

TRAFFIC

REPORT

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CAGED IN THE CITY:

An inventory of birds for sale in Ha Noi and Ho Chi Minh City, Viet Nam

James A. Eaton, Minh D. T. Nguyen, Madelon Willemsen, Jessica Lee and Serene C. L. Chng





TRAFFIC REPORT

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Front cover photograph: Birds being peddled from the back of a mobile seller's motorcycle, Ha Noi

Credit: ©Alisa Blee/TRAFFIC

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Birds being peddled from the back of a mobile seller's motorcycle, Ha Noi.

Wildlife Reserves Singapore Group



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Conservation Fund



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Bar-bellied Pitta *Hydrornis elliotii*

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ABBREVIATIONS AND ACRONYMS

Captive breeding	Offspring are produced in a controlled environment, where the parents were mated in a controlled, captive environment and breeding stock established in accordance with the provisions of CITES and relevant national laws, in a manner not detrimental to the survival of the species in the wild, and are maintained without the introduction of specimens from the wild.
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EN	Endangered
FPD	Forest Protection Department
HCMC	Ho Chi Minh City
MARD	Ministry of Agriculture and Rural Development
NT	Near Threatened
Ranching	Rearing in a controlled, captive environment of species taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood
USD	US Dollar
VND	Vietnamese Dong
VU	Vulnerable

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EXECUTIVE SUMMARY

With 48 threatened bird species, and the highest number of breeding endemic bird species (11) in mainland Southeast Asia, Viet Nam is a global conservation priority. Many of these threatened species are hunted unsustainably for wildlife trade. Studies carried out since the early 1990s highlight that lax law enforcement and outdated legislation enables protected species to be openly traded along streets, while other species are also traded in large numbers. Very little is known about the current true scale of the trade in Viet Nam as the most recent research was conducted in 2008. To fill this knowledge gap, and to support bird conservation efforts in the region, TRAFFIC undertook a full inventory of the bird markets across the country's two main cities—Ha Noi and Ho Chi Minh City (HCMC).

This report presents the results from a combined inventory and illustrates the large scale of the bird trade in the two largest cities in Viet Nam. A total of 8047 birds of 115 species were observed during a three-day survey period in April 2016. The huge number traded further spotlights the exploitation of wild birds across Southeast Asia, also captured in a number of TRAFFIC's "snapshot" market inventories since 2014—over 45 000 birds recorded for sale in bird markets in five cities in Java, Indonesia, over 14 000 birds in Singapore's pet shops and over 1000 birds in Bangkok's Chatuchak Market in Thailand.

Like the Indonesian bird markets, native bird species dominated the trade, exceeding 99% of all birds recorded. Similarly, over 90% of species in trade were native. Scaly-breasted Munias *Lonchura punctulata* (21%) and Red-whiskered Bulbuls *Pycnonotus jocosus* (15%) were the most abundant, collectively reaching close to 3000 individuals.

Of the native birds recorded, only 10% receive specific protection under national legislation. This included all four native parakeet species observed in trade (comprising 6% of recorded birds), which are protected from commercial exploitation under Decree 32/2006/ND-CP on Management of endangered, precious, and rare species of wild plants and animals, but are still trapped in large numbers and are facing population declines due to trapping.

The remaining 90% of native birds (85% of native species) recorded in trade are not protected by Vietnamese legislation. Some of the native species are thought to be at extreme risk from high levels of legal trade and should be considered for protection in Viet Nam. Of the top 10 most abundant species recorded in trade, equating to 74% of all individuals traded, nine are not subjected to any regulation by Vietnamese law, meaning trade is going unchecked. Seven species recorded in the two cities have been identified as threatened directly by trade in the *Conservation Strategy for Southeast Asian Songbirds in Trade*. This Strategy, although currently focused on 28 songbird species in the Greater Sunda region for conservation action, is relevant to findings in Viet Nam. This highlights that similar species, including native subspecies, are popularly traded across the region. There is a possibility of cross-border trade to feed the demand and this therefore becomes an important consideration for any regional conservation action.

Three globally threatened species on the IUCN Red List were recorded in trade: from South America, the Endangered Sun Parakeet *Aratinga solstitialis* (1 individual) and two Indonesian endemics Java Sparrow *Lonchura oryzivora* (24 individuals) and Chattering Lory *Lorius garrulus* (2 individuals) that are considered Vulnerable. A further six species are considered as Near Threatened.

This study also showed a rise in the number of species and volume of birds for sale since past studies in 1991, 1998, 2001 and 2008. There also appeared to be an increase in the popularity of songbirds that is perhaps driven by songbird competitions, a practice that is popular throughout the region.

Similar to findings from other market surveys in Southeast Asia, the majority of native birds observed were suspected to have been taken from the wild directly for sale. This was based on the condition and behaviour of the birds. For certain species, large numbers of immature individuals were observed, suggesting that captive breeding or more likely ranching (where eggs or chicks were collected from easily-accessible nests in the wild and then raised in captivity before being sold) were potentially taking place. These, along with the high volume of birds in trade in just two cities, points to the need to better monitor such activities, and importantly, to enable the implementation of a regulatory system to ensure that trade does not threaten the survival of species in the wild.

The new Law No. 12/2017/QH14 Amending and Supplementing a number of articles in the Penal Code No. 100/2015/QH13 comes into force from 1/1/2018. This will further extend protection under criminal law to CITES-listed species as well as those currently listed on Decree 32, but better implementation of law enforcement against illegal wildlife trade will be required to render this effective. Currently, this is hampered by a lack of species identification skills amongst law enforcement officers. This is also compounded by the emerging challenge of online trade, which presents far more complications and regulation challenges than trade carried out openly in shops.

Based on the findings of this assessment and in line with the *Conservation Strategy for Southeast Asian Songbirds in Trade*, TRAFFIC makes the following recommendations:

Legislation and Enforcement

- The Viet Nam Government is urged to strengthen existing legislation to include the means to monitor and regulate the harvest and trade of all wild-caught species to ensure that it does not threaten the survival of species. Currently only bird species listed in Decree 32's Group IB and IIB receive protection from overharvest and commercial trade — this currently covers a mere 10% of native birds recorded in this survey.
- Following from the above, the Viet Nam Government is urged to update and reassess the protected species list (and introduce regulatory mechanisms) under the Penal Code No. 100/2015/QH13 and Law No. 12/2017/QH14 in conjunction with NGOs and other experts in the field to include species threatened by trade in Viet Nam according to the IUCN Red List, such as all native parakeet species, Chinese Hwamei *Garrulax canorus*, Red-billed Leiothrix *Leiothrix lutea*, White-rumped Shama *Copsychus malabaricus*, Red-whiskered Bulbul, range-restricted endemic species and species assessed as threatened by the IUCN Red List. This exercise should consider threats to birds in the country and be used and updated accordingly to contribute to the CITES Appendices and IUCN Red Listing processes. As laws are strengthened and regulatory mechanisms are introduced, the Viet Nam Government is urged to carry out effective monitoring and enforcement actions at locations that sell birds; where a violation takes place, action should be taken to ensure penalties meted out can act as a deterrent.
- The relevant departments under the Ministry of Agriculture and Rural Development, including the Viet Nam Administration of Forestry and the Forest Protection Department, and other stakeholders such as the local provincial People's Committees, are recommended to amend the current regulatory framework for the permitting and certification for the exploitation and farming of common wild animals—Circular 47— to cover all wild bird species and include a clear monitoring mechanism for properly permitted captive breeding facilities.

- Capacity building for law enforcement agencies is recommended as they report a lack of identification skills to distinguish between common and threatened bird taxa. Law enforcement agencies include but are not limited to the Forest Protection Department (under the Ministry of Agriculture and Rural Development), Customs (Ministry of Finance) and Environmental Police (Ministry of Public Security). The means to identify species commonly seen in trade, and relevant training and support can be provided by local wildlife experts and conservation non-governmental organizations (NGOs) including TRAFFIC.

Monitoring

- While full inventories are important to gain a picture of the species and volumes of birds involved in trade, they are challenging to carry out regularly. Instead, regular monitoring of priority and indicator species over a period of time should be conducted. This is not only a cost-effective way to monitor the conservation status of key species of concern but also important in uncovering market dynamics, prioritizing management or regulation actions and forming the evidence base for making informed decisions concerning trade levels. It is therefore recommended that monitoring of wildlife markets and vendors is continued by NGOs and researchers. This information should be used to support law enforcement efforts and feed accordingly into the *Conservation Strategy for Southeast Asian Songbirds in Trade*.
- Price data and source of birds (wild-caught or captive-bred) should also be noted where possible, to better understand trade trends and dynamics in order to inform conservation actions. Where relevant and possible (especially where subspecies are known to be range-restricted and/or vulnerable to offtake), individual birds observed should be recorded to subspecies level to account for conservation units, taxonomic updates and to determine source areas. For instance, white-eyes *Zosterops* sp. which are traded in large numbers across the region are likely to face taxonomic rearrangements; monitoring at the subspecies level will help inform the assessments of threats faced by each conservation unit.
- Customs, quarantine and port officials are recommended to increase vigilance in monitoring and detecting cross-border trade at checkpoints and around border areas, both for importation and exportation to help provide information about the levels of such trade.

