The State of Wildlife Trade in China

Information on the trade in wild animals and plants in China 2007

中国野生动植物贸易状况

2007年中国野生动植物资源贸易信息

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The State of Wildlife Trade in China contains information and original papers on the subject of trade in wild animals and plants in and around China, and strives to be a source of accurate and objective information.

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WELCOME!

Xu Hongfa, China Director
Craig Kirkpatrick, Regional Director TRAFFIC East Asia

Welcome to the 2007 edition of *State of Wildlife Trade in China*, the second in our annual series on emerging trends in China's wildlife trade. This edition aims to highlight wildlife trade trends in threatened and at-risk wildlife from the past year, with an emphasis on the impact of China's consumption on globally important biodiversity 'hotspots.' These 'hotspots' are priority trade centres where conservation action to reduce wildlife trade threats can bring about greatest benefit. While these hotspots might be trouble areas at present, they offer opportunities for great conservation success if action is well-focused.

Recent overexploitation of wildlife for trade has affected countless species, with elephants for ivory one of the most-well known examples. This is the subject of our lead story, which shows how surveys in 2007 found that while illegal trade in ivory continues to take place in China, it has taken a step in the right direction as compared to 2006 surveys.

In this report we also take a look at the expanding international trade in Chinese traditional medicine, which is growing at any annual rate of 10%. This, together with habitat loss, has impacted medicinal plant and animal populations, which have shrunk rapidly, with 15% to 20% of medicinal plants and animals now considered endangered.

Another area of wildlife trade in which China has a major impact is wood imports from Africa. While these imports account for a relatively small percentage of its overall wood imports, the percentage is growing and its impact is being felt amongst local communities at the source.

The results of a survey on wild meats are also included in this year's report. Eating wild animals has long been a tradition in southern China, and while general consumption of wild animals slowed with SARS in 2003, a recent survey of wild animals sold in five cities in southern China has revealed the tradition has once again gained in popularity.

Our work to enlist consumers as partners continues this year with new research on understanding the motivations of people in various regions of China for consuming wildlife foods and tonics. This is the crucial first step toward long-term communications campaigns that will reduce China's consumption of illegally-traded and unsustainably-produced wildlife.

Other stories in this issue give updates on Asian freshwater turtles from Southeast Asia; salmon from the Russian Far East; musk, also mainly from the Russian Far East; and how Taiwan's trade in sea cucumbers from the Galapagos is harming human livelihoods in this unique area of the world.

This report hopes to be a starting point for more in-depth work to encourage sustainable wildlife trade trends in China, from policy-makers to enforcers to consumers. Together, we can achieve the vision of a world in which trade in wild plants and animals is managed at sustainable levels while making a significant contribution to human needs.

欢迎!

TRAFFIC中国项目主任：徐宏发
东亚野生物贸易研究委员会主任：柯瑞戈 Craig Kirkpatrick

欢迎阅读2007年《中国野生生物贸易状况》，这是我们第二辑关于中国野生生物贸易新兴趋势的年度报告。本报告的内容主要是去年以来濒危野生生物的贸易趋势，重点分析野生生物的消费对全球重点生物多样性“热点”的影响。这些“热点”是野生生物贸易危害特别明显，也是采取行动特别有意义的地方。虽然这些热点是产生“问题”的策源地，但如果对此采取适当的措施加以控制，则是能够实现野生生物保护重大胜利的机遇。

对野生生物的过度开发利用已经对无数物种的生存造成了不良影响，捕猎大象获取象牙就是非常明显的例子之一。这也是本报告的第一项主题：2007年的调研发现虽然非法象牙贸易在中国仍有发生，但比较2006年的调研结果，已经有明显改善。

在本报告中，我们还研究了中药不断扩大的国际贸易。中药国际贸易每年增长10%。这种趋势加上栖息地的缩小，已经对药用植物和动物种群造成影响，使其数量迅速下降。目前约15%到20%的药用动植物资源已经处在濒危状况。

另一个重要的野生生物贸易领域是关于来自非洲的木材进口。虽然来自非洲的木材只占中国木材进口总量的一小部分，但其比例正在不断增长，并正在对非洲木材原产地造成不容忽视的影响。

本年度的报告中还有关于野味的调研结果。华南有食用野生动物的悠久传统，虽然2003年非典爆发后普遍食用野生动物的情况有所收敛，但近期对华南五城市野生动物销售情况的调研，揭示这种传统又有抬头的趋势。

我们今年继续在消费者中选择合作伙伴，借此开展新的研究，了解中国各地群众消费以野生动植物为原料的食品和滋补品的动机。这是通过发动舆论宣传来减少非法贸易的濒危野生生物消费的关键步骤。

本期的其他内容还有东南亚的亚洲淡水龟、俄罗斯远东的鲑鱼、麝的最新贸易现状。另外专题报道了南美加拉帕戈斯地区与中国台湾地区的海参贸易对该地区群众生存状况的影响。

本报告目的是为各有关方面，包括决策者、执行者和消费者提供信息，为确保可持续的野生动植物贸易而开展更深入的工作。结合各方的力量，以实现在世界范围内的人类所需要的野生动植物的可持续贸易。

Ivory carving of Guanyin at the Beijing Kupeng Ivory Carving Factory. ©TRAFFIC
象牙观音，摄于北京库鹏象牙雕刻厂©TRAFFIC

Elephant ivory trade in China: Recent market surveys

By Xu Ling, CN Enforcement Assistance Officer, TRAFFIC East Asia

Since China's 1991 ban on ivory imports, the only legal source of elephant ivory in China is from stocks that were imported before 1991. Chinese authorities have certified all of these pre-ban stocks, and instituted a tracking system that includes processing and sales in order to distinguish legal from illegal trade. However, seizures indicate that illegal elephant ivory is still smuggled into China each year. Recent market surveys (conducted by TRAFFIC in partnership with the China Arts and Crafts Association (CACA)) have shown that enterprises legally accredited to sell ivory from pre-ban stockpiles are for the most part compliant with regulations. However, an illegal ivory trade continues to thrive at curio markets and in hotel shops. There is hope that this trade can be better controlled, however, since the market surveys show there may be a decrease in illegal ivory trade at these venues over time.

These surveys included 68 designated ivory product sellers, 35 curio markets, 70 four- and five-star hotels and 11 airports in seven major cities (Beijing, Tianjin, Shanghai, Suzhou, Hangzhou, Fuzhou and Guangzhou). The first survey took place from December 2006 to January 2007. Markets in Beijing, Shanghai and Tianjin, 'hotspots' of illegal ivory trade uncovered in the first survey, were revisited from February to April 2007 and December 2007-February 2008 to deepen the results of the earlier survey.

In addition to field investigations, research methods also included internet searches for web-based ivory sales; visits to auction preview exhibitions featuring items made from ivory; visits to local ivory processing and sales enterprises; and interviews with relevant officials at the Wildlife Inspection Center of the State Forestry Administration to learn about implementation of regulations of the domestic ivory trade.

These surveys found that ivory sellers were typically compliant with regulations. All government-authorised sellers visibly displayed their "designated

ivory product seller" certificate, together with other required documents. Ivory products from these sellers were accompanied with proper certificates.

However, the survey found a parallel illegal market in ivory that took place in curio markets and upscale hotels, an apparent gap in enforcement.

Survey results

Ninety-seven illegal sellers were identified in seven cities during the first survey. Eighty-six of these were located in Shanghai, Beijing and Tianjin. Nine were in Hangzhou and two in Guangzhou, while none were in Suzhou and Fuzhou.

By the time Shanghai, Beijing and Tianjin were revisited in the second survey, there was a substantial reduction in the availability in illegal ivory. There were fewer illegal sellers in curio markets in Shanghai, although half still sold ivory products. In Beijing and Tianjin, illegal ivory products were rarely found, even in large curio markets like Panjiayuan in Beijing and Culture Street in Tianjin. Very few sellers claimed they had old stocks available for sale upon inquiry. However, in the third survey, four stores in Tianjin had restarted selling illegal ivory products. Hence, the illegal ivory trade is dynamic, with enforcement directly affecting the volume of illegal trade.

In the first survey, 1913 illegal ivory products were recorded. 1788 of these were found in Shanghai, Beijing and Tianjin. Of the 1913 pieces of ivory, 242 were antiques (or second-hand items) and 1671 were new. Ninety-one were large-sized carvings and the remaining 1580 were small-sized items. The large pieces accounted for about 5% of all new ivory products recorded.

Table 1 Illegal ivory trade volume by city (December 2006 to January 2007)

City	New (pieces)		Antique (pieces)		Total (%)
	Big	Small	Big	Small	
Shanghai	52	450	12	126	**640 (33.5%)**
Beijing	12	316	10	91	**429 (22.4%)**
Tianjin	26	693	0	0	**719 (37.6%)**
Suzhou	0	0	0	0	**0**
Hangzhou	0	56	0	3	**59 (3.1%)**
Guangzhou	1	65	0	0	**66 (3.5%)**
Fuzhou	0	0	0	0	**0**
Total (%)	**91 (4.8%)**	**1580 (82.6%)**	**22 (1.2%)**	**220 (11.5%)**	**1913 (100%)**
	1671 (87.3%)		**242 (12.7%)**		

Revisits to Shanghai, Beijing and Tianjin markets revealed a significant decrease in illegal ivory trade, as compared with the first survey (see **Table 2, Figure 1** and **Figure 2**). Both the total number of ivory products recorded and that of new large-sized products decreased significantly. The second survey did not find any illegal ivory trade in Tianjin, however, the third survey found renewed illegal trade at a much lower volume.

Table 2 Comparison of illegal ivory trade volume found in three surveys of three cities

City	Total Volume			New large-sized crafts		
	First	Second	Third	First	Second	Third
Shanghai	640	386	188	52	21	5
Beijing	429	101	30	12	1	0
Tianjin	719	0	312	26	0	2
Total	**1788**	**487**	**530**	**90**	**22**	**7**

Figure 1 Comparison of illegal ivory trade volume found in three surveys of three cities (for both new and antique products)

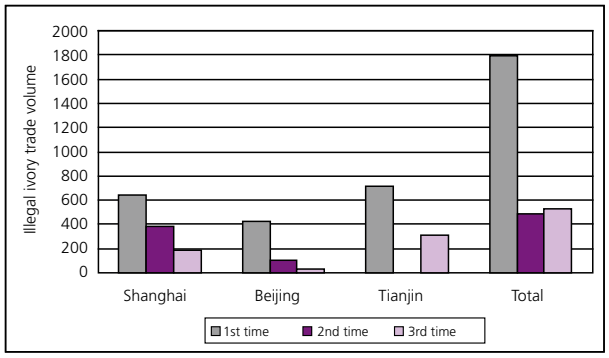
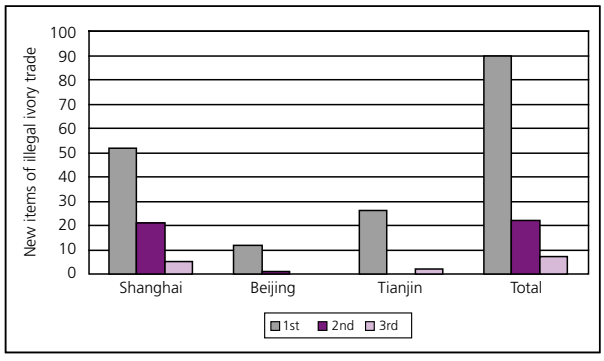


Figure 2 Comparison of illegal ivory trade volume found in three surveys of three cities (for new items only)



Results of the survey suggest that the main source of this illegal trade was from in Africa. Raw material is smuggled through Fujian and Guangdong provinces. These two provinces, along with Jiangsu, appear to have the main concentration of processing factories.

The price of ivory has surged in recent years. Before 2000 the price of ivory on the black market was RMB1000/kg; by 2006 it had risen to RMB7000/kg.

General findings suggest that prices of ivory products on the black market are often about one-third the price of similar products sold by legal sellers.

With increased enforcement of regulations governing the illegal ivory trade, illegal sellers seem to be changing their sales practices; it rare to see illegal ivory products openly displayed in shops. Further, there are several avenues for the sale of illegal ivory, such as through online or off-line auctions.

China's ivory trade continues, and the illegal trade has been driven underground. This presents new challenge for effective regulation in the future.

中国的象牙贸易现状

徐玲 TRAFFIC中国项目官员

中国自1991年开始，全面禁止了象牙的进口。国内象牙雕刻必须采用1991年以前合法进口的库存象牙。 为了防止非法进口，管理部门又对禁令颁布前合法进口的库存象牙进行了核查，实行定点加工和销售制度对象牙的国内贸易进行了严格管理。即使在这样的管理措施下，中国海关发现每年仍有不少象牙走私进口。为了弄清象牙贸易现状，以采用更有效的措施打击非法象牙贸易。TRAFFIC与中国工艺美术协会合作对市场进行了调查，结果显示，合法经销点的经营管理比较规范，但是在一些古玩市场和酒店的礼品店仍然存在象牙制品的非法贸易。虽然这种非法贸易呈不断减少的趋势，但还是希望有关部门能够积极采取相应措施，使得这种贸易得到很好的遏制。

2006年12月至2007年1月，对北京、天津、上海、苏州、杭州、福州和广州等七个主要的生产和消费城市的68个象牙制品指定经销点、35个古玩市场、70家四/五星级酒店、11个机场的象牙贸易情况进行了第一次调查；第二次和第三次调查分别在2007年2-4月和2007年12月至2008年2月进行。对象牙制品非法贸易相对较多的北京、上海和天津的市场还进行回访。

除对象牙经销店调查以外，还通过1）网络搜索的方法，对目前网上象牙的拍卖进行调查；2）参观象牙拍卖会的预展现场，了解象牙的拍卖信息；3) 走访各地的象牙制品定点加工企业和销售企业，了解象牙制品加工生产的情况；4）访问国家林业局野生动植物检测鉴定中心相关负责人，了解国内象牙贸易的管理。

调查结果显示，合法企业的经营管理比较规范，所有的指定经销点在显著位置安放“象牙制品指定销售点”的牌匾，悬挂、摆放统一规格的警示宣传用品，所出售的象牙制品都具有《象牙制品收藏证》，不存在非法贸易。

但是在指定经销点之外的古玩市场和星级酒店等，由于经济利益的驱势和市场疏于管理，却存在着大量非法的象牙贸易：

A．非法经销点的分布城市

第一次调查的7个城市中，发现非法经销点有97个。主要集中在上海、北京和天津，这三个城市共有非法经销点86个，占总数的88.66%。调查发现杭州有9个非法经销点，广州有2个非法经销点，苏州和福州则没有发现。

