TRAFFIC

October 2022

FARMED OR POAGHED?

THE TRADE OF LIVE INDONESIAN BIRD SPECIES IN THE PHILIPPINES

Emerson Y. Sy Josef Job G. Raymundo Serene C.L. Chng

TRAFFIC REPORT

ABOUT US

TRAFFIC is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

Reproduction of material appearing in this report requires written permission from the publisher.

The designations of geographical entities in this publication, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of TRAFFIC or its supporting organisations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

PUBLISHED BY:

TRAFFIC

Southeast Asia Regional Office, Suite 12A-01, Level 12A, Tower 1, Wisma AmFirst, Jalan Stadium SS7/15, Kelana Jaya 47301 Petaling Jaya, Selangor, Malaysia.

SUGGESTED CITATION

Sy, E.Y., Raymundo, J.J.G. and Chng, S.C.L. (2022). Farmed or poached? The trade of live Indonesian bird species in the Philippines.

TRAFFIC, Southeast Asia Regional Office, Petaling Jaya, Selangor, Malaysia.

© TRAFFIC 2022. Copyright of material published in this report is vested in TRAFFIC.

UK Registered Charity No. 1076722

DESIGN

Ain Bukhri



ACKNOWLEDGEMENTS

We thank the DENR-BMB, DENR Region NCR, III, VII, XI, XII, and XIII for providing seizure records; Priyanka Suri, Jessica Lee, Elizabeth John, Kanitha Krishnasamy, Thomasina Oldfield and Melissa Matthews for providing constructive comments on an earlier draft; Jessica Lee and Simon Purser for assisting in species identification; and Maria Katrina Constantino, Reynaldo Cruz, Reyman Rusty Jayme, Raymond Dan, Eden Jhan Licayan, and David Escarda for providing photos.

This study is part of a wildlife trade research program in the Philippines that is generously supported by a donor who wishes to remain anonymous.

CONTENTS

ANNEX

page 6 **EXECUTIVE SUMMARY** page 9 INTRODUCTION page 12 **METHODOLOGY** page 15 **RESULTS** Online trade 15 Seizures 22 CITES Trade Data 26 page 31 DISCUSSION CITES-listed bird species recorded in online surveys 32 Where could the birds be from? 34 Role of breeding facilities 39 Species examples 40 Why is this a conservation concern? 43 page 46 **CONCLUSION AND RECOMMENDATIONS** page 49 REFERENCES References 49 Image credits 50 page 51

INDONESIAN BIRD SPECIES SOLD IN OR EXPORTED FROM THE PHILIPPINES

Despite the fact that it is illegal to import wildlife into the Philippines without permits, Indonesian bird species are nonetheless listed for sale, are seized there, and are exported from the country.





ONLINE TRADE

CONFISCATION

JAN 2018

2 VEAR

DFC 2019

2010

10 YEARS

2019

841

Indonesian birds

25

species recorded

1,299

Indonesian birds seized in the Philippines



CITES TRADE DATA



8,871

Indonesian birds reported exported from the Philippines; most declared as captive-bred



94%

of CITES-listed Indonesian bird species exported from the Philippines could not be traced to records showing legal acquisition



SO, WHAT'S THE PROBLEM?



MANY ONLINE SELLERS AND BUYERS

operate without required permits and deal in illegally-sourced birds



POACHED BIRDS ARE ONE OF THE SOURCES

of captive breeding and exporting facilities in the Philippines



SMUGGLING OF ENDEMIC WILDLIFE SPECIES FROM EASTERN INDONESIA TO THE PHILIPPINES IS A WELL-DOCUMENTED PHENOMENON

A portrait of a Moluccan Cockatoo Cacatua moluccensis





This report presents data on the trade of Indonesian bird species (native to Indonesia and do not occur naturally in the Philippines) in the Philippines and the related issues. TRAFFIC researchers drew from online trade findings, seizure records of Indonesian bird species in the Philippines and Indonesia, and CITES import and export records for live Indonesian birds involving the Philippines, to elucidate the dynamics.

ONLINE TRADE

Online trade surveys from January 2018 to December 2019 recorded 501 unique posts involving a minimum of 841 live Indonesian birds offered for sale by 182 traders in 20 Facebook groups. Of the 25 identified species, 21 species (84%) belong to the order Psittaciformes, and 24 are regulated by CITES. Three of the five CITES Appendix I-listed species were among the top 10 species recorded in trade by quantity. More than half of the posts (56.5%) were suspected to include wild-caught birds.

The 182 online sellers offering Indonesian bird species were located across the Philippines, but dominated by Luzon-based sellers, with over a third recorded from the National Capital Region (NCR). A small number of traders dominated the online market for Indonesian bird species in the Philippines – the top 14 sellers offered a total of 424 (50.4%) birds while the remaining 168 sellers offered an average of 2.48 birds per seller.

DISCREPANCIES IN CITES TRADE DATA

CITES trade data for Philippine imports of Indonesian bird species between 1979 and 2019 showed massive discrepancies between exporter-reported and importer-reported quantities. While there were 8,295 birds of 58 species reported by exporters, just 1,034 birds of 21 species were reported by the Philippines. The Philippines reported exporting 8,871 live Indonesian birds belonging to 51 species, again mostly Psittaciformes. These exports peaked in the 1990s, fell in the 2000s and rose again in the 2010s. The vast majority (95.6%) of the Philippine-exported Indonesian birds were declared as captive bred (source code C).

A closer look into individual species found inconsistencies that bring into question the legality of animals allegedly bred within the country for export. Among the 51 Philippineexported CITES-listed Indonesian birds, 48 species had no source or insufficient records of legal import into the Philippines, or export commenced prior to the first reported legal importation. The Philippines also exported six CITES Appendix I-listed species, despite there being no CITES-registered captive breeding operations for these Indonesian birds.

ILLEGAL TRADE **AND SOURCING CONCERNS**

It is possible that some of the birds could have been captive-bred within the Philippines. However, a wildlife farm permit (WFP) is required to breed and sell wildlife, and a number of entities who breed Indonesian parrot species for sale are suspected to not hold a WFP. Additionally, some species such as Palm Cockatoo Probosciger aterrimus, fig parrots Psittaculirostris spp., Great-billed Parrot Tanygnathus megalorynchos and Pesquet's Parrot Psittrichas fulgidus are challenging to breed in captivity. This and an absence of CITES records proving legal import of parent stock into the country give credence to suspicions that at least some of the Indonesian birds traded in or from the Philippines are wild caught in Indonesia and smuggled into the country. One tell-tale sign is the poor condition of adult birds offered for sale. Another is the interception of smuggling of endemic wildlife from eastern Indonesia to the Philippines.

Wildlife authorities in the Philippines recorded 27 seizures involving 1,299 Indonesian birds

belonging to at least 28 species between 2010 and 2020. More than half the Indonesian birds seized in the Philippines (58.2%) were confiscated in 2018-2019. Psittacines were the most seized birds by quantity (87%), as well as frequency (24 incidents; 89%).