Reducing consumer demand

- Commissioning consumer market research is recommended to gain an understanding of the motivations and practices of those purchasing birds at these markets. This can help with the development of information for awareness raising and developing targeted messaging aimed at changing the behaviour of those consumers purchasing birds from illegal and / or unsustainable sources.

INTRODUCTION

Viet Nam's role in illegal and unsustainable wildlife trade has been well-documented (e.g. Drury, 2011; Ngoc and Wyatt, 2013; Shairp *et al.*, 2016). Studies on the country's bird trade include surveys carried out over the past few decades documenting the steady rise in the live bird trade, particularly in the major cities. In 1991, Eames surveyed the birds of Cau Mong market in Ho Chi Minh City (HCMC) (Eames, 1991) and, from 1991–1997, Craik recorded observations from bird markets Le Hong Phong and Thuan Kieu in HCMC, as well as standalone shops and mobile vendors, after Cau Mong market closed in 1996 (Craik, 1998). Between December 1992 and May 1993 a region-wide study of bird species not included in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was carried out in Ha Noi, HCMC, Hai Phong and Nha Trang (Nash, 1993). The birds were mostly sold for merit release or consumption of their meat (Eames, 1991; Nash, 1993; Craik, 1998) although surveys in the early 2000s in Hanoi by Morris (2001) found a burgeoning trade of cage birds as pets. More recently, surveys in 2007 (Brooks-Moizer *et al.*, 2008) and 2008–2009 (Edmunds *et al.*, 2011) focused on aspects of the trade contributing to zoonotic disease transmission and documented the continued open trade in cage birds despite a 2005 ban on the sale of wild and ornamental birds in urban areas to curb the transmission of avian influenza (Circular 69/2005/TT-BNN, now replaced by Circular 07/2016). Le and Craik (2016) also documented trade and hunting of threatened and endemic avian species in northern Viet Nam and Da Lat (in the southern Central Highlands).

This study follows on from Asia's first Songbird Trade Crisis Summit, organized by Wildlife Reserves Singapore, TRAFFIC, and Cikananga Wildlife Center, and held in Singapore on 26 – 29 September 2015, that developed the *Conservation Strategy for Southeast Asian Songbirds in Trade* (Lee *et al.*, 2016), which includes calls for research into the bird trade across the region. Experts from academia, conservation NGOs and zoological institutions identified a list of 28 songbird species most at risk from trade in the Greater Sunda region as being of highest conservation priority, and also determined the top 12 species in need of immediate action, seven of which were found on this survey. As a result of this and similar findings, the formation of the Asian songbird trade specialist group, a IUCN Species Survival Commission Group (SSC) was agreed and ratified, which encompasses the whole of Southeast Asia, including Viet Nam.

Findings of this study will support conservation actions and objectives developed during the Summit for the whole Southeast Asia region and used by the Asian songbird trade specialist group. Obtaining current baseline data throughout Southeast Asia will enable a meaningful evaluation of conservation efforts and impacts, emerging trends and species of conservation concern, and guide future conservation and research efforts.

CURRENT REGULATORY FRAMEWORK

Viet Nam has been a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 1994. As a signatory, Viet Nam is responsible and accountable for the implementation of the Convention.

CITES provides the means to regulate trade and combat the illegal trade of wildlife across international borders. Species listed in Appendix I of the Convention are prohibited from international commercial trade. Those in Appendix II require an export permit issued by the CITES Management Authority of the State of export (in Viet Nam's case the Ministry of Agriculture and Rural Development (MARD)). These can only be issued if the specimen(s) was/were legally obtained and if export will not be detrimental to the survival of species. No import permit for an Appendix II listed species is required unless it is required by national law by the importing State. Viet Nam is ranked as having Category 1 CITES-implementing legislation under Resolution Conf. 8.4 (Rev. CoP15) on National laws for implementation of the Convention (CITES SC66 Inf. 19, 2016) which demonstrates that its legislation generally meet the requirements to implement CITES.

Viet Nam has the largest number of laws and regulations governing the protection of wildlife and the environment in Southeast Asia (UNODC and Freeland, 2015). A total of 18 laws are in place and enforced by different government departments. The following laws and regulations are specifically relevant to the trading of birds in Viet Nam:

Law/ Decree Number and Title	Date	Relevance to bird species
Penal Code Amendment No. 37/2009/QH12 (Penal Code No. 15/1999/QH10)	2009	According to Article 190 of this law, the acts of hunting, killing, transporting, raising, keeping and trading of endangered, precious and rare wild animals prioritized for protection and the acts of trading and transporting of their body parts or products are prohibited. Wild animals prioritized for protection are species listed in Decree 32's Group IB and IIB. CITES Appendix I species that are not listed in Decree 32's Group IB are treated the same as Decree 32's Group IB species. The offenders shall be liable to a fine of up to VND500 million (USD22 124), subject to non-custodial reform of up to three years or a prison term of up to seven years.
Penal Code No. 100/2015/QH13 along with Law No. 12/2017/QH14 Amending and Supplementing a number of articles in the Penal Code No. 100/2015/QH13	2017	Coming into force on 1/1/2018, this law increases the fine for criminal offences up to VND2 billion (USD88 496) and the prison term up to 15 years. Criminal offences include the acts of hunting, killing, transporting, raising, keeping, and trading above a certain quantity of animals or their parts. Notably, this new Code is expected to add the act of possession to the list of criminal acts.

Decree 160/2013/ND-CP Criteria for identification and management of endangered, rare and precious species, prioritized for protection	2013	As well as setting out the criteria to identify and manage endangered, rare and precious species prioritized for protection, this Decree also sets out principles to manage the exploitation, exchange, trading, gifting, hiring, storing, transporting of specimens, breeding and rescuing of the species. Wild animals and plants, including bird species, in both Groups I and II of Decree 32 (see below) are regulated by this Decree.
Decree 32/2006/ND-CP on Management of endangered, precious, and rare species of wild plants and animals	2006	This Decree establishes two groups of species with Group I receiving full protection from harvest and trade and Group II species prohibited from commercial exploitation except for captive-bred specimens, and specimens confiscated from illegal wildlife trade that cannot be rescued and released to the wild. This requires formal permits, and follow-up monitoring and reporting. Species in both groups may be exploited for research or international relation purposes. Sub-group A is for plants, and sub-group B is for animals. This is only valid for species that are not listed in Decree 160.
Decree 82/2006/ND-CP on Management of export, import, re-export and introduction from the sea, transit, breeding, rearing and artificial propagation of endangered, precious, and rare species of wild plants and animals	2006	This Decree covers management of export, import, re-export and introduction from the sea, transit, breeding, rearing and artificial propagation of CITES-listed species as well as species protected under Vietnamese laws. However, this Decree does not protect native species or specimens of unclear origin/acquisition.
Circular 47/2012/TT-BNNPTNT Regulating the Management of wild exploitation and farming of common wild animals	2012	This Circular covers the management of wild exploitation and farming for commercial purposes of 160 species of common wild animals. The breeding facilities require permits to operate, and individual permits for each species are additionally required.
Decree 157/2013/ND-CP Administrative penalties with regards to forest management, forest development, forest protection and forest product management	2013	This Decree covers penalties for administrative violations with regards to forest management, forest development, forest protection and management of forest products, including wildlife. The offenders shall be fined up to VND500 million (USD22 124) for individuals and VND1 billion (USD44 248) for organizations.
Amendment Decree 40 (Decree 157/2013/ND-CP Administrative penalties with regards to forest management, forest development, forest protection and forest product management)		This Decree amends some articles of Decree 157/2013/ND-CP, however, the penalties remain the same for administrative violations with regards to forest management, forest development, forest protection and management of forest products, including wildlife.

Decree 179/2013/ND-CP Administrative penalties with regards to environment protection	2013	This Decree covers penalties for illegally keeping parts and derivatives of endangered, precious and rare wild animals, prioritized for protection. Individual offenders shall be fined up to VND500 million (USD22 124) while organizations as offenders shall be fined up to VND1 billion (USD44 248).
Circular No. 07/2016/TT-BNNPTNT Prevention and response to zoonotic diseases in terrestrial animals	2016	This Circular stipulates details of articles in the Veterinary Law on the prevention and control of diseases of terrestrial animals. Avian influenza is included in the list of zoonotic diseases in terrestrial animals for which outbreaks must be announced, the list of diseases that can be transmitted from animals to humans, and the list of diseases in animals for which slaughtering and curative care are prohibited.