第二次调查主要是对上海、北京和天津进行回访，发现上海古玩市场上的非法经销点虽然数量明显减少，但仍有约一半的非法经销点还在经营。在北京和天津，第二次回访未发现非法经销点。原来北京潘家园和天津古文化一条街的象牙非法经销点比较多，第二次回访除个别店铺在顾客询问时仍声称有象牙存货出售外，未发现有商店公开非法摆卖象牙制品；但是第三次调查时，天津的4家店又卷土重来。所以，这种非法贸易一直处于一个动态变化的过程，市场管理的严格与松懈，往往会直接决定了非法贸易的多少。

B．非法贸易量

第一次的调查的调查结果显示（表1），七个城市的市场上共记录到1913件象牙制品，其中在上海、北京、天津三城市见到1788件。 出售的象牙中古董象牙（旧货）242件；新象牙制品1671件，大件有91件，其余1580件均为小件。新象牙制品中，大件所占的比例为5.4%。七城市中，天津市场记录到的象牙制品数量最多，为719件，上海640件、北京429件、广州66件和杭州59件。

表1. 各城市象牙非法贸易量的比较（2006.12-2007.1）

城市	新货（件）		旧货（件）		合计（%）
	大	小	大	小	
上海	52	450	12	126	**640（33.5%）**
北京	12	316	10	91	**429（22.4%）**
天津	26	693	0	0	**719（37.6%）**
苏州	0	0	0	0	**0**
杭州	0	56	0	3	**59（3.1%）**
广州	1	65	0	0	**66（3.5%）**
福州	0	0	0	0	**0**
合计（%）	**91（4.8%）**	**1580（82.6%）**	**22（1.2%）**	**220（11.5%）**	**1913（100%）**

对上海、北京和天津市场的回访调查发现，象牙的非法贸易量与第一次相比均有明显的下降（表2，图1和2）。不管是从象牙制品的总件数，还是新货大件的数量均有显著减少。天津第二次调查未记录到象牙的非法贸易，但是第三次调查重新发现，不过，贸易量较第一次要少的多。

表2. 三城市两次调查的象牙非法贸易量比较

城市	总件数			新货大件		
	第一次	第二次	第三次	第一次	第二次	第三次
上海	640	386	188	52	21	5
北京	429	101	30	12	1	0
天津	719	0	312	26	0	2
合计	**1788**	**487**	**530**	**90**	**22**	**7**

图1. 三城市三次调查的象牙非法贸易量比较1：总件数

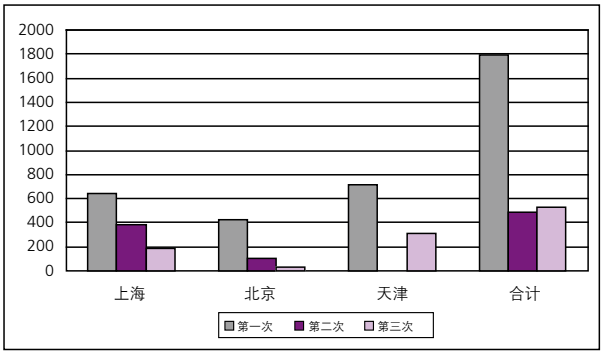
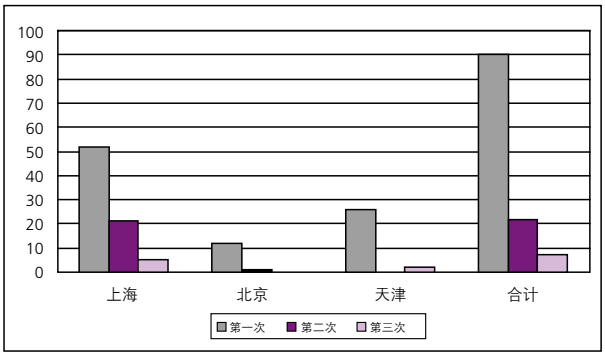


图2. 三城市三次调查的象牙非法贸易量比较2：新货件数



C．来源

凡了解到的非法来源的象牙原料，无一例外地是从非洲走私进来，走私入境的港口以福建和广东为主。加工点则主要集中在福建、江苏扬州和广东。访问中，一加工企业的负责人向调查人员透露，福建的生产窝点在莆田市仙游县，以家庭作坊为主。

D．价格

近年来，象牙原料的价格一路飙升。据加工企业的负责人告知，2000年之前，黑市象牙原料的价格仅有1000元/千克，2006年已涨至7000元/千克。

黑市象牙制品的价格通常远远低于指定经销点相应产品的价格，一般仅为后者的三分之一。

E．经营手段

调查中发现，由于管理部门对象牙非法贸易打击，经销商不敢明目张胆的将象牙制品摆在柜台上，而只是放几样小件，在弄清购买者的意图后，才将象牙从隐蔽处拿出来。另外，采用互联网的拍卖平台或是通过拍卖会进行贸易是非法象牙贸易的新动向。

如何有效管理中国市场的象牙贸易，特别是遏制非法贸易，这对政府部门来说是一个新的挑战。

Promoting sustainable use of Chinese traditional plant medicines

By Liu Xueyan, CN Timber Trade Officer, TRAFFIC East Asia

Plants have been an integral part of Chinese traditional medicine for thousands of years. According to the Chinese Traditional Medicine Modernization Development Strategy (1998), of the 12807 types of Chinese traditional medicine resources, 11146 are plants (87%). Traditional medicine remains a large part of China's healthcare system, with the traditional medicine industry making up 26% of the total output of China's pharmaceutical industry in 2006. Due to over-utilisation of wild medicinal plant resources, along with habitat loss, however, medicinal plant populations have shrunk rapidly, with 15% to 20% of medicinal plants and animals now considered endangered (Resource science of Chinese medicinal materials: Protection and sustainable use of Chinese medicinal material resources, 2007).

Rows of ginseng and mushroom elixirs for sale in Seoul, South Korea. © Plants for life: Medicinal Plants Conservation, Botanic Gardens Conservation International (BGCI), January 2008

韩国汉城待售的人参和灵芝药酒

图片来源：“生活中的植物:药用植物的保护, 植物园保护国际” 2008年1月

Currently, China's domestic trade in wild plants used as medicine is centered in 17 key medicinal wholesale markets that are approved by the State government. (See **Table 1**)

Table 1 Key Domestic Medicine Wholesales Market

Province/ Autonomous Region	Location	Market Name
Hebei	Anguo	Anguo Market
Anhui	Bozhou	Bozhou Market
Sichuan	Chengdu	He Huachi Market
Chongqing	Chongqing	Jie Fanglu Market
Guangdong	Guangzhou	Qingping Market
Henan	Huixian	Baiquan
Jiangxi	Zhangshu	Zhangshu Market
Hunan	Shaodong	Lianqiao Market
Shaanxi	Xi'an	Wan Shoulu Market
Guangxi	Yulin	Yulin Market
Hei Longjiang	Ha'rbin	San Keshu Market
Shandong	Zhencheng	Shun Wangcheng Market
Yunnan	Kunming	Ju Huayuan Market
Gansu	Lanzhou	Huanghe Market
Guangdong	Puning	Puning Market
Hunan	Yueyang	Hua Banqiao Market
Henan	Yuzhou	Yuzhou Market

Source: TRAFFIC China 2007

In addition to the lively trade in China's domestic markets, the international trade in Chinese traditional medicine is also rapidly expanding. In 2003, China's total international trade in natural medicines (herb medicines and Chinese traditional medicines) totalled USD4 billion and has continued to grow at an annual rate of 10%. In this same period, exports of Chinese traditional medicine alone totalled USD710 million. The latest customs data, from January to November 2007, show that imports and exports of Chinese traditional medicines reached USD1.4 billion during this period, including exports worth USD1.1 billion, 7% higher than the year before. Exports of Chinese traditional medicine products account for 5% of all exported pharmaceuticals made in China. Imports have reached USD318 million, 17% higher than a year before, with the growth rate of imports 10% higher than that of exports. **Table 2** illustrates Chinese traditional medicine exports from 1998 to 2007 and **Table 3** illustrates exports by type of medicine.

Table 2 1998-2007 Chinese Traditional Medicine Exports (in USD100 Million)

Year	1998	1999	2000	2001	2002
Amount	5.41	5.16	5.54	5.58	6.71
Year	2003	2004	2005	2006	2007*
Amount	7.12	7.25	8.49	10.90	10.56

Source: China Customs Office
*Data for first 11 months only

Table 3 2000-2007 China's Traditional Medicine Exports by Type (in USD100 Million)

Type	2000	2001	2002	2003
Raw Medicine	3.49	3.54	3.90	4.20
Semi-processed Product	1.14	1.02	1.71	1.80
Healthcare Product				
Packaged Medicine	0.91	1.02	1.10	1.12
Total	5.54	5.58	6.71	7.12
Type	**2004**	**2005**	**2006**	**2007 ***
Raw Medicine	3.63	3.49	4.10	4.26
Semi-processed Product	2.23	3.26	4.77	4.30
Healthcare Product		0.51	0.69	0.62
Packaged Medicine	1.39	1.23	1.34	1.38
Total	7.25	8.49	10.90	10.56

Source: Modern Chinese Medicine, Issue 3, Volume 9, March 2007, P40-42
*Data for first 11 months only

In terms of export destinations, in 2007 Chinese traditional medicine products were mainly exported to Asia. From January to November 2007, exports to Asia totalled USD687 million, those to Europe USD162 million and those to North America USD144 million.

Top importers of Chinese traditional medicine by country or region include Hong Kong, USD221 million, Japan, USD210 million and the US, USD147 million figuer for the whole year. **Table 4** illustrates the top importers of Chinese traditional medicine in 2007.

Table 4 Top 10 importers of traditional medicine from China in 2007

Position	Country/Region	Export (USD10,000)
1	Hong Kong	22162
2	Japan	21025
3	USA	14728
4	Korea	10042
5	Viet Nam	4785
6	Germany	3878
7	Malaysia	3656
8	Taiwan	3379
9	Singapore	2871
10	Indonesia	2798

Source: China Chamber of Commerce for Import and Export of Medicines Health Products (CCCMHPIE)

While international trade in Chinese traditional medicine is expanding, it continues to face serious challenges. Most importantly, resources have been degraded due to lack of scientific standards and methods for sustainable collection. Too often, young plants that are not medically valuable are collected in error. Also, poor processing techniques mean that much of the raw medicines do not have their ingredients fully extracted and therefore are not used efficiently.

Secondly, driven by market demand, many wild plant medicinal resources have been collected beyond their regenerative capacity. This over-collection, paired with human activities that result in the loss of habitat, leads to sharp declines or even to local extinctions of some species, particularly those that cannot be cultivated, such as *Saussurea involucrate*, *Cistanche deserticola*, *Cordyceps sinensi* and *Gastrodia elata*.

Roughly 1200 traditional medicines are frequently used, with about 800 of those being sourced primarily from the wild. These 800 species account for about 30% of China's total traditional medicine production; the remaining 400 which are primarily farmed or cultivated, account for about 70%. China currently has about 450 plantations, with a total area over 1.3 million ha.

China has brought standards to its traditional medicine industry, such as GAP (Good Agricultural Practice) and GMP (Good Manufacturing Practice). The next step is for China to consider standards for the collection of medicinal plants from the wild. In time, these sets of standards will ensure that China's medicinal products can compete in international markets, while protecting wild resources.

TRAFFIC is currently working with partners to conserve wild Chinese traditional medicine plant resources through the development of sustainable collection standards (ISSC-MAP), including demonstration projects in the middle and upper Yangtze River basins.

Our goal is to promote internationally certified 'green' Chinese traditional medicine products for the benefit of nature and people.

中国药用植物资源的可持续利用与贸易

刘雪雁 TRAFFIC中国项目官员

植物一直是中药的重要组成部分，其使用已有上千年的历史。据调查（中药现代化发展战略，1998），目前中国共有中药资源12807种，其中药用植物11146种，占药用资源种类的87%。作为中国医疗保健产业的重要组成部分，2006年，中医行业工业总产值占整个医药工业生产总产值的26%。由于长期对野生药用动植物资源过度利用, 及野外动植物栖息地的破坏和丧失, 造成野外数量锐减，有15%～20%的药用动植物物种处于濒危状态（中药资源学：中药资源的保护和可持续利用。2007）。

中国目前国内的药材贸易主要是通过国家批准的17大药材批发市场来进行的。见表1：

表1. 国内主要中药材批发市场

省/自治区	城市	中药材市场名
河北	安国	安国市场
安徽	亳州	亳州市场
四川	成都*	荷花池市场
重庆	重庆	解放路市场
广东	广州*	清平市场
河南	辉县	百泉
江西	樟树市	樟树市场
湖南	邵东	廉桥市场
陕西	西安*	万寿路市场
广西	玉林	玉林市场
黑龙江	哈尔滨	三棵树市场
山东	鄄城	舜王城市场
云南	昆明	菊花园市场
甘肃	兰州	黄河市场
广东	普宁	普宁市场
湖南	岳阳	花板桥市场
河南	禹州	禹州市场

资料来源: TRAFFIC China 2007

除了日渐活跃的国内市场外，中草药的出口贸易也在快速增长。2003年世界天然药物（植物药，中药）贸易额已经达到400亿美元，并且每年以10%的速度递增，其中中国中药出口总额达到7.1亿美元，之后出口稳步增长。据最新海关数据显示，2007年1—11月份，中国中药类产品进出口额达14亿美元，其中中药类产品出口额达到11亿美元，与去年同期相比增长7%，中药类产品出口额占我国医药类产品出口总额的5 %。进口额达到3.18亿美元，同比上升17%，中药产品进口增幅高于出口增幅10个百分点。表2数据显示1998-2007年间中药出口额的变化情况以及表3中药各个类别的出口金额。

表2. 1998-2007中药出口额（亿美元）

年	1998	1999	2000	2001	2002
金额	5.41①	5.16①	5.54①	5.58①	6.71①
年	2003	2004	2005	2006	2007*
金额	7.12②	7.25③	8.49④	10.90④	10.56⑤

*数据来源：*中国海关 ***1-11月数据**

表3. 2000-2007中国中药出口金额分类统计（亿美元）

类别	2000①	2001①	2002①	2003①
中药材	3.49	3.54	3.90	4.20
提取物	1.14	1.02	1.71	1.80
保健品				
中成药	0.91	1.02	1.10	1.12
总计	5.54	5.58	6.71	7.12
类别	2004②	2005③	2006③	2007*
中药材	3.63	3.49	4.10	4.26
提取物	2.23	3.26	4.77	4.30
保健品		0.51	0.69	0.62
中成药	1.39	1.23	1.34	1.38
总计	7.25	8.49	10.90	10.56

