Wild Animal Trade Monitoring at Selected Markets in Guangzhou and Shenzhen, South China, 2000-2003







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Chatou Wildlife Market, Guangzhou

Citation

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Executive Summary

Despite the booming live wild animal trade in South China, very few long-term, systematic studies have been conducted in the main markets. There is also a need to update our knowledge given the dynamic nature of the wildlife trade and the changing status of the animals concerned. The present study was initiated and conducted under the South China Biodiversity Conservation Programme of Kadoorie Farm & Botanic Garden, with the aim to document the species composition, relative trade volume and conservation implications of the wild animal trade in Guangzhou and Shenzhen, Guangdong Province.

The survey started in October 2000 and finished in March 2003. It focused on live, non-aquatic wild animals, i.e. mammals, birds, reptiles and amphibians, which were commonly traded for food and/ or pets in South China. Major wild animal markets and shops in Guangzhou and Shenzhen were surveyed twice a month from October to March, when food trade activity reaches its maximum. For the rest of the year, they were surveyed monthly.

A wide range of animals was recorded, some in huge quantities (over 90,000 snakes and 24,000 turtles could be seen in one visit). The survey yielded 39 mammal species, 453 bird species, 154 reptile species and 31 amphibian species. A high proportion (59 species), particularly of turtles, were listed in the 2002 IUCN Red List of Threatened Species: ten classified Critically Endangered, 19 Endangered and 30 Vulnerable. Many of them are CITES-listed (nine in Appendix I and 68 in Appendix II). Many nationally protected species in China were also traded: eight species in Category I of China's State Key Protected Wildlife List and 38 species in Category II. Besides wild-caught animals, captive-bred individuals (in particular mammals and turtles) constituted a fair proportion of the observed trade. Many of the animals traded were Chinese species or wide-ranging East Asian species. However, in the food and pet turtle trade, a large proportion of animals were imported from other countries.

The species traded overlap fairly extensively with those reported in past studies with the exception of the food turtle trade. Large river turtles from Southeast Asia (such as **Batagur baska, Callagur borneoensis** and **Orlitia borneensis** and Burmese species (**Morenia ocellatand Lissemys scutata** were common in the markets whereas they were practically absent eight years ago. This supports the belief that the trade in wild-caught food turtles is unsustainable and new sources are being sought to satisfy the demand. A drastic reduction in the volume and the size of animals traded occurred in some species (e.g. the water snake **Enhydris bocourti**om Southeast Asia) during the course of the survey, again indicating that the wild population of the species concerned has crashed due to over-exploitation.

In July 2001, the Guangdong Provincial Government enacted the "Guangdong Wildlife Protection and Management Regulation" and "Major Protected Wildlife of Guangdong Regulation" to prohibit the trade of certain wildlife species. This measure seemed to have only a short-term impact and the trade resumed to the original level several months later. The outbreak of Severe Acute Respiratory Syndrome is thought by some experts to be linked to the wild animal markets. In view of the serious threat posed by the commercial wildlife trade to regional biodiversity and to public health, the recent decision made by the Guangdong authority to restrict the trade to 54 successfully captive-bred species is to be welcomed. Other provinces should adopt similar measures and the cross-border wild animal trade should be banned.

Greater numbers of captive-bred animals, of more species, are being sold than before. This indicates commercial-scale production of wild animals in China has been successful for certain mammals, birds and turtles. However, there is an urgent need to improve the wellbeing of the animals and the hygiene of the whole process. It is recommended that efforts be made to investigate the extent and success of these captive-breeding farms in order to come up with practical measures to make them sustainable, hygienic and safe.

The pet trade in South China is insignificant (apart from cage birds) but is growing. Also many threatened Chinese species are being exported for the international pet trade. Hence, continual monitoring is needed. Also the import of known invasives should be banned. The wellbeing of the pet animals and the hygiene of the pet markets also need to be improved.

The wildlife trade is dynamic and has changed substantially since records were first made. Further monitoring is essential to detect any change and/or trend in the markets so as to provide a warning system. Moreover, such monitoring would function as an independent check on the effectiveness of legislation, regulations and enforcement actions. In the longer term, a concerted effort by all the conservation groups looking at different aspects of the wildlife trade in the region would be useful to document the real extent of this trade, its impacts on wild populations and its socio-economic importance. The chances of making the trade sustainable will be much higher when this information is available.

Many threatened and/or protected species are traded in South China and this exploitation is one of the main threats to the biodiversity in the region. Very good legislation and regulations on the wildlife trade are already in place but enforcement actions tend to lag behind in China. Technical support should be provided whenever appropriate. Also the State Key Protected Wildlife List should be expanded to cover all known threatened species.

Introduction

The trade in live wildlife in China has received global attention in recent years (e.g. Compton, 2000; Nooren & Claridge, 2001). There have been a growing number of studies on, for example, the turtle trade in Shanghai (Wildlife Conservation Society (WCS)-China Program & China Endangered Species of Wild Fauna and Flora Import and Export Administrative Office Shanghai Branch Office, 2000), the wildlife trade in Guangxi and/or Guangdong (Li, **et al**, 1996; Fellowes & Hau, 1997), the crossborder trade in Guangxi (Li & Li, 1997) and the cross-border trade in Yunnan (Wang **et al**, 2001a, 2001b; Yang **et al** 2000). However, despite being the largest consumer of wildlife in China, the booming trade in Guangzhou and Shenzhen (see Map 1) has not been under long-term monitoring. The most comprehensive monitoring study to date has been a study by Lau **et al** (1995) in 1993-1994 focusing on major wild animal markets in Guangzhou, Shenzhen, Hong Kong and Macau. This systematic study proved valuable in identifying trends in the live wild animal trade and provided the first warning of the Asian Turtle Crisis. It also provided a basis for comparison for further studies. There is a clear need to update our knowledge given the dynamic nature of the wildlife trade and the changing conservation status of the animals involved. With this in mind the present study was initiated, under the South China Biodiversity Conservation Programme of Kadoorie Farm & Botanic Garden (KFBG), with the aim to document the species composition, relative trade volume and conservation implications of the current wild animal trade in Guangzhou and Shenzhen.



Methodology

The survey started in October 2000 and was originally planned to be a one-year project. However the value of the data collected, and the tightening of wildlife protection legislation and regulations in Guangdong Province, urged us to extend this project and it was concluded in March 2003. The methodology was similar to that in the study by Lau **et al.**(1995) so that direct comparison could be made. Live, terrestrial animals, i.e. mammals, birds, reptiles and amphibians, were identified to species level whenever possible. The number of each species was counted and recorded on a record sheet. The record sheet would be updated as additional species were found. Where a species was traded in huge numbers, these were estimated in multiples of ten. The price of the animals was also asked whenever possible. Only live animals were included in this study because they could be identified with confidence; also live animals are difficult to keep alive for a long time, minimizing the risk of over-estimation due to the retention of stock between surveys. Well-known domesticated animals such as Japanese Quail and Guinea Fowl were excluded. The survey was conducted by staff of KFBG and this report was compiled by Lee Kwok Shing, Michael Lau and Bosco Chan of KFBG's China Programme.

Scientific nomenclature used in this report follows Zhang **et al.**(1997) for mammals, MacKinnon & Phillipps (2000) and Juniper & Parr (1998) for birds, and Zhao **et al.**(2000) for Chinese amphibian and reptiles, for non-native species, English names were derived from Zhang **et al.**(1997) for mammals, MacKinnon & Phillipps (2000) for birds, Juniper & Parr (1998) for parrots, and Zhao **et al.**(1998) for amphibians and reptiles.

Major wild animal markets in Guangzhou and Shenzhen were surveyed twice a month from October to March, when food trade activity reaches its peak (Lau **et al.,**1995). For the rest of the year, they were surveyed monthly.

Study sites

Markets surveyed included:

- Chatou Wildlife Market, Shijing District, Guangzhou Started business in 1998, it has become one of the biggest food wild animal markets in China, and is the major wholesale market for mammals, birds and snakes.
- 2. Qingping Market, Liwan District, Guangzhou This used to be the main food wild animal market in South China before the Chatou Wildlife Market was opened. Now it deals mainly in chelonians but a section of the market has been converted to an aquarium fish market; there are shops/vendors selling small numbers of wild animals (mainly reptiles) as pets.
- Liuhua Bird Market, Yuexiu District, Guangzhou This is the major cage bird market in Guangzhou.
- Dongmen Market, Dongmen District, Shenzhen
 This is the major food wild animal market in Shenzhen. Some shops also sell cage birds.

Results

Over the study period a wide range of animals was traded, some in huge quantities. The survey recorded 39 mammal species, 453 bird species, 154 reptile species and 31 amphibian species (Fig. 1; full species list in Appendix A). Of these, 59 species were listed in the 2003 IUCN Red List of Threatened Species: 10 classified as Critically Endangered, 19 Endangered and 30 Vulnerable. Furthermore, nine species were listed in CITES Appendix I (of which international commercial trade is not allowed) and 68 species in Appendix II. Some species protected under China's State Key Protected Wild Animals List were also traded: eight species in Category I and 37 species in Category II (Table 1). Besides wild-caught animals, captive-bred individuals (in particular certain mammals and turtles) constituted a fair proportion of the observed trade volume. The majority of the animals in the trade were Chinese species or wide-ranging Asian species, but in the food turtle trade and pet trade, a large proportion of animals were non-native species imported from other countries.

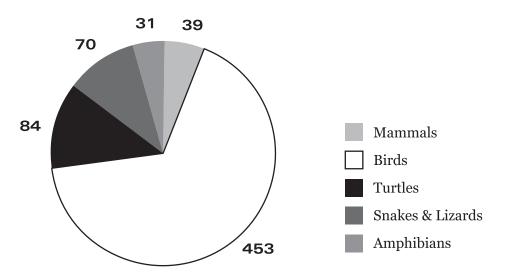


Fig. 1 Number of species of different taxon groups recorded in the live wild animal trade.

Mammal trade

Thirty-six species of mammals were found in the food market. In each visit, a total of at least 500 individuals of mammals were for sale in Chatou Wildlife Market in Guangzhou and Dongmen Market in Shenzhen. The most frequent, in descending order, were Chinese Ferret Badger (**Melogale moschata** Masked Palm Civet (**Paguma larvata** Hog Badger (**Arctonyx collaris** At least 100 Chinese Ferret Badger, 70 Masked Palm Civet and 50 Hog Badger were recorded during each visit. The vast majority of these were believed to be farm-raised as they were tame and in good condition (e.g. appearing well-fed and without obvious injury). For the other recorded species, the vast majority of the animals were wild-caught with the exception of Raccoon Dog (**Nyctereutes procyonoides** which the majority were also believed to be captive-bred. One globally Vulnerable species, one CITES II species and one State Key Protected Category II species (see Table 1) were recorded. The pet mammal trade was much smaller in scale and only involved eleven species of small mammals such as squirrels, flying squirrels and hedgehogs. Nine of these species were native to China and the other two, Ferret (**Mustela putorius** and Mink (**Mustela vison** were probably bred and raised in China for the fur trade.

There was a clear seasonal trend in which a lot more mammals (both wild-caught and captive-bred) were available in the food market during the winter months from November to February (Figs. 2 & 3)

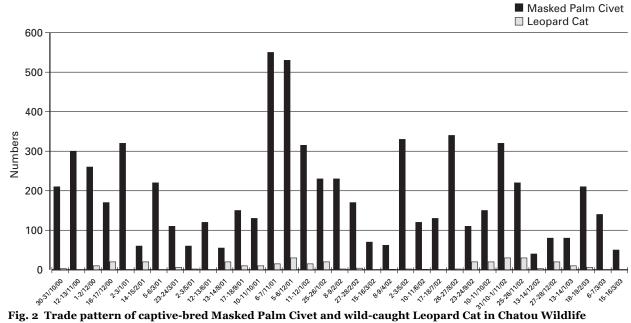


Fig. 2 Trade pattern of captive-bred Masked Palm Civet and wild-caught Leopard Cat in Chatou Wildlife Market recorded in the study.

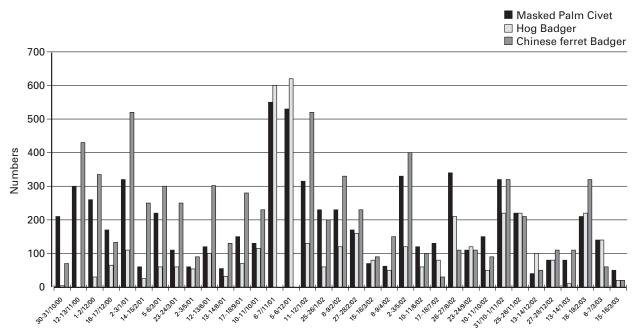


Fig. 3 Fluctuation in the number of individuals of the three most common mammal species in Chatou Wildlife Market.

Food bird trade

A total of 212 species of birds were recorded in the food markets. At least 2,500 individuals of birds could be seen in one visit. They were mainly waterfowl, egrets, herons, doves and sparrows native to China. The most heavily traded species, in descending order, were Black-crowned Night Heron (**Nycticorax nycticor**) a common Teal (**Anas cecca**), Spotted Dove (**Steptopelia chinens**) is nd Eurasian Tree Sparrow (**Passer montanus** Among the species recorded, two were globally Endangered and seven were Vulnerable. Several of them were protected internationally or nationally, two in CITES I, 16 in CITES II; four in State Key Protected Category I and 24 in Category II (see Table

1). Notable species included Chinese Merganser (**Mergus squamatus**European Spoonbill (**Platalea leucorodia** Black Stork (**Ciconia nigr**)aHainan Partridge (**Arborophila ardens**nd Relict Gull (**Larus relictus** Small raptors such as hawks, falcons and owls were also seen regularly in Dongmen Market.