METHODS

On 15–17 April 2016, researchers carried out surveys of all known bird vendors in Ha Noi and HCMC, the two largest cities in Viet Nam. In each of these cities, the trade of birds takes place largely from shops or vendors in specific areas—in both Ha Noi and HCMC, one main street accounted for most of the vendors (Hoang Hoa Tham in Ha Noi, and Truong Chinh in HCMC), plus there were a few other locations across the city. Additionally, Son Tay, a city on the outskirts of Ha Noi, had several shops. Data from Son Tay are combined with data from Ha Noi in this report. A number of mobile sellers on motorcycles also peddle birds; they were found to congregate around the main streets where birds were sold, which were also included in the survey.



Mobile sellers on motorcycles peddling birds

The vendors are open to the public seven days a week with the birds openly displayed for sale. Direct observations were used and observers only counted birds on open display. Most vendor sellers in Ha Noi were happy for researchers to photograph their birds, but few in HCMC were. Researchers posed as tourists to take pictures rather than posing as potential buyers and no wildlife was purchased, nor was price information gathered.

At each vendor a full inventory was carried out, with individuals of every species counted and where possible recorded to subspecific level. Though subspecies were noted wherever possible, several species could not be recorded to subspecific level due to difficulty in obtaining clear views or identification of subtle plumage differences. Domesticated animals, defined as those that show a significant proportion of mutations, either with colour pigmentations differing from wild specimens or hybridization with other species, were not included in the inventory. Examples were canaries *Serinus* spp and *Crithagra* spp, Budgerigars *Melopsittacus undulatus*, lovebirds *Agapornis* spp and, in some cases, Java Sparrows *Lonchura oryzivora* displaying non-wild type phenotypes.

Additionally, data from the UNEP-WCMC CITES Trade Database, a study on wildlife e-commerce in Viet Nam, and other relevant literature were used. Taxonomy and vernacular names follow Gill and Donsker (2016). For the analyses, birds were defined to species level, with individuals that could not be identified to a species level omitted.

RESULTS AND OBSERVATIONS

Species and origin

A total of 8047 birds of 115 species were counted during the survey. More individuals of a greater number of species were recorded in HCMC than Ha Noi (Table 1), and only 14 species were unique to Ha Noi while 70 species were unique to HCMC. Overall, the Scaly-breasted Munia *Lonchura punctulata* was the most numerous species, with 1711 individuals recorded (Table 2). A total of 488 individuals of nine species in the surveys are listed on the IUCN Red List as threatened or Near Threatened (Table 3).

Table 1: Summary of survey results of the two cities surveyed in Viet Nam in April 2016.

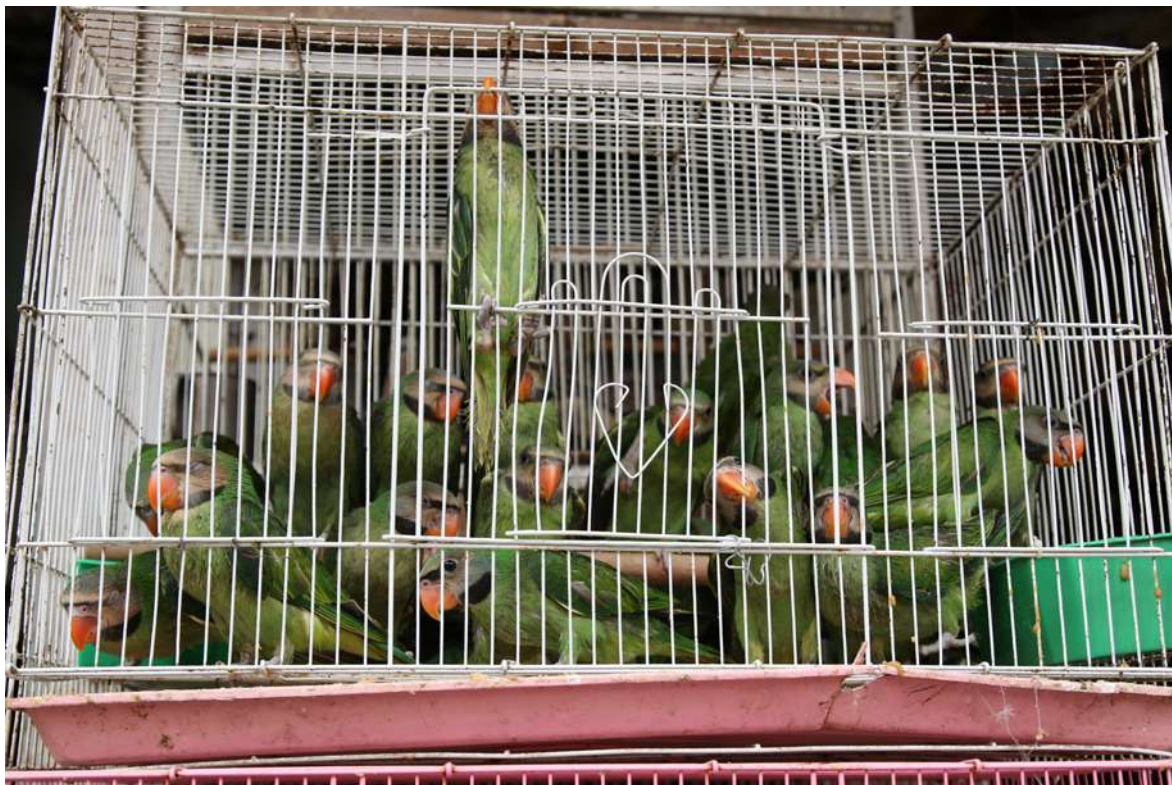
	Number of species	Number of individuals	Number of shops	Average number of individuals per shop
Ha Noi	45	3378	31	109
HCMC	101	4669	21	222



Silver-eared Mesias for sale in Ha Noi.

Table 2: Top 10 most numerous species observed during the survey, their conservation status, national protection and range in Viet Nam. The full list is in Appendix 1.

Species	Number of shops present in	Number of birds	IUCN status	National protection
Scaly-breasted Munia	15	1711	LC	None
Red-whiskered Bulbul	45	1241	LC	None
Japanese White-eye	25	775	LC	None
Red-breasted Parakeet	25	415	NT	Decree 32
Chinese Hwamei	33	409	LC	None
Pied Bush Chat	14	386	LC	None
Spotted Dove	33	360	LC	None
White-rumped Shama	25	229	LC	None
Eurasian Tree Sparrow	5	221	LC	None
Oriental Magpie-Robin	30	209	LC	None



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Juvenile Red-breasted Parakeets for sale in Ha Noi. This species is assessed as Near Threatened and protected under Viet Nam's Decree 32 Group IIB.

Table 3: IUCN Red List status of all threatened and Near Threatened species recorded during the surveys (BirdLife International, 2016)

Species		Number of individuals observed
Ha Noi		3378
Vulnerable		2
Java Sparrow	<i>Lonchura oryzivora</i>	2
Near Threatened		139
Alexandrine Parakeet	<i>Psittacula eupatria</i>	5
Blossom-headed Parakeet	<i>Psittacula roseata</i>	1
Red-breasted Parakeet	<i>Psittacula alexandri</i>	133
Least Concern		3237
HCMC		4669
Endangered		1
Sun Parakeet	<i>Aratinga solstitialis</i>	1
Vulnerable		24
Chattering Lory	<i>Lorius garrulus flavopalliatus</i>	2
Java Sparrow	<i>Lonchura oryzivora</i>	22
Near Threatened		322
Alexandrine Parakeet	<i>Psittacula eupatria</i>	11
Blossom-headed Parakeet	<i>Psittacula roseata</i>	19
Gouldian Finch	<i>Erythrura gouldiae</i>	1
Grey-headed Parakeet	<i>Psittacula finschii</i>	7
Princess Parrot	<i>Polytelis alexandrae</i>	2
Red-breasted Parakeet	<i>Psittacula alexandri</i>	282
Least Concern		4322

Native species in trade

Over 99% (7982 / 8047) individual birds recorded were native to Viet Nam. Very few of the native species recorded were protected; none of the species observed were listed on Decree 160, only one species is listed in Group IB under Decree 32, nine species on Group IIB and five species protected under Circular 47 (Table 4). This means that about 90% of birds found in this survey fall outside of any legal protection in Viet Nam and therefore are legally traded; 10% were possibly illegally traded if they were wild-caught specimens.