In addition to direct sale to buyers, wildcaught smuggled birds are laundered into the legal trade streams through captive breeding facilities in the Philippines. This has legal implications, particularly for CITES-listed species, and conservation implications on threatened Indonesian bird populations. Crucially, the smuggling of Indonesian birds into the Philippines carries avian health risks. Indonesia is an avian influenza endemic country, but the Philippines is not, which is why many countries import live birds from the Philippines. The Philippines' avicultural, poultry, and associated industries are therefore placed at risk of avian influenza and other infectious diseases when such smuggling takes place.

WAYS FORWARD

- Focus enforcement efforts on central Luzon (NCR, Region III, and IV-A) where majority of traffickers are concentrated, and southeastern Mindanao (XI, XII, and XIII) where traffickers transit to transport smuggled Indonesian wildlife.
- Conduct regular and thorough physical check and document audits of all registered keepers and breeders of Indonesian wildlife in the Philippines.
- Build on existing collaboration by Philippine and Indonesian authorities to break wildlife crime networks smuggling

- Indonesian wildlife into the Philippines and expedite the repatriation of Indonesian wildlife seized in the Philippines.
- Enhance monitoring and detection of illegal wildlife trade on Facebook, ensure swift and stern action against those who violate Facebook's policies, by suspending or deactivating individual accounts, permanently shutting down groups involved in illegal wildlife trade, and hold administrators of such groups accountable.







A variety of parrot species from the Wallacean region such as the Palm Cockatoo Probosciger aterrimus, Sulphur-crested Cockatoo Cacatua galerita, Moluccan Eclectus Eclectus roratus, Chattering Lory Lorius garrulus, and Coconut Lorikeet Trichoglossus haematodus are popular with collectors and traded worldwide (Schubot et al., 1992; Low, 1993; Forshaw, 2010). Such smuggling occurs despite prohibition by Philippine laws to import and trade wildlife without a permit. In Indonesia, many of these species are protected and illegal to trap, trade, and export, while others are regulated under a harvest and export quota system.

On the Philippine side, authorities such as the Department of Environment and Natural Resources (DENR), Philippine National Police (PNP), and National Bureau of Investigation (NBI) have conducted numerous seizures of smuggled Indonesian wildlife while in transit or at facilities of illegal traders. Between 1996 and 2004, the DENR-Biodiversity Management Bureau (DENR-BMB; formerly Protected Areas and Wildlife Bureau [PAWB]) seized 354 Indonesian parrots representing 11 species (Shepherd, 2005). Wildlife smugglers reportedly use sea vessels to transport live animals from eastern Indonesia (Profauna, 2008) to southern Philippines, in the Municipality of Glan (Sarangani Province), General Santos City (South Cotabato Province), Municipality of Sarangani (Balut Island; Davao Occidental Province), and Mati City (Davao Oriental Province) (Lepiten-Tabao & Tabaranza, 2003; Bajo, 2006; Sy, 2021). Despite wildlife law enforcement efforts by the authorities,

some shipments have eluded detection. These were then offered for sale in physical shops or online especially in the National Capital Region (NCR; also known as Metro Manila) on Luzon Island and other major cities with thriving wildlife black markets (e.g. Canlas et al., 2017; Sy, 2018).

This issue has periodically captured the attention of both Indonesian and Philippine authorities, and some concerted efforts have been taken. A meeting to discuss Indonesian wildlife smuggling into the Philippines was organised by the Haribon Foundation and the DENR-BMB in Davao City, Davao del Sur Province on 25-26 June 2004. Government agencies and non-governmental organisations from Indonesia and the Philippines met to develop international cooperation to tackle the illegal wildlife trade between the two countries, particularly in Indonesian parrots (Shepherd, 2005). Recommendations included a joint patrolling agreement and improved bilateral coordination. While some bilateral communication had taken place around specific seizure incidents in southern Philippines since then, there were no sustained joint actions by authorities in both countries.

To revitalise the cooperation, Tasikoki Wildlife Centre organised a Wallacea Regional Enforcement Workshop in Bitung City, North Sulawesi in May 2017. This convened wildlife and enforcement agencies from the Indonesian Wallacea region and international conservationists to discuss ways forward. To augment actions by the Indonesian authorities,

years of live

Indonesian wildlife smuggling to the Philippines has been documented

Burung Indonesia (Burung Indonesia, 2018), Tasikoki Wildlife Rescue Centre and Kakatua Konservasi Indonesia (J. Lee, pers. comm.) initiated anti-poaching projects, and the Wildlife Conservation Society (WCS) provided antismuggling enforcement support in Sulawesi and Maluku (A. Jain, pers. comm.). In the Philippines, seizures of Indonesian wildlife continue to be carried out across the country, demonstrating the authorities' commitment to taking action against this trafficking (TRAFFIC, 2018; TRAFFIC, 2019, Sy, 2021).

This trade is believed to be mostly driven by demand within the Philippines by bird collectors, breeders, and sellers, although there also appears to be wider international demand with re-export of birds from the Philippines as well. In the Philippines, the Republic Act No. 9147 or the Wildlife Resources Conservation and Protection Act of 2001 allows for the possession and trade of wildlife as long as traders can prove legal acquisition (i.e. legal importation; purchased from DENR-registered wildlife farms). All non-native terrestrial wildlife in possession of individuals or enterprises, regardless of their conservation status and Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix listing, must be registered with the DENR. While the wildlife regulation has been implemented since 2004, the majority of wildlife enthusiasts in the Philippines do not comply with the registration requirement of the DENR (Sy, 2018).

Traders have increasingly turned to online platforms to trade wildlife in the last two decades since it offers a wide reach to potential buyers within a short time frame (Krishnasamy and Stoner, 2016; Sy, 2018). Facebook is the main online platform used by legal and illegal wildlife traders in the Philippines due to its popularity and ease of sellers to reach large audiences of potential buyers through groups (Sy, 2018). A rapid one-month survey of 10 Philippine Facebook groups in 2017 documented nine Indonesian bird species offered for sale (Canlas et al., 2017). Following the recording of large volumes of live reptiles offered for sale in Philippine groups (Sy, 2018), TRAFFIC undertook this study to document the online trade in birds.

This report aims to present updated data on the trade of bird species that are native to Indonesia and not the Philippines (henceforth "Indonesian bird species") in the Philippines and the related issues. TRAFFIC researchers drew from online trade findings of bird trade in Philippine Facebook groups, records of birds seized in the Philippines and Indonesia, and CITES import and export records to elucidate the dynamics of Indonesian bird trade in the Philippines.







ONLINE SURVEYS

Twenty pre-selected Philippine Facebook groups specialising in the trade of birds and other wildlife were surveyed from January 2018 to December 2019. The survey was carried out during weekdays (i.e., Monday-Friday) by going through each post in the groups manually. Posts offering to sell or trade (i.e. accepting offers to exchange Indonesian birds for other wildlife/items), endemic and native Indonesian birds were extracted. Species that occur both in Indonesia and the Philippines were presumed to have been sourced in the Philippines and excluded from the analysis. Duplicate posts in several groups were removed from the dataset to avoid double-

counting the same birds. Pertinent information including species, life stage, condition of birds, quantity, and price were noted.