There was a clear seasonal trend in which wild ducks, rails and small passerines such as sparrows and buntings were more numerous in winter (Fig. 4). In a single visit on 5 December 2001, more than 3,000 ducks and 5,000 Eurasian tree sparrows (**Passer montanus**vere recorded. In summer, egrets and herons were most abundant; more than 10,000 individuals, mostly Black-crowned Night Heron fledglings, were recorded in the visit on 2 May 2002. On the other hand, the captive-bred Chukar Partridge, did not exhibit a seasonal pattern (Fig. 4).

Black-crowned Night Heron

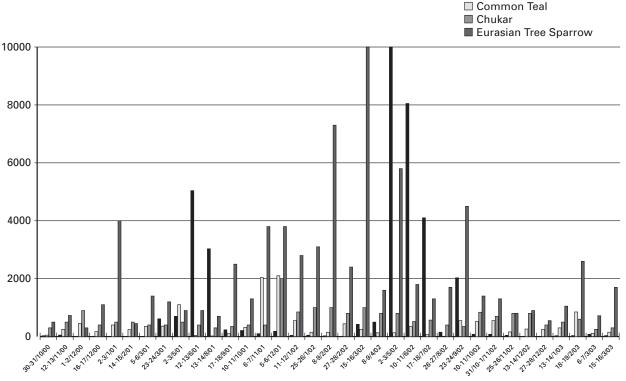


Fig. 4 Comparison of trade pattern between the captive-bred Chukar Partridge and the three most common wild-caught species in Chatou Wildlife Market.

Pet bird trade

Many more species (over 300) were involved in the pet bird trade and most of them were Chinese passerines. The most popular species were Hwamei (**Garrulax canorus** and Japanese White-eye (**Zostepps japonic)** Among the species found, one (Yellow-crested Cockatoo **Cacatua sulphen**) is listed as Critically Endangered, one as Endangered and three as Vulnerable globally. One species is in CITES I and 13 in CITES II. Several are also protected nationally (five in Category II) (see Table 1). Uncommon species, such as the restricted Emei Shan Liocichla (**Liocichla omeiens)is** which is endemic to the Emei Shan area in Sichuan Province, were also traded.

Food reptile trade

The food reptile trade in Guangzhou and Shenzhen involved 84 species, including 42 turtles, five lizards and 37 snake species. Turtles and snakes made up the bulk of this trade. For the turtles,

between 5,000 and 24,500 individuals were encountered in a single visit. Most of the species traded were wild-caught turtles from Southeast Asia. The most numerous, in descending order, were Malayan Box Turtle (**Cuora amboinens)** Malayan Snail-eating Turtle (**Malayemys subtriju)** Black Marsh Turtle (**Siebenockiella crassicoNis** Elongated Tortoise (**Indotestudo elonga**) ta

Large numbers (at least 2,500 in a visit) of apparently captive-bred turtles were also traded. The main species, in descending order, were Chinese Soft-shell Turtle (**Pelodiscus sinensis**Chinese Pond Terrapin (**Mauemys mutica** Chinese Striped Terrapin (**Ocadia sinensis**Reeves's Terrapin (**Chinemys cevesii** and the non-native Red-eared Slider (**Trachemys scripta elegans** mall numbers of farm-raised Alligator Snapping Turtle (**Macroclemys temminckii**nd Common Snapping Turtle (**Chelydra serpentina**vere also for sale. Like the Red-eared Slider, these two turtles are North American species.

Cuora amboinensis Pelodiscus sinensis 7000 6000 5000 4000 3000 2000 1000 8.912102 17-18/102 3110-11102 1-18/9/01 To Thole 67/17/01 5.61210 21-28/2/02 1510302 2:3/5/02 10.116102 26-21/8/02 23-24902 10-11/10/02 252617102 11-12/1/02 25261102 8-914102 13-14/12/02 5.630 14-15/20 23:24/3/0 21-21-21-A1BIO 21-28/12/0 13-14/110 1.31510 12,360 2:31716

No clear seasonal trend was observed in the trade of either wild-caught or captive-bred turtles (Fig. 5 and 6).

Fig. 5 Trade pattern of captive-bred Chinese Soft-shelled Turtle and wild-caught Malaysian Box Turtle in Qingping Market.

A very high proportion (33 out of 42 species, 79%) of the turtles in the markets are in the IUCN Red List: five as Critically Endangered, 14 as Endangered and 14 as Vulnerable (see Table 1). Twentyseven are on CITES (four in Appendix I and 23 in Appendix II) and four of them are also protected by Chinese law (see Table 1). Some of these threatened and /or protected species, such as Malayan Box Turtle and Elongated Tortoise, were heavily traded and the highest counts in a single visit were 5,000 and 3,000 respectively. Extremely rare species were also traded. One Burmese Roofed Turtle (**Kachuga trivitta)ta**vhich has not been found in the wild since 1935 and two recently rediscovered Arakan Forest Turtles (**Heosemys depassa**) (Iverson & McCord, 1997), were found in Qingping Market during this study. Besides, the authors saw 14 individuals during a subsequent visit to Qingping Market in 2003. (See plate No. 5 at the back of this report)

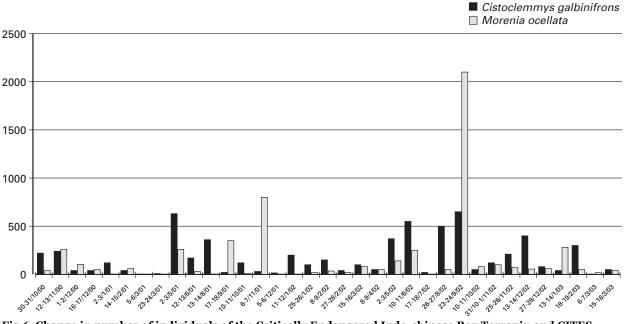


Fig.6 Change in number of individuals of the Critically Endangered Indo-chinese Box Terrapin and CITESlisted Burmese Eyed Turtle in Qingping Market.

Snakes were abundant in the wildlife markets and 36 species were recorded. Between 7,000 and 93,000 individuals could be seen in a single visit. There was a strong seasonal pattern with peak numbers in winter months (Fig. 7). The most numerous, in descending order, were Black-browed Racer (**Elaphe taeniura**, Indochinese Rat Snake (**Ptyas korros** and Copperhead Racer (**Elaphe radiata**Four species recorded are protected in China and/or CITES listed (see Table 1). Besides Chinese and East Asian species which dominated the markets, several Southeast Asian snakes such as Bocourt's Water Snake (**Enhydris bocourti** M Keeled Rat Snake (**Ptyas carinatus**vere available.

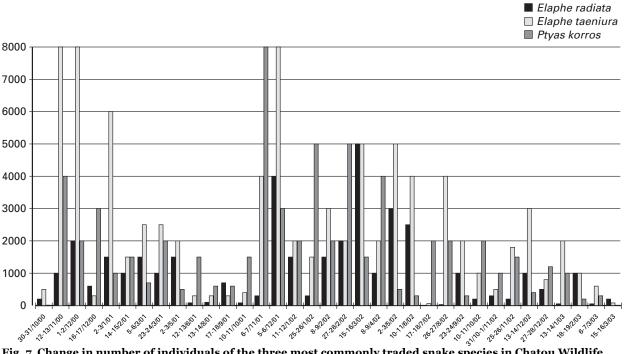


Fig. 7 Change in number of individuals of the three most commonly traded snake species in Chatou Wildlife Market.

Various lizard species were also sold in the food markets but in much smaller numbers. They included Water Dragon (**Physignathus cocincin)us** utterfly Lizard (**Leiolepis eevesii**, Japalura Lizard (**Japalura splendida**nd Chinese Skink (**Eumeces chinens**)is

Pet reptile trade

The pet reptile trade in South China was quite small and the most abundant species were captivebred baby turtles such as Reeves's Terrapin (**Chinemys œvesij**. Several protected species such as Chinese Crocodile Lizard (**Shinisauus cocodiluus**), Green Sea Turtle (**Chelonia myda**sand the Critically Endangered Burmese Star Tortoise (**Geochelone platyno**)tavere found in the Qingping Pet Market (see Table 1). Starting from the end of 2001, small numbers of non-native turtles, tortoises and chameleons were seen in the pet market. According to shopkeepers in Qingping, the main buyers were from Japan, Taiwan, Hong Kong and Shanghai. In April 2002, small numbers of Japanese Pond Turtle (**Mauemys japonic**)awere seen in Qingping Market. The shopkeeper said a Japanese person brought them into China in exchange for some rare Chinese species.

Amphibian trade

The food amphibian trade was dominated by two frog species, Chinese Bullfrog (**Rana rugulosa** and American Bullfrog (**Rana catesbeiana**Thousands of individuals of these two species could be seen for sale in the food markets. Chinese Edible Frog is native to China while American Bullfrog originates from North America. It is believed that the majority of these frogs in the markets were raised from farms, in either China or Southeast Asia, notably Thailand. Other species, such as Chinese Toad (**Bufo gagarizans** and Gunther's Frog (**Rana guenther**; were for sale but in much smaller numbers. The Chinese Bullfrog is nationally Protected (Category II). We were offered Chinese Giant Salamander (**Andrias davidianus** a CITES I and a Category II State Key Protected Animal, while conducting surveys in Qingping and Dongmen.

The pet amphibian trade in China was insignificant and the principal species were Oriental Firebellied Newt (**Cynops orientalis** nd tree frogs (**Hyla**sp. and **Polypedates denny**siall native to China.

Price

Price of the animals in the market was variable (Table 2) and averaged from 1 RMB (US\$0.13) for a Eurasian Tree Sparrow (**Passer montanus** o 50,000 RMB (US\$6,250) for a Golden-headed Box Turtle (**Cuora auecapitata** This turtle is a very rare species (Chen, 1991) heavily sought after by hobbyists, but the supply is very limited. The price of State Key Protected species was often higher because they were well known by the traders and they knew it was illegal to sell them. There was no significant difference in price between Threatened and non-Threatened animals. Moreover, CITES and non-CITES listed species were often similarly priced. This was probably because traders and law enforcement officials did not know many of the imported species were listed on CITES and thus protected. Price also fluctuated between summer and winter; for example, the price of a Masked Palm Civet averaged 100 RMB in the summer and 80 RMB per kg in the winter. This apparently reflects the higher demand for wildlife as food in winter.

Overview

Food trade

The wildlife trade in South China was found to involve many different species and the volume is believed to be larger than in 1993-1994 (Lau et al, 1995), as indicated by the substantially greater number of animals encountered. The list of commonly traded species overlapped quite extensively with that in the past study with the exception of the food turtle trade. Large turtles from Southeast Asia (such as Batagur baskaCallagur borneoensissend Orlitia borneensissend Burmese species (Morenia ocellatand Lissemys scutatavere now commonly seen in the markets whereas eight years ago they were practically absent (Lau et al, 1995). Leucocephalon yuwon@iturtle restricted to Sulawesi that was present in the trade in the late-1990s (Lau, personal observation) has apparently disappeared from the food markets. Rare species such as **Heosemys depressd(achuga trivittata** and Geochelone platynoteom Burma have turned up. This supports the belief that the commercial trade in wild-caught turtles for food is unsustainable and new sources are continually being sought to satisfy the demand. Another alarming trend is that Southeast Asian snakes are appearing in the Chinese food markets. Indeed the cross-border trade in mammals, birds and reptiles between China and neighbouring countries has reached a substantial scale (Li et al, 1996; Li & Li, 1997; Yang et al 2000; Nooren & Claridge, 2001; Wang **et al**, 2001a, 2001b). This growing commercial wildlife trade is one of the main threats to biodiversity in the region. If not controlled, its impact on the region's wildlife will probably lead to the elimination of many Asian species in the wild.

Changes in the volume and the size of animals traded were observed in some species during the course of the survey. For instance, when the survey first started, up to 5,000 adult **Enhydris bocourti** were seen for sale in the Guangzhou markets. This agrees with the report by Stuart **et al** (2000) that in 1999 and 2000, about 8,500 individuals were exported from Cambodia to Vietnam and China every day. However, toward the end of the survey only a small number (often less than 50) of juvenile snakes of the species could be found, suggesting that the source had been severely depleted. Both number and the size of Malaysian Giant Turtles (**Orlitia boxeensis** and Elongated Tortoises (**Indotestudo elongatin** the food markets also decreased during the course of this survey, also indicating over-exploitation.

Another interesting trend is that increasing numbers of captive-bred animals are being sold. Many Masked Palm Civet, Raccoon Dog, Hog Badger, Ferret Badger, Coypu (**Myocastor coypus**Common Pheasant (**Phasianus colchic)us**hukar (**Alectoris chuka**Reeves's Terrapin, Chinese Pond Terrapin, Chinese Striped Terrapin, Chinese Softshell Turtle, Red-eared Slider, Snapping Turtle, Chinese Bullfrog and American Bullfrog are believed to be farm-bred. Small-scale civet farms in central Guangdong and southern Jiangxi have been visited by us and observations of a large turtle farm in Hainan have also been documented (Shi & Parham, 2001). This indicates commercial-scale production of wildlife in China has been successful for certain mammals and turtles. Farming of edible frogs is also reported to have been successful although we have yet to verify this claim. There are also claims that many snakes are now farm-raised but this has not been documented and again awaits verification. Books about captive breeding of various species of mammals, birds, turtles, snakes and frogs (e.g. Zhou, 1997; Xie, 1999; Pan, 2000) are common in book shops in Guangzhou and other big cities.

Internationally protected species, especially turtles, are quite common in the food trade. Rare or protected Chinese species, such as raptors and pheasants, are also exploited. A black market also exists as we were often offered protected species (concealed from public view) while conducting the surveys. The extent of this black market is not known and was not covered by this study. However, certain highly-publicised protected species, such as monitor lizards (**Varanus**spp.) and pangolins (**Manis**spp.) have not been detected openly in the wildlife markets but are often confiscated in China (e.g. Li **et al**, 1996; Anon., 2000). The continued exploitation of these species will no doubt pose a serious threat to their survival.