*数据来源：*中国现代中药，2007年3月第9卷第3期，P40-42
***1-11月数据**

从出口市场看，我国中药产品的主要出口地是亚洲。2007年1月~11月，对亚洲出口达到6.87亿美元，对欧洲出口达1.62亿美元，对北美洲出口达1.44亿美元。2007年全年，中国对香港出口达2.22亿美元，日本2.10亿美元，美国1.47亿美元。表4显示2007年中药类产品出口的主要地区与国家。

表4. 2007年对各地区或国家中药类产品出口（按金额排序）

位置	国家/地区	出口额（万美元）
1	香港	22162
2	日本	21025
3	美国	14728
4	韩国	10042
5	越南	4785
6	德国	3878
7	马来西亚	3656
8	台湾	3379
9	新加坡	2871
10	印度尼西亚	2798

*数据来源：*中国医药保健品进出口商会

虽然中医药国际贸易在不断增长,但仍面临着严峻的挑战。最重要的是，至今由于缺乏科学的可持续采集标准和方法,多数未成熟、药效物质还没有长成的中药材被硬性采摘；大量未经充分利用、还含有不少药用成分的中药材被直接丢弃不用。

再者，由于市场的巨大需求，我国对许多中药野生植物资源一直是过度开发的，此外人类经济活动带来的野生动植物栖息地的丧失，都造成野外植物资源的急剧减少并使得某些物种消亡，如目前尚不能人工栽培的雪莲、肉苁蓉，冬虫夏草，天麻等。

中国现常用中药材约有1200种，其中野生品种约800种，产量约占中药材总量的30%，人工栽培品种约400种，产量约占70%。中国现已建有448个中药材规范化种植基地，种植面积已达130万公顷。

目前，中国的中药种植生产行业已有多种标准，如GAP/GMP等。中国下一步计划就是开始制定野生药用植物采集标准，该标准的制定有利于野生资源的保护和提高中药在国际市场上的竞争力。

TRAFFIC在保护中药野生植物资源方面将开展的工作

1．通过正在进行的欧盟中国生物多样性项目，制订适合中国的野外药用植物的可持续采集标准（ISSC-MAP），并在野生药用植物资源地区长江中上游区域开展示范项目。

2．通过TRAFFIC的国际组织渠道，推动当地经过国际认证绿色中药产品，并给采集者直接带来利益。

The wild meat trade in southern China

By Xu Ling, CN Enforcement Assistance Officer, TRAFFIC East Asia
Meng Meng, China Wildlife Conservation Association
Yin Feng, China Wildlife Conservation Association

Eating wild animals has long been a tradition in southern China. While general consumption of wild animals slowed with SARS in 2003, the tradition has once again gained in popularity in recent years. In January 2007, a survey of wild animals sold in 25 markets selling flowers, birds, aquatic products, sea products, and agricultural products and 50 luxury restaurants in five cities in southern China (Kunming, Yunnan province; Nanning, Guangxi province; Guangzhou, Guangdong province; Fuzhou, Fujian province; and Haikou, Hainan province) was conducted. The survey investigated wild animals only, and excluded those legally farmed. In addition, sources on the Chinese internet were consulted to find seizure cases involving wild animals for food allowing greater insight into the trade of wild animals for food in southern China.

The market survey of the five southern Chinese cities found trade of wild animals taking place in 13 of the 25 markets investigated, representing 52% of the total. In addition, twenty of the 50 restaurants surveyed were found to sell wildlife, accounting for 40% (see **Table 1**).

The survey found that the wild animal trade was particularly concentrated in Nanning and Guangzhou. Haikou was another hotspot where wild animals were available in many of the markets and restaurants. In contrast, almost no wild animal trade was found in Kunming and Fuzhou, perhaps due to strengthened enforcement of wildlife laws and regulations by government authorities.

Table 1 Illegal wild animal trade in five cities in southern China (January 2008)

City	Markets	Number with wild animal trade	Restaurants	Number with wild animal trade
Nanning	5	5	10	6
Guangzhou	5	4	10	5
Haikou	5	2	10	5
Fuzhou	5	1	10	2
Kunming	5	1	10	2
Total	**25**	**13 (52%)**	**50**	**20 (40%)**

The survey found a total of 56 wildlife species being sold, of which 39 were reptiles (accounting for 70%); 4 were mammals (7%); 10 were birds (18%); 2 were amphibians (4%); and 1 fish (2%). Of these, two were National Grade 1 protected animals under Chinese law and six were National Grade 2 protected animals. In addition, two were protected under CITES Appendix I and 15 were protected under CITES Appendix II.

Freshwater turtle and snake species accounted for the majority of illegal wild animal trade found in the survey, with trade in other species relatively small. Six hundred freshwater turtles were found on sale at Qingping market (excluding those in warehouses) in Guangzhou, including such species (in order of popularity) as the Malayan Box Turtle (*Cuora amboinensis*), Elongated Tortoise (*Indotestudo elongata*) and Black Marsh Turtle (*Siebenrockiella crassicollis*).

The snake trade was concentrated in the Dongwang Frozen Product market (also known as the Chatou Wild Animal market) in Guangzhou. In total, the survey recorded nearly 3000 snakes, including such species (in order of popularity) as the Taiwan beauty snake (*Elaphe taeniura*), Rat snake (*Ptyas korros*) and Tri-rope beauty snake (*Elaphe radiata*).

Conversations with sellers and interviews with relevant government staff suggest three main trade routes for the illegal wild animal trade: 1) giant lizards, snakes and freshwater turtles from Southeast Asia and smuggled into China via sea. This trade route appears to account for the largest trade volume: on 22 May 2007, for example, 5193 giant lizards from Southeast Asia were seized in Yangxi county, Guangdong province; 2) pangolin and a small quantity of giant lizards smuggling through Viet Nam and Lao PDR into Guangxi and Yunnan provinces over land; and 3) hawks and geckos from inland provinces like Hunan, Sichuan, Jiangxi and Gansu, first to Guangzhou and then on to other places in China.

In Guangzhou, Nanning and Haikou, trade of snakes and

freshwater turtles took place in the open. However, that of pangolin and bear paw was hidden. Moreover, in the hidden trade, sellers only dealt with "return customers" and were highly cautious with strangers.

The internet survey found 142 published cases involving the trade of wild animals for food in China. Of these, 61 (43%) involved species on the list of National Grade 1/2 protected animals or CITES Appendices I/II.

Our internet review suggests that seizures are concentrated in Guangdong, Guangxi, Yunnan, Hainan, Jiangxi and Fujian provinces. These provinces accounted for a total of 83 cases (58%) (see **Table 2**). The destination of many seizures also concentrated on these six provinces, as 72 (49%) of all cases, reported them as the final destinations. Guangdong was the most popular destination, accounting for 34 (24%) of all cases.

Analysis of the published internet cases and the field surveys of five southern Chinese cities also gave insight to the economics that drive this illegal trade and allow some conclusions to be drawn. According to varied sources within this study, in Myanmar, a pangolin costs RMB20/kg (USD3/kg). When smuggled to Kunming province, China, the price rises to RMB400/kg (USD57/kg). Upon arrival at Guangdong province, the price goes up to RMB600/kg (USD86/kg), and may reach RMB1200/kg (USD171/kg) at special times such as just before Chinese New Year. These price increases along the trade chain probably drive traders in search of high profit.

Table 2 Geographical distribution of seizure cases of trade in wild animals for food, found on the internet between January and December 2007

	Location of seizure	% of total seizures recorded	Planned destination of shipment	% of total destinations
Guangdong	26	18%	34	24%
Guangxi	14	10%	5	4%
Yunnan	12	8%	9	6%
Hainan	12	8%	11	8%
Jiangxi	10	7%	5	4%
Fujian	9	6%	8	6%
Subtotal	**83**	**58%**	**72**	**51%**
Others	59	42%	70	49%
Total	**142**	**100%**	**142**	**100%**

Two species of freshwater turtles - Impressed Tortoise *Manouria impressa* and Elongated Tortoise *Indotestudo elongata* - for sale at Fangcun Market in Guangzhou. ©TRAFFIC

凹甲陆龟（左）和缅甸陆龟（右）， 摄于广州芳村市场©TRAFFIC

中国南方地区食用野生动物的贸易情况

徐玲 TRAFFIC中国项目官员
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尹峰 中国野生动物保护协会

中国南方地区素有食用野味的陋习，尽管在2003年非典之后这种陋习有所好转，但是，近年来，又有蔓延的趋势。为了弄清和分析华南地区的重要野生动物市场的贸易现状，在Rufford的资助下，TRAFFIC与中国野生动物保护协会于2007年1月（春节前）对云南昆明、广西南宁、广东广州、福建福州和海南海口五个城市的共计25个市场（花鸟、水产品、海产品、农贸市场等）及50个高档酒楼进行了走访调查，调查的物种仅指来自野外的野生动物，不包括人工合法驯养繁殖的野生动物。同时，我们对网上公布的食用野生动物的案件进行了收集汇总，从而进一步分析目前中国南方地区食用野生动物的贸易情况。

对中国南方五个城市野生动物贸易的调查结果显示（表1）：在调查的25个市场中，发现出售野生动物的有13个，占52%；在调查的50家酒楼中，存在野生动物贸易的有20家，占40%。其中，南宁和广州是野生动物贸易的集中区域；海口的情况也不容乐观，部分集贸市场和酒楼也有野味供应；相对而言，昆明和福州因为当地森林公安和工商管理部门多方面加强了管理，因此在市场上基本上见不到野生动物。

表1. 中国南方五个城市野生动物贸易情况比较（2008.1）

	调查的市场（个）	经营野生动物的市场（%）	调查的酒楼（家）	经营野生动物的酒楼（%）
南宁	5	5（100%）	10	6（60%）
广州	5	4（80%）	10	5（50%）
海口	5	2（40%）	10	5（50%）
福州	5	1（20%）	10	2（20%）
昆明	5	1（20%）	10	2（20%）
合计	**25**	**13（52%）**	**50**	**20（40%）**

通过本次调查，我们对中国南方五个城市的野生动物贸易的种类、贸易量、贸易路线及其特点等有了初步的了解，具体结果如下：

1．贸易种类

本次调查发现的野生动物种类繁多，合计56种，其中以爬行类为主，共39种，占70%；哺乳动物4种，占7%；鸟类10种，占18%；两栖类2种，占4%；鱼类1种，占2%。其中国家一级保护动物2种，国家二级保护动物6种，2种为濒危野生动植物种国际贸易公约（CITES）附录I及15种为附录II 的物种。

2．贸易量

调查中发现，龟类与蛇类占据大部分的贸易量，其他种类的贸易量相对比较少。就龟类而言，单是在广州清平市场，就看到有近600只的龟在出售（不包括商贩仓库中的）。最常见的物种依次为：马来闭壳龟(*Cuora amboinensis*)、缅甸陆龟(*Indotestudo elongata*）和粗颈龟（*Siebenrockiella crassicollis*）。蛇类主要集中在广州东旺冻品市场（又名槎头野生动物市场），调查记录到近3000条蛇。最常见的蛇依次为：黑眉锦蛇(*Elaphe taeniura*)、灰鼠蛇 (*Ptyas korros*) 及三索锦蛇(*Elaphe radiata*)。

3．贸易路线

通过与商贩攀谈及与向相关执法人员咨询，了解到：从来源渠道上看，野生动物的非法贸易路线大致分三种：一是从东南亚一带非法收购巨蜥、蛇类和龟类等，经海上走私入境。通过这一路线走私的野生动物数量巨大，如2007年5月22日，广东阳西县查获从东南亚非法走私入境巨蜥5，193只；二是从越南、老挝经广西、云南等陆地走私入境，种类多为穿山甲和少数巨蜥；三是来源于湖南、四川、江西、甘肃等地，种类主要为鹰类、大壁虎等。这些非法获得的野生动物进入广州市场，再分散到各地。

4．贸易特点

在广州、南宁和海口，蛇类、龟鳖类的贸易基本上是公开的。但是像穿山甲和熊掌等的贸易隐蔽性非常强，而且商贩们只做“熟客生意”，对陌生人保持高度的警惕。

通过互联网的搜索，据不完全统计，2007年1-12月，公开的中国查获的食用野生动物案件合计有142起，其中涉及国家一二级保护动物或CITES附录I/II物种的案件有61起，占43%。

我们对案发地点和野生动物查获前的去向进行分析表明（表2），案发地点主要集中在广东、广西、云南、海南、江西和福建，发生在这六个省的案件共计83起，占总案件数的58%；野生动物查获前的去向亦集中在上述六个省，共计72起，占49%，其中广东最多，达34起，占24%。

表2. 食用野生动物案件的地域分布情况（2007.1-2007.12）

	案发地点	百分比	野生动物查获前的去向	百分比
广东	26	18%	34	24%
广西	14	10%	5	4%
云南	12	8%	9	6%
海南	12	8%	11	8%
江西	10	7%	5	4%
福建	9	6%	8	6%
小计	**83**	**58%**	**72**	**51%**
其他	59	42%	70	49%
合计	**142**	**100%**	**142**	**100%**

由此可见，不管是从案发地点，还是野生动物查获前的去向，都是集中在南方的城市。结合上述案件分析和南方五个城市的市场调查结果，我们可以从以下几个方面分析野生动物非法贸易屡禁不止的原因：

1．从消费者角度分析，随着生活水平和消费水平的提高，由于错误饮食观的误导和猎奇等心理的作祟，一些人认为野生动物味道鲜美，滋补身体，有益健康而热衷吃野生动物。

2．从非法经营者角度分析，由于野生动物黑市价格攀升，在暴利驱动下，一些非法经营者置法律不顾，非法收购野生动物，尔后高价出售。例如，通常一只穿山甲的平均体重约5公斤，在缅甸收购一只穿山甲只需花费100元左右，转手运至昆明黑市销售价约400多元/kg，平时到广东的价格高达600元/kg，春节前，更是疯涨到1200元/kg。这意味着在广东地区每只穿山甲的售价可达3000-6000元，还不是经过厨师烹饪后吃到食客嘴里的最终价格。

3．从相关法律法规角度分析，野生动物资源保护的有关法律、法规滞后，影响了打击力度。1989年《野生动物保护法》实施以来，野生动物资源情形发生了很大变化，但有关保护野生动物法律、法规未根据形势变化而作修改，致使一些破坏野生动物的行为得不到应有的惩罚而起不到威慑作用。目前，我国在立法上对滥食野生动物的行为的法律责任上未作出明确规定，没有明确量刑，仅止于道德、伦理的谴责，缺乏国家强有力的制约。另外，部分消费者对保护野生动物法律、法规知之甚少，保护意识淡薄。

4．另外，物流业的迅速发展，客观上为违法犯罪分子非法贩卖野生动物提供更加便利的流通渠道，特别是一些私营物流公司在托运物品检查上存在严重的管理漏洞，为此类违法犯罪活动创造了机会。

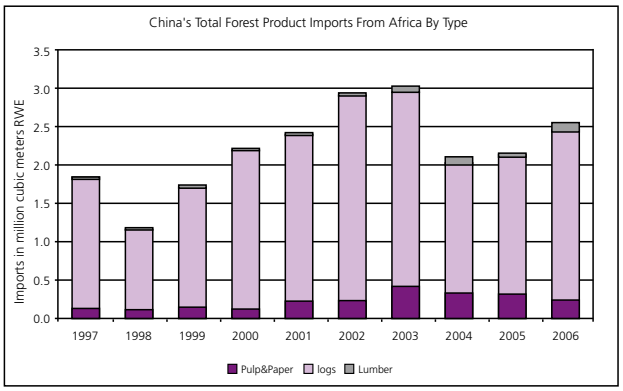
Timber trade trends between China and Africa

By Liu Xueyan, CN Timber Trade Officer, TRAFFIC East Asia

Increasingly known as the 'World's Factory', China's demand for wood products is growing each year. Unable to meet this demand from domestic wood resources since its 1998 logging ban, China has witnessed a rapid growth in wood imports and is now the second largest wood importer in the world.