The Java Sparrow Lonchura oryzivora, an endangered endemic Indonesian species, was excluded from the analysis since there are thriving introduced populations in the Philippines. Wild-caught individuals collected in the Philippines are commonly available from ambulant bird vendors (Figure 1), and therefore unlikely to have been smuggled into the Philippines from Indonesia in recent times.



Java **Sparrow** was excluded from the analysis

FIGURE 1 An ambulant bird vendor selling mainly wild caught birds including Java Sparrow near a public market in Manila City. Photo by Emerson Y. Sy/TRAFFIC



Quantity was based on the declared number of available birds by traders or by counting individual birds in posted photographs. Posts without accompanying photographs or no evidence of exact quantity were counted as one individual for each stated species. Species were identified to the lowest taxonomic level whenever possible. Locations of the traders according to regions were deduced based on information listed on the post, Facebook profiles or the listed preferred meeting places.

Where available, price data collected was based on what was posted by the seller. If a post did not indicate the price, the lowest known price recorded during the study period for that species was used as a minimum value. Although the currency exchange rate of the United States Dollar (USD) to Philippine Peso (PHP) fluctuated during the study period, TRAFFIC researchers used USD 1 to PHP 50.7576 (Oanda.com, as of 31 December 2019) throughout the report for uniformity.

SEIZURE RECORDS AND ANALYSIS

Seizure records of Indonesian wildlife in the Philippines were collated from open-source media, published references, and government records covering 2010-2020. A brief overview of seizure records that took place in the eastern Indonesian region (North Sulawesi, Gorontalo, North Maluku, Maluku, West Papua

and Papua provinces), involving Indonesian bird species recorded in trade in the Philippines was also included. This is aimed at providing context and to illustrate the cross-border nature of Indonesian birds sought after in the Philippines.

CITES TRADE DATA ANALYSIS

The CITES Trade Database was searched for records of import, export, and re-export of live Indonesian bird species (i.e. bird species native to Indonesia but not the Philippines) by the Philippines from 1979, when import-export records commenced, to 2019. Trade under purpose codes T (commercial trade), B (breeding), P (personal), Z (zoo), and all source codes except code I (confiscated or

seized specimens) were included. Although the Philippines ratified CITES in 1981, a small number of records prior to this are available from reports from countries who ratified CITES before 1981; these were also included in the analysis for completeness. Unless otherwise specified, Philippines-reported quantities were used in the analysis.



RESULTS

ONLINE TRADE

A total of 501 unique posts involving a minimum of 841 live Indonesian birds¹ were offered for sale by 182 traders in the 20 Facebook groups from January 2018 to December 2019. Among the 25 identified taxa, 21 species (84%) belong to the order

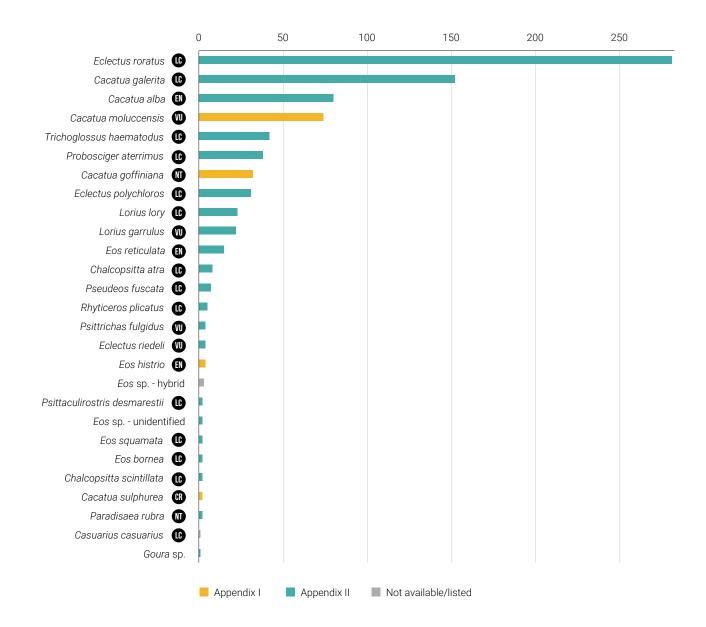
Psittaciformes (Table 1). Five and 19 taxa are listed in CITES Appendix I and II respectively (Table 1). Only the Southern Cassowary Casuarius casuarius is not CITES-listed, but still requires a permit from the DENR to import legally.

TABLE 1 Indonesian bird species recorded for sale in Facebook groups from January 2018 to December 2019

ORDER	FAMILY	ENGLISH NAME	SCIENTIFIC NAME	QUANTITY	NO. OF POSTS	CITES APPENDIX	IUCN RED LIST
Bucerotiformes	Bucerotidae	Papuan Hornbill	Rhyticeros plicatus	5	3	II	LC
Columbiformes	Columbidae	Crowned Pigeon	Goura sp.	1	1	Ш	-
Passeriformes	Paradisaeidae	Red Bird-of-paradise	Paradisaea rubra	2	1	II	NT
Psittaciformes	Cacatuidae	Sulphur-crested Cockatoo	Cacatua galerita	152	94	II	LC
		White Cockatoo	Cacatua alba	80	56	II	EN
		Moluccan Cockatoo	Cacatua moluccensis	74	49	i	VU
		Palm Cockatoo	Probosciger aterrimus	38	25	I	LC
		Tanimbar Corella	Cacatua goffiniana	32	17	I	NT
		Yellow-crested Cockatoo	Cacatua sulphurea	2	1	I	CR
	Psittaculidae (Loriinae)	Coconut Lorikeet	Trichoglossus haematodus	42	21	II	LC
		Black-caped Lory	Lorius lory	23	9	II	LC
		Chattering Lory	Lorius garrulus	22	13	II	VU
		Blue-streaked Lory	Eos reticulata	15	12	II	EN
		Black Lory	Chalcopsitta atra	8	5	II	LC
		Dusky Lory	Pseudeos fuscata	7	4	II	LC
		Red and Blue Lory	Eos histrio	4	2	1	EN
		Lory	Eos sp hybrid	3	2	-	-
		Yellow-streaked Lory	Chalcopsitta scintillata	2	1	II	LC
		Red Lory	Eos bornea	2	1	II	LC
		Violet-necked Lory	Eos squamata	2	1	II	LC
		Lory	Eos sp unidentified	2	2	II	-
		Large Fig Parrot	Psittaculirostris desmarestii	2	1	II	LC
	Psittaculidae (Psittacinae)	Moluccan Eclectus	Eclectus roratus*	281	161	II	LC
		Papuan Eclectus	Eclectus polychoros	31	15	II	LC
		Tanimbar Eclectus	Eclectus riedeli	4	1	II	VU
	Psittrichasiidae	Pesquet's Parrot	Psittrichas fulgidus	4	2	II	VU
Struthioniformes	Casuariidae	Southern Cassowary	Casuarius casuarius	1	1	NL	LC
			TOTAL	841	501		

^{*} Includes both subspecies E.r. roratus and E.r. vosmaeri

One post claimed to have 50 Palm Cockatoos in stock, but lacked accompanying photos. In the absence of credible evidence that the trader had 50 Palm Cockatoos on hand, TRAFFIC researchers counted the post as one individual to avoid inflating the quantity.