In July 2001, the Guangdong Provincial Government enacted the "Guangdong Wildlife Protection and Management Regulation" and "Major Protected Wildlife of Guangdong Regulation" to prohibit the trade of certain wildlife species (Anon., 2001). Our data detected a decline in the number of individuals and the number of species in the subsequent few months. However, trade activity began to increase in December 2001 and reached a similarly high level as that prior to the adoption of the new regulations.

The conditions in the wildlife food markets are appalling from the point of view of animal welfare. The animals are packed in tiny spaces and often in close contact with other wild and/or domesticated animals such as dogs and cats. Many are either sick or with open wounds and without basic care. Animals are often slaughtered inside the markets in several stalls specalising in this. The conditions not only earn criticism from animal welfare groups and pose a risk to public health, but also render many rare species unsuitable for reintroduction/captive breeding programmes after confiscation, due to their exposure to potential diseases. The markets also provide a conducive environment for animal diseases to jump hosts and spread to humans. The recent outbreak of Severe Acute Respiratory Syndrome (SARS) and the finding of the virus in several animal species (Masked Palm Civet, Raccoon Dog and others) sold in these wildlife markets show that the risk is real (Fox, 2003). In response, the Guangdong authorities have banned the hunting, trade and consumption of wild animals and have only allowed the commercial trade of 54 successfully captive-bred species.

Pet trade

With the exception of the cage bird trade, the pet wildlife trade in South China is insignificant but interest seems to be growing. Also, certain rare and/or protected species such as Crocodile Lizard (**Shinisauus cocodiluus**) and Golden-headed Box Turtle (**Cuora auecapitata**are now being traded. The cage bird trade mainly targets a handful of songbirds although other species are also available in much smaller numbers. The popular species remain unchanged and there is no obvious change in species composition and volume. Somewhat surprisingly, the conservation status of these popular cage bird species appears not to have been significantly affected by this trade in recent years.

Recommendations

Food trade

Based on the findings from this study and those reported in the literature (Lau **et al**, 1995; Li **et al**, 1996; Li & Li, 1997; Compton, 2000; Yang **et al**, 2000; Nooren & Claridge, 2001; Wang, **et al**, 2001a, 2001b), it is clear that the commercial trade in wild animals for food in South China is not sustainable, and the enforcement actions undertaken so far have failed to effectively control the trade in legallyprotected species. Moreover, many endangered species in Asia are not legally protected but are heavily traded. Some species that used to be widespread and common are now threatened. In view of the serious threats posed by this trade, to the region's biodiversity on the one hand and to public health on the other, a prudent strategy is urgently needed to tackle this. Other provinces should follow the Guangdong authority in restricting the commercial wild animal trade to successfully captive-bred species only, and the official restrictions must be fully brought into force. In addition, the cross-border wild animal trade should be banned. Exceptions should only be considered for animals that are proved to be harvested sustainably under a rigid permit system and close monitoring from the point of view of sustainability, animal welfare and human health.

Existing farms aiming to breed and produce wild animal species for the commercial trade should be looked at carefully. These farms can meet some of the demand for wild animals and might potentially make a positive contribution towards biodiversity conservation in the region if a certification system can be established and enforced appropriately, and if the trade in wild-caught individuals can be effectively controlled or banned. However, the wellbeing of these animals and the hygiene of the whole process from the farms to the markets need to be improved and scrutinized to prevent cruelty and disease outbreak, if it is decided to keep these operations running. It is also essential to understand the species, numbers involved, success rate and conditions of these breeding farms in order to assess the situation and to come up with practical measures to make them sustainable, hygienic and safe. One option is to have licenced slaughterhouses to process these animals so that agreed standards can be maintained, making live markets redundant. The direct shipment of animals from breeding farms to slaughterhouses would also enhance monitoring and minimise abuse of the certification system. New attempts to breed and raise other species for commercial purposes should be discouraged as it would increase human exposure to animal diseases and hence the chance of cross infection. The breeding of endangered species for commercial use, other than the ones that are self-sustaining now, should not be attempted as survival in the wild would be further threatened by the need for founding and supplementary stock. These kinds of initiatives often fail and, if successful, may create a market for wild-caught individuals that are often 'cheaper' to get.

Pet trade

This study does not provide evidence that the local pet trade in South China poses a serious threat to biodiversity. However, there are several reasons for concern. The actual number of species and volume in trade is much larger than that reported here as many Chinese species are exported to Hong Kong and other countries to satisfy their demand (Melville, 1982; Lau **et al**, 1995) and would not be picked up in this study. Protected and/or endangered species are often seen in the pet markets. In addition, rare Chinese species are aggressively sought-after by overseas hobbyists, as reported in some Japanese hobbyist magazines. The pet trade is growing and is expected to reach a similar scale as in Hong Kong, as people in South China gain in affluence and have more free time.

At present there is little control on the import of pets, and known invasive species sometimes turn up in the pet trade. Hence, continual monitoring is needed and is outlined in the section below. Also, importation and possession of known invasives should be banned.

Pet animals are usually kept in better condition than food animals. However, the potential risk to public health cannot be ignored as indicated by the outbreak of "Chicken Flu" in wild bird markets. The wellbeing of birds and the hygiene of pet markets/shops have to be improved and monitored by the responsible authorities. In particular, mortality of wild-caught animals before they reach the market is usually very high. There is a need to establish and enforce an acceptable standard for collecting/trapping and transporting these animals in order to reduce mortality and health risk.

Market monitoring

It is unrealistic to expect that the wild animal trade will disappear altogether. The trade is dynamic and has changed substantially since records have been made. Further monitoring is essential to detect any change and/or trend in the markets so as to provide an early warning system. Moreover, monitoring would function as an independent check on the effectiveness of legislation, regulations and enforcement actions. A less intensive monitoring schedule, of say one visit every two months to the biggest markets (all in Guangzhou) and some of the well-known wildlife restaurant districts, would be sufficient. In the longer term, a concerted effort by conservation groups looking at different aspects of the wildlife trade in the region would be useful to document the real extent of this trade, its impacts on wild populations and socio-economic implications. The chance of making the trade sustainable would be much higher with information of this sort.

Law and enforcement

Protected and threatened species are not unusual in the trade. This is especially problematic for turtles and birds. Very strict legislation and regulations on the wild animal trade are already in place but enforcement actions tend to be insufficient or shortlived. One reason is the unclear authority over the wildlife markets and this should be addressed urgently. It is also difficult for the law enforcement personnel to identify the many species involved. Capacity building is essential for enforcement to be improved. Additional resources such as staff and the provision of user-friendly identification guides are also needed. At present only a small selection of species are classified as State Key Protected Wildlife in the Wild Animals Protection Law. This list should be expanded to cover all the known threatered Chinese species. The conservation status of many species has yet to be assessed and this should be carried out once the necessary scientific information is available.

Guangdong's recent regulation to restrict the commercial food trade to a handful of species that are proved to be adequately bred and raised in captivity would greatly ease management and enforcement. Also, this would greatly ease the difficulties and uncertainties in species identification.

Public awareness

A lot of publicity has been aroused on the wildlife trade issue in recent months because of the SARS outbreak. This offers a golden opportunity to increase awareness among the general public, media and officials of how the commercial wildlife trade threatens biodiversity as well as public health. The ecological, cultural and ethical value of biodiversity, and the vast economic 'services' value of intact, functioning natural ecosystems with all their component species, should also be stressed.

Acknowledgements

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Table 1. 2000-2003 survey record of species included in the 2002 IUCN Red List of Threatened Species, CITES Appendices I or II, and/ or China's Key Protected Wildlife List.

Scientific name	English name	Chinese name	Abundance*	Food	Pet	IUCN	CITES	CHINA	Origin	Captive-bred
Mammals										
Viverricula indica	Small Indian Civet	小灵猫	+	+				=	E Asia, incl. China	
Prionailurus bengalensis	Leopard Cat	豹猫	+	+			=		Asia, incl. China	
Hystrix brachyura	Chinese Porcupine	豪猪	+	+		٨U			SE Asia, incl. China	
Birds										
Platalea leucorodia European Spoonbill	a European Spoonbill	白琵鹭	+	+			=	=	Europe, Asia, incl. China	
Ciconia nigra	Black Stork	黑鹳	+	+			=	_	Europe, Asia, incl. China	
Aix galericulata	Mandarin Duck	鸳鸯	+	+				=	E Asia, incl. China	
Anas formosa	Baikal Teal	花脸鸭	+++++++++++++++++++++++++++++++++++++++	+		٧٧	=		E Asia, incl. China	
Aythya baeri	Baer's Pochard	青头潜鸭	+++++	+		٧٧			E Asia, incl. China	
Mergus squamatus	Mergus squamatus Scaly-sided Merganser	中华秋沙鸭	+	+		N		_	E Asia, incl. China	
Anser cygnoides	Swan Goose	鸿雁	+	+		N			E Asia, incl. China	
Anser albifrons	Greater White- fronted Goose	白籁雁	+	+				=	Europe, Asia, incl. China	
Anser erythropus	Lesser White- fronted Goose	小白籁雁	+	+		٦			Europe, Asia, incl. China	
Elanus caeruleus	Black-shouldered Kite	黑翅鸢	+	+			=	=	Asia, incl. China	
Buteo buteo	Common Buzzard	普通鵟	+	+			=	=	Europe, Asia, incl. China	
Accipiter gularis	Japanese Sparrow Hawk	日本松雀鹰	+	+			=	=	E Asia, incl. China	
Accipiter virgatus	Besra	松雀鹰	+	+			=	=	Asia, incl. China	
Accipiter soloensis	Accipiter soloensis Chinese Sparrowhawk	赤腹鹰	+	+			=	=	E Asia, incl. China	
Falco peregrinus	Peregrine Falcon	游隼	+	+			_	=	Europe, Asia, incl. China	
Falco subbuteo	Ноbby	燕隼	+	+			=	II	Europe, Asia, incl. China	
Falco tinnunculus	Kestrel	红隼	+++	+			=	Ш	Europe, Asia, incl. China	

Scientific name	English name	Chinese name	Abundance*	Food	Pet	IUCN	CITES	CHINA	Origin	Captive-bred
Arborophila ardens Hainan Partridge	s Hainan Partridge	海南山鹧鸪	+	+		٨U		_	China	
Pucrasia macrolophatoklass Pheasant	ha Koklass Pheasant	匀鸡	+	+				=	S Asia, incl. China	
Lophura nycthemer&ilver Pheasant	r á ilver Pheasant	白鹇	+	+				=	SE Asia, incl. China	
Syrmaticus reeves iReeves's Pheasant	iiReeves's Pheasant	白冠长尾雉	+	+		٨U		=	China	
Chrysolophus pictusiolden Pheasant	usolden Pheasant	红腹锦鸡	+	+				=	China	
Chrysolophus	Lady Amherst's	白腹锦鸡	+	+				=	China	
amherstiae	Pheasant									
Numenius minutus	Little Curlew	小杓鹬	+	+				=	Europe, Asia, incl. China	
Larus relictus	Relict Gull	遗鸥	+	+		٨U	-	_	E Asia, incl. China	
Larus saundersi	Saunders's Gull	黑咀鸥	+	+		٨			E Asia, incl. China	
Trichoglossus	Rainbow Lorikeet	虹彩吸蜜鹦鹉	+		+		=		Australasia	
haematodus										
Cacatua sulphurea	Yellow-crested	小葵花风头鹦鹉	+		+	CB	=		Australasia	
	Cockatoo									
Cacatua moluccensisalmon-crested	sis almon-crested	鲑色凤头鹦鹉	+		+	٧U	_		Australasia	
	Cockatoo									
Eclectus roratus	Eclectus Parrot	折衷鹦鹉	+		+		=		Australasia	
Psittacus erithacus Grey Parrot	s Grey Parrot	灰鹦鹉	+		+		=		Africa	
Psittacula krameri	Psittacula krameri Rose-ringed Parakeet	红领绿鹦鹉	+		+		=	=	SE Asia	
Psittacula eupatria	Psittacula eupatria Alexandrine Parakeet	亚历山大鹦鹉	+		+		=		SE Asia	
Psittacula alexand	Psittacula alexandrRed-breasted Parakeet	绯胸鹦鹉	+		+		=	=	SE Asia, incl. China	
Psittacula derbiana Derby's Parakeet	a Derby's Parakeet	大柴胸鹦鹉	+		+		=	=	SE Asia, incl. China	
Centropus sinensis Greater Coucal	s Greater Coucal	毛鸡	+	+				=	SE Asia, incl. China	
Centropus bengalensis	Lesser Coucal	小毛鸡	+	+				=	SE Asia, incl. China	
Otus lempiji	Collared Scops Owl	领角鴞	+	+			=	=	SE Asia, incl. China	
Otus sunia	Oriental Scops Owl	红角鴞	+	+			=	=	E Asia, incl. China	
Otus spilocephalus	Otus spilocephalus Mountain Scops Owl	黄咀角鴞	+	+			=	=	SE Asia, incl. China	
					-				_	