Russia is China's top supplier of timber imports by volume, although Africa increasingly accounts for a growing percentage. This can be seen in statistics from China's Ministry of Commerce; China imported wood worth USD393 million from Africa in 2000; by 2003 this was at USD528 million and by 2006 it was USD700 million.

Figure 1 1997-2006 China's Wood Imports from Africa



Source: 2008, Forest Trends, *Forest Products Trade Between China and Africa*

Gabon and Equatorial Guinea are the two largest African wood exporters to China, with their aggregate exports accounting for over half of the total amount of African wood exports to China. Other major exporters include Tanzania, Cameroon, Liberia, Mozambique and the Democratic Republic of Congo.

Overall, the China-Africa timber trade features two key characteristics: Firstly, while currently China imports a relatively small overall quantity of timber from Africa, this trade has a strong impact on local forestry conservation and livelihoods. Chinese investment seems to be increasing in Africa at the same time that strict export guidelines are being implemented in Southeast Asia. This may indicate that

timber from Africa will replace timber from Southeast Asia as Southeast Asia' regulatory framework grows stronger.

Secondly, China mainly imports raw materials or crude products such as logs, timber and wood pulp and exports finished products like paper, laminated board, wooden furniture and other processed wood products. This allows China to derive most of the benefits through the adding of value to wood products. Currently, imported timber is mainly high-value and consists of rare species that are used for making luxury furniture and wooden floors.

The continuous growth of world demand for timber–including growth in China–is stimulating the illegal timber trade in Africa. This is being addressed in part through the work of the Africa Forest Law Enforcement and Governance (AFLEG) framework. The goal is to reduce the degradation of forests and stop government corruption. When international companies, including Chinese companies, take advantage of the weak governance in Africa's forest management, governments receive less taxes, legal companies have reduced profits and local communities do not share in the benefits of resource exploitation.

During 2007, ongoing efforts to promote sustainable timber trade include the development of guidelines, by TRAFFIC and its partners, aimed at forestry operators in both Asia and Africa, on how to differentiate between legal and illegal timber sources along the full timber production and sales chain.

Case study: Lack of forestry governance a threat to long-term reduction in rural poverty in Tanzania

Whilst large, short-term economic benefits derived from forestry have been accrued to many rural communities–the true forest custodians in much of southern Tanzania–the majority of villages have (unknowingly) lost considerable revenue as a result of widespread underpricing practices. Typical village harvesters receive just USD200/m^3 for logs that may have taken some 60-80 years to grow and sold at prices many factors higher (e.g. USD200-350/m^3 of round wood on international market from Tanzania, and even higher for parquet flooring produced in overseas markets).

Of greater concern than undervaluation was the apparent lack of sustainable microenterprises two years after the timber trade boom, even in villages which made large, short-term revenues and lacked the kind of constraints affecting remote areas, such as market access.

Tanzania's natural resources and environment are the main source of people's livelihoods and the backbone of the country's main productive sectors. However, if the current situation continues, Tanzania's forests will no longer be available to contribute significantly to the livelihoods of future generations. Tanzania's local communities need the support of all actors in the international timber trade, including Chinese companies that buy Tanzania's timber, to make sure the benefits of the timber trade are equitably shared.

For more information, see the TRAFFIC report "Forestry, Governance and National Development: Lessons Learned from a Logging Boom in Southern Tanzania" on the traffic.org website.

Shortfalls of forestry governance impact local development in East Africa. © TRAFFIC East-Southern Africa

东非森林施政的不足直接制约了当地的发展 © TRAFFIC East-Southern Africa

推动中非之间可持续林业贸易并加强森林执法

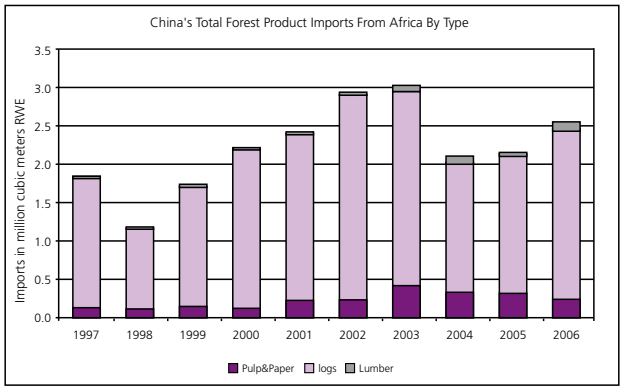
刘雪雁 TRAFFIC中国项目官员

一、中非总体木材贸易情况与特点

随着中国经济的飞速增长,以及其在全世界日益重要的加工大国的地位确立,对木材产品的需求在逐年递增，中国国内现有的木材资源远远满足不了需求。因此在国家实行1998年天然林禁伐政策后，中国木材进口贸易呈现爆炸式增长。

虽然俄罗斯是中国木材主要进口国，但非洲木材进口量所占比例一直在持续增长。根据商务部的统计，2000年中国从非洲国家进口的木材贸易额为3.93亿美元， 2003年增至5.28亿美元，2006年则达到近7亿美元。（见图1）

图1、1997-2006年非洲林产品进口量



资料来源: 2008, Forest Trends, *Forest Products Trade Between China and Africa*

加蓬、赤道几内亚是非洲木材出口中国数量最多的两个国家。两国出口到中国的木材贸易额占非洲出口中国木材贸易总额的一半以上。其他主要出口国有坦桑尼亚、喀麦隆、利比里亚、莫桑比克、刚果（金）共和国等国。

总的来看，中非木材贸易具有2个特点：

一、非洲木材进口总额不大，但对当地森林资源的保护和当地群众的生计影响巨大。中国对非洲的投资额度正在不断增长，而东南亚地区正在实施更为严格的出口政策，因此，随着东南亚地区政策体系的不断完善，非洲木材非常有可能代替从东南亚地区进口的木材。

二、中国从非洲主要进口产品有原木、锯材、单板和木浆类等原材料或初级产品，向非洲出口的主要产品为纸类、胶合板、木制家具和其他木质品等深加工产品，这使得中国从高附加值林产品中获得了高额利润。目前从非洲进口的木材多为原木,种类多为高价值珍贵木材品种，因其木材质地坚硬，木纹优美，主要用做高档家具，木地板。

二、促进非洲森林的可持续经营

由于全球对木材需求的不断增长，尤其是中国市场需求量的增长，利益刺激了非洲木材的非法采伐与贸易。非洲地区森林执法与施政（AFLEG）是一项旨在禁止毁林行为和防止政府腐败的国际进程。因此，打击非法采伐和贸易成为其目标之一。如果跨国公司，包括中国公司，利用非洲国家森林经营机构的管理弱点来逃税漏税，合法经营公司将会由于不正当竞争而减少收入，当地社区也会无法享受到因资源开发而应有的利益。

2007年，TRAFFIC（野生物贸易调查委员会）为了继续促进森林的可持续性采伐与木材合法贸易，和其合作者一起制订了林业运营和木材加工合法性定义与指南，旨在帮助亚洲和非洲的木材运营者从整个产销监管链上区别合法与非法来源的木材。

案例分析：坦桑尼亚森林管理体制的缺位长期威胁着农村贫困人口收入的增加

在坦桑尼亚南部，有很多当地社区从森林中获得了大量短期经济利益，实际上这些人是真正的森林管理者，但由于广泛存在压低价格现象，致使绝大多数农村人口失去了大量收入，尽管他们还没有意识到这一点。在坦桑尼亚，在当地采伐一立方米原木的价格大概是2美元，这些原木一般都来自于生长60-80年的树木，而这些原木在国际市场上的价格大概是200-350美元/立方米，由这些原木加工成的镶木地板在海外市场还可以获得更高的价格。

比压低价格更令人担心的是，在最近两年，随着木材贸易的增多，大量小型木材企业都是非可持续经营的，尤其在只关注短期经济利益的偏僻农村，缺乏有效的控制措施，这都影响了木材产品的市场准入。

自然资源和环境是坦桑尼亚人民的主要生计来源，是国家主要生产力。然而，如果照现状发展下去，坦桑尼亚人民的后代将无森林资源可利用。因此，当地人们急需木材国际贸易中相关者的大力支持，包括中国木材进口公司，以确保木材贸易中的利润公平分配。

详细信息见TRAFFIC报告《森林、管理和国家发展：坦桑尼亚南部地区木材采伐业繁荣的经验》。

Understanding the motivations of wildlife consumption

*Compiled by Dick Tong, SKP China**

China's consumption of high value wildlife products, including threatened species such as Asian freshwater turtles, pangolins, and coral reef fish, has risen rapidly with China's economic growth. This consumer demand is increasingly placing the natural environment–both in China and abroad–at risk through unsustainable and illegal wildlife trade.

Understanding the motivations and patterns of consuming wildlife foods and tonics in various regions of China is the crucial first step towards the development of effective consumer awareness campaigns that will change the attitudes and behaviour of China's wildlife consumers. Such information can also serve as a baseline against which to test the long-term effects of such campaigns.

A consumer attitude survey conducted in 2007 in six cities in China (Beijing, Shanghai, Guangzhou, Kunming, Harbin, and Chengdu) aimed at understanding consumer attitude and behaviour toward wildlife consumption. The survey was conducted from December 2007 to February 2008.

** SKP China, a professional market research group with extensive experience in China, conducted the consumer attitude survey that forms the basis for this article.*

Illegal logging and over-harvesting in Tanzania driven by the global market ©TRAFFIC East-Southern Africa

全球市场的需求驱动了坦桑尼亚的木材非法和过度采伐© TRAFFIC East-Southern Africa

The survey found that 44% of respondents claimed to have consumed wildlife in the past 12 months and that most respondents (36%) in this group had consumed wildlife as food, followed by medicines or tonics containing wildlife (16%) (see **Table 1**). However, the incidence of consuming National Grade 1 and 2 protected species (species that are highly protected) was minimal (less than 3%). There was a higher incidence of consumption of lower grade protected species (known as the 'three haves' (species that have economic, scientific and social value)).

Table 1 Usage of wildlife products in Beijing, Shanghai, Guangzhou, Kunming, Harbin, and Chengdu by all survey respondents (n = 969)

	Total (Combined all usages)	Usage			
		Food	Medicine / tonic	Ornamental product or clothing	Keep as pet
	%	%	%	%	
Current user	44	36	16	4	1
Lapsed user	18	20	8	5	2
Non-user	38	41	72	85	94
Not sure / refused to answer	0	3	4	6	3
Total	**100**	**100**	**100**	**100**	**100**

The survey found that the niche group of hardcore users who consumed National Grade 1 or 2 protected species consumed these for medicines or tonics more often than as food, while the major use of 'three have' protected species (various species of snakes, turtles, wild birds, small cats, deer and wild pig*) and other wildlife for the most part not protected under PRC law (various species of sea horses, live reef fish, sea cucumber, shark, abalone, pheasant*) was consumption as food. (**Note: Because of the nature of this survey, respondents were often asked about groups of species (i.e. snakes, turtles, wild birds) rather than single species. As a result, some animals included in the 'three have' protected species classification, above, may actually be National Grade 1 or 2 protected species; and some animals included as "species for the most part not protected under PRC law" may be 'three have' species or National Grade 1 or 2 protected species.*)

Geographically, residents of Guangzhou in southern China had the highest incidence of wildlife consumption, as both food or medicine/tonic, followed by Kunming, Harbin and Chengdu.

Men were consistently more likely to consume wildlife as food than women (see **Table 2**). Also, people with higher incomes and education levels were consistently more likely to consume wildlife as food (see **Table 3**).

Table 2 Rate of consuming wildlife as food in the six cities by all survey respondents

Used as Foods	Total	Gender		Age			
		Male	Female	18-24 yrs	25-34 yrs	35-44 yrs	45-60 yrs
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
Current user	36	38	35	35	40	40	32
Lapsed user	20	23	17	19	21	18	22
		B*					
Non-user	41	38	45	43	39	39	44
			A*				
Sample Size	*969*	*500*	*469*	*184*	*238*	*252*	*295*

** When a number in one column is significantly higher than the corresponding number in the other column, the letter representing the 'lower' column appears underneath the 'higher' number. For example, the letter A underneath column (B) in Table 2 means that the % of female non-users (column B) was significantly higher statistically than the % of male non-users (column A) at 95% confidence level, two-sided test.*

Table 3 Consumption of wildlife as food in Beijing, Shanghai, Guangzhou, Kunming, Harbin, and Chengdu by all survey respondents

Used as Foods	Total	Household Income			Education		
		Low	Medium	High	Junior high school or below	Senior high school / technical secondary school	Two/ Four-year college
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
Current user	36	30	37	50	27	36	41
			A*	AB*		D*	D*
Lapsed user	20	22	20	16	22	21	19
Non-user	41	47	42	29	51	42	36
		C*	C*		EF*		
Sample Size	*969*	*391*	*407*	*171*	*184*	*425*	*351*

** See * under Table 2 for explanation of letters.*

The key occasions for consuming wildlife were during traditional festivals (mostly seafood) and for business purposes (amongst high income groups). In addition, a significant proportion of 'three have' protected wild animals was consumed during 'normal' occasions (ie, at home in a non-celebratory manner).