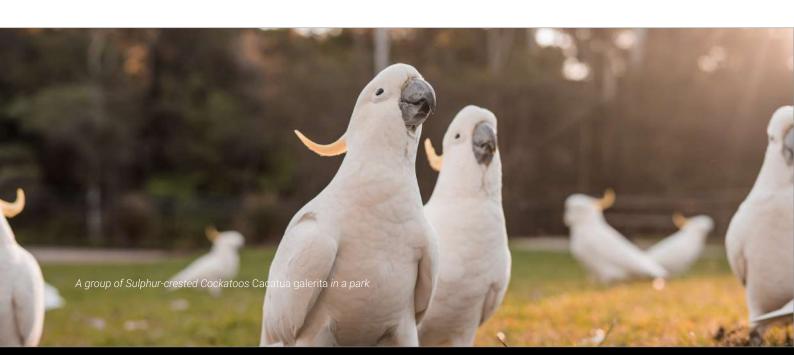


FIGURE 2 The trader described the Pesquet's Parrot, a CITES Appendix II-listed species, as a "Rare bird species".

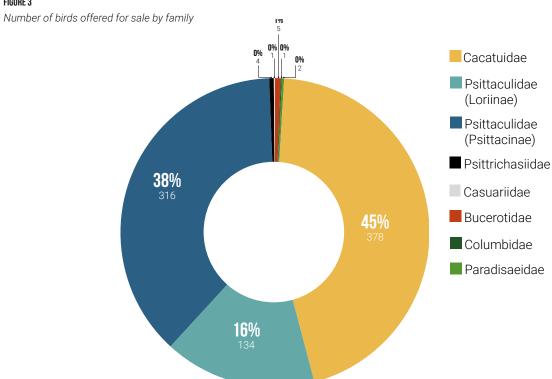




QUANTITY

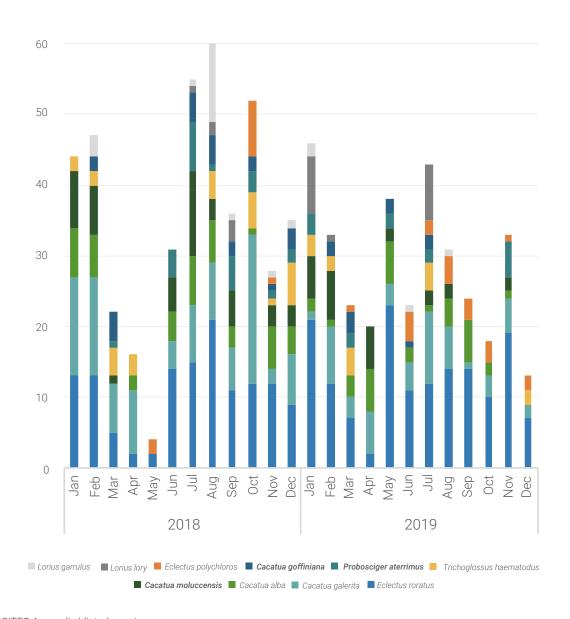
Based on the quantity, parrots (Psittaciformes) dominated with 832 out of 841 individuals (98.9%) (Figure 2-3; Table 1). Three of the five CITES Appendix I-listed species were among the top 10 species recorded in trade.





Only the Moluccan Eclectus was consistently offered for sale across all months during the study period. The Sulphur-crested Cockatoo was offered in 23 out of 24 months, and White Cockatoo was available in 22 months (Figure 4). There was a significant decline in the number of posts and birds offered for sale in April and May 2018. The actual reason is unknown, but one hypothesis is the reduced availability of Indonesian birds after 312 smuggled Indonesian wildlife, including 190 parrots, were seized from a notorious wildlife trafficker's facility in Pasay City, NCR on 13th March 2018 (BMB, Unpubl. seizure record).

FIGURE 4 Top 10 traded Indonesian bird species offered for sale over the 24-month survey period.



*CITES Appendix I-listed species

PRICES

Birds claimed to be DENR-registered, captivebred, established breeding pairs or tamed generally commanded higher prices. A few posts offered "damaged" birds (individuals with health or behavioural issues such as broken

wings and feather-plucking) for noticeably cheaper (Figure 5). Asking prices were generally stable over time, but may be lowered during private negotiations.

"damaged" birds are noticeably cheaper

FIGURE 5

Birds with health or behavioural issues were occasionally offered for sale at lower prices

February 7 at 12:23pm

Umbrella Cockatoo

SALE or SWAP

Baka po may kursunada

Issue: feather plucking (kayo na po magremedyo wala na po ako time) Pede rin swap sa pair of Sun Conure or pair of IRN (grey/blue wag Ing

green) or young Eclectus

Pm or txt:



It was observed that sellers who consistently offered lower than the "standard" prices were openly called out through posts and comments or even banned from the Facebook groups by other sellers, indicating some price regulation among sellers to prevent undercutting.

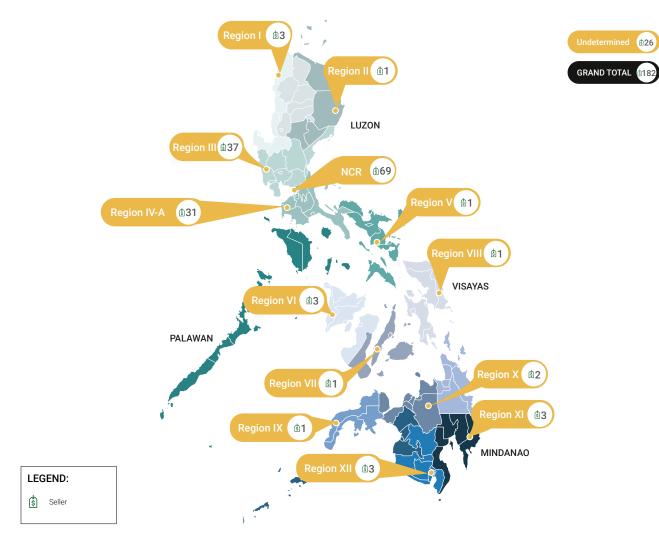
SELLERS

Based on available online information, the locations of sellers of Indonesian birds were located across the Philippines, but Luzonbased sellers dominated. The National Capital Region (NCR) had the most online sellers with 69 (37.9%) and followed by Region III

(Provinces of Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, and Zambales) and IV-A (Provinces of Cavite, Laguna, Batangas, Rizal, and Quezon) with 37 (20.3%) and 31 (17.0%) respectively (Figure 6).