Scientific name	English name	Chinese name	Abundance*	Food	Pet	IUCN	CITES	CHINA	Origin	Captive-bred
Glaucidium cuculoides	Asian Barred Owlet	斑头鸺鶹	+	+			=	=	SE Asia, incl. China	
Ninox scutulata	Brown Hawk Owl	鹰鴞	+	+			=	=	E Asia, incl. China	
Psarisomus dalhousiae	Long-tailed Broadbill	长尾阔咀鸟	+		+			=	SE Asia, incl. China	
Serilophus lunatus Silver-breasted Broadbill	Silver-breasted Broadbill	银胸丝冠鸟	+		+			=	SE Asia, incl. China	
Garrulax canorus	Hwamei	画眉	+++++++++++++++++++++++++++++++++++++++	+	+		=		SE Asia, incl. China	
Liocichla omeiensi	Liocichla omeiensisEmei Shan Liocichla	灰胸薮鶥	+++++		+	٨U	=		China	
Leiothrix lutea	Pekin Robin	红咀相思	+++++		+		=		China	
Leiothrix argentaurßilver-eared Mesia	ris ilver-eared Mesia	银耳相思	+++++		+		=		SE Asia, incl. China	
Rhinomyias brunneata	Brown-chested Jungle Flycatcher	白喉林鶲	+		+	٧U			SE Asia, incl. China	
Gracula religiosa	Indian Grackle	鹅哥	+		+		=		SE Asia, incl. China	
Newts and Frogs										
Echinotriton asperrimus	Black Knobby Newt	细痣 棘	+		+			=	China	
Rana rugulosa	Chinese Bullfrog	虎纹蛙	++++	+	+			П	China	
Turtles										
Platysternon megacephalum	Big-headed Terrapin	平胸龟	‡	+	+	EN	=		SE Asia, incl. China	
Chinemys reevesii	Reeves's Pond Terrapin	乌龟	+++++++++++++++++++++++++++++++++++++++	+	+	EN			SE Asia, incl. China	>95%
Sacalia bealei	Beale's Terrapin	眼斑水龟	+	+	+	N			SE Asia, incl. China	
Sacalia quadriocellata	Four-eyed Terrapin	四眼斑水龟	‡	+	+	EN			SE Asia, incl. China	
Mauremys mutica	Chinese Pond Terrapin	黄喉水龟	+++++++++++++++++++++++++++++++++++++++	+	+	N EN	=		SE Asia, incl. China	>95%
Cistoclemmys flavomarginata	Yellow-lined Box Terrapin	黄缘闭壳龟	+	+	+	Z E	=		China	

Scientific name	English name	Chinese name	Abundance*	Food	Pet	IUCN	CITES (CHINA	Origin	Captive-bred
Cistoclemmys galbinifrons	Indo-chinese Box Terrapin	黄额盒龟	+++++++++++++++++++++++++++++++++++++++	+	+	CR	=		SE Asia, incl. China	
Cuora amboinensis Malaysian Box Terrapin	i Malaysian Box Terrapin	马来闭壳龟	+++++++++++++++++++++++++++++++++++++++	+	+	٨U	=		SE Asia, incl. China	
Cuora aurocapitata Golded-headed Box Terrapin	Golded-headed Box Terrapin	金头闭壳龟	+		+	CR	=		China	
Cuora trifasciata	Three-lined Box Terrapin	三线闭壳龟	+		+	CR	=		SE Asia, incl. China	
Pyxidea mouhotii	Keeled Box Terrapin	锯缘摄龟	+++++	+	+	R	=		SE Asia, incl. China	
Geoemyda spengleriBlack-breasted Leaf Terrapin	i Black-breasted Leaf Terrapin	地龟	++++		+	EN		=	SE Asia, incl. China	
Ocadia sinensis	Chinese Striped Terrapin	中华花龟	+ + + +	+	+	N			E Asia, incl. China	>95%
Morenia ocellata	Burmese Eyed Turtle	眼斑沼龟	+++++++++++++++++++++++++++++++++++++++	+	+	٨U	_		SE Asia	
Morenia petersi	Indian Eyed Turtle	沼龟	+++++	+	+	٨U			S Asia	
Hieremys annandal	Hieremys annandaliYellow-headed Temple Turtle	黄头庙龟	+++++	+	+	EN	=		SE Asia	
Heosemys depressaArakan Forest Turtle	aArakan Forest Turtle	缅甸山龟	+		+	CR	=		SE Asia	
Heosemys grandis	Asian Giant Pond Terrapin	橙头庙龟	+++++++++++++++++++++++++++++++++++++++	+	+	٨U	=		SE Asia	
Heosemys spinosa	Spiny Turtle	棘山龟	+++++++++++++++++++++++++++++++++++++++	+	+	R	=		SE Asia	
Malayemys subtrijuga	Malayan Snail eating Turtle	马来龟	+++++++++++++++++++++++++++++++++++++++	+	+	٨U			SE Asia	
Hardella thurjii	Crowned River Turtle		+	+	+	٨U			S Asia	
Geoclemys hamiltonii	Black Pond Terrapin	黑池龟	+	+	+	٨U	_		S Asia	
Siebenrockiella crassicollis	Asian Black Terrapin	粗颈龟	+ + + + +	+	+	٨U	=		SE Asia	
Kachuga tecta	Indian Roofed Turtle		+	+	+		_		S Asia	

Scientific name	English name	Chinese name	Abundance*	Food	Pet	IUCN	CITES	CHINA	Origin	Captive-bred
Kachuga smithii	Brown Roofed Turtle		+++	+	+	NT	=		S Asia	
Kachuga trivittata	Burmese Roofed Turtle		+		+	EN	=		SE Asia	
Annanemys annamensis	Vietnamese Pond Terrapin	安南龟	+++++	+	+	СВ	=		SE Asia	
Orlitia borneensis	Malaysian Giant Turtle	马来巨龟	+++	+	+	R	=		SE Asia	
Batagur baska	Mangrove Terrapin	潮龟	+	+	+	CR	_		SE Asia	
Callagur borneoens	Callagur borneoensisted-headed Terrapin	咸水龟	++	+	+	CR	=		SE Asia	
Notochelys	Malayan Flat-shelled	果龟	+++++	+	+	٨U			SE Asia	
platynota	Turtle									
Chelonia mydas	Green Turtle	海龟	+		+	EN	-	Ι		
Indotestudo elongatā longated Tortoise	tā longated Tortoise	缅甸陆龟	****	+	+	EN	I		SE Asia, incl. China	
Manouria emys	Asian Brown Tortoise		+	+	+	ЫN	=		SE Asia	
Manouria impressa Impressed Tortoise	Impressed Tortoise	凹甲陆龟	+	+	+	٧U	=	=	SE Asia, incl. China	
Testudo horsfield	Central Asian Tortoise	四爪陆龟	+++	+	+	٧U	=	Ι	C Asia, incl. China	20%
Pelodiscus sinensis	Pelodiscus sinensis Chinese Soft-shelled Turtle	麵	+++++++++++++++++++++++++++++++++++++++	+	+	٧U			E Asia, incl. China	>95%
Palea steindachner	Palea steindachneriSteindachner's Soft- shelled Turtle	山瑞鳌	+	+	+	N		=	SE Asia, incl. China	
Amyda cartilaginea	Amyda cartilaginea Asiatic Soft-shell Turtle	沙鳖	++++	+	+	٧U			SE Asia	
Aspideretes gangeticus	Indian Softshell	印度瞥	+++++++++++++++++++++++++++++++++++++++	+	+	٨U	_		S Asia	
Nilssonia formosanus	Burmese Peacock Soft-shelled Turtle	孔雀鳖	+	+	+	٧U			SE Asia	
Chitra chitra	Striped Narrow- headed Softshell Turtle	纹背鳖	+	+	+	CR	=		SE Asia	
Lissemys punctata	Lissemys punctata Indian Flapshell Turtle	印度箱鳖	+++	+	+		=		S Asia	
Lissemys scutata	Burmese Flapshell Turtle	缅甸箱鳖	++++	+	+		=		SE Asia	

	спульп пате	Chinese name	Apundance*	0001	ret	IUGN	CIES		Urigin	Captive-bred
Macroclemys	Alligator Snapping	鳄龟	++++	+	+	٨U			N America	%06
temminckii	Turtle									
Testudo graeca	Greek Tortoise	欧洲陆龟	+		+	٧U	=		Europe	50%
Testudo hemanni	Hermann's Tortoise	赫曼陆龟	+		+	NT	=		Europe	50%
Geochelone elegan Star Tortoise	ns tar Tortoise	星龟	+++		+		=		S Asia	75%
Geochelone platynota	Burmese Star Tortoise	缅甸星龟	++++		+	СВ	=		SE Asia	
Geochelone paradalis	Leopard Tortoise	豹龟	+		+		=		Africa	95%
Geochelone sulcataAfrican Spurred Tortoise	ta African Spurred Tortoise	苏卡达象龟	+		+	٧U	=		Africa	95%
Geochelone carbonaria	Red-footed Tortoise	红腿象龟	+		+		=		S America	75%
Geochelone denticulata	Yellow-footed Tortoise	黄脚象龟	+		+	٧U	=		S America	50%
Carettochelys insculpta	Fly River Turtle	猪鼻鳖	+++		+	٧U			Australasia	
Lizards										
Gekko gecko	Tokay Gecko	大壁虎	+	+	+			=	SE Asia, incl. China	
Shinisaurus crocodilurus	Crocodile Lizard	鳄蜥	+		+		=	_	China	
lguana iguana	Green Iguana	绿鬣蜥	+++		+		=		S America	80%
Chamaeleo calyptratus	Veiled Chameleon	盔甲避役	+		+		=		Madagascar	75%
Snakes										
Python molurus	Burmese Python	蟒蛇	+		+	NT	=	_	SE Asia, incl. China	
Ptyas mucosus	Common Rat Snake	滑鼠蛇	+++++++++++++++++++++++++++++++++++++++	+			=		SE Asia, incl. China	
Naja atra	Chinese Cobra	眼镜蛇	+++++++++++++++++++++++++++++++++++++++	+			=		SE Asia, incl. China	
Ophiophagus hannalking Cobra	alking Cobra	眼镜王蛇	+++++++++++++++++++++++++++++++++++++++	+			=	=	SE Asia, incl. China	

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English name	Scientific name	Average price	Notes
Mammals		(in RMB)	
Masked Palm Civet	Paguma larvata	70 per kg	captive-bred
Leopard Cat	Prionailurus bengalensis	150 per kg	wild caught, CITES II
Wild Boar	Sus scrofa	40 per kg	wild caught
Chinese Muntjac	Muntiacus reevesii	40 per kg	wild caught
Domestic Cat		50 each	captive-bred
Birds			
Black Stork	Ciconia nigra	350 each	wild caught, CITES II & Chinese
Common Teal	Anas crecca	80 each	wild caught
Black-crowned Night Heron	Nycticorax nycticorax	50 each	wild caught
Chukar Partridge	Alectoris chukar	20 each	captive-bred
Eurasian Tree Sparrow	Passer montanus	1 each	wild caught
Chicken		20 each	captive-bred
Turtles			
Chinese Pond Terrapin	Mauremys mutica	120 per kg	captive-bred
Malaysian Box Terrapin	Cuora amboinensis	70 per kg	wild caught, CITES II
Elongated Tortoise	Indotestudo elongata	100 per kg	wild caught, CITES II
Impressed Tortoise	Manouria impressa	240 per kg	wild caught, CITES II & Chinese II
Green Sea Turtle	Chelonia mydas	900 each	wild caught, CITES I & Chinese
Chinese Softshell	Pelodiscus sinensis	50 per kg	captive-bred
Red-eared Slider	Trachemys scripta elegar	∎ s 0 per kg	captive-bred
Snakes			
Black-browed Racer	Elaphe taeniura	70 per kg	wild caught
Chinese Water Snake	Enhydris chinensis	40 per kg	wild caught
King Cobra	Ophiophagus hannah	300 per kg	wild caught, CITES II
Lizards			
Water Dragon	Physignathus cocincinus	160 per kg	wild caught
Butterfly Lizard	Leiolepis reevesii	50 per kg	wild caught
Amphibians			
Chinese Toad	Bufo gargarizans	30 per kg	wild caught
Chinese Bullfrog	Rana rugulosa	70 per kg	captive-bred, Chinese II
American Bullfrog	Rana catesbeiana	50 per kg	captive-bred

Table 2. Average price of selected species in the market.

Scientific name	English name	Chinese name	Liuhua Qingping	Chatou	Dongme
Mammals					
Vulpessp.	Fox sp.	狐狸		+	
Nyctereutes procyonoides	Raccoon Dog	貉	+	+	+
Mustela sibirica	Siberian Weasel	黄鼬		+	
Mustela vison	Mink	貂		+	
Mustela putorius	Ferret	雪貂	+		
Meles meles	Eurasian Badger	狗獾		+	
Arctonyx collaris	Hog Badger	猪獾	+	+	+
Melogale moschata	Ferret Badger	鼬獾	+	+	+
Viverricula indica	Small Indian Civet	小灵猫		+	
Paradoxurus hermaphroditus	s Common Palm Civet	椰子猫		+	
Paguma larvata	Masked Palm Civet	果子狸	+	+	+
Herpestes javanicus	Small Asian Mongoose	红颊		+	
Herpestes urva	Crab-eating Mongoose	食蟹		+	+
Prionailurus bengalensis	Leopard Cat	豹猫		+	
Sus scrofa	Wild Boar	野猪		+	+
Muntiacus muntjak	Indian Muntjac	赤麂		+	
Muntiacus reevesii	Chinese Muntjac	黄麂 \ 小麂		+	+
Callosciurus erythraeus	Pallas' Squirrel	赤腹松鼠	+ +	+	
Tamias sibiricus	Siberian Chipmunk	花鼠	+ +		+
Sciurus _{sp.}	Squirrel sp.	松鼠	+		
Petaurista petaurista	Red Flying Squirrel	棕鼯鼠	+	+	+
Petaurista alborufus	Red & White Flying Squrriel	红白鼯鼠	+	+	+
Petaurista caniceps	Grey-headed Flying Squrriel	灰头鼯鼠	+	+	
Petauristap.	Flying Squirrel sp.	鼯鼠		+	
Pteromysp.	Flying Squirrel sp.	鼯鼠	+		
Marmotasp.1	Marmot sp.1	旱獭		+	+
Marmotasp.2	Marmot sp.2	旱獭	+		
Hystrix brachyura	Chinese Porcupine	豪猪	+	+	+
Atherurus macrourus	Asian Brush-tailed Porcupine	扫尾豪猪		+	
Rhizomys sinensis	Chinese Bamboo Rat	中华竹鼠	+	+	+
Rhizomys pruinosus	Hoary Bamboo Rat	银星竹鼠	+	+	+
Rhizomyssp.	Bamboo Rat sp.	竹鼠		+	
Erinaceussp.	Hedgehog sp.	刺猬	+ +	+	
Muridaesp.	Rat sp.1	鼠 1		+	
Muridaesp.	Rat sp.2	鼠 2		+	
Cynopterus sphinx	Greater Short-nosed Fruit Bat	果蝠	+	+	
Rousettus leschenaulti	Leschenault's Fruit Bat	棕果蝠		+	
Myocastor coypus	Соури	河狸	+	+	+
Lepus sinensis	East China Hare	华南兔	+	+	+
Lepus _{sp.}	Hare sp.	兔	+	+	+
Birds					
Tachybaptusurficollis	Little Grebe	小鷿		+	
Podiceps nigricollis	Black-necked Grebe	黑颈鷿			+
Podiceps cristatus	Great Crested Grebe	凤头鷿		+	·
Calonectris leucomelas	Streaked Shearwater	白额鳝		+	
Phalacrocorax carbo	Great Cormorant	普通鸬鹚		+	
Platalea leucorodia	European Spoonbill	白琵鹭		+	
Ciconia nigra	Black Stork	黑鹳		+	
Ardea cinerea	Grey Heron	芯鹭		+	+
					т

Appendix A. Species recorded in the markets in Guangzhou and Shenzhen during the survey.