Table 5 Major occasions for eating wildlife

Occasions of using (Used as Foods)	Total	Gender		Age			
		Male	Female	18-24yrs	25-34yrs	35-44yrs	45-60yrs
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
Business gathering/business trip	17	20	13	8	22	22	9
					C*	C*	
Family/friends gathering during normal days	31	30	33	47	21	26	40
				DE*			D*
Family/friends celebration at festival or special events	29	28	29	32	29	25	31
Just a dish in an meal	50	50	50	58	50	51	42
Leisure trip	5	6	4	5	7	6	2
To alleviate discomfort	6	4	8	5	7	6	7
Other (specify)	1	2	0	5	0	0	0
Sample Size	*210*	*113*	*97*	*38#*	*58*	*69*	*45#*

Base: respondents in Beijing, Shanghai, Guangzhou, Kunming, Harbin, and Chengdu that consumed 'three have' protected species as food in the past 12 months

** See * under Table 2 for explanation of letters.*

 # indicates a small sample base of less than 50 respondents.

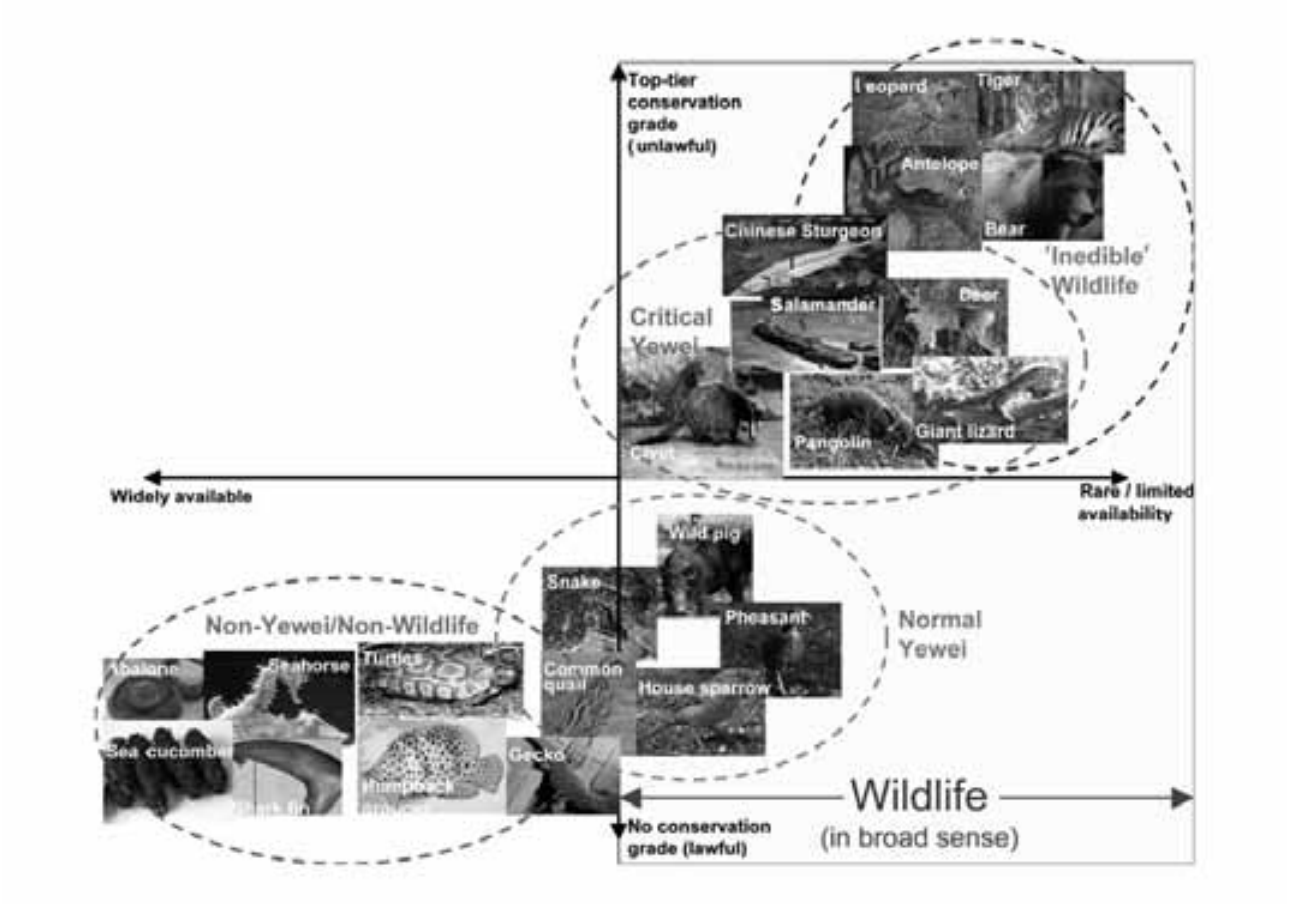
Most people surveyed classified wildlife into two basic categories – those they considered 'edible' ('*yewei*') and those considered 'inedible' ('*ye sheng dong wu*'). Respondents defined '*yewei*' as a subset of wildlife that is considered edible. The literal translation of *yewei* is *ye* (wild) and *wei* (delicious). Respondents also defined another subset of 'inedible' wildlife, which they believed it was prohibited to eat or was an endangered species. Most respondents simply called 'inedible' wildlife '*ye sheng dong wu*' (wild animal) to distinguish these animals from *yewei*. However, there was no clear boundary between these two categories. This perception was based on various factors, including perceived conservation grading, whether or not the wildlife could easily be found in the market, and whether it was sold openly or covertly. Nonetheless, most respondents understood that some critical *yewei* were protected as National Grade 2 or 'three have' species, and could not be sold or eaten openly. **Figure 6** shows the classification of different species by focus groups.

Figure 6 Groupings of edible and non-edible species as defined by focus groups

**Classifications are based on perceptions by individuals taking part in the focus groups. Animals in the blue circle indicate that most respondents understand that these animals are strictly protected by law and cannot be eaten. Animals in the red circle indicate perceptions that these animals are not as strictly protected by law, and cannot be eaten openly. Those in the pink circle indicate perceptions that these animals are not captive bred, but can be bought relatively easily. Those in the green circle are not considered wildlife and may be freely eaten.*

The survey found that a key 'emotional' motivator for consuming wildlife was that it was from the wild, which respondents believed had the connotation of being 'unpolluted', 'precious', and 'special.' A 'functional' motivator was the belief that wildlife was nourishing and had curative value.

Word of mouth was found to be the most important source of information on the curative functions of wildlife, including information from people in older generations, friends and traditional Chinese medicine (TCM) practitioners. The media, through cookbooks and cooking programs, also were found to further



reinforce these beliefs (due to the fact that wildlife is considered a part of traditional dietary culture).

Conclusions

Based on the results reported above, an effective communications campaign directed at major target audiences should recognise that using the broad concept of 'wildlife protection' in communications messages may not be sufficient, as 87% of current wildlife consumers also claimed that they support wildlife protection. This is partially due to the deeply ingrained Chinese concept of 'edible' ('*yewei*') versus 'inedible' ('*ye sheng dong wu*') wildlife. Thus when respondents discussed wildlife protection, they mainly only referred to the protection of 'inedible' ('*ye sheng dong wu*') species. Taking this concept into account, general messages that call for not eating any wildlife may also be too contradictory to Chinese dietary culture for many to accept.

Vivid and direct messages rather than subtle ones may be more effective in addressing unsustainable wildlife consumption. For example, a 'causing a problem to you' approach (eg, legal liability, deteriorated living environment, hazardous to one's health) instead of a 'be compassionate' approach could have a more immediate effect, especially for current users and lapsed users. More than half of respondents (54%) worried about the threat of viruses, amongst both user and non-user groups.

A focus group consisting of non-users of wildlife in Beijing discuss their views on why they do not consume wildlife. ©TRAFFIC

北京受调查用户小组论述他们不消费野生动物的原因© TRAFFIC

Methods promoting word of mouth for delivering these messages to target audiences could include partnering with key influencers that have the potential to increase the impact of advocacy for sustainable wildlife consumption.

For example, professional/authoritative advice from the TCM community re-examining whether the concerned species delivers the perceived benefits and/or messages about sustainable alternatives could be delivered by an authoritative celebrity. This could be effective in countering the strong belief in the nourishing and curative effects of certain species.

Focusing on media as a communications target, such as professional training for journalists on sustainable wildlife consumption, could also influence target audiences. Many respondents were ignorant or confused about China's national conservation grading of different species (especially National Grade 2 and 'three have' protected species). Perceptions were often based on news reports, leading to confusion about legality and liability for consuming protected species.

Promoting a business ethic against wildlife consumption could include advocacy to help enterprises develop guidelines against wildlife consumption in business hospitality, such as asking businesses to sign a pledge against wildlife consumption and letting business counterparts know that it is against company policy to consume wildlife. This would reduce 'embarrassment' for not offering wildlife at business dinners, and help businesses build a good corporate social responsibility image to the public and their local and international business partners.

For a more complete review of this topic, see the TRAFFIC report *Understanding the motivations: the first step toward changing China's unsustainable wildlife consumption*, due for publication in late 2008.

了解野生生物消费的动机

Compiled by Dick Tong, SKP （上海西盟帕特内企业管理咨询有限公司）

随着中国经济的高速发展，中国对高价值野生生物产品的消费也在飞速增长，消费对象包括亚洲淡水龟、穿山甲和珊瑚礁鱼类这样的濒危物种。由于不可持续的非法野生生物贸易十分猖獗，中国的消费给国内外的自然环境带来风险与日俱增。

了解消费者消费野生生物的动机和特点，是开展有效的消费者宣传活动重要的第一步。通过开展对消费者的宣传活动，可以改变中国的野生生物消费者的观念和行为。另外，这也可用作检测消费者宣传活动的成效的基准。

2007年，在中国六城市进行了一个消费者观念调查（北京、上海、广州、昆明、哈尔滨和成都），目的在于了解这些城市里野生生物消费者的观点和行为。该调研从2007年12月开始，到2008年2月结束。

根据本次调研的结果，44%的受访者声称在过去一年中曾消费过野味或野生动物，其中36%的人曾食用过野生动物或野味，其次是药用或补品的形式（16%）（见**图1**）。不过，消费受国家严格保护的一二级保护物种的情况很少（低于3%）。但消费国家列入“三有“ 名录（**国家保护的有益的或者有重要经济、科学研究价值的陆生野生动物名录》）的，又没有国家许可证的保护物种的情况比较普遍。**

表1. 北京、上海、广州、昆明、哈尔滨和成都的野生动物产品消费类型分布（受访者样本数969）

	总计(含各类消费情况)	消费类型			
		食品	药品/补品	首饰/服饰	宠物
	%	%	%	%	
近期使用者	44	36	16	4	1
曾经使用者	18	20	8	5	2
从未使用者	38	41	72	85	94
不确定/拒绝回答	0	3	4	6	3
合计	**100**	**100**	**100**	**100**	**100**

这次调研发现：消费国家一级保护物种的消费者主要是药用或者滋补品，较少食用。消费者消费国家“三有“保护物种如蛇、龟、野生鸟类、小型猫科动物、鹿、野猪和其他不受国家法律保护的物种如海马、珊瑚礁鱼类、海参、鱼翅、鲍鱼、野鸡等，主要是用作食用。

从地理上来看，华南的广州居民消费的野生动物最多，包括食用、药用和补品用。其次是昆明、哈尔滨和成都。

与女性相比，男性食用野生动物的比例更高（见表2）此外，高收入高学历的人群食用野生动物的比例也比低收入低学历的人群高（见表3）。

表2. 六城市总体调研样本食用野生动物的性别年龄分布

食用	总计	性别		年龄			
		男性	女性	18-24岁	25-34岁	35-44岁	45-60岁
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
近期使用者	36	38	35	35	40	40	32
曾经使用者	20	23 B*	17	19	21	18	22
从未使用者	41	38	45 A*	43	39	39	44
样本数量	*969*	*500*	*469*	*184*	*238*	*252*	*295*

** 如果一栏的数值显著高于对应的另一栏的数值，则代表“较低”栏的字母会位于较高栏下方。比如，表2位于（B）栏下方的字母A表示从未食用野生动物的女性比例45%（B栏），从数据统计上来说（95%置信度，双侧检验）显著高于从未食用野生生物的男性比例（A栏）。*

表3. 六城市总体调研样本食用野生动物的收入教育分布

食用	合计	家庭收入			教育		
		低	中	高	初中、高中或者更低	高中、中专	大学专科、本科
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
近期使用者	36	30 A*	37 AB*	50 AB*	27	36 D*	41 D*
曾经使用者	20	22	20	16	22	21	19
从未使用者	41	47 C*	42 C*	29	51 EF*	42	36
样本数量	*969*	*391*	*407*	*171*	184	425	351

**见表2对带“*”的字母的解释。*

野生生物消费主要发生在传统节日（主要是海产品）和商业聚会（在高收入群体中）。此外，还有大量的国家“三有“保护野生动物在日常生活中被消费，即在非节庆的家常餐饮场合被食用）。

表5. 野生动物食用的主要场合

食用的主要场合	合计	性别		年龄			
		男性	女性	18-24岁	25-34岁	35-44岁	45-60岁
	%	(A)%	(B)%	(C)%	(D)%	(E)%	(F)%
商业聚会/商务旅行	17	20	13	8	22	22	9
					C*	C*	
家庭/亲友日常聚会	31	30	33	47	21	26	40
				DE*			D*
家庭/亲友节日或大事庆祝	29	28	29	32	29	25	31
只是一顿饭的其中一道菜式	50	50	50	58	50	51	42
休假旅行	5	6	4	5	7	6	2
舒缓身体轻度不适（如上火）	6	4	8	5	7	6	7
其他（请具体说明）	1	2	0	5	0	0	0
样本数量	*210*	*113*	*97*	*38#*	*58*	*69*	*45#*