Table 4: Native species recorded that are protected under Vietnamese legislation

	Species	Number of individuals
Ha Noi		
Decree 32 Group IIB		250
Alexandrine Parakeet	<i>Psittacula eupatria</i>	5
Blossom-headed Parakeet	<i>Psittacula roseata</i>	1
Common Hill Myna	<i>Gracula religiosa</i>	5
Red-breasted Parakeet	<i>Psittacula alexandri</i>	133
White-cheeked Laughingthrush	<i>Garrulax vassali</i>	2
White-rumped Shama	<i>Copsychus malabaricus</i>	104
HCMC		
Decree 32 Group IB		3
Silver Pheasant	<i>Lophura nycthemera annamensis</i>	3
Decree 32 Group IIB		494
Alexandrine Parakeet	<i>Psittacula eupatria</i>	11
Blossom-headed Parakeet	<i>Psittacula roseata</i>	19
Common Hill Myna	<i>Gracula religiosa</i>	29
Crested Serpent Eagle	<i>Spilornis cheela</i>	3
Grey-headed Parakeet	<i>Psittacula finschii</i>	7
Red-breasted Parakeet	<i>Psittacula alexandri</i>	282
Vernal Hanging Parrot	<i>Loriculus vernalis</i>	8
White-cheeked Laughingthrush	<i>Garrulax vassali</i>	10
White-rumped Shama	<i>Copsychus malabaricus</i>	125
Circular 47		24
Chinese Francolin	<i>Francolinus pintadeanus</i>	3
Greater Coucal	<i>Centropus sinensis</i>	5
Red Junglefowl	<i>Gallus gallus</i>	1
Watercock	<i>Gallicrex cinerea</i>	1
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	14

Of the 7982 individual birds of native species recorded, 6933 (87% of the native birds) of 61 species were considered to be from marginal (grassland, forest edge, urban and peri-urban) habitats, while 1049 (13% of the native birds) of 42 species were considered to be from forest habitat. Species restricted to forest habitats are generally more sensitive to disturbance from human activities and less accessible than those in marginal habitats—thus their appearance in trade is a particular concern.

The high numbers of species recorded for sale in HCMC that are restricted to the northern part of the country indicates the movement of birds across Viet Nam. For example, large numbers of Chinese Hwamei *Garrulax canorus* (49.6% of total number of Chinese Hwamei recorded during the survey, n=409) and Japanese White-eye *Zosterops japonicus* (33%, n=775), both species whose range in Viet Nam is restricted to the north of the country, were noted in HCMC vendors.

Non-native species in trade

Only 65 individual birds from 12 species were non-native (Table 5), and vast majority of these were Australasian species. Only two non-native species (a total of 18 individuals) were noted in Ha Noi, suggesting the trade here is almost entirely of domestic origin, whereas in HCMC 12 non-native species (47 individuals) were noted.



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A pair of Eclectus Parrots for sale in Ha Noi. This Indonesian endemic subspecies is listed in CITES Appendix II.

Of the CITES Appendix II listed non-native birds recorded, according to the CITES Trade Database, from 1994 to 2015 exporters reported trade to Viet Nam of only four of the eight CITES-listed species (Table 5). This means that since Viet Nam became a signatory to CITES in 1994, there has been no legal trade of Chattering Lory *Lorius garrulus flavopalliatu*s, Java Sparrow *Lonchura oryzivora*, Pale-headed Rosella *Platycercus adscitus* and Sun Parakeet *Aratinga solstitialis* into the country. Individuals of these species observed for sale must therefore have either been obtained prior to 1994 (which is unlikely, especially for smaller passerines such as Java Sparrow), captive-bred in Viet Nam from imports prior to 1994 or smuggled into the country.

Table 5: Non-native species observed in the study, as well as number of exporter-reported imports into Viet Nam of CITES-listed species according to the CITES Trade Database.

Location/CITES listing/Species		Number of individuals observed in survey	Exporter-reported CITES trade to Viet Nam 1994-2015
Ha Noi		18	
Not CITES-listed		16	
Zebra Finch	<i>Taeniopygia guttata castanotis</i>	16	NA
Appendix II		2	
Java Sparrow	<i>Lonchura oryzivora</i>	2	0
HCMC		47	
Not CITES-listed		12	
Diamond Dove	<i>Geopelia cuneata</i>	2	NA
Gouldian Finch	<i>Erythrura gouldiae</i>	1	NA
Superb Parrot	<i>Polytelis swainsonii</i>	2	NA
Zebra Finch	<i>Taeniopygia guttata castanotis</i>	7	NA
Appendix II		35	
Chattering Lory	<i>Lorius garrulus flavopalliatu</i>	2	0
Crimson Rosella	<i>Platycercus elegans</i>	2	40 (all C)
Eastern Rosella	<i>Platycercus eximius</i>	2	117 (all C)
Eclactus Parrot	<i>Eclactus roratus roratus</i>	2	7 (all C)
Java Sparrow	<i>Lonchura oryzivora</i>	22	0
Pale-headed Rosella	<i>Platycercus adscitus</i>	2	0
Princess Parrot	<i>Polytelis alexandrae</i>	2	21 (all C)
Sun Parakeet	<i>Aratinga solstitialis</i>	1	0
Total		65	

Non-natives species were almost wholly restricted to shops in HCMC, with 12 species encountered in HCMC, totalling 47 individuals, compared to just two species (Zebra Finch *Taeniopygia guttata castanotis* and Java Sparrow) totalling 18 individuals in Ha Noi.

The researchers also noted at least 129 lovebirds that all appeared to be Fischer's Lovebird, a common avicultural species and all were assumed to be captive-bred. As some wild-sourced lovebird species of conservation concern have been noted to be present in the cage bird trade globally (Martin, R. pers. comm., September 2016), future market surveyors should take careful note of which species of lovebirds are encountered in trade.

Source

The vast majority of native birds observed are suspected to have been obtained from the wild, although cases of possible captive breeding or ranching were observed. Although this study purely focused on physical vendors, a rapid assessment of e-commerce wildlife trade in Viet Nam found evidence of birds being taken from the wild (Nguyen and Willemsen, 2016); of 137 advertisements for live birds, seven stated explicitly that the birds were of wild origin; others did not state the source. Le and Craik (2016) also report trapping of birds for trade, reinforcing our deduction that most birds would have been wild-sourced.

Only species listed on IB, IIB and Circular 47 (2012) require permitting/certification for farming; species not listed on IB, IIB and Circular 47 (2012), can be farmed legally even without permits. The source of the non-native and native species of parrots observed was unknown. Given the high number still in juvenile plumage and of similar age, it is possible that many were either ranched or captive-bred— making their trade legal only if they were farmed with the necessary permits.

Surprisingly, as very few other juvenile passerines were observed in this survey, 94% of the Pied Bush Chats *Saxicola caprata* observed (363 out of 386 individuals) were still in juvenile plumage; this suggests that the species are specifically targeted for the songbird trade and were suspected to be ranched as many of them appeared to be of similar age and could be easily obtained from wild nests (see Discussion - Ranching). A small number of Oriental Skylark *Alauda gulgula* fledglings were also observed, suggesting they could be sourced from ranched birds.



Juvenile Pied Bushchats

Other observations

During the survey, the researchers were often the only visitors at a vendor, perhaps because surveys were carried out on weekdays. The demographic of buyers observed included young boys (mostly purchasing low value birds like white-eyes *Zosterops* sp.) and older men, with few women noted.



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Live birds are known as the “cut flowers of the pet trade” for good reason – high mortality rates are observed in markets and even before the animals reach the point of sale.

One shop in HCMC held the widest variety of Australasian species, with eight species that are found only in eastern Indonesia, New Guinea and Australia, seven of which were parrot species and not encountered at any other vendors.

In Ha Noi, the vendors were generally very open with the researchers, allowing them to photograph their shops and birds for sale, and on two occasions even moved cages for the researchers to get better photos. In contrast, in HCMC the researchers were unable to take any photographs as the vendors asked them not to.

Mobile vendors are a prominent feature on the streets around the concentration of bird shops in both Ha Noi and HCMC, with eight noted, transporting up to 106 individual birds at a time. Typically this would be made up of a motorbike with cages of birds stacked up on the back and sides. The authors have not encountered this on surveys elsewhere in Southeast Asia.





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Some species of birds, such as Red-billed Starling (page before) and White-crested Laughingthrush had been dyed, presumably to make them more attractive to buyers.

DISCUSSION

Then and now

As noted in the Introduction, a number of studies on the bird trade in Viet Nam, particularly in Ha Noi and HCMC, have been previously carried out. As different survey protocols were used in this and previous surveys, results are not strictly comparable but indicative of changes or lack thereof in broad trends.

