties should co-operate fully with reporting illegal seizures to the Elephant Trade Information System (ETIS), a CITES-approved system managed by TRAFFIC which is used to compile law enforcement data on seizures of elephant specimens with the aim of recording and analysing levels and trends in illegal trade.

Given the weak enforcement of wildlife trade laws (Reeve, 2002; Oldfield, 2003), including the inadequate regulation of the domestic markets in key ivory manufacturing and consumer countries, and the incomplete implementation of programmes to monitor the illegal killing of elephants and the seizure of ivory, the time is not right to re-open the international trade in ivory. There should be no relaxation of the 1990 CITES ivory trade ban unless adequate measures are achieved to conform with the recommendations set out under CITES Resolution 10.10 (Rev. CoP12).



^ Some Ivory Items Found In

HANOI ARE OF HIGH QUALITY, SUCH AS THIS INTRICATELY WORKED TUSK; THE MAJORITY, HOWEVER, COMPRISE TOURIST CURIOS AND TRINKETS OF POOR QUALITY.

Photographs: D. Stiles

BEFORE THE TOURISM BOOM STARTED IN THE 1970s, THAI IVORY CARVING WAS OF A HIGH STANDARD PATRONIZED BY THE ARISTOCRACY OR THE BUDDHIST CHURCH.



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TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

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