Scientific name	English name	Chinese name	Liuhua Qingping Chatou Dongmo
Ardeola bacchus	Chinese Pond Heron	池鹭	+ +
Bubulcus ibis	Cattle Egret	牛背鹭	+ +
Egretta garzetta	Little Egret	白鹭	+ +
Mesophoyx intermedia	Intermediate Egret	中白鹭	+
Casmerodius albus	Great Egret	大白鹭	+
Nycticorax nycticorax	Black-crowned Night Heron	夜鹭	+ +
Botaurus stellaris	Great Bittern	大麻鳽	+
Ixobrychus sinensis	Yellow Bittern	黄斑苇鳽	+
lxobrychus eurhythmus	Schrenck's Bittern	紫背苇鳽	+
Ixobrychus cinnamomeus	Chestnut Bittern	栗苇鳽	+
Ixobrychus flavicollis	Black Bittern	黑鳽	+
Tadoma feruginea	Ruddy Shelduck	赤麻鸭	+
Tadoma tadona	Common Shelduck	麻鸭	+
Dendrocygna javanica	Lesser Treeduck	栗树鸭	+
Nettapus coromandelianus	Cotton Teal	棉凫	+
Aix galericulata	Mandarin Duck	鸳鸯	+ +
Anas poecilorhyncha	Spot-billed Duck	斑嘴鸭	+ +
Anas platyrhynchos	Mallard	绿头鸭	+ +
Anas clypeata	Northern Shoveler	琵嘴鸭	+ +
Anas acuta	Northern Pintail	针尾鸭	+ +
Anas strepera	Gadwall	赤膀鸭	+ +
Anas penelope	Eurasian Wigeon	赤颈鸭	+ +
Anas falcata	Falcated Teal	罗纹鸭	+ +
Anas formosa	Baikal Teal	花脸鸭	+ +
Anas crecca	Common Teal	绿翅鸭	+ +
Anas querquedula	Garganey	白眉鸭	+ +
Aythya fuligula	Tufted Duck	凤头潜鸭	+ +
Aythya marila	Greater Scaup	斑背潜鸭	+ +
Aythya baeri	Baer's Pochard	青头潜鸭	+ +
Aythya nyoca	Feruginous Pochard	白眼潜鸭	+ +
Rhodonessa rufina	Red-crested Pochard	赤嘴潜鸭	+
Aythya valisneria	Canvasback	帆背潜鸭	
Aythya ferina	Common Pochard	红头潜鸭	+
Bucephala clangula	Common Goldeneye	金眼鸭	+ +
Mergellus albellus	Smew	玉w ⁶ 白秋沙鸭	+ +
U			+ +
Mergus serrator	Red-breasted Merganser	红胸秋沙鸭	+
Mergus squamatus	Scaly-sided Merganser	中华秋沙鸭	+
Mergus merganser	Common Merganser	普通秋沙鸭	+
Anser cygnoides	Swan Goose	鸿雁	+
Anser fabalis	Bean Goose	豆雁	+
Anser albifrons	Greater White-fronted Goose	白额雁	+
Anser erythropus	Lesser White-fronted Goose	小白额雁	+
Anser anser	Greylag Goose	灰雁	+
Anser indicus	Bar-headed Goose	斑头雁	+
Elanus caeruleus	Black-shouldered Kite	黑翅鸢	+
Accipiter gularis	Japanese Sparrow Hawk	日本松雀鹰	+ +
Accipiter virgatus	Besra	松雀鹰	+
Accipiter soloensis	Chinese Sparrowhawk	赤腹鹰	+
Falco peregrinus	Peregrine Falcon	游隼	+
Falco subbuteo	Hobby	燕隼	+
Falco tinnunculus	Kestrel	红隼	+
Coturnix japonica	Japanese Quail	鹌鹑	+ +
Coturnix chinensis	Blue-breasted Quail	蓝胸鹑	+ + + +

Scientific name	English name	Chinese name	Liuhua	Qingping	Chatou	Dongmen
Arborophila ardens	Hainan Partridge	海南山鹧鸪			+	
Francolinus pintadeanus	Chinese Francolin	鹧鸪		+	+	+
Alectoris chukar	Chukar Partridge	石鸡		+	+	+
Perdix dauuricae	Daurian Partridge	斑翅山鹑			+	
Bambusicola fytchii	Mountain Bamboo Partridge	棕胸竹鸡			+	
Bambusicola thoracica	Chinese Bamboo Partridge	灰胸竹鸡			+	
Pucrasia macrolopha	Koklass Pheasant	勺鸡			+	
Lophura nycthemera	Silver Pheasant	白鹇			+	+
Syrmaticus reevesii	Reeves's Pheasant	白冠长尾雉			+	
Phasianus colchicus	Common Pheasant	鴙鸡		+	+	+
Chrysolophus pictus	Golden Pheasant	红腹锦鸡			+	
Chrysolophus amherstiae	Lady Amherst's Pheasant	白腹锦鸡			+	
Pavo cristatus	Indian Peafowl	蓝孔雀	+		+	+
Tumix tanki	Yellow-legged Buttonquail	黄脚三趾鹑	+			
Rallus aquaticus	Water Rail	普通秧鸡			+	
Gallirallus striatus	Banded Rail	蓝胸秧鸡			+	
Porzana fusca	Ruddy Crake	红胸田鸡			+	
Porzana porzana	Spotted Crake	斑胸田鸡			+	
Porzana pusilla	Baillon's Crake	小田鸡			+	
Amaurornis akool	Brown Crake	红脚苦恶鸟			+	+
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦恶鸟			+	+
Gallicrex cinerea	Watercock	董鸡			+	
Gallinula chloropus	Moorhen	黑水鸡			+	+
Fulica atra	Coot	白骨顶			+	+
Porphyrio porphyrio	Purple Swamphen	紫水鸡			+	
Hydrophasianus chirurgus	Pheasant-tailed Jacana	水雉			+	
Recurvirostra avosetta	Pied Avocet	反咀鹬			+	
Himantopus himantopus	Black-winged Stilt	黑翅长脚鹬			+	
Vanellus vanellus	Lapwing	凤头麦鸡			+	
Vanellus cinærus	Grey-headed Lapwing	灰头麦鸡			+	
Pluvialis fulva	Pacific Golden Plover	金斑鸻			+	
Charadrius mongolus	Lesser Sand Plover	蒙古沙鸻			+	
Charadrius dubius	Little Ringed Plover	金眶鸻	+		+	
Charadrius alexandrinus	Kentish Plover	环颈鸻			+	
Pluvialis squatarola	Grey Plover	灰斑鸻			+	
Glareola maldivarum	Oriental Pratincole	普通燕鸻			+	
Gallinago gallinago	Common Snipe	扇尾沙锥			+	
Gallinago stenura	Pintail Snipe	针尾沙锥			+	
Gallinagosp.	Snipe sp.	沙锥			+	
Scolopax rusticola	Woodcock	丘鹬			+	
Rostratula benghalensis	Greater Painted Snipe	彩鹬			+	
Tringa stagnatilis	Marsh Sandpiper	泽鹬			+	
Tringa totanus	Redshank	红脚鹬			+	
Tringa eythiopus	Spotted Redshank	鹤鹬			+	
Tringa nebularia	Greenshank	青脚鹬			+	
Tringa glaeola	Wood Sandpiper	林鹬			+	
Tringa ochopus	Green Sandpiper	白腰草鹬			+	
Xenus cinereus	Terek Sandpiper	翘咀鹬			+	
Numenius minutus	Little Curlew	小杓鹬			+	
Limosa limosa	Black-tailed Godwit	黑尾鹬			+	
Limnodromus semipalmatus		半蹼鹬			+	
•	Sharp-tailed Sandpiper	尖尾鹬			+	
Calidris acuminata						

Scientific name	English name	Chinese name	Liuhua Qingping Chatou Dongme
Calidris alba	Sanderling	三趾鹬	+
Calidris ferruginea	Curlew Sandpiper	弯嘴滨鹬	+
Calidris ruficollis	Red-necked Stint	红胸滨鹬	+
Calidris temminckii	Temmick's Stint	青脚滨鹬	+
Philomachus pugnax	Ruff	流苏鹬	+
Larus argentatus	Herring Gull	银鸥	+
Larus kamtschatschensis	Common Gull	东方海鸥	+
Larus canus	Mew Gull	海鸥	+
Larus crassirostris	Black-tailed Gull	黑尾鸥	+
Larus relictus	Relict Gull	遗鸥	+
Larus saundersi	Saunder's Gull	黑咀鸥	+
Larus ridibundus	Black-headed Gull	红咀鸥	+
Chlidonias leucopterus	White-winged Tern	白翅浮鸥	+
Chlidonias hybridus	Whiskled Tern	须浮鸥	+
Syrrhaptes paradoxus	Palla's Sandgrouse	毛腿沙鸡	+ + +
Columba rupestris	Hill Pigeon	岩鸽	+
Chalcophaps indica	Emerald Dove	绿背金鸠	+ +
Streptopelia decaocto	Collared Dove	灰斑鸠	+
Streptopelia orientalis	Rufous Turtle Dove	山斑鸠	+ + +
Streptopelia chinensis	Spotted Dove	珠颈斑鸠	+ + +
Streptopelia tranquebarica	Red Turtle Dove	火斑鸠	+ +
Geopelia cuneata	Diamond Dove		+ + +
Eos bornea	Red Lory	红色吸蜜鹦鹉	+
Lorius garrulus	Chattering Lory	喋喋吸蜜鹦鹉	+
Trichoglossus haematodus	Bainbow Lorikeet	虹彩吸蜜鹦鹉	+
Cacatua sulphurea	Yellow-crested Cockatoo	小葵花凤头鹦鹉	+
Cacatua moluccensis	Salmon-crested Cockatoo	鲑色凤头鹦鹉	+
Melopsittacus undulatus	Budgerigar	虎皮鹦鹉	· + + +
Eclectus roratus	Eclectus Parrot	折衷鹦鹉	+
Amazona aestiva	Blue-fronted Amazon	青绿顶鹦哥	+
Agapornis roseicollis	Peach-faced Lovebird		+ + +
Agapornis fischeri	Fischer's Lovebird		+ + +
Agaponnis nischeri Psittacula krameri	Rose-ringed Parakeet	红领绿鹦鹉	+ +
Psittacula eupatria	Alexandrine Parakeet	亚历山大鹦鹉	
Psittacula eupatria Psittacula alexandri	Red-breasted Parakeet	北面鹦鹉	+
Psittacula derbiana		北 洞妈岛 大紫胸鹦鹉	+
	Derby's Parakeet Eurasian Cuckoo	大素胸鈎畇 大杜鹃	+
Cuculus canorus	Oriental Cuckoo	入杜鹃 中杜鹃	+
Cuculus saturatus			+
Surniculus lugubris	Drongo Cuckoo	乌鹃	+
Eudynamis scolopacea	Koel	噪鹃	+
Centropus sinensis	Greater Coucal	毛鸡	+
Centropus bengalensis	Lesser Coucal	小毛鸡	+
Otus lempiji Otus sumis	Collared Scops Owl	领角鴞	+
Otus sunia	Oriental Scops Owl	红角鴞	+
Otus spilocephalus	Mountain Scops Owl	黄咀角鴞	+
Glaucidium cuculoides	Asian Barred Owlet	斑头鸺鶹	+
Ninox scutulata	Brown Hawk Owl	鹰鴞	+
Caprimulgus indicus	Grey Nightjar	普通夜鹰	+
Indicator xanthonotus	Yellow-rumped Honeyguide	黄腰响蜜鴷	+
Megalaima virens	Great Barbet	大拟啄木鸟	+
Megalaima asiatica	Blue-throated Barbet	蓝喉拟啄木鸟	+
Megalaima oorti	Black-browed Barbet	黑眉拟啄木鸟	+
Jynx torquilla	Euasian Wryneck	蚁鴷	+