The species composition of birds recorded in HCMC in this study are rather different to those recorded by Eames (1991) and Craik (1998). Eames's 1991 surveys were carried out in Cau Mong market in HCMC, finding 9896 birds of 43 species sold in 15 stalls over three visits, which worked out to a mean of 3298 birds per visit and 219 birds per stall. Craik's 1991-1997 observations in HCMC recorded more species for sale (69 species), but not as many as in our study, where a far greater variety of species (101) were observed, as well as a higher number of birds (4669 individuals). This is despite the closure of Cau Mong market, which appears to have been replaced by individual shops and mobile vendors centred around a few main streets (see **Methods**).



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In Ha Noi, Edmunds *et al.* (2011) recorded a maximum count of 38 shops, recording a maximum of 9117 individuals of 43 species in January 2009 (including canaries, cockatiels, lovebirds and budgerigars), which was much higher than the 2007 and 2000/2001 surveys (Morris, 2001; Brooks-Moizer *et al.*, 2008). Although the number of vendors and species do not differ much the volumes recorded by Edmunds *et al.* (2011) are also much higher than this study (3378 individuals). They also noted that there were many more vendors, individuals for sale and higher species diversity in Ha Noi compared to HCMC, which is the reverse to the findings from this study. Regardless, both cities are important economic centres for domestic and international trade, with large concentrated human populations as a consumer base, and it is expected that levels of wildlife trade would be highest here compared to the rest of the country.

The most frequently recorded species in the current study was the Scaly-breasted Munia, as it was in 1991.

However, the volume recorded in this study is significantly lower (1711 compared to 5800 in 1991). This could be indicative of a decline in the species since the 1990s. The Red-breasted Parakeet also features in “top five” lists since the 1990s studies, possibly indicating steady popularity and supply. The proportion of “marginal habitat” species recorded in this study (53%) is comparable to the 59% recorded by Eames (1991).

All species recorded in the earlier HCMC studies were native, except for a single Chattering Lory. Eames (1991) postulated that the number of non-native species for sale in HCMC would increase due to growing international trade between Viet Nam and neighbouring countries. Craik's list (Craik, 1998) did not include any non-native species, but Morris (2001) noted the appearance of 11 non-native species for sale, including the avicultural canaries and lovebirds, which are not counted in this study. Indeed, in the current study 12 non-native species were recorded from HCMC, and we may expect this trend of increasing non-native species to continue.

Eames (1991) and Craik (1998) were correct in predicting then that the cage bird trade would increase in scale, based on the economic growth of the country. True to form, today cage birds are commonly observed on most streets in cities and suburban areas. It is suggested that the popularity of songbirds as pets has increased in recent decades partly through their increased market availability (Brooks-Moizer *et al.*, 2008) and the rise of young people trapping, trading and keeping birds (Le and Craik, 2016).

Another driver is likely to be songbird competitions, with at least one shop observed in this study specialising in competition birds. A rapid internet search found many news articles, videos and announcements about songbird competitions in Viet Nam; for instance, there were 732 topics in the section "Competition Information" on the Viet Nam Red-Whiskered Bulbul Forum (as of 20 September 2016, <http://www.chaomao.org/forum.php>). Birds involved in these competitions include Chinese Hwamei, Red-Whiskered Bulbul *Pycnonotus jocosus* and White-rumped Shama *Copsychus malabaricus* among others. This mirrors the rise in demand for such species used in songbird competition in Thailand (Chng and Eaton, 2016a) and Indonesia (Chng *et al.*, 2015; Chng and Eaton, 2016b).



A shop specialising in songbirds used in singing competitions

© James Eaton/TRAFFIC

LEGAL BUT UNSUSTAINABLE?

Viet Nam's Unchecked Wild Bird Trade



99% of all birds seen were native species

85% of native species not protected by Vietnamese legislation



KEY SPECIES AT RISK



WHITE-RUMPED SHAMA
Priority species under Conservation Strategy for Southeast Asian Songbirds in Trade



CHINESE HWAMEI
Scarce in Viet Nam due to trapping



INDOCHINESE GREEN MAGPIE
Endemic to region

SOURCE: TRAFFIC REPORT: Caged in the city: An inventory of birds for sale in Ha Noi and Ho Chi Minh City, Viet Nam

SPECIES OF CONCERN

Species of conservation concern are considered to be “indicator species”, as defined from previous work on the bird trade by TRAFFIC (i.e. those species which are globally threatened and range-restricted and can provide information on abundances and price changes over time to reflect enforcement effort, sources and other conservation threats (such as Chattering Lory), or are being observed in noteworthy volumes in trade (Chng *et al.*, 2015)).



Raptors

While no raptors were recorded in Ha Noi, 26 individuals of seven species were recorded in HCMC, most of which appeared to be fledglings of resident species, except an adult Pied Harrier *Circus melanoleucos*, which is a wintering migrant to Viet Nam. Many of the birds were juveniles, including fledglings from two weeks old. It is suspected that these were taken from nests in the wild for sale. Several individuals had tape wrapped around their tail, for reasons unknown to the authors. All species encountered are considered Least Concern on the IUCN Red List, and only the Crested Serpent Eagle *Spilornis cheela* is protected under Viet Nam national legislation.

The demand for keeping raptors has increased in Viet Nam, resulting in rising levels of trapping of resident as well as migratory species (Le and Nguyen, 2015). It is likely that the trade of raptors in Viet Nam is occurring online on a larger scale, but that was not investigated in this study. There is a large demand and trade of raptors in Southeast Asia with at least 30 species having been traded every month in a single market in Jakarta, Indonesia (Wihardandi, 2012), 11 individuals of two species were recorded during a single market survey in Bangkok, Thailand (Chng and Eaton, 2016a), while a survey of just five Facebook groups in Indonesia uncovered 4774 individuals of 22 species offered for sale (excluding the owl species included in the survey) (Iqbal, 2016).



Blossom-headed and Red-breasted Parakeets

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Red-breasted and Alexandrine Parakeets

Native parakeet species

Four parakeet species native to Viet Nam were observed, totalling 458 individuals. The majority, estimated at 80%, appeared to be juveniles, some thought to be as young as two weeks old. The most commonly recorded native parakeet was the Red-breasted Parakeet *Psittacula alexandri* (the fourth most numerous bird recorded in this study), which is also the most commonly seen species in the wild in the region. All four species are considered Near Threatened on the IUCN Red List, with populations in Viet Nam undergoing decline as a result of trapping and habitat loss. Already protected under Decree 32's Group IIB, better enforcement is therefore recommended to safeguard remaining populations from trapping and trade. The source of the native parakeets observed was unknown, but it is possible that they may have been either ranched given the large number of fledglings for sale and ease of collection from wild nests (see Ranching).



Chattering Lory

Currently classified on the IUCN Red List as Vulnerable, this species continues to be targeted for trade. Two were recorded in one shop in HCMC of the subspecies *flavopalliatus*, which is restricted to Bacan, Obi and Kasiruta in Indonesia. This lends further weight to the suggested explanation in Chng and Eaton (2016b) of the preference for *flavopalliatus*, despite it being the most logistically complex subspecies to transport due to the islands in its native range being infrequently served by boat and no airports on Obi or Kasiruta. This could indicate that the more easily accessible subspecies from elsewhere in Indonesia are becoming scarcer, or there are better anti-poaching measures and law enforcement on the more developed islands therefore driving trappers to collect birds from Obi (Chng and Eaton, 2016b; Cottee-Jones *et al.*, 2014). A single individual of this species was the sole non-native bird recorded in Eames's survey (Eames, 1991), indicating that trade in this species has existed since then.

Chinese Hwamei

Classified as Least Concern on the IUCN Red List, and listed in CITES Appendix II. The fifth most numerous bird in this study, a total of 409 individuals were counted. Though the species is native to Viet Nam, it is now very scarce there. Anecdotal observations from field surveys and regular birdwatching tours run in Viet Nam in the past 20 years have only recorded the species on three occasions in the wild (Craik, R. and Minh, L. Q. *in litt.*, Mahood, S. *in litt.*, Eaton, J. A. pers. obs.). The large numbers found perhaps suggest the majority are imported from China or even Lao PDR. Furthermore, although HCMC is not within its native range, 200 (49%) were recorded from HCMC, indicating a transfer of birds of considerable distance. This indicates a specific demand in HCMC for this species, rather than other locally available laughingthrush species. The bird's ability to mimic and produce an extravagant song makes it a very popular cage bird outside Viet Nam too, with 21 found in a recent Singapore bird shop survey (Eaton *et al.*, 2016), and a total of 157 in two bird market surveys on Java, Indonesia (Chng *et al.*, 2015, Chng and Eaton, 2016a). Given the large numbers encountered in trade, and the disappearance of the species in Viet Nam, legal protection for this species in Viet Nam is recommended, along with follow-up monitoring of wild populations and domestic and international trade of this species.