FIGURE 6 Location of Philippines traders offering Indonesian bird species



A small number of sellers dominated the online market for Indonesian birds in the Philippines - the top 14 sellers offered a total of 424 (50.4%) birds while the remaining 168 sellers offered between one and 11 birds or an average of 2.48 birds per seller during the study period.



Interestingly, some sellers who usually sold birds with legal documentation also occasionally offered birds without documentation, even explicitly stating that the birds were not accompanied by papers (i.e. illegal). Among the 501 posts, 283 (56.5%) of the posts were suspected to include wild-caught birds (Figure 7), 149 (29.7%) were captive-bred, and 69 (13.8%) were

FIGURE 7 Screenshot of suspected wild-caught birds undetermined. Observations were based on physical conditions of birds, presence/ absence of closed leg bands, mentions of legal documentation, and life stage of offered birds (e.g. nestlings are more likely to be captive-hatched than adults). The figures for undetermined sources was due to a lack of accompanying photos or declaration of legal documents in the posts.

FIGURE 8 Seized Tanimbar Corellas Cacatua goffiniana in 2018





2022 UPDATE

Since the survey period, TRAFFIC shared information of the groups with Facebook. All 20 of the original groups have been deactivated. Nonetheless, this online trade is persistent. In recent surveillance by the authors in January 2022, 144 new groups are still active with new posts of Indonesian birds still observed. This points to the continued relevance of the findings of this report.

SEIZURES

Wildlife authorities in the Philippines recorded 27 seizures involving 1,299 Indonesian birds and at least 28 species between 2010 and 2019 (Figure 8-9; Table 2). Parrots constituted the highest numbers (n=1,128; 87%) and frequency (n=24 incidents; 89%) of

all confiscated birds. There were no seizures of Indonesian wildlife (including birds) in the Philippines in 2020, which could be an artifact of the COVID-19 pandemic lockdown (DENR-BMB, unpubl. data; Sy, 2021).

TABLE 2 Seized Indonesian birds in the Philippines between 2010 and 2019

SP	ECIES	SEIZED QUANTITY	NUMBER OF SEIZURES	
Sulphur-crested Cockatoo	Cacatua galerita	211	4	
Coconut Lorikeet	Trichoglossus haematodus	200	9	
Chattering Lory	Lorius garrulus	115	4	
Black-capped Lory	Lorius lory	99	6	
Black Lory	Chalcopsitta atra	70	3	
Tanimbar Corella	Cacatua goffiniana	60	2	
Palm Cockatoo	Probosciger aterrimus	56	8	
Dusky Lory	Pseudeos fuscata	55	2	
Moluccan Eclectus	Eclectus roratus	48	9	
Western Crowned Pigeon	Goura cristata	46	2	
White Cockatoo	Cacatua alba	44	4	
Violet-necked Lory	Eos squamata	39	2	
Long-crested Myna	Basilornis corythaix	35	1	
Moluccan Cockatoo	Cacatua moluccensis	27	2	
Unidentified lory		24	1	
Red-and-blue Lory	Eos histrio	24	3	

	TOTAL	1,299	
Unidentified parrot		1	1
Red Lory Eos bornea		1	1
Spice Imperial Pigeon	Ducula myristicivora	1	1
Green-naped Pheasant Pigeon	Otidiphaps nobilis	4	1
Victoria Crowned Pigeon	Goura victoria	5	2
Great-billed Parrot	Tanygnathus megalorynchos	6	1
Pesquet's Parrot	Psittrichas fulgidus	6	3
Red Bird-of-paradise	Paradisaea rubra	7	1
Southern Cassowary	Casuarius casuarius	15	3
Papuan Hornbill	Rhyticeros plicatus	18	5
Yellow-faced Myna	Mino dumontii	18	2
Yellow-crested Cockatoo	Cacatua sulphurea	18	4
Pinon's Imperial Pigeon	Ducula pinon	22	2
Large Fig Parrot	Psittaculirostris desmarestii	24	1

FIGURE 9 More than 300 smuggled Indonesian wildlife, including 190 parrots, were seized in the NCR in 2018. Photo by Emerson Y. Sy





The NCR, the main wildlife trade hotspot in the Philippines, had the most seizure incidents of Indonesian birds (n=9) while southeastern Mindanao (Region XI, XII and XIII) had a combined total of 12 seizure incidents (Figure 10). More than half the Indonesian birds seized (n=756; 58.2%) in the Philippines were in 2018-2019 (Figure 11).



FIGURE 10 Key locations and quantity seized in the Philippines between 2010 and 2019

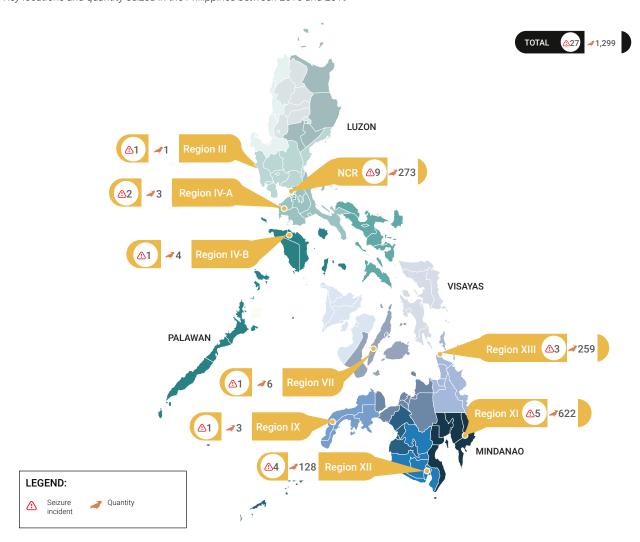
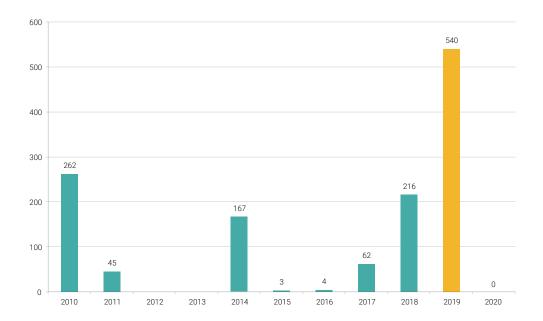


FIGURE 11 Number of Indonesian birds seized in the Philippines annually from 2010 to 2019



SLAP ON THE WRIST

On 8th April 2019, authorities arrested two suspects and seized 450 smuggled Indonesian wildlife in Mati City, Davao Oriental, Mindanao Island. The court sentenced the accused to four years of imprisonment and fined PHP35,000 (USD690) each. On 27th October 2019, authorities arrested three members of the same syndicate while transporting 338 smuggled Indonesian wildlife, including 164 birds along the highway in Tandag City, Surigao del Sur, Mindanao Island. The suspects pleaded guilty and were fined PHP5,000 (USD99) each on 31 Jan 2020.

However, in both cases, the accused individuals were allowed to plea bargain and were eventually given light sentences, and completely avoided jail time since jail sentences of less than six years are eligible for probation and the monetary fine was the minimum or less than the minimum provided in the RA No. 9147. These cases illustrate loopholes in the sentencing of wildlife criminals, which undermine successful enforcement actions.