Scientific name	English name	Chinese name	Liuhua	Qingping C	hatou Dongmen
Picumnus innominatus	Speckled Piculet	斑姬啄木鸟	+		
Dendrocopus major	Great Spotted Woodpecker	斑啄木鸟	+		
Dendrocopus hyperythrus	Rufous-bellied Woodpecker	棕腹啄木鸟	+		
Picus canus	Grey-headed Woodpecker	灰头啄木鸟	+		
Halcyon symrnensis	White-breasted Kingfisher	白胸翡翠			+
Halcyon pileata	Black-capped Kingfisher	蓝翡翠			+
Upupa epops	Eurasian Hoopoe	戴胜	+		+
Eurystomus orientalis	Dollarbird	三宝鸟	+		
Merops viridis	Blue-throated Bee-eater	蓝喉蜂虎	+		
Mirafra cantillans	Singing Bushlark	歌百灵	+		
Calandrella cheleensis	Asian Short-toed Lark	短趾百灵	+		
Melanocorypha bimaculata	Bimaculated Lark	二斑百灵	+		
Melanocorypha maxima	Tibetan Lark	长咀百灵	+		
Melanocorypha mongolica	Mongolian Lark	蒙古百灵	+		+
Melanocorypha leucoptera	White-winged Lark	白翅百灵	+		
Galerida cristata	Crested Lark	凤头百灵	+		
Alauda gulgula	Oriental Skylark	小云雀	+		
Alauda arvensis	Eurasian Skylark	云雀	+		+
Eremophila alpestris	Horned Lark	角百灵	+		
Anthus richardi	Richard's Pipit	田鹨	+	+	
Anthus hodgsoni	Olive-backed Pipit	树鹨	+		
Dendronanthus indicus	Forest Wagtail	林鶺鸰	+		
Motacilla alba	White Wagtail	白鶺鸰	+		
Motacilla flava	Yellow Wagtail	黄鶺鸰	+		
Motacilla cinerea	Grey Wagtail	灰鶺鸰	+		
Hirundo daurica	Red-rumped Swallow	金腰燕		+	
Psarisomus dalhousiae	Long-tailed Broadbill	长尾阔咀鸟	+		
lrena puella	Asian Fairy Bluebird	和平鸟	+		
Chloropsis cochinchinensis	Blue-winged Leafbird	蓝翅叶鹎	+		+
Chloropsis aurifrons	Golden-fronted Leafbird	橙额叶鹎	+		+
Chloropsis hardwickii	Orange-bellied Leafbird	橙腹叶鹎	+		+
Chloropsis sonnerati	Greater Green Leafbird	大叶鹎	+		
Chloropsis venusta	Blue-masked Leafbird		+		
Pycnonotus melanicterus	Black-crested Bulbul	黑冠黄鹎	+		
Pycnonotus jocusus	Red-whiskered Bulbul	红耳鹎	+	+	+
Pycnonotus sinensis	Light-vented Bulbul	白头鹎	+	+	+
Pycnonotus aurigaster	Sooty-headed Bulbul	红臀鹎	+		
Pycnonotus xanthorrhous	Brown-breasted Bulbul	黄臀鹎	+		
Hemixos castanonotus	Chestnut Bulbul	栗背短脚鹎	+		+
Hypsipetes leucocephalus	Black Bulbul	黑鹎	+		+
Hypsipetes mcclellandii	Mountain Bulbul	绿翅短脚鹎	+		
Alophoixus flaveolus	Puff-throated Bulbul	白喉冠鹎	+		
Spizixos semitorques	Collared Finchbill	绿鹦嘴鹎	+		+
Pericrocotus flammeus	Scarlet Minivet	赤红山椒鸟	+		+
Pericrocotus solaris	Grey-throated Minivet	灰喉山椒鸟	+		+
Pericrocotus brevirostris	Short-billed Minivet	短嘴山椒鸟	+		
Pericrocotus ethologus	Long-tailed Minivet	长尾山椒鸟	+		
Pericrocotus roseus	Rosy Minivet	粉红山椒鸟	+		
Pericrocotus cantonensis	Swinhoe's Minivet	小灰山椒鸟	+		+
Pericrocotus divaricatus	Ashy Minivet	灰山椒鸟	+		
Tephrodomis gularis	Large Woodshrike	钩咀林鵙	+		
Coracina melaschistos	Bar-winged Flycatcher Shrike	褐背鹊鵙	+		
Bombycilla garrulus	Bohemian Waxwing	太平鸟	+	+	+

Scientific name	English name	Chinese name	Liuhua Qingping Chatou Dongme
Bombycilla japonica	Japanese Waxwing	小太平鸟	+ + +
Lanius schach	Rufous-backed Shrike	棕背伯劳	+
Lanius cristatus	Brown Shrike	红尾伯劳	+
Brachypteryx leucophrys	Lesser Shortwing	白喉短翅鸫	+
Tarsiger ch y saeus	Golden Bush Robin	金色林鸲	+
Erithacus akahige	Japanese Robin	日本歌鸲	+
Luscinia sibilans	Rufous-tailed Robin	红尾歌鸲	+
Luscinia calliope	Siberian Rubythroat	红点颏	+ +
Luscinia svecica	Bluethroat	蓝点颏	+ +
Luscinia cyane	Siberian Blue Robin	蓝歌鸲	+
Myiomela leucura	White-tailed Robin	白尾蓝地鸲	+
Cinclidium frontale	Blue-fronted Robin	蓝额长脚地鸲	+
Phoenicurus auroreus	Daurian Redstart	北红尾鸲	+
Phoenicurus frontalis	Blue-fronted Redstart	蓝额红尾鸲	+
Chaimarrornis leucocephalu	s White-capped Redstart	白顶溪鸲	+
Rhyacornis fuliginosus	Plumbeous Redstart	红尾水鸲	+
Grandala coelicolor	Grandala	蓝大翅鸫	+
Enicurus leschenaulti	White-crowned Forktail	黑背燕尾	+
Enicurus schistaceus	Slaty-backed Forktail	灰背燕尾	+
Saxicola torquata	Common Stonechat	黑喉石䳭	+
Saxicola ferrea	Grey Bushchat	灰林䳭	+
Saxicola caprata	Pied Bushchat	白斑黑石䳭	+ +
Copsychus saularis	Magpie Robin	鹊鸲	+ +
Copsychus malabaricus	White-rumped Shama	白腰鹊鸲	+
Monticola cinclorhynchus	White-throated Rock Thrush	蓝头矶鸫	+
Monticola solitarius	Blue Rock Thrush	蓝矶鸫	+
Zoothera dauma	Scaly Thrush	虎斑地鸫	+
Zoothera sibirica	Siberian Thrush	白眉地鸫	+
Zoothera citrina	Orange-headed Ground Thrush	橙头地鸫	+
Myophonus caeruleus	Violet Whistling Thrush	紫啸鸫	+
Turdus merula	Blackbird	乌鸫	+
Turdus dissimilis	Black-breasted Thrush	黑胸鸫	+
Turdus lubrocanus	Chestnut Thrush	灰头鸫	+
Turdus hotulorum	Grey-backed Thrush	灰背鸫	+
Turdus cadis	Japanese Thrush	乌灰鸫	+
Turdus pallidus	Pale Thrush	白腹鸫	
Turdus pantidus Turdus obscu n s	Eyebrowed Thrush	口版病 眉鸫	+
Turdus luficolis	Dark-throated Thrush	赤颈鸫	+ +
Turdus naumanni	Dusky Thrush	斑鸫	
Babax lanceolatus	Chinese Babax	^{丸病} 矛纹草鶥	+
		7 纹单扃 棕噪鶥	+
Garrulax poecilorhynchus	Rufous Laughingthrush	际噪脑 白喉噪鶥	+
Garrulax albogularis	White-throated Laughingthrush		+ + +
Garrulax chinensis	Black-throated Laughingthrush	黑喉噪鶥	+ + +
Garrulax ruficollis	Rufous-necked Laughingthrush	栗颈噪鶥	+
Garrulax pectoralis	Greater Necklaced Laughingthrush		+ + +
Garrulax monileger	Lesser Necklaced Laughingthrush		+
Garrulax maesi	Grey Laughingthrush	褐胸噪鶥	+
Garrulax perspicillatus	Masked Laughingthrush	黑脸噪鶥	+
Garrulax canorus	Hwamei	画眉	+ + +
Garrulax sannio	White-cheeked Laughingthrush	白颊噪鶥	+
Garrulax cineraceus	Moustached Laughingthrush	灰翅噪鶥	+
Garrulax lunulatus	Barred Laughing Thrush	斑背噪鶥	+
Garrulax ocellatus	Spotted Laughingthrush	眼纹噪鶥	+ +

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Garrulax elliotii	Elliot's Laughingthrush	橙翅噪鶥	+	
Garrulax erythrocephalus	Chestnut-crowned Laughingthrush	红头噪鶥	+	
Garrulax affinis	Black-faced Laughingthrush	黑顶噪鶥	+	
Garrulax milnei	Red-tailed Laughingthrush	赤尾噪鶥	+	
Garrulax formosus	Red-winged Laughingthrush	丽色噪鶥	+	
Liocichla omeiensis	Emei Shan Liocichla	灰胸薮鶥	+	+
Liocichla phoenicea	Red-faced Liocichla	红翅薮鶥	+	
Pellorneum albiventre	Spot-throated Babbler	白腹幽鶥	+	
Pomatorhinus erythrocnemis	Spot-breasted Scimitar Babbler	锈脸钩嘴鶥	+	
Pomatorhinus ruficollis	Rufous-necked scimitar Babbler	棕颈钩嘴鶥	+	
Pomatorhinus ferruginosus	Coral-billed Scimitar Babbler	红嘴钩嘴鶥	+	
Stachyris ruficeps	Rufous-capped Babbler	红头穗鶥	+	
Stachyris chrysaea	Golden Babbler	金头穗鶥	+	
Stachyris nigriceps	Grey-throated Babbler	黑头穗鶥	+	
Stachyris striiolata	Spot-necked Babbler	斑颈穗鶥	+	
Timalia pileata	Chestnut-capped Babbler	红顶鶥	+	
Chrysomma sinense	Yellow-eyed Babbler	金眼鶥雀	+	
Pteruthius melanotis	Black-eared Shrike Babbler	栗喉鵙鶥	+	
Pteruthius aenobarbus	Chestnut-fronted Shrike Babbler	栗额鵙鶥	+	
Leiothrix lutea	Pekin Robin	红咀相思	+	+ +
Leiothrix argentauris	Silver-eared Mesia	银耳相思	+	+
Minla cyanouroptera	Blue-winged Minla	蓝翅希鶥	+	
Minla strigula	Chestnut-tailed Minla	斑喉希鶥	+	
Minla ignotincta	Red-tailed Minla	火尾希鶥	+	
Alcippe castaneceps	Rufous-winged Fulvetta	栗头雀鶥	+	
Alcippe chrysotis	Golden-breasted Fulvetta	金胸雀鶥	+	
Alcippe cinereiceps	Streak-throated Fulvetta	褐头雀鶥	+	
Alcippe dubia	Rusty-capped Fulvetta	褐胁雀鶥	+	
Alcippe morrisonia	Grey-cheeked Fulvetta	灰眶雀鶥	+	
Alcippe brunnea	Dusky Fulvetta	褐顶雀鶥	+	
Alcippe rufogularis	Rufous-throated Fulvetta	棕喉雀鶥	+	
Heterophasia annectens	Rufous-backed Sibia	栗背奇鶥	+	
Heterophasia melanoleuca	Black-headed Sibia	黑头奇鶥	+	
Heterophasia picaoides	Long-tailed Sibia	长尾奇鶥	+	
Yuhina castaniceps	Striated Yuhina	栗头凤鶥	+	
Yuhina flavicollis	Whiskered Yuhina	黄颈凤鶥	+	
Yuhina diademata	White-collared Yuhina	白领凤鶥	+	
Yuhina gularis	Stripe-throated Yuhina	纹喉凤鶥	+	
Yuhina zantholeuca	White-bellied Yuhina	白腹凤鶥	+	
Panurus biarmicus	Bearded Parrotbill	文须雀	+	
Paradoxornis nipalensis	Golden Parrotbill	金黄鸦雀	+	
Conostoma oemodium	Great Parrotbill	红咀鸦雀	+	
Paradoxornis gularis	Grey-headed Parrotbill	灰头鸦雀	+	
Paradoxornis guttaticollos	Spot-breasted Parrotbill	点胸鸦雀	+	
Paradoxornis webbianus	Vinous-throated Parrotbill	棕头鸦雀	+	
Paradoxornis davidianus	Short-tailed Parrotbill	短尾鸦雀	+	
Prinia atrogularis	Hill Prinia	黑喉山鹪莺	+	
Prinia inornata	Plain Prinia	纯色鹪莺	+	
Acrocephalus orientalis	Oriental Reed Warbler	东方大苇莺	+	
Acrocephalus aedon	Thick-billed Warbler	芦莺	+	
Acrocephalus bistrigiceps	Black-browed Reed Warbler	黑眉苇莺	+	
Acrocephalusp.	Reed Warbler sp.	苇莺	+	
Tesia olivea	Slaty-bellied Tesia	灰腹地莺	+	