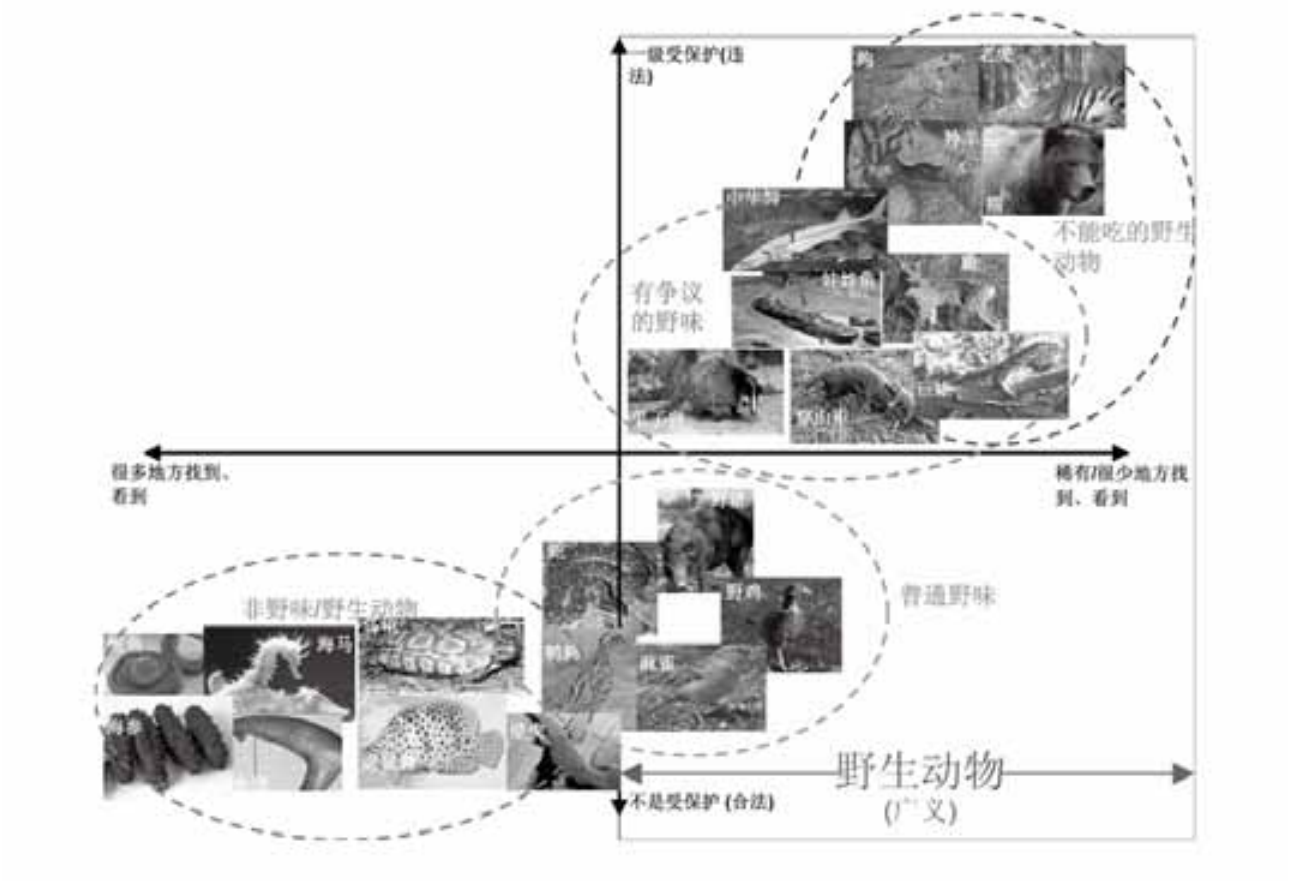
调查样本：过去一年中曾经食用国家“三有“保护物种的六城市受访者。

**见图2对带“*”的字母的解释。*

“#”表示受访者样本数量不足50名。

多数受访者把野生动物分为两大类，可以食用的“野味”和不可以食用的“野生动物”。受访者把可以食用的野生动称“野味”。“野味”字面上就是野生的美味。受访者还认为对应地存在一类不可食用的野生动物。这类动物被认为是国家禁止食用的，或称为濒危动物。多数受访者简单地认为不可食用的野生物种为“野生动物”，以此来与可食用的“野味”相区分。不过，两种分类之间并不存在明确的界限。这种观念的形成有多种因素，包括他们所了解的国家对野生动物保护等级的认识、是否可以从市场上公开的获得、这些野生动物在市场上是公开出售的还是私下出售。不过，多数受访者也清醒地意识到部分野味受到国家保护的，是不能公开销售或者食用的。表6显示了小组座谈会中受访者对不同物种的分类。

图6. 受访者对野生物种可不可食用的分类：



** 分类是根据参加小组座谈会的受访者的观点和看法所作的。位于蓝色圈内的动物是多数受访者认为得到法律重点保护的动物，不能食用。位于红色圈中的动物是多数受访者认为法律保护不严格的动物，不可公开食用。位于粉色圈中的动物是非人工养殖的动物，但可以容易地买到。位于绿色圈中的动物不是野生动物，可以自由食用。*

调查发现，消费野生动物的一个重要的“自觉”动机是由于野生动物来自野外，受访者认为这意味着“无污染”、“珍贵”和“特别”。而“功能性”动机则是认为野生生物营养丰富，有药用价值。

野生生物药用价值的信息传递渠道最主要是口口相传，包括来自父辈、朋友和中医的说法。媒体则通过烹饪书籍和烹饪节目强化这些观念（因为野味是传统饮食文化的一个组成部分）。

结论

根据上述结论，如果要使面向主要目标受众的宣传活动产生效果，就必须认识到在宣传信息中采用广义的“野生动物保护”概念是不够的，因为当前87%的野生动物消费者也声称支持野生动物保护。这部分是因为中国根深蒂固的“食用”（野味）和“不可食用”（野生动物）观念。因此，当受访者在说到野生动物保护的时候，他们往往会仅想到保护“不可食用”（野生动物）的物种。考虑到这种观念背景，泛泛地要求不食用任何野生动物的宣传可能会与中国的饮食文化冲突，导致很多人不能接受。

在应对不可持续野生动物消费问题上，生动直接的信息会比模糊概念更有成效。例如，关键信息可以采用“给你带来问题”的宣传方法（比如法律责任、生存环境恶化、危害健康），而不是“激发同情心”的方法。这样可以产生更加迅速的效果，特别是对现在使用者和曾经使用者。在所有受访者（包括使用者和非使用者群体）中，超过半数的受访者（54%）担心病毒的威胁。

如果要采取口头传播方式向目标受众传递信息，应考虑与有影响力的人合作，这样可以扩大进行可持续野生生物消费的影响。

例如，来自中医团体的专业/权威建议要求重新检验相关的物种是否具有普遍认为的效果，由权威知名人士宣传可持续的替代产品具有相同的效果。这在应对根深蒂固地认为某些物种具有营养和药用效果的观念上应有效果。

把媒体作为宣传重点，对记者进行可持续野生动物消费方面的专业培训，也可以对目标受众造成影响。许多受访者忽视或者混淆不同物种的国家保护级别（特别是二级和三有）。目前人们的观念往往来自于新闻报道，导致对消费受保护物种的合法性和责任认识模糊不清。

发起反野生动物消费的职业道德活动，协助企业制定禁止在商务招待中消费野生动物的规章制度，例如要求企业签订反对消费野生动物的承诺书，让被招待方了解消费野生动物违反公司政策。这样可以减少没有在商务招待中提供野味的“尴尬”，协助企业在公众和面向国内国际业务伙伴建立良好的企业社会责任形象。

要更加详细地了解这个课题，请参考国际野生生物贸易研究组织（TRAFFIC）即将在2008年秋季出版的报告《了解动机：改变中国不可持续野生动物消费的第一步》。

Linkages between Russian salmon fisheries and Chinese Markets

Extracted from TRAFFIC Report Trading tails: Linkages between Russian salmon fisheries and East Asian Markets

Research on the relationship between markets and fisheries for Russian Far East salmon have revealed China's role in this important trade. East Asian countries are importing between 50% and 90% more Russian sockeye salmon than the Russian Federation is reporting as caught. Import data clearly indicate that markets in China, Japan and South Korea receive more salmon from the Russian Far East's Kamchatka peninsula than the Russian Federation reports exporting. This overexploitation of Kamchatka's salmon threatens an area of high natural species diversity, un-degraded spawning habitat and limited existing legal and regulatory protection.

Analysis from officially published sources reveals that from 2003 to 2005, the estimated excess quantity of Russian sockeye salmon entering East Asian markets was between 8000 and 15000 tonnes each year, worth USD40–76 million.

Possible reasons for the under-estimate include illegal catches or fishermen not reporting fully how much salmon they catch. These are two central components of Illegal, Unregulated and Unreported, or IUU, fisheries, which provide the central focus for many conservation organisations that work on fisheries.

East Asian markets are playing an active role in creating incentives for the illegal salmon trade.

China imports very little salmon for its domestic markets, but acts as a major low-cost salmon processing centre, most of it destined for Europe and the USA. This is particularly true in the case of Russian salmon.

China imports large quantities of Chum and Pink Salmon from the Russian Federation (nearly 50000 t in 2006, see **Figure 1**). These imports have increased eight-fold since 2002, and in 2006 quantities supplied by the Russian Federation exceeded the quantities supplied by Japan for the first time. In fact, the Russian Federation's share of salmon imports grew from 15% to 35% during that time period.

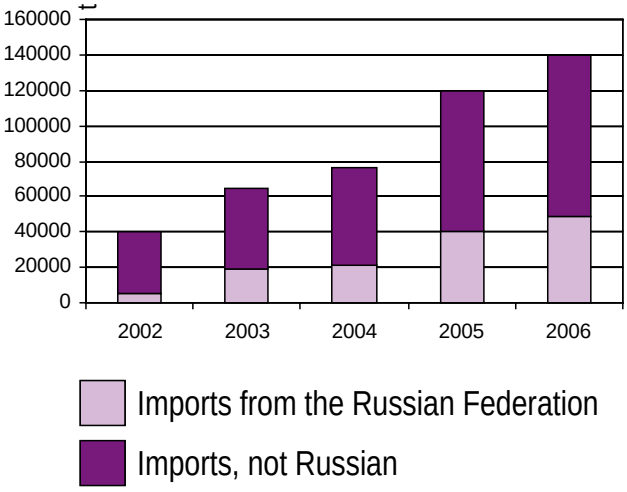
Almost all of the salmon imports are designated as "inward processing trade" meaning they are exempt from a 26% tariff and intended for re-export after processing. China now processes an estimated 23% of the world's wild caught salmon. Chinese-processed salmon appears mainly destined for the US and European markets.

Chinese factories with an ability to pay for high quality raw materials indicate a preference for Russian wild salmon, particularly from the north Kamchatka region. Since Chinese factories are not prepared to make upfront cash payments to Russian parties, they often obtain Russian salmon raw materials through brokers based in South Korea (and also Japan). Imports of Russian salmon by China, whether or not via Japan or Korea, require Russian Certificates of Origin and problems with these documents have led to rejection of shipments in several cases.

The recent report *Trading tails: Linkages between Russian salmon fisheries and East Asian markets* analyses potential measures that could be taken in China's markets to combat IUU salmon fishing in the Russian Federation. These include better enforcement of current controls on ports, including better cooperation between Russian Federation and China port authorities and better labelling and traceability of salmon products so consumers and industry can better take part in solutions.

For a more complete review of this topic, see the TRAFFIC report *Trading tails: Linkages between Russian salmon fisheries and East Asian markets* on the traffic.org website.

Figure 1 China's salmon imports*



*Excludes sockeye, a minor part of imports

俄罗斯鲑鱼渔业和东亚市场间的关系

摘自TRAFFIC报告《贸易追踪：俄罗斯鲑鱼渔业和东亚市场的关系》

对俄罗斯远东鲑鱼渔业和市场之间的关系的研究揭示了中国在鲑鱼贸易中的重要地位。东亚市场进口俄罗斯红鲑的数量超过俄罗斯报告的数量50%到90%。根据进口数据显示，中国、日本和韩国市场从俄罗斯堪察加半岛进口的鲑鱼数量高于俄罗斯报告的数量。堪察加半岛鲑鱼的过度捕捞已经对这个物种丰富、产卵栖息地尚未退化但现有法律法规监管有限的地区造成了严重威胁。

根据政府公布的消息，从2003年到2005年，进入东亚市场的超过报告数量的俄罗斯红鲑为每年8000吨到15000吨，价值4亿美元到7.6亿美元。

超报告量鲑鱼产生的可能原因有非法捕捞以及渔民不清楚捕捞的鲑鱼的具体数量。非法捕捞量主要由两个部分组成，未受规范捕捞和无报告捕捞（IUU）。这也是许多保护组织在渔场工作的重心。

Salmon processing factory, Qingdao, China. China acts as a major low-cost salmon processing centre © Shelley Clarke

中国青岛的鲑鱼加工厂. 中国是鲑鱼主要的低成本加工中心© Shelley Clarke

东亚市场在非法鲑鱼贸易的过程中扮演着积极的推动作用。中国是一个重要的低成本鲑鱼加工中心，加工着世界上大约23%的捕获野生鲑鱼。基本上所有的进口鲑鱼都是“加工贸易”性质，在加工后用于出口，因此可以免除26%的进口关税。进口的鲑鱼很少用于国内市场，主要向欧洲和美国市场出口，对俄罗斯鲑鱼尤其如此。

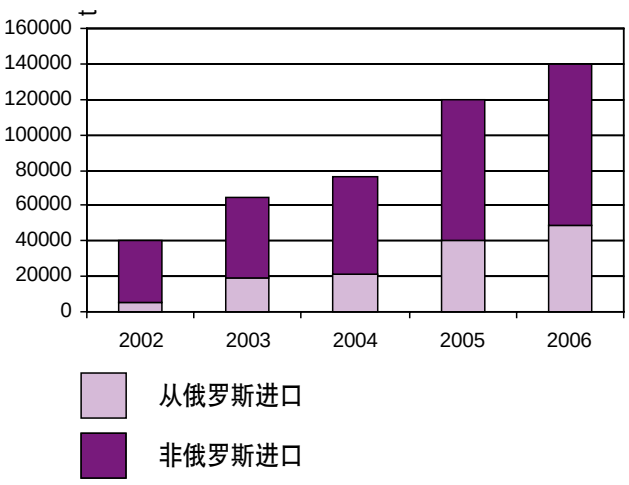
中国从俄联邦进口大量的大马哈鱼和细鳞鲑鱼（2006年大约5万吨，见图1）。进口量自2002年以来翻了八翻。到2006年，俄联邦供应的数量首次超过了日本供应的数量。实际上，同期俄罗斯鲑鱼占中国进口的比例也从15%增加到了35%。

由于中国的工厂有实力购买高质量的原材料，因此它们更倾向于购买俄罗斯野生鲑鱼，尤其是产自北堪察加地区的鲑鱼。但由于中国的厂家没有向俄罗斯商家支付预付款的习惯，它们一般从韩国（也包括日本）的中间商手中购买俄罗斯鲑鱼。中国进口的俄罗斯鲑鱼，无论是通过日本还是韩国，都需要俄罗斯的原产地证明。原产地文件的问题曾经引起几次拒绝通关事件。

在近期的报告《贸易追踪：俄罗斯鲑鱼渔业和东亚市场的关系》中，提出了可用于中国市场上打击来自俄联邦的IUU鲑鱼捕获的措施。这些措施包括强化当前港口的控制；在俄罗斯和中国港口当局之间建立更加密切的合作；对鲑鱼产品建立更好的标记和追踪系统，使消费者和业界能够更多地参与问题的解决。

要更加全面地了解这个课题，请阅读traffic.org上的野生生物贸易研究组织的报告《贸易追踪：俄罗斯鲑鱼渔业和东亚市场的关系》。

图1. 中国的鲑鱼进口*



* 不含红鲑，因为占进口比例很小

Freshwater turtles trade in Guangzhou continues to thrive

By Timothy Lam, HK Senior Programme Officer, TRAFFIC East Asia

Although the scale of wild meat markets in South China has seemingly diminished since the occurrence of SARS in 2003, investigations in 2007 found that the trade of certain species continues to thrive. While many stalls in the once-crowded Chatau wildlife market in Guangzhou were found inactive during repeated visits in 2007, other stalls were found to have an active trade in freshwater turtles. Meanwhile, Qingping market, another of Guangzhou's popular wildlife markets, was found to have freshwater turtles in large quantities as well.