White-eyes *Zosterops* species

Three species of white-eyes were recorded during the survey; all are classified as Least Concern on the IUCN Red List. The majority (87%; 775 individuals) comprising Japanese White-eye, the most abundant native *Zosterops* in Viet Nam, followed by Oriental White-eye (98 individuals) and Chestnut-flanked White-eye (18 individuals). Unsurprisingly, and an indicator of them being locally caught as this species is absent from central and north Viet Nam, all Oriental White-eyes recorded were in HCMC. On the other hand, 33% of the Japanese White-eyes, a species absent from south Viet Nam, were recorded in HCMC—another example of the trade from north to south, indicating a domestic demand for this species in its non-native range within the country despite the availability of the closely-related and native Oriental White-eye. Trapping has rendered the Japanese White-eye rare in Ha Noi with flocks of this previously common bird no longer seen (Eames, J. C. *in litt.*).

As has been noted in previous market surveys elsewhere in Southeast Asia, white-eyes are traded in massive numbers, for example: Jakarta markets in 2014 (2392 individuals, Chng *et al.*, 2015), East Java in 2015 (3538 individuals, Chng and Eaton, 2016a), and Singapore pet shops in 2015 (6473 individuals, Eaton *et al.*, 2016). Due to potential taxonomic rearrangements (Moyle *et al.*, 2009), these species should be closely monitored, and where possible, identified to subspecific levels.





White-rumped Shama

Classified as Least Concern on the IUCN Red List, with a decreasing population trend. Another widespread species, found from the Indian Subcontinent to the Greater Sundas, with several Indonesian subspecies already in severe decline and possibly even extinct due to capture for the bird trade (Eaton *et al.*, 2015). A total of 229 were encountered during this survey (the eighth most numerous species). All birds observed appeared to be of the native subspecies *interpositus*. Given the numbers encountered during this and other recent surveys, i.e. 141 in Singapore (Eaton *et al.*, 2017) and 485 in two bird market surveys on Java, Indonesia (Chng *et al.*, 2015, Chng and Eaton, 2016a), a further trade-driven decline in White-rumped Shama wild populations seems inevitable. A recent conservation genomic study found that Singapore's population comprises largely of *interpositus* birds from mainland Southeast Asia (Ng *et al.*, 2017), and there is documentation of smuggling of the species into Singapore from Viet Nam (Immigrations and Checkpoints Authority Singapore, 2015), indicating trapping from Viet Nam to supply international demand. Legal protection for this species in Viet Nam could be considered.



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Vietnamese and Indochinese endemics

Four individuals of the range-restricted, regional endemic Indochinese Green Magpie *Cissa hypoleuca* were observed in HCMC in this study. Although this was the only range-restricted endemic observed, Le and Craik (2016) recorded nine threatened and Near Threatened species, five of which were range-restricted Vietnamese and Indochinese endemics in casual observations and cautioned that the number of endangered and endemic species traded across the country would be higher and potentially a cause for concern. On recent visits to the Da Lat region by one of the authors (JAE), Orange-breasted Laughingthrush *Stactocichla annamensis*, a range-restricted Vietnamese endemic, were observed to be kept in cages; the poor condition of the birds and queries to the bird owners indicated that they were trapped from the forest. He also observed trappers targeting Orange-breasted Laughingthrush using decoy birds (pers. obs. February 2010). This species was also recorded for sale in Da Lat by Le and Craik (2016). Although this species is currently listed as Least Concern on the IUCN Red List (2016), these observations coupled with anecdotal declines in wild sightings in recent years (JAE) indicate that the information it is based on may be outdated (with the latest cited information dating 2007) and a re-assessment be considered using new information. Protection for such species is therefore recommended due to their vulnerability to overexploitation.

Prices

Although no prices were obtained during the physical surveys, prices were quoted in VND in 119 out of 137 advertisements found during the rapid e-commerce wildlife trade assessment carried out by TRAFFIC in June 2016 (Nguyen and Willemsen, 2016). The total value for all live birds being offered for sale recorded in that study was just under USD20 000 (VND22 301 = USD1 on xe.com on 1 July 2016), with the highest price being asked USD1794 for an albino Oriental Magpie-robin *Copsychus saularis*.

Trade routes and seizures

From 2010 to June 2016, there were at least 29 bird seizures in Viet Nam, 25 of which involved domestic trade. The sizes of seizures varied, ranging from one Black Kite *Milvus migrans* (thanhniennews.com, 2016) to 450 kg Black-crowned Night Herons *Nycticorax nycticorax* (approximately 500 birds) and 6.5 kg Collared Owlets *Glaucidium brodiei* (approximately 65 birds) (FPD, 2014), most likely traded for their meat. Based on a news report, the Forest Protection Department (FPD) in the north central province of Thanh Hoa confiscated approximately 2000 birds from ten different enforcement events on National Highway 1, the trans-Viet Nam highway running along the country, in just seven months during 2012 (Thanh Hoa FPD, 2012). Although in previous studies stallholders said that most of the birds were obtained in the southern provinces, such seizures combined with the presence of species limited to the north observed for sale in southern HCMC further indicates the cross-country movement of birds (Eames, 1991; Craik, 1998).

Four out of the 29 reported bird seizures are cross-border trade between Viet Nam and Cambodia, mainland China, Taiwan, Thailand, and the US with Viet Nam being both a source and destination country. However, it is not clear if noteworthy volumes of birds trapped in Viet Nam are currently being exported for sale in neighbouring countries, as many of the ranges of native species overlap with these countries/territories. Nash (1993) and Edmunds *et al.* (2011) reported traders in Singapore buying birds from Viet Nam, cross-border trade with mainland China as well as numerous species sold in Viet Nam being sourced from other countries in the region, including Malaysia, Lao PDR, Thailand and Indonesia. On the other hand, there appears not to be a strong bird-keeping culture in Cambodia and Lao PDR, with little current interest in keeping singing birds or in bird singing competitions (Eames, J. C. and Mahood, S. *in litt.*).



Legislation and enforcement

More bird species should be protected, where trade has been shown to contribute to their decline. Currently, only bird species in Group IB are fully protected under Decree 32 from any exploitation, but the majority of bird species observed in trade, including species of concern such as raptors, Chinese Hwamei, White-rumped Shama, range-restricted endemic species and species assessed as threatened by the IUCN Red List, do not fall under any protection. The Forest Protection Department leader in Long An Province had noted that many bird species found in the market were not yet protected and that the department “proposed to add these bird and stork species into the list of protected wildlife” (Phap Luat Online, 2016).

The Penal Code No. 100/2015/QH13 along with Law No. 12/2017/QH14, both come into force on 1/1/2018, will extend protection under criminal law to also include species in Group II and in the CITES Appendices I and II. Regardless, this updated regulatory framework will not provide sufficient coverage for the current unsustainable trade of bird species, as the majority of the species of birds found in this survey do not fall under any protection of CITES and National Laws.

Even when the bird species fall under protection, the ineffective law enforcement and low fines do not deter illegal activities. TRAFFIC’s data of bird seizures in Viet Nam demonstrates that from 2010 to June 2016, 27 bird seizures and their perpetrators have come under the authority of the Vietnamese Civic law. Of these, only seven cases resulted in administrative fines for the suspect with the maximum fine of VND42 million (USD2100) (ENV, 2011). In a recent example, in March 2016 a seller of 100 protected birds was fined only VND3 million (USD 135) and his birds were confiscated (Zing News, 2016).

Another challenge causing ineffective enforcement is the lack of bird identification skills by law enforcement officers (Brooks-Moizer *et al.*, 2008). This is potentially a serious problem as various common bird species are permitted for commercial farming under Circular 47/2012/TT-BNNPTNT, and wildlife farms are believed to be deliberately mis-declaring wild-caught animals, including protected ones, as farmed ones to circumvent the laws (WCS/FPD, 2008; ENV, 2016).

An emerging challenge in Viet Nam is online trade. During the rapid assessment of wildlife e-commerce trade in 2016 (Nguyen and Willemsen, 2016), 74% of advertisements (a total of 180) offered live birds. Seven advertisements reported the provenance of the birds as from the wild. E-commerce is regulated by a wide range of laws and regulations, including the Law 51/2005/QH11 on Electronic Transactions and Decree 52/2013/ND-CP on e-commerce. These prohibit the trade in prohibited goods, which could include regulated bird species. However, for the enforcement of the illegal online trade, agencies require physical evidence, website posts and IP addresses are not considered sufficient evidence.