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Cettia diphone	Japanese Bush Warbler	日本树莺	+
Cettiæp.	Bush Warbler sp.	树莺	+
Phylloscopus proregulus	Pallas's Leaf Warbler	黄腰柳莺	+
Phylloscopus inornatus	Yellow-browed Warbler	黄眉柳莺	+
Phylloscopus borealis	Arctic Warbler	极北柳莺	+
Phylloscopus fuscatus	Dusky Warbler	褐柳莺	+
Phylloscopus coronatus	Eastern Crowned Warbler	冕柳莺	+
Phylloscopus reguloides	Blyth's Leaf Warbler	冠纹柳莺	+
Phylloscopusp.	Leaf Warbler sp.	柳莺	+
Tickellia hodgsoni	Broad-billed Warbler	宽嘴鶲莺	+
Cettia acanthizoides	Yellow-bellied Warbler	黄腹鶲莺	+
Seicercus castaniceps	Chestnut-crowned Warbler	栗头鶲莺	+
Seicercus burkii	Golden-spectacled Warbler	金眶鶲莺	+
Seicercus affinis	White-spectacled Warbler	白眶鶲莺	+
Abroscopus schisticeps	Black-faced Warbler	黑脸鶲莺	+
Orthotomus sutorius	Common Tailorbird	火尾缝叶莺	+
Orthotomus cuculatus	Mountain Tailorbird	金头缝叶莺	+
Rhinomyias brunneata	Brown-chested Jungle Flycatcher	白喉林鶲	+
Ficedula zanthopygia	Yellow-rumped Flycatcher	白眉鶲	+ +
Ficedula narcissina	Narcissus Flycatcher	黄眉鶲	+ +
Ficedula mugimaki	Mugimaki Flycatcher	鸲鶲	+ +
Ficedula strophiata	Rufous-gorgeted Flycatcher	橙胸姬鶲	+ +
Ficedula parva	Red-throated Flycatcher	红喉鶲	+
Ficedula hyperythra	Snowy-browed Flycatcher	棕胸蓝鶲	+
Ficedula westermanni	Little Pied Flycatcher	小斑鶲	+
Muscicapella hodgsoni	Pygmy Blue Flycatcher	休蓝仙鶲	+
Cynoptila cyanomelana	Blue and White Flycatcher	白腹蓝鶲	+ +
Muscicapa thalassina	Verditer Flycatcher	铜蓝鶲	
Niltava grandis	Large Niltava	大仙鶲	+ +
Niltava macgrigoriae	Small Niltava	小仙鶲	+
Niltava davidi	Fujian Niltava	标腹大仙鶲	
Niltava sundara	Rufous-bellied Niltava	标腹仙鶲	
Cvornis hainanus	Hainan Blue Flycatcher	海南蓝鶲	+ +
Cyornis namanus Cyornis rubeculoides	Blue-throated Flycatcher	西南 血鴉 蓝喉仙鶲	+ +
•	Hill Blue Flycatcher	山蓝鶲	+ +
Cyornis banyumas		^{山 监} 躺 纯蓝仙鶲	+ +
Cyornis unicolor	Pale Blue Flycatcher		+
Culicicapa ceylonensis	Grey-headed Flycatcher	方尾鶲	+
Terpsiphone paradisi	Asian Paradise-flycatcher	寿带鸟	+
Rhipidura albicollis	White-throated Fantail	白喉扇尾鶲	+
Rhipidura aureola	White-browed Fantail	白眉扇尾鶲	+
Dicrurus macrocercus	Black Drongo	黑卷尾	+
Dicrurus hottentottus	Spangled Drongo	发冠卷尾	+
Oriolus chinensis	Black-naped Oriole	黑枕黄鹂	+
Garrulus glandarius	Eurasian Jay	松鸦	+ +
Urocissa erythrorhyncha	Blue Magpie	红咀蓝鹊	+ +
Dendrocitta formosae	Grey Treepie	灰树鹊	+ +
Cissa hypoleuca	Short-tailed Green Magpie	短尾绿鹊	+
Pica pica	Magpie	喜鹊	+ + +
Cyanopica cyanus	Azure-winged Magpie	灰喜鹊	+ +
Pyrrhocorax pyrrhocorax	Red-billed Chough	红咀山鸦	+ +
Corvus dauuricus	Daurian Jackdaw	达乌里寒鸦	+
Corvus frugilegus	Rook	禿鼻乌鸦	+
Corvus macrorhynchus	Jungle Crow	大咀乌鸦	+

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Corvus torquatus	Collared Crow	白颈鸦			+	
Sturnus malabaricus	Chestnut-tailed Starling	灰头椋鸟	+			
Sturnus sinensis	Chinese Starling	灰背椋鸟	+			
Sturnus sericeus	Silky Starling	丝光椋鸟	+		+	+
Sturnus sturninus	Daurian Starling	北椋鸟	+			
Sturnus cineraceus	Grey Starling	灰椋鸟	+		+	+
Sturnus roseus	Rosy Starling	粉红椋鸟	+			
Sturnus nigricollis	Black-necked Starling	黑领椋鸟	+	+	+	+
Acridotheres cristatellus	Crested Myna	八哥	+	+	+	+
Acridotheres cinereus	White-vented Myna	林八哥	+			
Acridotheres tristis	Common Myna	家八哥	+			
Gracula religiosa	Indian Grackle	鹩哥	+	+		+
Parus ater	Coal Tit	煤山雀	+			
Parus venustulus	Yellow-bellied Tit	黄腹山雀	+			
Parus major	Great Tit	大山雀	+			+
Parus monticolus	Green-backed Tit	绿背山雀	+			
Parus spilonotus	Yellow-cheeked Tit	黄颊山雀	+			+
Parus palustris	Marsh Tit	沼泽山雀	+			
Aegithalos concinnus	Red-headed Tit	红头山雀	+			+
Melanochlora sultanea	Sultan Tit	冕雀	+			
Aethopyga gouldiae	Mrs Gould's Sunbird	蓝喉太阳鸟	+			
Aethopyga saturata	Black-throated Sunbird	黑胸太阳鸟	+			
Aethopyga siparaja	Crimson Sunbird	黄腰太阳鸟	+			
Aethopyga christinae	Fork-tailed Sunbird	叉尾太阳鸟	+			
Aethopygasp.	Sunbird sp.	太阳鸟	+			
Arachnothera magna	Streaked Spiderhunter	纹背捕蛛鸟	+			
Dicaeum ignipectus	Fire-breasted Flowerpecker	红胸啄花鸟	+			
Dicaeum cruentatum	Scarlet-backed Flowerpecker	朱背啄花鸟	+			
Zosterops palpebrosus	Oriental White-eye	灰腹锈眼鸟	+			
Zosterops japonica	Japanese White-eye	暗绿锈眼鸟	+	+		+
Zosterops erythropleurus	Chestnut-flanked White-eye	红胁锈眼鸟	+			
Zosteropsp.	White-eye sp.	锈眼鸟	+			
Ploceus benghalensis	Black-breasted Weaver	黑喉织布鸟	+			
Passer domesticus	House Sparrow	家麻雀	+			
Passer rutilans	Russet Sparrow	山麻雀	+			
Passer montanus	Tree Sparrow	麻雀	+	+	+	+
Rhodospiza obsoleta	Desert Finch	巨咀沙雀	+			
Carduelis carduelis	Eurasian Goldfinch	红额金翅雀	+			
Carduelis sinica	Chinese Greenfinch	金翅雀	+			+
Carduelis spinus	Eurasian Siskin	黄雀	+			
Carduelis flavirostris	Twite	黄咀朱顶雀	+			
Fringilla montifringilla	Brambling	燕雀	+			
Carpodacus nipalensis	Dark-breasted Rosefinch	暗胸朱雀	+			
Carpodacus erythrinus	Common Rosefinch	普通朱雀	+			
Carpodacus vinaceus	Vinaceous Rosefinch	酒红朱雀	+			
Carpodacus roseus	Pallas's Rosefinch	北朱雀	+			
Uragus sibiricus	Long-tailed Rosefinch	长尾雀	+			
Carduelis flammea	Common Redpoll	白腰朱顶雀	+			
Pinicola enucleator	Pine Grosbeak	松雀	+			
Loxia leucoptera	White-winged Crossbill	白翅交嘴雀	+			
Pyrrhula nipalensis	Brown Bullfinch	褐灰雀	+			
Pyrrhula pyrrhula	Eurasian Bullfinch	灰腹灰雀	+			
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Eophona personata	Japanese Grosbeak	黑头蜡嘴雀	+
Mycerobas affinis	Collared Grosbeak	黄颈拟蜡嘴雀	+
Melophus lathami	Crested Bunting	凤头鹀	+
Emberiza tristrami	Tristram's Bunting	白眉鹀	+
Emberiza pusilla	Little Bunting	小鹀	+
Emberiza spodocephala	Black-faced Bunting	灰头鹀	+
Emberiza chrysophrys	Yellow-browed Bunting	黄眉鹀	+
Emberiza elegans	Yellow-throated Bunting	黄喉鹀	+
Emberiza cia	Rock Bunting	灰眉岩鹀	+
Emberiza godlewskii	Godlewski's Bunting	戈氏岩鹀	+
Emberiza leucocephalos	Pine Bunting	白头鹀	+
Emberiza cioides	Meadow Bunting	三道眉草鹀	+
Emberiza fucata	Chestnut-eared Bunting	赤胸鹀	+
Emberiza aureola	Yellow-breasted Bunting	黄胸鹀	+
Emberiza rutila	Chestnut Bunting	栗鹀	+
Emberiza pallasi	Pallas's Reed Bunting	苇鹀	+
Emberizæp.	Reed Bunting sp.	苇鹀	+
Amandava amandava	Red Avadavat	红梅花雀	+ + +
Lonchura striata	White-backed Munia	白腰文鸟	+ +
Lonchura punctulata	Spotted Munia	斑文鸟	+ +
Newts and Frogs			
0			
Cynops orientalis	Oriental Newt	东方蝾螈	+
Pachytriton brevipes		黑斑肥螈	+
Pachytriton labiatus		无斑肥螈	+
Paramesotriton chinensis	Chinese Newt	中国瘰螈	+
Paramesotritosp.	Newt sp.	瘰螈	+
Tylototriton shanjing	Red Knobby Newt	红瘰疣螈	+
Bufo gargarizans	Chinese Toad	中华蟾蜍	+ +
Bufo melanostictus	Asian Common Toad	黑眶蟾蜍	+
Bufosp. 1 (yellow)	Toad sp. 1 (yellow)	蟾蜍 1	+
Bufosp. 2	Toad sp. 2	蟾蜍 2 化士玉杜	+
Hyla simplex		华南雨蛙	+
Hyla chinensis		中国雨蛙	+
Hylasp.		雨蛙	+
Rana limnocharis	Paddy Frog	泽蛙	+
Rana guentheri	Gunther's Frog	沼蛙	+
Rana nigromaculata	Dark-spotted Pond Frog	黑斑蛙	+
Rana plancyi		金线蛙	+
Paa spinosa	Giant Spiny Frog	棘胸蛙	+
Paasp.	Spiny Frog sp.	棘蛙	+
Rana rugulosa	Chinese Bullfrog	虎纹蛙	+ + +
Polypedates dennysi	Giant Green Tree Frog	大泛树蛙	+
Polypedates megacephalus	Brown Tree Frog	斑腿泛树蛙	+
Paa exilispinosa	Lesser Spiny Frog	小棘蛙	+
Kaloula pulchra	Asiatic Painted Frog	亚洲锦蛙	+
Xenopus laevis	African Clawed Frog	非洲爪蛙	+
Hymenochirus boettgeri	African Dwarf Frog	细爪蟾	+
Ceratophrys ornata	Horned Frog	饰纹花蟾	+
Lepidobatrachus laevis	Budgetts Frog	圆眼珍珠蛙	+
Litoria caerulea	White's Treefrog		+
Rana catesbéiana	American Bullfrog	牛蛙	+ + +
Kassina maculata		红腿豹纹蛙	+

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Turtles					
Platysternon megacephalum	Big-headed Terrapin	平胸龟	+	+	+
Chinemys nigricans	Red-necked Pond Terrapin	广东乌龟	+		
Chinemys reevesii	Reeve's Pond Terrapin	乌龟	+	+	+
Sacalia bealei	Beale's Terrapin	眼斑水龟	+	+	
Sacalia quadriocellata	Four-eyed Terrapin	四眼斑水龟	+	+	
Mauremys mutica	Chinese Pond Terrapin	黄喉水龟	+	+	+
Mauremys japonica	Japanese Pond Terrapin	日本拟水龟	+		
Cistoclemmys flavomarginat	a Yellow-lined Box Terrapin	黄缘闭壳龟	+	+	
Cistoclemmys galbinifrons	Indo-chinese Box Terrapin	黄额盒龟	+	+	+
Cuora amboinensis	Malaysian Box Terrapin	马来闭壳龟	+	+	+
Cuora trifasciata	Three-lined Box Terrapin	三线闭壳龟	+		
Cuora aurocapitata	Golded-headed Box Terrapin	金头闭壳龟	+		
Cyclemys dentata	Asian Leaf Turtle	齿缘龟	+	+	+
Cyclemyssp.	Leaf Turtle sp.		+	+	+
Pyxidea mouhotii	Keeled Box Terrapin	锯缘摄龟	+	+	+
Geoemyda spengleri	Black-breasted Leaf Terrapin	地龟	+		
Ocadia sinensis	Chinese Striped Terrapin	中华花龟	+	+	+
Norenia ocellata	Burmese Eyed Turtle	眼斑沼龟	+	+	+
Norenia petersi	Indian Eyed Turtle	沼龟	+		
lieremys annandalii	Yellow-headed Temple Turtle	黄头庙龟	+	+	+
leosemys depressa	Arakan Forest Turtle	缅甸山龟	+	•	
leosemys grandis	Asian Giant Pond Terrapin	橙头庙龟	+	+	+
leosemys spinosa	Spiny Turtle	棘山龟	+	+	+
Valayemys subtrijuga	Malayan Snail eating Turtle	马来龟	+	+	+
Malayeniys subtrijuga Nelanochelys trijuga	Indian Black Turtle	与术屯	+	Ŧ	+
Hardella thurjii	Crowned River Turtle				т
Geoclemys hamiltonii	Black Pond Terrapin	黑池龟	+		
Siebenrockiella crassicollis	Asian Black Terrapin	黑他电 粗颈龟	+		
	Indian Roofed Turtle	祖坝屯	+	+	+
Kachuga tecta Kachuga amithii	Brown Roofed Turtle			+	
Kachuga smithii			+		+
Kachuga trivittata	Burmese Roofed Turtle	它古舟	+		
Annamemys annamensis	Vietnamese Pond Terrapin	安南龟	+	+	
Orlitia borneensis	Malaysian Giant Turtle	马来巨龟	+	+	+
Batagur baska	Mandgrove Terrapin	潮龟	+	+	
Callagur borneoensis	Red-headed Terrapin	咸水龟	+	+	
Notochelys platynota	Malayan Flat-shelled Turtle	果龟	+	+	+
Chelonia mydas	Green Turtle	海龟	+		
ndotestudo elongata	Elongated Tortoise	缅甸陆龟	+	+	+
Vanouria emys	Asian Brown Tortoise		+	+	
Vanouria impressa	Impressed Tortoise	凹甲陆龟	+		+
lestudo horsfield	Central Asian Tortoise	四爪陆龟	+		
Pelodiscus sinensis	Chinese Soft-shelled Turtle	鳖	+	+	+
Palea steindachneri	Steindachner's Soft-shelled Turtle	山瑞鳖	+		+
Amyda cartilagiea	Asiatic Soft-shell Turtle	沙鳖	+	+	+
Aspideretes gangeticus	Indian Softshell	印度鳖	+		
Vilssonia formosanus	Burmese Peacock Soft-shelled Turtle	孔雀鳖	+	+	
Chitrasp.	Narrow-headed Softshell Turtle	纹背鳖	+		
Lissemys punctata	Indian Flapshell Turtle	印度箱鳖	+	+	
Lissemys scutata	Burmese Flapshell Turtle		+	+	+
Chelodina siebenrocki	Siebenrock's Snake-necked Turtle	扁头长颈龟	+		
Hydromedusa tectifera	South American Snake-necked Turtle	钉颈龟	+		
Chelus fimbriatus	Matamata	枯叶龟	+		