Freshwater turtles are sold not only for meat, but also for medicinal purposes and tonic products, for which they are made into jellies, soups and pills. It is believed that turtles can cure a range of illnesses including rheumatism, heart ailments and cancer, while increasing lifespan. Freshwater turtles are also in demand as pets and for 'religious release', as evidenced by the growing scale of the pet market at Huadiwan in Guangzhou.

The large demand for freshwater turtles has depleted once abundant populations in mainland China. The freshwater turtle market in China therefore now relies on imports from other countries, mainly Thailand, Malaysia, the Philippines and Indonesia. This over-exploitation of wild Asian freshwater turtles threatens the survival of many species: 70% of the 90 Asian freshwater turtle species are threatened according to the IUCN Red List. To regulate and better monitor the trade, 23 species were listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix II in 2002 and 5 additional species were listed in CITES Appendix II in 2005. In addition, 17 turtles species have been listed in CITES Appendix III by the Chinese government, indicating that those species are under threat as a result of heavy trading in China, and that government authorities want help to regulate such trade.

The freshwater turtle market in China

Market surveys conducted between 2000 and 2003 in Guangzhou counted a total of 5000 to 24500 freshwater turtles in a single visit to the food markets, with 84 species recorded during the four-year survey (Lee *et al*, 2004). Most of the species traded were wild-caught turtles from Southeast Asia. Three-quarters of the turtle species in the markets were threatened species found on the IUCN Red List, and a quarter of the species (27 in total) were also listed in CITES (four in Appendix I and 23 in Appendix II). For example, Malayan Box Turtles *Cuora amboinensis* and Elongated Tortoises *Indotestudo elongata*, both CITES II-listed species and classified as Vulnerable on the IUCN Red List, had 5000 and 3000 counted in two separate single visits (Lee *et al*, 2004). The results of these studies, carried out by the Kadoorie Farm & Botanic Garden, have largely been confirmed by others (e.g. Cheung & Dudgeon, 2006).

However, the turtles found in market surveys between 2000 and 2003 differed substantially from studies carried out earlier, in 1995 (Lau *et al*, 1995). For example, large freshwater turtles from Southeast Asia (River Terrapin *Batagur baska*, Painted Terrapin *Callagur borneonsis* and Malaysian Giant Turtle *Orlitia borneensis*) and species from Myanmar (Burmese Eyed Turtle *Morenia ocellata* and Burmese Flapshell Turtle *Lissemys scutata*) were common in markets in 1995, but practically absent by 2000. This suggests that the trade in wild-caught food turtles is unsustainable. The large turtles and Burmese species may well no longer be available. New sources have been found to meet demand.

In visits to Guangzhou markets in 2007-2008, the freshwater turtle species composition was found to be similar to that recorded in 2000-2003, though species diversity appears to be decreasing. For example, Beale's Terrapin *Sacalia Bealei*, Narrow-headed Softshell Turtle *Chitra chitra*, Big-headed Terrapin *Platysteron megacephalum* and Four-eyed terrapin *Sacalia quadriocellata*, commonly recorded in 2000-2003, were absent in the food market in our January 2008 market survey. On the other hand, rare and protected species like the Spotted Pond Turtle *Geoclemys hamiltonii* were still being illegally sold.

The proportion of farmed individuals appears to be increasing, and the large numbers of captive-bred individuals indicate commercial-scale production of freshwater turtles in China has been successful for

certain species. Captive-bred turtles were recorded in the markets in 2000-2003 (Lee *et al*, 2004), including Chinese Soft-shell Turtle *Pelodiscus sinensis*, Chinese Pond Terrapin *Mauremys mutica*, Chinese Striped Terrapin *Ocadia sinensis*, Reeves's Terrapin *Chinemys reevesii* and the non-native Red-eared Slider *Trachemys scripta elegans*. In our 2007-2008 visits to Qingping market, these species appeared to dominate the freshwater turtle food and pet markets.

Little is known or reported regarding the scale or actual number of turtle farms in China. A recent publication estimated that there are over 1000 turtle farms in China with a combined valued of more than one billion US dollars (Shi *et al*, 2007). However, thus far no in-depth study of the number, size, scope and practices of Chinese turtle farms has been conducted, thus it is difficult to understand how Chinese turtle farms operate and what their potential impact (both positive and negative) is on wild populations. Further efforts to investigate the extent and success of these captive-breeding farms must be conducted in order to devise practical recommendations to make them sustainable and have a positive impact on the conservation of wild turtles.

Can captive breeding help conserve Asian freshwater turtles?

Proponents of captive farming believe that a substantial and reliable supply of farmed turtles is likely to keep market prices stable, thus leading to a corresponding price limit for wild-collected turtles. Theoretically, this could lead to a decrease in the hunting of wild turtles, with hunters finding it economically unattractive to make the effort to poach turtles from already over-exploited stocks. In this way, at least theoretically, captive breeding can help preserve wild populations.

In addition, it is possible that turtle farmers could become proponents of a ban on wild turtles. Farming of Chinese Soft-shelled Turtles has grown rapidly in recent years and is developed enough that there is no longer a need for mass collection of these turtles from the wild. Red-eared Sliders are also farmed in massive numbers. It is likely that both of these types of turtles could be raised in sufficient numbers to meet demand for turtles as food and as a traditional medicine or tonic.

On the other hand, turtle farms may also harm wild stocks. If farmed turtles stimulate a growing market, then the number of wild turtles killed may stay the same, even though they would constitute a smaller portion of the total market. Also, wild turtles could be "laundered" as captive-bred turtles. Turtle farming may not contribute to conservation of wild populations unless the supply from breeding farms truly substitutes those from the wild. Turtle farms may actually even be a major threat to the survival of China's wild turtles because farms are the primary purchasers of wild-caught turtles (Shi *et al*, 2007) as farmers often seek wild turtles to breed.

References

Cheung, S. M. and Dudgeon, D. 2006. Quantifying the Asian turtle crisis: market surveys in southern China, 2000-2003. *Aquatic Conserv: mar. Freshw. Ecosyst.* 16: 751-770.

Lau, M.W.-N., Ades, G., Goodyer, N. and Zhou, F.-s. 1995. Wildlife Trade in Southern China including Hong Kong and Macao. *Unpublished report to China Council for International Cooperation on Environment and Development.*

Lee, K.S., Lau, M.W.N. and Chan, B.P.L. 2004 Wild Animal Trade Monitoring in Selected Markets in Guangzhou and Shenzhen, South China 2000-2003 *Kadoorie Farm and Botanic Garden* 43pp

Shi H., Parham, J.F. Lau, M.W.-N and Chen T.H. 2007 Farming Endangered Turtles to Extinction in China *Conservation Biology Volume 21, No. 1, February 2007*

广州淡水龟贸易持续兴旺

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虽然南中国野生动物肉类市场的规模随2003年非典型肺炎的爆发似乎大大缩小，但2007年的调查发现部分物种的贸易仍然持续兴旺。在2007年的调查中，一度人山人海的广州槎头野生生物市场的许多摊位今天已经沉寂，不过部分摊位的淡水龟贸易仍然活跃。同时，另一个广州受欢迎的野生生物市场--清平市场也有大量淡水龟销售。

淡水龟不仅用于食用，也用于药用和补品，如龟胶、龟汤和药丸。据认为龟可治愈大量疾病，包括风湿、心脏病和癌症，并可延年益寿。淡水龟也被用作宠物和放生，广州花地湾宠物市场也因此日渐兴隆。

对淡水龟的大量需求使中国大陆原本丰富的淡水龟资源陷入枯竭。因此，中国的淡水龟市场目前需要依赖进口，主要来自泰国、马来西亚、菲律宾和印度尼西亚。亚洲野生淡水龟资源的过度开发威胁到多个种类的淡水龟的生存：根据国际自然保护联盟红名单，90种亚洲淡水龟中的70%受到威胁。为了规范贸易和更好地监督贸易，23种龟在2002年被纳入了《濒危野生动植物种国际贸易公约》附录二，2005年又纳入了另外5种。此外，中国政府把17种龟纳入了附录三，表示这些物种受过度捕获的威胁,政府希望规范这类贸易。

中国的淡水龟市场

根据2000年到2003年广州的市场调查，每次对食品市场的查访都可以发现5000只到24500只淡水龟，在为期四年的调研中总共发现84种龟（Lee等，2004年）。出售的龟中的大多数是捕获自东南亚的野生龟。84种龟中的四分之三名列国际自然保护联盟红名单，而其中的四分之一（共27种）还列在《濒危野生动植物种国际贸易公约》中（4种属于附录一，23种属于附录二）。例如，马来闭壳龟和缅甸陆龟均属于《濒危野生动植物种国际贸易公约》附录二，并在国际自然保护联盟红名单中列为濒危。这两种龟在两次单独的市场查访中各发现5000只和3000只（Lee等，2004年）。由嘉道理农场暨植物园实施的研究的结果已经基本被其它人证实（例如Cheung & Dudgeon，2006年）。

不过2000年到2003年间进行的市场调研发现的龟与1995年举行的上次调研发现的龟的种类差别显著（Lau 等，1995年）。例如，来自东南亚的大型龟（巴达库尔龟、西瓜龟、马来亚巨龟）和缅甸龟（缅甸孔雀龟、印度箱鳖）1995年在市场上非常普遍，但2000年基本销声匿迹。这意味着捕获野生肉用龟的贸易不能持续。大型龟和缅甸龟可能濒临灭绝。需要靠开发新资源来满足需求。

在2007年到2008年对广州市场的调研中，淡水龟种类的构成与2000年到2003年相仿，但种类的数量有所下降。例如，眼斑龟、印度纹背鳖、平胸龟、四眼斑水龟在2000年到2003年间很常见，但在2008年1月的市场调研中没有看到。此外，珍稀保护物种，比如班点池龟仍在非法销售。

人工养殖的比例正在上升，人工养殖龟的巨大数量说明中国某些种类淡水龟的人工养殖有显著成效。2000年到2003年市场调研中发现的人工养殖龟的种类有中华鳖、黄喉拟水龟、中华花龟、金龟和来自国外的红耳龟。在2007年到2008年对清平市场的查访中，这些种类的龟是淡水龟的肉用和宠物市场的主力。

关于中国龟养殖场的规模和实际数量的资料有限。根据最新出版的消息，估计中国有1000多个龟养殖场，总产值在10亿美元以上（Shi等，2007年）。 不过，由于中国龟养殖场的数量、规模、经营范围和营运情况的深入研究还没有开展，难以评估中国龟养殖场的运作方式以及它们对野生龟种群的潜在影响（包括积极影响和消极影响）。必须对这些龟养殖场的范围和成功经验进行更多调研，才能提出实际建议，使它们能够可持续发展，并在野生龟的保护方面发挥积极作用。

人工养殖能否帮助保护亚洲淡水龟?

人工养殖的支持者认为相当数量的人工养殖龟的可靠供应可以保持市场价格稳定，从而抑制捕获的野生龟的价格。理论上说，这种做法能够减少对野生龟的捕猎，因为捕龟者会发现要偷猎已经稀少的野生龟从经济上来说是不合算的。这样，至少在理论上人工养殖可以帮助保护野生龟资源。

此外，人工龟养殖场可能会赞同支持完全禁止龟贸易。中华鳖的养殖最近几年发展迅速，目前已经成熟，无需在大量捕获野生中华鳖。红耳龟的养殖也颇具规模。这两种龟的养殖数量已经基本能够满足市场对肉用、药用和补品用的需求。

不过龟养殖业也可能损害野生龟。如果人工养殖龟的普及对市场的发展造成了刺激，被捕杀

的野生龟的数量可能并未因此而减少，虽然它们占市场总量的比例有所下降。而且，野生龟也有可能被“洗”成人工养殖龟。只有在来自龟养殖场的供应能够真正替代野生龟的供应的时候，龟人工养殖才能为野生龟的保护做出贡献。龟养殖场可能实际上是中国野生龟生存的重大威胁，因为龟养殖场是野生捕获龟的主要购买者，他们用捕获的野生龟做种龟（Shi等，2007年）。

参考资料

Cheung，S. M. 和Dudgeon，D，2006年，《量化濒危中的亚洲龟：南中国市场调研，2000年到2003年》，《水生生物保护》三月号，淡水，生态系统，16: 751-770。

Lau, M.W.-N.，Ades，G.，Goodyer，N.和Zhou, F.-s.，1995年，《南中国（含香港和澳门）野生生物贸易》，《致中国国务院非出版环境和发展国际合作报告》。

Lee，K.S.，Lau，M.W.N.和Chan，B.P.L.，《2004年广州和深圳部分市场野生动物贸易调研》，2000年至2003年南中国调研，嘉道理农场暨植物园，43pp

Shi H.， Parham，J.F. Lau，M.W.-N和Chen T.H.，《中国濒临灭绝的龟类的人工养殖》，《保护生物学》，2007年2月第一期第21卷。

Malayan box turtle (*Cuora amboinensis*) and Elongated Tortoise (*Indotestudo elongata*) for sale at a Guangzhou market. ©TRAFFIC

广州市场上待售的马来闭壳龟和缅甸陆龟©TRAFFIC

The illegal trade of musk and traditional patent medicine containing musk

By Xu Hongfa, TRAFFIC China Director
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Musk deer are listed in the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and are also protected under Chinese law as National Grade I animals. While musk has been used as an ingredient in traditional Chinese medicine (TCM) for thousands of years, in recent years, musk deer populations have shrunk drastically. To address this, in addition to a ban on the hunting of wild musk deer, the Chinese government has imposed a series of strict regulatory measures on the production of medicines from musk stockpiles.