Ranching

The large numbers of sub-adult Pied Bush Chats and Red-breasted Parakeets observed were possibly wild-sourced or ranched, where nest sites are monitored and nestlings collected and hand-reared, rather than captive-bred. These species nest in conspicuous places where eggs or hatchlings can easily be collected, providing little monetary incentive for captive breeding over wild sourcing and therefore rendering that unlikely. Furthermore, there is no evidence of commercial captive breeding of these species in Viet Nam or other Southeast Asian countries. This is corroborated by Craik (1998), who indicated that nestlings of species such as Oriental Magpie-robins, Pied Bush Chats, Oriental Skylarks, mynas and parakeets are often removed from nests in the wild and hand-reared, with these tamed birds even offered for higher prices. While well-managed ranching programmes are potentially a more sustainable option to source certain species compared to straight out trapping (Beissinger and Bucher, 1992), unregulated off-take from wild nests will have significant negative impacts on wild populations (Beissinger and Bucher, 1992; Wright *et al.*, 2001; Pain *et al.*, 2006).

Circular 47/2012/TT-BNNPTNT Regulating the Management of wild exploitation and farming of common wild animals applies to nine bird species, of which one was observed in this study. These species can be collected from the wild and/or farmed when permits have been issued for each individual case of collection from the wild, or species bred. This offers opportunity for law enforcement action in the case of unpermitted trade of these nine species. However, the capacity of permitting and monitoring the application of this circular by the implementing authorities—the Viet Nam Administration of Forestry and the Forest Protection Department (under the Ministry of Agriculture and Rural Development) and the local People’s Committees—are unclear. The development of a regulatory framework for the permitting and certification of captive breeding of birds, including species not listed under Circular 47, would allow for improved monitoring of commercial captive breeding activities and regulate off-take of parent stock, eggs and chicks from the wild.



A nest with chicks taken from the wild

CONCLUSION AND RECOMMENDATIONS

Large-scale bird trade persists in Ha Noi and HCMC in Viet Nam. Almost all birds recorded were native to Viet Nam, indicating that the bulk of bird trade by physical vendors is domestic. There is certainly domestic movement of birds within Viet Nam as well as some degree of cross-border trade, but it is currently unclear if noteworthy volumes of cross-border trade in birds to or from Viet Nam is taking place.

In terms of law enforcement, approximately 90% of the birds observed in this inventory fall outside national protection. Findings from this and previous studies suggest some species that are currently unprotected may be threatened by trade, particularly the range-restricted Vietnamese endemics. Native parakeets, although protected under Decree 32, were still traded in large numbers. The general lack of effective law enforcement in Viet Nam is hampered by the lack of species identification skills amongst law enforcement officers. Additionally, an emerging challenge for enforcement officers is the increase in trade carried out online, which presents far more complications and challenges than trade carried out in open shops and vendors. TRAFFIC recommends the following:

Legislation and Enforcement

- The Viet Nam Government is urged to strengthen existing legislation to include the means to monitor and regulate the harvest and trade of all wild-caught species to ensure that it does not threaten the survival of species. Currently only bird species listed in Decree 32's Group IB and IIB receive protection from overharvest and commercial trade — this currently covers a mere 10% of native birds recorded in this survey.
- Following from the above, the Viet Nam Government is urged to update and reassess the protected species list (and introduce regulatory mechanisms) under the Penal Code No. 100/2015/QH13 and Law No. 12/2017/QH14 in conjunction with NGOs and other experts in the field to include species threatened by trade in Viet Nam according to the IUCN Red List, such as all native parakeet species, Chinese Hwamei *Garrulax canorus*, Red-billed Leiothrix *Leiothrix lutea*, White-rumped Shama *Copsychus malabaricus*, Red-whiskered Bulbul, range-restricted endemic species and species assessed as threatened by the IUCN Red List. This exercise should consider threats to birds in the country and be used and updated accordingly to contribute to the CITES Appendices and IUCN Red Listing processes. As laws are strengthened and regulatory mechanisms are introduced, the Viet Nam Government is urged to carry out effective monitoring and enforcement actions at locations that sell birds; where a violation takes place, action should be taken to ensure penalties meted out can act as a deterrent.
- The relevant departments under the Ministry of Agriculture and Rural Development, including the Viet Nam Administration of Forestry and the Forest Protection Department, and other stakeholders such as the local provincial People's Committees, are recommended to amend the current regulatory framework for the permitting and certification for the exploitation and farming of common wild animals—Circular 47— to cover all wild bird species and include a clear monitoring mechanism for properly permitted captive breeding facilities.
- Capacity building for law enforcement agencies is recommended as they report a lack of identification skills to distinguish between common and threatened bird taxa. Law enforcement agencies include but are not limited to the Forest Protection Department (under the Ministry of Agriculture and Rural Development), Customs (Ministry of Finance) and Environmental Police (Ministry of Public Security). The means to identify species commonly

seen in trade, and relevant training and support can be provided by local wildlife experts and conservation non-governmental organizations (NGOs) including TRAFFIC.

Monitoring

- While full inventories are important to gain a picture of the species and volumes of birds involved in trade, they are challenging to carry out regularly. Instead, regular monitoring of priority and indicator species over a period of time should be conducted. This is not only a cost-effective way to monitor the conservation status of key species of concern but also important in uncovering market dynamics, prioritizing management or regulation actions and forming the evidence base for making informed decisions concerning trade levels. It is therefore recommended that monitoring of wildlife markets and vendors is continued by NGOs and researchers. This information should be used to support law enforcement efforts and feed accordingly into the *Conservation Strategy for Southeast Asian Songbirds in Trade*.
- Price data and source of birds (wild-caught or captive-bred) should also be noted where possible, to better understand trade trends and dynamics in order to inform conservation actions. Where relevant and possible (especially where subspecies are known to be range-restricted and/or vulnerable to offtake), individual birds observed should be recorded to subspecies level to account for conservation units, taxonomic updates and to determine source areas. For instance, white-eyes *Zosterops* sp. which are traded in large numbers across the region are likely to face taxonomic rearrangements; monitoring at the subspecies level will help inform the assessments of threats faced by each conservation unit.
- Customs, quarantine and port officials are recommended to increase vigilance in monitoring and detecting cross-border trade at checkpoints and around border areas, both for importation and exportation to help provide information about the levels of such trade.

Reducing consumer demand

- Commissioning consumer market research is recommended to gain an understanding of the motivations and practices of those purchasing birds at these markets. This can help with the development of information for awareness raising and developing targeted messaging aimed at changing the behaviour of those consumers purchasing birds from illegal and / or unsustainable sources.

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APPENDIX

Full list of birds observed during this inventory.

*VN native protected species; ^non-native CITES listed; IUCN Red List status is listed behind English name for threatened and NT species

English name	Scientific name	Number of shops	Number of birds
Hanoi		276	3378
Scaly-breasted Munia	<i>Lonchura punctulata</i>	9	596
Japanese White-eye	<i>Zosterops japonicus</i>	17	516
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	25	444
Spotted Dove	<i>Spilopelia chinensis</i>	22	248
Eurasian Tree Sparrow	<i>Passer montanus</i>	5	221
Chinese Hwamei	<i>Garrulax canorus</i>	20	206
White-rumped Munia	<i>Lonchura striata</i>	7	161
Pied Bush Chat	<i>Saxicola caprata</i>	4	151
*Red-breasted Parakeet NT	<i>Psittacula alexandri</i>	12	133
*White-rumped Shama	<i>Copsychus malabaricus</i>	15	104
Red-billed Starling	<i>Sturnus sericeus</i>	6	99
Oriental Magpie-Robin	<i>Copsychus saularis</i>	21	92
Black-throated Laughingthrush	<i>Garrulax chinensis</i>	16	77
Silver-eared Mesia	<i>Leiothrix argentauris</i>	10	50
Oriental Skylark	<i>Alauda gulgula</i>	5	45
Red-billed Leiothrix	<i>Leiothrix lutea</i>	11	45
Crested Myna	<i>Acridotheres cristatellus</i>	11	27
Common Myna	<i>Acridotheres tristis</i>	7	24
Chestnut-flanked White-eye	<i>Zosterops erythropleurus</i>	2	16
Lesser Necklaced Laughingthrush	<i>Garrulax monileger</i>	5	16
White-crested Laughingthrush	<i>Garrulax leucolophus</i>	6	16
Zebra Finch	<i>Taeniopygia guttata</i>	1	16
Golden-fronted Leafbird	<i>Chloropsis aurifrons</i>	2	13
Himalayan Black Bulbul	<i>Hypsipetes leucocephalus</i>	3	9
Sooty-headed Bulbul	<i>Pycnonotus aurigaster</i>	4	6
*Alexandrine Parakeet NT	<i>Psittacula eupatria</i>	1	5
*Common Hill Myna	<i>Gracula religiosa</i>	4	5
Oriental Turtle Dove	<i>Streptopelia orientalis</i>	4	5
Black-collared Starling	<i>Gracupica nigricollis</i>	2	3
Light-vented Bulbul	<i>Pycnonotus sinensis</i>	2	3
Red-billed Blue Magpie	<i>Urocissa erythroryncha</i>	1	3
Scarlet Minivet	<i>Pericrocotus speciosus</i>	1	3
Black-crested Bulbul	<i>Pycnonotus flaviventris</i>	1	2