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Phrynops geoffroanus	Geoffroy's Side-necked Turtle	花面龟	+		
Phrynops hilarii	Hilaire's Side-necked Turtle	尖吻龟	+		
Phrynops williamsi	William's Side-necked Turtle	面具侧颈龟	+		
Elseyasp.	New Guinea Snapping Turtle	e sp.	盔甲龟	+	
Emydura subglobosa	Red-bellied Short-necked Tu	rtle	红纹曲颈龟	+	
Emydurasp.	Short-necked Turtle sp.	曲颈龟	+		
Kinosternon scorpioides	Scorpion Mud Turtle		+		
Kinosternon odoratum	Common Musk Turtle	密西西比麝香龟	+		
Kinosternon minor	Loggerhead Musk Turtle	巨头麝香龟	+		
Kinosternon carinatum	Razor-backed Musk Turtle	屋顶龟	+		
Macroclemys temminckii	Alligator Snapping Turtle	鳄龟	+	+	+
Chelydra serpentina	Common Snapping Turtle	拟鳄龟	+	+	+
Testudo graeca	Greek Tortoise	欧洲陆龟	+		
Geochelone elegans	Star Tortoise	星龟	+		
Geochelone platynota	Burmese Star Tortoise	缅甸星龟	+		
Geochelone paradalis	Leopard Tortoise	豹龟	+		
Geochelone sulcata	African Spurred Tortoise	苏卡达象龟	+		
Geochelone carbonaria	Red-footed Tortoise	红腿象龟	+		
Geochelone denticulata	Yellow-footed Tortoise	黄脚象龟	+		
Clemmys guttata	Spotted Turtle	星点龟	+		
Clemmys insculpta	Wood Turtle	森石龟	+		
Pseudemys floridana	Florida Cooter	佛州彩龟	+		
Pseudemys rubriventris	Redbelly Turtle	红腹彩龟	+		
Pseudemyssp.	Cooter sp.	彩龟	+		
Trachemys scripta elegans	Red-eared Slider	红耳龟	+	+	+
Chrysemys picta	Painted Turtle	锦龟	+		
Malaclemys terrapin	Diamondback Terrapin	钻纹龟	+		
Graptemys kohnii	Mississipi Map Turtle	密西西比地图龟	+		
Apalone mutica	American Softshell Turtle	美国鳖	+		
- Apalone ferox	Florida Softshell	珍珠鳖	+	+	
- Apalone spinifera	Spiny Softshell		+		
Carettochelys insculpta	Fly River Turtle	猪鼻鳖	+		
Lizards	•				
Gekko gecko	Tokay Gecko	大壁虎	+		
Goniurosaurus luii	Eyelid Gecko	八 <u></u>	+		
Calotes versicolor	Changeable Lizard	变色树蜥	+ +	+	
Japalura splendida	Japalura Lizard	兩纹攀蜥	+ +	+	
Japalurasp.		攀蜥	+		
Leiolepis reevesii	Butterfly Lizard	^{事 动} 蜡皮蜥	+ +	+	
Physignathus cocincinus	Thai Water Dragon	出反動	+	+	
Shinisaurus crocodilurus	Crocodile Lizard	医癫痫	+	Ŧ	
Sillinsaulus ciocouliulus	Sand Lizard	捷蜥蜴	+		
Lagarta agiligavigua					
Lacerta agilisexigua Takudamua contontrionalia		北古城			
Takydomus septentrionalis	Grass Lizard	北草蜥	+		
Takydomus septentrionalis Takydomus sexlineatus	Grass Lizard Grass Lizard	南草蜥	+		
Takydomus septentrionalis Takydomus sexlineatus Takydomussp.	Grass Lizard Grass Lizard Grass Lizard sp.	南草蜥 草蜥	+ +		
Takydomus septentrionalis Takydomus sexlineatus Takydomus sp. Eumeces chinensis	Grass Lizard Grass Lizard	南草蜥 草蜥 中国石龙子	+ + +	+	
Takydomus septentrionalis Takydomus sexlineatus Takydomussp. Eumeces chinensis Mabuya multifasciata	Grass Lizard Grass Lizard Grass Lizard sp. Chinese Skink	南草蜥 草蜥 中国石龙子 多线南蜥	+ + + +	+	
Takydomus septentrionalis Takydomus sexlineatus Takydomus sp. Eumeces chinensis Mabuya multifasciata Eublepharis macularis	Grass Lizard Grass Lizard Grass Lizard sp. Chinese Skink Fat-tailed / Leopard Gecko	南草蜥 草蜥 中国石龙子 多线南蜥 豹纹守宫	+ + + +	+	
Takydomus septentrionalis Takydomus sexlineatus Takydomus sp. Eumeces chinensis Mabuya multifasciata Eublepharis macularis Teratoscincus scinicus	Grass Lizard Grass Lizard Grass Lizard sp. Chinese Skink Fat-tailed / Leopard Gecko Frog-eyed Gecko	南草蜥 草蜥 中国石龙子 多线南蜥 豹纹守宫 蛙眼守宫	+ + + + + + +	÷	
Takydomus septentrionalis Takydomus sexlineatus Takydomus sp. Eumeces chinensis Mabuya multifasciata Eublepharis macularis Teratoscincus scinicus Iguana iguana	Grass Lizard Grass Lizard Grass Lizard sp. Chinese Skink Fat-tailed / Leopard Gecko Frog-eyed Gecko Green Iguana	南草蜥 草蜥 中国石龙子 多线南蜥 豹纹守宫 蛙眼守宫 绿鬣蜥	+ + + + + + + +	÷	
Takydomus septentrionalis Takydomus sexlineatus Takydomus sp. Eumeces chinensis Mabuya multifasciata Eublepharis macularis Teratoscincus scinicus	Grass Lizard Grass Lizard Grass Lizard sp. Chinese Skink Fat-tailed / Leopard Gecko Frog-eyed Gecko	南草蜥 草蜥 中国石龙子 多线南蜥 豹纹守宫 蛙眼守宫	+ + + + + + +	÷	

Scientific name	English name	Chinese name	Liuhua Qingping	Chatou	Dongmo
Calumma parsonii	Parson's Chameleon	海岛避役	+		
Chamaeleo calyptratus	Veiled Chameleon	盔甲避役	+		
Tiliqua scincoides	Blue-tongued Skink	斜纹蓝舌石龙子	+		
Snakes					
Python molurus	Burmese Python	蟒蛇	+	+	
Cyclophiops major	Greater Green Snake	翠青蛇	+	+	
Cyclophiops multicinctus		横纹翠青蛇	+	•	
Dinodon rufozonatum		赤链蛇	+	+	+
Elaphe bimaculata		双斑锦蛇	+	+	
Elaphe carinata	King Racer	王锦蛇	+	+	+
Elaphe dione		白条锦蛇	+	+	
Elaphe mandarina	Mandarin Racer	玉斑锦蛇	+	+	
Elaphe moellendorffi	Manualin Nacei	百花锦蛇	+	+	
Elaphe frenata		下腹绿锦蛇	+	+	+
	Red Mountain Racer	炭灰锦蛇			
Elaphe porphyracea Elaphe radiata	Copperhead Racer	系灰 ^瑞 蛇 三索锦蛇		+	
Elaphe rufodorsata	copperneau nacer	三系 师蛇 红点锦蛇		+	+
		<u>红</u> 点 带蛇 棕黑锦蛇	+	+	
Elaphe schrenckii				+	
Elaphe taeniura	Black-browed Racer	黑眉锦蛇	+	+	+
Amphiesma stolatum		TT /	+		
Sinonatrix aequifasciata	Diamond-back Water Snake	环纹游蛇	+	+	+
Sinonatrix annularis		赤链华游蛇	+	+	+
Sinonatrix percarinata	Mountain Water Snake	乌游蛇	+	+	
Xenochrophis piscator	Checkered Keelback	渔游蛇	+	+	+
Macropisthodon rudis		颈棱蛇	+		
Ptyas korros	Indo-chinese Rat Snake	灰鼠蛇	+	+	+
Ptyas mucosus	Common Rat Snake	滑鼠蛇	+	+	+
Ptyas carinatus	Keeled Rat Snake			+	
Zaocys dhumnades	Oriental Rat Snake	乌梢蛇	+	+	+
Zaocys nigromarginatus		黑线乌梢蛇	+	+	
Rhabdophis tigrinus		虎纹游蛇	+	+	
Homalopsis buccata	Puff-faced Water Snake			+	
Enhydris bocourti	Bocourt's Water Snake		+	+	+
Enhydris chinensis	Chinese Water Snake	中国水蛇	+	+	+
Enhydris enhydris	Rainbow Water Snake			+	
Enhydris plumbea	Plumbeous Water Snake	铅色水蛇	+	+	+
Enhydrissp	Water Snake sp	水蛇	+		
Bungarus fasciatus	Banded Krait	金环蛇		+	+
Bungarus multicinctus	Many-banded Krait	银环蛇		+	+
Hydrophis cyanocinctus	Banded Sea Snake			+	
Naja atra	Chinese Cobra	眼镜蛇	+	+	+
Ophiophagus hannah	King Cobra	眼镜王蛇		+	+
Deinagkistrodon acutus		尖吻蝮	+	+	+
Vipera u sselli	Russell's Viper		+	+	+
Gloydiussp.	Viper sp.	中介蝮		+	
Protobothrops mucrosquan	natus	示原矛头蝮		+	
Trimeiesuius albolabris	White-lipped Pit Viper	白唇竹叶青		+	+
Trimeæsurus stejnegeri	Bamboo Pit Viper	竹叶青		+	+
Elaphe guttata	Corn Snake		+		
Lampropeltis triangulum	Milk Snake		+		
Lampropeltis getulus	King Snake		+		

Kadoorie Farm and Botanic Garden Corporation

Lam Kam Road, Tai Po, New Territories, Hong Kong Tel No.: (852)24839534 Fax No.: (852)24831877

嘉道理农场暨植物园公司

香港新界大埔林锦公路

Introduction to Kadoorie Farm & Botanic Garden

Kadoorie Farm & Botanic Garden (KFBG) is a charity based in Hong Kong, with a tradition of agricultural aid dating back to 1951, when the two brothers Lawrence and Horace Kadoorie began a self-help scheme for poor immigrant farmers from China. This scheme was to help over 300,000 Hong Kong farmers to achieve a good standard of living. Both brothers died in 1990s, but the family's philanthropic activities continue. The Kadoorie Charities fund projects throughout China and the South East Asia region.

KFBG, in response to changing priorities in Hong Kong, has become a centre for environmental education and conservation, enshrined by a Government Ordinance in 1995 as a public corporation. The Mission Statement is "TO INCREASE THE AWARENESS OF OUR RELATIONSHIP WITH THE ENVIRONMENT AND BRING ABOUT POSITIVE CHANGE IN THE WORLD THROUGH CONSERVATION AND EDUCATION". KFBG now has thriving programmes in wild plant and animal conservation, sustainable agriculture, environmental education and other areas.

In February 1998, KFBG launched the South China Biodiversity Conservation Programme. The preliminary aim of this programme was to carry out a rapid biodiversity assessment of forest nature reserves in the South China region in collaboration with relevant government departments, research institutions and researchers. The long-term goal of this programme was to minimize the loss of biodiversity in forest ecosystems in Guangdong, Guangxi and Hainan by promoting appropriate conservation measures.

In 2003, the South China Biodiversity Team has re-structured to form a China Programme Coordination Office, which will intensify efforts to develop projects in China. Our future work would merely focus on conservation, but also promote activities aimed at promoting sustainable agriculture and living.

To learn more about the China Programme, please visit our web site www.kfbg.org or contact us:

China Programme Kadoorie Farm & Botanic Garden, Lam Kam Road, Tai Po, New Territories, Hong Kong SAR, China

E-mail address: scbt@kfbg.org





















Dongmen Market, Shenzhen;
 Chatou Wildlife Market, Guangzhou;
 Liuhua Bird Market, Guangzhou;
 Qingping Market, Guangzhou;
 Arakan Forest Turtle Heosemys depressa;

- 6. Burmese Roofed Turtle Kachuga trivittata;
- 7. Black-crowned Night Heron Nycticorax nycticorax;

8. Emei Shan Liocichla Liocichla omeiensis;

9. Bocourt's Water Snake Enhydris bocourti