To understand the trade further in raw musk and the trade in packaged traditional medicine containing musk, two surveys were conducted from October 2005 to June 2006 and in June 2007. The first survey covered 16 provinces, and included 523 TCM retail shops in 25 cities, along with 140 TCM wholesales shops in 7 large TCM wholesale markets. The second survey re-investigated the situation in Heilongjiang province, and included 56 TCM retail shops in Harbin and Jiamusi, and 20 TCM wholesale shops in the Sankeshu TCM wholesale market (in Harbin).

Results of the first investigation showed that musk was sold in 147 retail shops, or 28% of the 523 retail shops investigated, and 66 wholesale shops, or 47% of the 140 wholesale shops. The second investigation focusing on Heilongjiang in June 2007 showed that 15 retail shops, or 27% of the 56 retail shops investigated, sold musk as did 7 wholesale shops, or 35% of the 20 wholesale shops.

According to salespeople, musk came from three sources: artificial musk manufactured by TCM factories, musk deer hunted from the wild in China and illegal imports from the Russian Federation.

Raw musk was found in three forms: musk sacs, in tubes, and as granules. Trade in these forms of musk is illegal. In retail shops, tubed musk was sold on average at RMB188/g (with the highest at RMB280/g and lowest at RMB53/g). Musk sacs and granules were sold at average prices of RMB165/g and RMB280/g, respectively. Prices were generally cheaper in wholesale markets, with tubed musk at an average price of RMB137/g (with the highest at RMB172/g and lowest at RMB35/g), and musk sacs and granules at an average of RMB140/g and RMB146/g, respectively.

The results of an internet survey show that by the end of 2004, 156 types of packaged traditional Chinese medicine containing musk were being produced and sold in China. On-site investigations at TCM retails shops in Shanghai, Beijing and Guangzhou revealed that by the end 2005, 70 types were being sold.

Interviews of salespeople at the retail shops and wholesalers showed that only 38% of salespeople were aware that selling pure musk was illegal. However, the level of awareness varied drastically by city. In Kunming and Shanghai, 80% of medicine dealers were aware of relevant conservation laws and regulations and 73% claimed to abide strictly by these laws and regulations. Only one TCM retail shop sold musk in Kunming and none in Shanghai. In contrast, in some cities, such as Chengdu and Jiamusi, over 50% of investigated shops sold musk, and less than 33% of salespeople were aware of pertinent laws and regulations.

The results of the investigations suggest that to conserve musk deer species better, enforcement must be strengthened in both retail and wholesale markets to prevent the sale of musk in prohibited forms. Further, increased awareness of salespeople seems to be an effective tool in preventing the sale of illegal musk.

麝香和含麝香中成药贸易现状

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麝是国家一级保护动物,在大部分国家被列入CITES 附录I. 中国使用麝香制药已有数千年的历史. 近年来,由于麝资源的急剧下降,中国除禁止野外捕捉麝以外,对利用库存麝香生产的药品也已采取了多项严格的管理措施. 为了了解目前中国市场麝香和含麝香中成药贸易现状,以便采取针对性的措施加强管理. TRAFFIC于2005年10月至2006年6月，对国内16个省25个城市的523家中药店和7个大型药材批发市场的140家动物药批发商铺进行了调查.然后又在2007年6月，对黑龙江哈尔滨和佳木斯的56家中药店以及哈尔滨三棵树药材市场的20家动物药批发商铺进行了回访调查.

结果如下：

一、出售麝香和含麝香中药的药店数

调查结果显示，05年6月至06年6月调查的523家药店中有147家有麝香出售，占被调查药店的28%;7家药材批发市场的140家动物药批发商铺中66家有麝香出售，占47%。 07年6月回访调查，发现哈尔滨和佳木斯的56家中药店有15个中药店出售麝香，占27%；三棵树药材市场20家动物药铺中7家有麝香出售，占35%。

二、麝香的来源

据市场销售人员介绍： 麝香的主要来源是制药厂利用库存分装的麝香、麝的野外捕杀及从俄罗斯进口。

三、麝香的价格

市场上非法出售的麝香可以分成三类：管装麝香、麝香囊和麝香颗粒。

中药店管装麝香平均价格为人民币188元/克（最高280元/克，最低53元/克）；麝香囊和麝香颗粒的平均售价分别为人民币165元/克和280元/克。

药材市场管装麝香的平均价格为人民币137元/克（最高72元/克，最低35元/克）； 麝香囊和麝香颗粒的价格分别为人民币140元/克和146元/克。因为是批发市场，价格比零售市场略低。

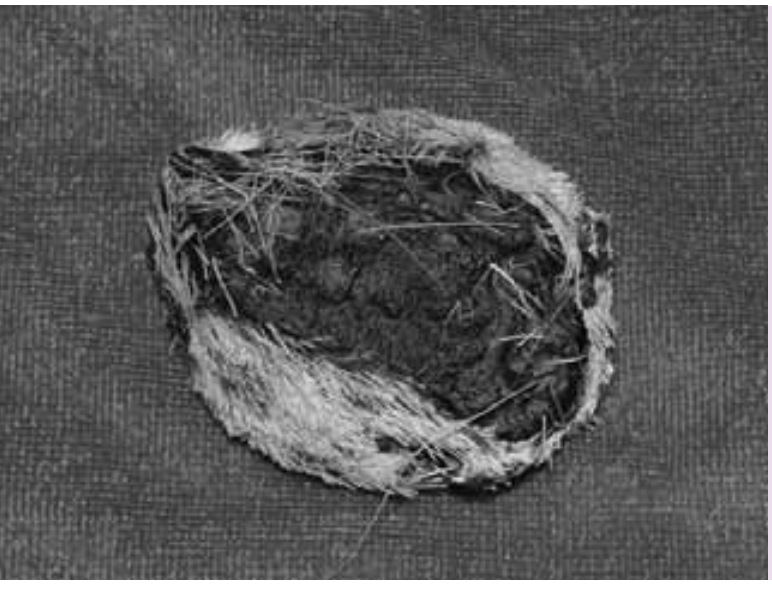
四、含麝香中成药

互联网的调查结果显示，至2004年底，中国生产和销售的含麝香成分的中成药约有156种。2005年底，对上海、北京和广州的实地调查结果显示，市场有售的麝香类药品共有70种。

五、销售人员的保护意识：

2005-2007年,对739家中药店和药材批发商的访问发现，仅38%的销售员知道出售纯麝香贸易是违反国家规定的。但是，各城市药商的保护意识差异很大，如昆明和上海，药商了解国家有关保护法规和认真遵守的高达80%和73%。 对昆明药店的调查，发现只有一家中药店出售麝香，而上海没有发现有药店出售麝香。但是成都和佳木斯，有麝香出售的占被调查的药店高达50%以上，而销售人员了解国家有关法律法规的不到三分之一。

从调查结果可见，要保护好麝资源，最重要的是加强对销售人员和消费者的宣传，加大对市场执法力度，尤其是对大型批发市场中麝香非法销售活动进行严历的打击。



Musk pod and musk powder at Sankeshu traditional Chinese medicine market in Harbin. ©TRAFFIC

麝香囊和麝香颗粒，摄于哈尔滨三棵树药材市场©TRAFFIC

Sea cucumber trade links Taiwan with marine biodiversity in Galapagos Islands

By Joyce Wu, TW Programme Officer, TRAFFIC East Asia

For centuries, sea cucumbers have been a delicacy in East Asia. They are eaten during celebratory banquets and also as tonics and medicines. However, demand for this luxury food is threatening the unique ecosystem of the Galapagos Islands, a World Heritage Site 1000 km west of the Ecuador mainland. Not only are the sea cucumbers threatened, but also the livelihoods of the fishermen who depend on the trade are threatened as well.

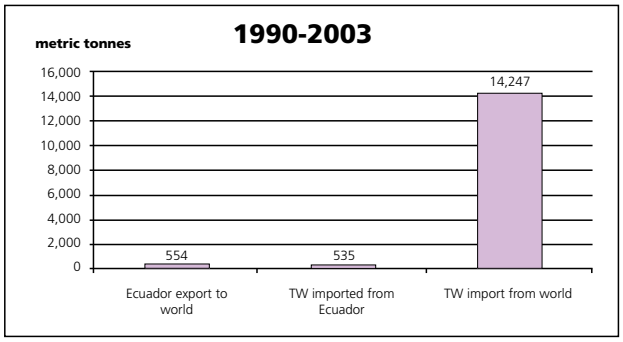
The Galapagos islands are virtually the sole source of *Isostichopus fuscus*, a spiky sea cucumber species desirable in East Asia. The species used to be found along the coast of Ecuador's mainland but has largely been fished out there.

According to FAO (The Food and Agriculture Organization), the global sea cucumber trade amounted to 11615 tons in 2004, with Hong Kong, Taiwan and Singapore the main importers. Taiwan is the main importer of sea cucumber from Ecuador, having imported 535 tonnes from Ecuador between 1990 and 2003. While this amounts to only 4% of Taiwan's total sea cucumber imports, it accounts for 97% of sea cucumber exports reported by Ecuador during this period (see **Figure 1**).

Fishing for sea cucumbers in the Galapagos Islands was banned in 1994. Subsequently, the fishery was re-opened but only with strict quotas. Efforts to enforce the ban and quotas have had mixed results. Information on the legality of sea cucumber exports from Ecuador is contradictory and exports continued to be recorded by both Ecuadorian officials and importing countries. The spiky cucumber was listed as a Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix III species in 2003, at which time the retail price for dry sea cucumbers in Taiwan was USD 418/kg. This high economic incentive likely fuels illegal fisheries of sea cucumber in the Galapagos.

Sea cucumber populations have decreased in the Galapagos Islands by over 75%. The size and quantity of sea cucumber harvests have dropped drastically. Most catch is obtained in the first three weeks of the harvest season, and fishermen then need to go ever farther afield in search of this declining resource. While sea cucumber resources are decreasing, the number of fishers in the Galapagos continues to rise, with many being immigrants who simply come for the sea cucumber fisheries. The decrease in sea cucumber and increase in fishers continue to place pressure on this unique marine ecosystem. This is unfortunate because the sea cucumber fishery, if managed well, could support the long-term livelihoods of poor fishers living in the Galapagos. The challenge is to connect people fishing legally in Ecuador with responsible consumers in Taiwan, thereby addressing the interests of both East Asia's consumers and those in the Galapagos who depend on sea cucumber fisheries for their livelihoods.

Figure 1 From 1990 to 2003, 4% of Taiwan's sea cucumber imports were from Ecuador, accounting for 97% of sea cucumber exports reported by



Source: Taiwan customs data and Willock, A., Burgener, M. and Sancho, A. (2004). First Choice or Fallback? An examination of issues relating to the application of Appendix III of CITES to marine species. *TRAFFIC International.*

海参贸易——台湾与加拉帕戈斯群岛之间的海洋生物多样性纽带

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几个世纪以来，海参一直是东亚餐桌上的珍馐，常常在庆典宴会上出现，也用作滋补品和药品。但是，对这种顶级海味的需求正在威胁加拉帕戈斯群岛独有的生态系统。加拉帕戈斯群岛位于厄瓜多尔以西1000公里，属世界遗产。受威胁的不仅仅是海参，还有靠海参贸易维生的渔民。

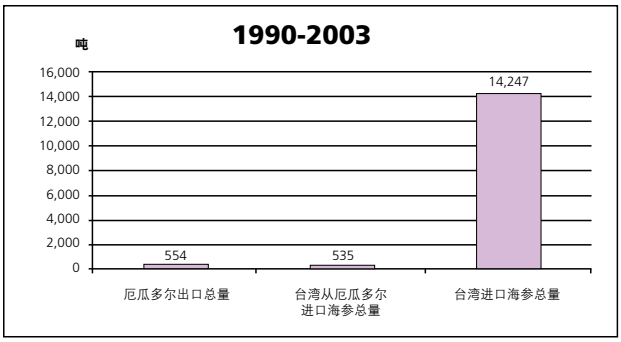
加拉帕戈斯群岛基本上是多肉刺海参（*Isostichopus fuscus*）的唯一来源，这种广受东亚欢迎的刺海参在厄瓜多尔本土沿岸已经被捕捞殆尽。

根据联合国粮农组织提供的数据，全球海参2004年的贸易总量是11615吨，主要进口地是中国香港、台湾地区和新加坡。台湾是厄瓜多尔海参最大的买家，1990年到2003年从厄瓜多尔进口了535吨海参。虽然这只占台湾海参进口总量的4%，但占到了同期厄瓜多尔海参出口总量的97%（见**图1**）。

从1994年起，加拉帕戈斯群岛的海参捕捞就被禁止了，但后来又推行了有配额的开禁。禁捕和配额的推行造成了比较复杂的后果。关于厄瓜多尔海参出口的信息的合法性自相矛盾，厄瓜多尔政府和进口国都有海参贸易记录。2003年多肉刺海参被列入《濒危野生动植物种国际贸易公约》附录三的物种，那时台湾的干海参售价为418美元一公斤。丰厚的经济利益为加拉帕戈斯群岛海参的非法捕捞注入了充足的动力。

加拉帕戈斯群岛的海参数量已经下降了75%以上，捕获的海参的个头和数量也明显下降。多数捕获是在捕捞季节的头三个星期获得的，此后渔民需要到更远的渔场去搜寻不断下降的海参资源。虽然海参资源在下降，加拉帕戈斯群岛的渔民的数量却在增加，许多是以捕捞海参为唯一目的而来的移民。海参数量的下降，加上渔民数量的增加，给当地独特的海洋生态系统带来了压力。本来海参渔捞如果经营得当，可以作为加拉帕戈斯群岛贫困渔民的长期生活来源。要解决这个问题，就应该在合法捕捞的厄瓜多尔渔民和负责任的台湾消费者之间建立联系，实现东亚的消费者和靠海参渔捞维生的厄瓜多尔渔民双赢的局面。

图1. 1990年到2003年间，台湾进口的海参中有4%来自厄瓜多尔，但这占到了厄瓜多尔出口的97%。



来源：台湾海关数据；Willock，A.，Burgener，M.和Sancho，A.，2004年，《首选还是倒退？对海洋物种施行《濒危野生动植物种国际贸易公约》附录三的检验》，国际野生物贸易研究委员会。

Sea cucumbers for sale in Taipei. ©Joyce Wu
在台湾市面上贩售的海参。© 吴郁琪

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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