Black-faced Bunting	<i>Emberiza spodocephala</i>	2	2
Grey-capped Greenfinch	<i>Chloris sinica</i>	1	2
Japanese Tit	<i>Parus minor</i>	1	2
^Java Sparrow VU	<i>Lonchura oryzivora</i>	1	2
Racket-tailed Treepie	<i>Crypsirina temia</i>	1	2
*White-cheeked Laughingthrush	<i>Garrulax vassali</i>	2	2
*Blossom-headed Parakeet NT	<i>Psittacula roseata</i>	1	1
Dusky Warbler	<i>Phylloscopus fuscatus</i>	1	1
Flavescent Bulbul	<i>Pycnonotus flavescens</i>	1	1
Hodgson's Hawk Cuckoo	<i>Hierococcyx nasicolor</i>	1	1
Rufous-cheeked Laughingthrush	<i>Garrulax castanotis</i>	1	1
Taiga Flycatcher	<i>Ficedula albicilla</i>	1	1
Ho Chi Minh City		333	4669
Scaly-breasted Munia	<i>Lonchura punctulata</i>	6	1115
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	20	797
*Red-breasted Parakeet NT	<i>Psittacula alexandri</i>	13	282
Japanese White-eye	<i>Zosterops japonicus</i>	8	259
Pied Bush Chat	<i>Saxicola caprata</i>	10	235
Chinese Hwamei	<i>Garrulax canorus</i>	13	203
Chestnut Munia	<i>Lonchura atricapilla</i>	5	175
*White-rumped Shama	<i>Copsychus malabaricus</i>	10	125
Oriental Magpie-Robin	<i>Copsychus saularis</i>	9	117
Spotted Dove	<i>Spilopelia chinensis</i>	11	112
King Quail	<i>Excalfactoria chinensis</i>	5	111
Black-throated Laughingthrush	<i>Garrulax chinensis</i>	16	107
Golden-fronted Leafbird	<i>Chloropsis aurifrons</i>	4	103
Oriental White-eye	<i>Zosterops palpebrosus</i>	2	98
Common Myna	<i>Acridotheres tristis</i>	10	63
Ashy Tailorbird	<i>Orthotomus ruficeps</i>	4	56
Silver-eared Mesia	<i>Leiothrix argentauris</i>	10	52
White-headed Munia	<i>Lonchura maja</i>	5	46
Scarlet Minivet	<i>Pericrocotus speciosus</i>	4	45
Zebra Dove	<i>Geopelia striata</i>	2	33
*Common Hill Myna	<i>Gracula religiosa</i>	8	29
Great Myna	<i>Acridotheres grandis</i>	7	25
Red-billed Leiothrix	<i>Leiothrix lutea</i>	5	25
Orange-bellied Leafbird	<i>Chloropsis hardwickii</i>	1	24
Eurasian Hoopoe	<i>Upupa epops</i>	4	23
^Java Sparrow VU	<i>Lonchura oryzivora</i>	2	22
Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>	4	20

Vinous-breasted Myna	<i>Acridotheres burmannicus</i>	5	20
*Blossom-headed Parakeet NT	<i>Psittacula roseata</i>	5	19
Lesser Necklaced Laughingthrush	<i>Garrulax monileger</i>	5	17
Oriental Skylark	<i>Alauda gulgula</i>	5	17
White-bellied Erpornis	<i>Erpornis zantholeuca</i>	1	16
White-rumped Munia	<i>Lonchura striata</i>	4	16
Thick-billed Green Pigeon	<i>Treron curvirostra</i>	1	14
*White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	2	14
Black-collared Starling	<i>Gracupica nigricollis</i>	4	13
Black-winged Kite	<i>Elanus caeruleus</i>	4	12
*Alexandrine Parakeet NT	<i>Psittacula eupatria</i>	5	11
Racket-tailed Treepie	<i>Crypsirina temia</i>	4	11
White-crested Laughingthrush	<i>Garrulax leucolophus</i>	5	11
*White-cheeked Laughingthrush	<i>Garrulax vassali</i>	3	10
White-shouldered Starling	<i>Sturnia sinensis</i>	2	10
*Vernal Hanging Parrot	<i>Loriculus vernalis</i>	1	8
Asian Fairy Bluebird	<i>Irena puella</i>	1	7
Baya Weaver	<i>Ploceus philippinus</i>	2	7
Common Moorhen	<i>Gallinula chloropus</i>	2	7
*Grey-headed Parakeet NT	<i>Psittacula finschii</i>	2	7
House Sparrow	<i>Passer domesticus</i>	1	7
Zebra Finch	<i>Taeniopygia guttata</i>	2	7
Red-billed Blue Magpie	<i>Urocissa erythroryncha</i>	4	6
Scarlet-backed Flowerpecker	<i>Dicaeum cruentatum</i>	4	6
*Greater Coucal	<i>Centropus sinensis</i>	2	5
Black-chinned Yuhina	<i>Yuhina nigrimenta</i>	1	4
Common Green Magpie	<i>Cissa chinensis</i>	2	4
Indochinese Green Magpie	<i>Cissa hypoleuca</i>	2	4
Spot-throated Babbler	<i>Pellorneum albiventris</i>	2	4
Blue-throated Flycatcher	<i>Cyornis rubeculoides</i>	1	3
Chestnut-tailed Starling	<i>Sturnia malabarica</i>	2	3
*Chinese Francolin	<i>Francolinus pintadeanus</i>	1	3
*Crested Serpent Eagle	<i>Spilornis cheela</i>	2	3
*Silver Pheasant	<i>Lophura nycthemera</i>	2	3
Black-backed Swamphen	<i>Porphyrio indicus</i>	1	2
Black-crested Bulbul	<i>Pycnonotus flaviventris</i>	2	2
^Chattering Lory VU	<i>Lorius garrulus</i>	1	2
Chestnut-flanked White-eye	<i>Zosterops erythropleurus</i>	2	2
Crimson Rosella	<i>Platycercus elegans</i>	1	2
Diamond Dove	<i>Geopelia cuneata</i>	1	2

^Eastern Rosella	<i>Platycercus eximius</i>	1	2
^Eclectus Parrot	<i>Eclectus roratus</i>	1	2
Eurasian Jay	<i>Garrulus glandarius</i>	2	2
Green-backed Tit	<i>Parus monticolus</i>	2	2
Light-vented Bulbul	<i>Pycnonotus sinensis</i>	1	2
Long-tailed Minivet	<i>Pericrocotus ethologus</i>	1	2
^Pale-headed Rosella	<i>Platycercus adscitus</i>	1	2
^Princess Parrot NT	<i>Polytelis alexandrae</i>	1	2
Ruby-cheeked Sunbird	<i>Chalcoparia singalensis</i>	1	2
Rufous-backed Sibia	<i>Heterophasia annectans</i>	1	2
Shrika	<i>Accipter badius</i>	1	2
Superb Parrot	<i>Polytelis swainsonii</i>	1	2
Black-headed Woodpecker	<i>Picus erythropygius</i>	1	1
Black-hooded Oriole	<i>Oriolus xanthornus</i>	1	1
Blue-bearded Bee-eater	<i>Nyctyornis athertoni</i>	1	1
Brahminy Kite	<i>Haliastur indus</i>	1	1
Changeable Hawk-Eagle	<i>Niseatus cirrhatus</i>	1	1
Common Tailorbird	<i>Orthotomus sutorius</i>	1	1
Crested Honey Buzzard	<i>Pernis ptilorhyncus</i>	1	1
Gouldian Finch NT	<i>Erythrura gouldiae</i>	1	1
Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	1	1
Greater Yellownap	<i>Chrysophlegma flavinucha</i>	1	1
Indian Roller	<i>Coracias benghalensis</i>	1	1
Large-billed Crow	<i>Corvus macrorhynchos</i>	1	1
Masked Laughingthrush	<i>Garrulax perspicillatus</i>	1	1
Mrs. Gould's Sunbird	<i>Aethopyga gouldiae</i>	1	1
Pied Harrier	<i>Circus melanoleucos</i>	1	1
*Red Junglefowl	<i>Gallus gallus</i>	1	1
Streak-eared Bulbul	<i>Pycnonotus conradi</i>	1	1
Streaked Weaver	<i>Ploceus manyar</i>	1	1
^Sun Parakeet EN	<i>Aratinga solstitialis</i>	1	
Tickell's Blue Flycatcher	<i>Cyornis tickelliae</i>	1	1
Verditer Flycatcher	<i>Euymias thalassinus</i>	1	1
*Watercock	<i>Gallixrex cinerea</i>	1	1
Total		609	8047

TRAFFIC, the wildlife trade monitoring network, is the leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

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