Separately, there were multiple successes from eastern Indonesian authorities intercepting at least 75 shipments from 2010 to 2020 involving 2,881 individuals of species or genera found to be traded online in the Philippines in this study. These confiscations took place in northern Sulawesi, Maluku, and Papua. Of these, three reported definitive information of shipments being routed to the Philippines² ³⁴. Additionally, at least 11 cases had route

information that terminated in key ports in North Maluku and North Sulawesi (i.e. they were either seized at these ports, or were known to be destined for these ports). These are known to be main exit points for shipments being smuggled to the Philippines (Bashari and Nurdin, 2009), raising suspicions that these intercepted shipments were likely destined for the Philippines.

² https://www.koridorzine.com/2018/06/03/polair-polda-maluku-utara-sita-puluhan-satwa-dilindungi/

³ https://news.okezone.com/read/2016/05/09/340/1383931/212-burung-khas-indonesia-gagal-diselundupkan-ke-filipina

⁴ https://regional.kompas.com/read/2013/11/13/2333100/Polisi.Gagalkan.Penyelundupan.111.Burung.Nuri.Talaud.ke.Filipina

CITES TRADE DATA

PHILIPPINE IMPORTS

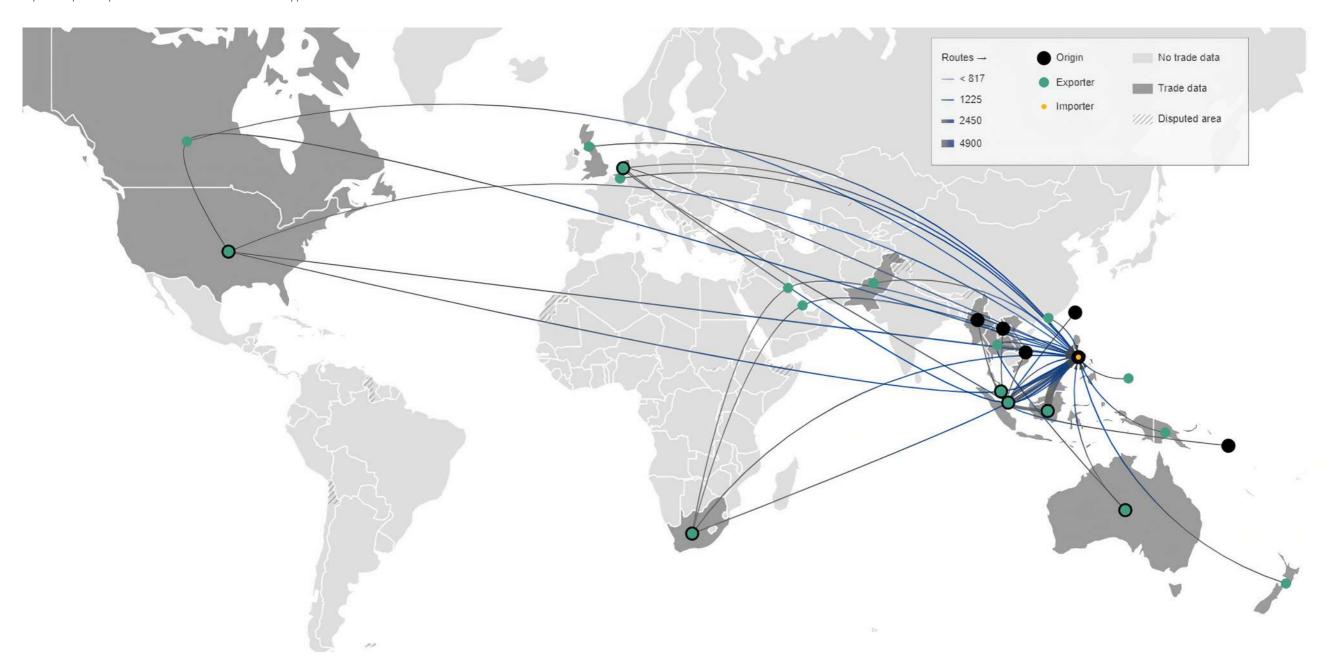
Exporters, including non-range states, reported exporting 8,295 individuals of 58 Indonesian bird species to the Philippines between 1979 and 2019. The majority (n=5,023 birds; 60.6%) of the declared purpose was for

commercial trade while 37.8% (n=3,139 birds) did not declare the purpose. The combined bird exports from Indonesia (n=4,913) and Singapore (n=3,213) accounted for 98% of the total during the 41-year period (Figure 12).

However, for the same time period, the Philippines only reported importation of 1,034 individuals of 21 Indonesian bird species— a significant discrepancy of 7,261 birds and 37 species. This could be due to:

- 1. Exporters reporting quantities based on issued permits rather than actual exported quantities which resulted in overreporting
- 2. Inaccurate record-keeping or reporting by the importer (the Philippines)
- 3. Birds were exported legally from sources, but no corresponding import permits were issued by the Philippines, making such transactions illegal under Philippine law.
- 4. Failure of the importer to include these imports in their annual report data.

FIGURE 12 Exporter-reported quantities of Indonesian birds to the Philippines from 1984-2019



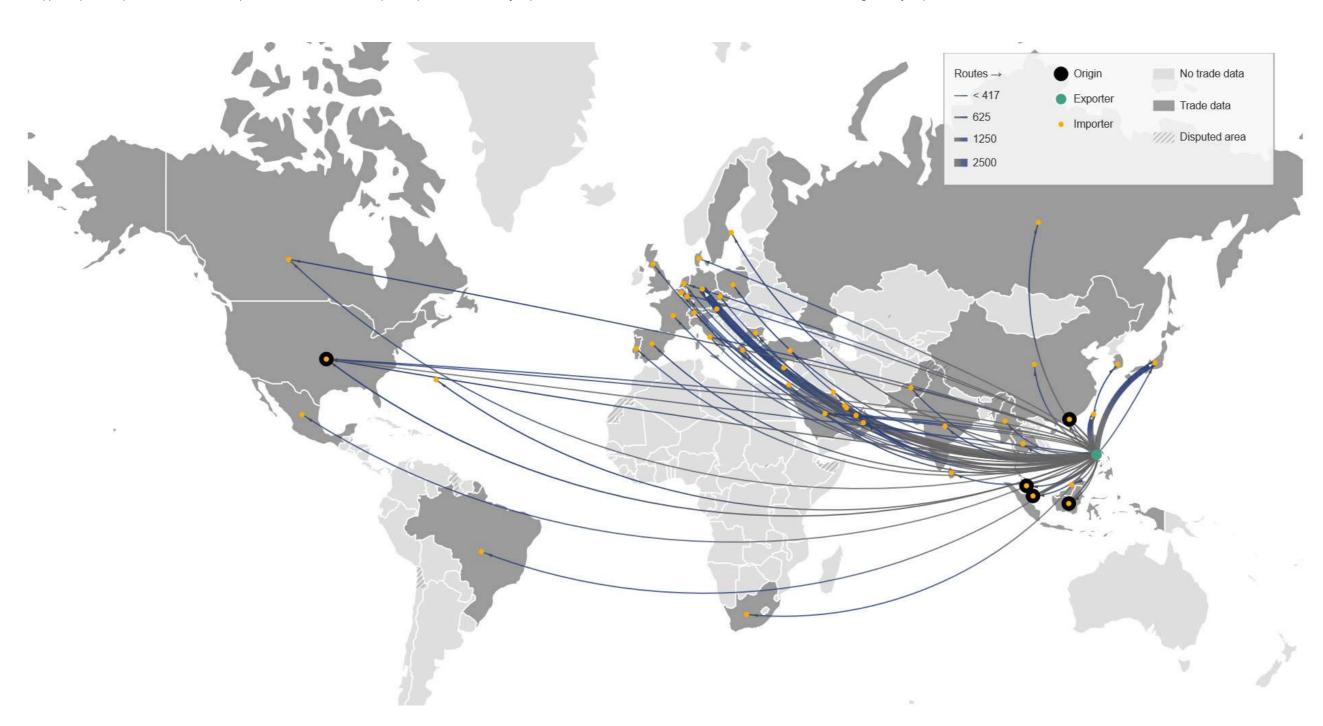
PHILIPPINE EXPORTS

The Philippines exported large numbers of Indonesian bird species, of which 95.6% by volume were declared as captive-bred. Data shows a discrepancy involving 983 birds and seven species that originated from the Philippines: importers reported sourcing 9,854 individuals belonging to 44 species from the Philippines between 1979 and 2019, while the

Philippines reported exporting 8,871 individuals belonging to 51 species. At least 47 countries/ territories imported Indonesian bird species from the Philippines with Germany (n=2,464; 28.1%), Japan (n=1,866; 21.3%), and Taiwan Province of China (n=1,538; 17.5%) accounting for 66.9% of the total trade during the 41-year period (Figure 13).

FIGURE 13

Philippine-reported exports of Indonesian bird species from 1979-2019. The exported quantities to Germany, Japan, and Taiwan Province of China accounted for 66.7% of the total during the 41-year period





the Philippines **exported** large numbers of

Indonesian bird species, mostly declared as captive-bred

The five most exported species belong to the family Cacatuidae and Psittacuilidae, which accounted for 6,343 (71.5%) exported individuals (Figure 14).

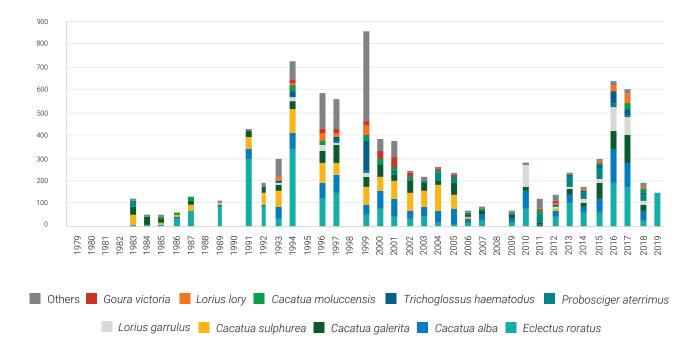
FIGURE 14 10 most commonly exported Indonesian bird species from the Philippines



Since joining the Convention in 1981, the Philippines reported exporting Indonesian birds in 32 out of 41 years. There was an increase of more than 700% in exports from the 1980s (n=505) to the 1990s (n=3,630), then dropping in the 2000s (n=1,1917) and increasing again during the 2010s (n=2,819) (Figure 15). The

composition of species varied from year to year. Moluccan Eclectus dominated in the late 1980s to 1990s; while they still constituted a significant proportion of exported birds in the 2010s, White Cockatoos, Sulphur-crested Cockatoos and Chattering Lories increased in prominence in the 2010s (Figure 15).

FIGURE 15 Exporter-reported quantity of live Indonesian bird trade from the Philippines in 41 years (1979–2019). The top 10 species were disaggregated, with the others were combined



The vast majority were declared as captivebred, but 48 of these 51 species exported had potential issues with regards to sourcing (some have overlapping issues) (Annex I):

- 34 species had no legal importation records to the Philippines.
- Nine species had insufficient legal source of exported individuals.
- Export of 13 species commenced prior to the first reported legal importation. It is possible that breeding stock was imported into the Philippines before they were listed in CITES and therefore were not captured by CITES trade records.

There were also discrepancies between importer-reported and exporter-reported quantities for each species (Annex I). As hypothesized earlier, this could be due to exporters reporting permits issued rather than actual traded quantity, weaknesses in record keeping and reporting of CITES-listed imports/ exports, and/or wildlife smuggling (see Discussion).

exported species had potentially questionable sources



According to the Convention, captive bred specimens can be exported for commercial purposes, this only applies if they have originated from a registered captive breeding facility. None are registered according to the CITES register (CITES, 2021). Despite this, after being listed in CITES Appendix I Indonesian

species such as the Moluccan Cockatoo, Palm Cockatoo, Yellow-crested Cockatoo, and Tanimbar Corella continued to be exported from the Philippines (Table 3) incorrectly under source code C, and mostly purportedly for breeding purposes.

TABLE 3 Philippine-reported Export quantity of CITES Appendix I-listed Indonesian birds from the Philippines

TAXON	DATE LISTED ON APPENDIX I	EXPORTED QUANTITY			
Intelli	DATE EIGHED ON ALL ENDING	BEFORE LISTING	AFTER LISTING		
Buceros bicornis	11 Jun 1992		4	4	
Cacatua goffiniana	11 Jun 1992	6	6	12	
Cacatua moluccensis	18 Jan 1990	32	222	254	
Cacatua sulphurea	12 Jan 2005	1,003	87	1,090	
Eos histrio	16 Feb 1995	18	6	24	
Probosciger aterrimus	22 Oct 1987	22	311	333	



DISCUSSION

11 INDONESIAN BIRD SPECIES DOCUMENTED IN THE TRADE HAD NO LEGAL IMPORTATION RECORDS TO THE PHILIPPINES

A close-up of a Black-capped lory Lorius lory

CITES-LISTED BIRD SPECIES RECORDED IN ONLINE SURVEYS

Among the 24 CITES-listed Indonesian species recorded in online trade surveys in 2018-2019, 11 species had no legal importations reported by the Philippines between 1979 and 2019 (**Table 4**). These discrepancies may indicate that birds offered for sale have been sourced illegally. Even if these were captivebred individuals offered for sale, the parent stock was not legally acquired. While there were possibly pre-convention birds already in the country being bred locally, they are likely to have been recently smuggled since the majority of the highlighted species featured in seizures in the last 10 years.

TABLE 4

Comparison of species and quantity recorded in online survey (2018-2019) and from CITES Trade Database records (1979-2019). Highlighted species indicate no Philippines-reported imported quantities. Note: Casuarius casuarius (non-CITES) and unidentified Eos spp. offered for sale online were excluded in this table

TAXON		ONLINE TRADE	PH IMPORT		
		2018-2019	IMPORTER REPORTED	EXPORTER REPORTED	
White Cockatoo	Cacatua alba	80	197	387	
Sulphur-crested Cockatoo	Cacatua galerita	152	117	123	
Tanimbar Corella	Cacatua goffiniana	32		15	
Moluccan Cockatoo	Cacatua moluccensis	74	4	244	
Yellow-crested Cockatoo	Cacatua sulphurea	2	21	210	
Black Lory	Chalcopsitta atra	8		72	
Yellow-streaked Lory	Chalcopsitta scintillata	2		26	
Eclectus Parrot	Eclectus roratus*	316	124	82	
Red and Blue Lory	Eos histrio	4		26	
Blue-streaked Lory	Eos reticulata	15		32	
Violet-necked Lory	Eos squamata	2		267	
Crowned Pigeon	Goura cristata	1	24	8	
Chattering Lory	Lorius garrulus	22	133	634	
Black-capped Lory	Lorius lory	23		21	
Red Bird-of-paradise	Paradisaea rubra	2			
Palm Cockatoo	Probosciger aterrimus	38	180	51	
Dusky Lory	Pseudeos fuscata	7		115	
Large Fig Parrot	Psittaculirostris desmarestii	2		170	
Pesquet's Parrot	Psittrichas fulgidus	4	1		
Papuan Hornbill	Rhyticeros plicatus	5			
Coconut Lorikeet	Trichoglossus haematodus	42	3	1,232	
	TOTAL	835	804	3,715	

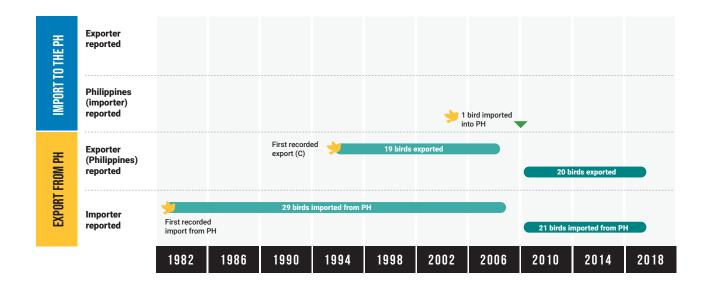
^{*}E. polychloros and E. reideli were considered subspecies of E. roratus prior to the recent taxonomic split.

PESQUET'S PARROT *PSITTRICHAS FULGIDUS* (CITES APPENDIX II)

Only one individual Pesquet's Parrot has ever been recorded to be imported into the country legally in 2010, while four individuals were found offered for sale online in our study. As one individual does not a breeding pair make, this would be possible only if there were imports of breeding stock before 1981, when the species was listed on CITES, and other individuals already present in the country. Furthermore, there is a 14-year gap between when the species was first reported as exported to the Philippines and reported as imported by the Philippines. The Philippines exported 19 individuals between 1996 and 2009, prior to the legal importation of the one individual (Figure 16).

FIGURE 16

Timeline of imports and exports of Pesquet's Parrots into and from the Philippines, as reported by exporters and importers, showing the gaps in the reported timing





WHERE COULD THE BIRDS BE FROM?

FARMED — BRED IN LEGAL CAPTIVE BREEDING FACILITIES IN THE PHILIPPINES?

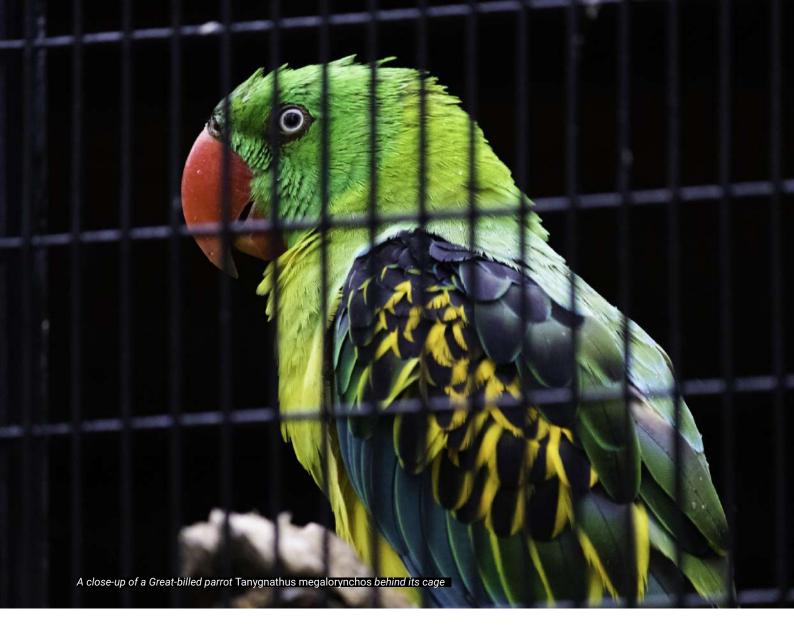
An unknown proportion of the birds recorded for sale were likely bred in captivity within the Philippines itself. This is especially thought to be the case for posts featuring nestlings⁵, which are unlikely to survive the arduous smuggling route from Indonesia to the Philippines (Figure 17a-b). However, whether they are legally bred for trade needs to be verified by the authorities.

FIGURE 17A-B Captive bred Moluccan Parrot (A) and White Cockatoos (B).





It is possible that some birds may have been smuggled as eggs and hatched in the Philippines, however this is an uncommon occurrence - only one case of egg smuggling was documented in the past two decades in the Philippines.



The DENR requires individuals who keep wildlife for personal purposes to apply for a certificate of wildlife registration (CWR). CWR holders cannot engage in commercial trade (i.e. sale) or exchange of threatened wildlife. CWR holders who breed birds and offer them online violate regulations, which can result in the cancellation of their CWR. Individuals or companies interested in engaging in commercial wildlife trade need to demonstrate technical and financial capabilities to operate

a wildlife farm and apply for a wildlife farm permit (WFP). However, DENR does not have a centralised database and each regional office of the DENR can issue WFPs. Therefore, there is a lack of clarity in the total number of wildlife farm permittees in the country and the species or number of animals being bred by these facilities. A number of entities who breed Indonesian parrot species for sale likely do not hold a WFP. Therefore, some of these locally captive-bred birds may still be illegal.



Certificate of Wildlife Registation

holders are not allowed to trade threatened species

FARMED — IMPORTED FROM CAPTIVE BREEDING FACILITIES FROM ABROAD?

Some birds recorded in online trade in the Philippines may have been imported from legal breeding facilities abroad (see Philippine Imports). Several parrot species are also well established in aviculture and therefore likely to be captive-bred. However, a number of species recorded in trade are known to be challenging to breed in captivity on a commercial scale,

and often require specialised facilities and conditions for successful breeding. Species that are known to be particularly difficult to breed include Palm Cockatoo, fig parrots Psittaculirostris spp., Great-billed Parrot Tanygnathus megalorynchos and Pesquet's Parrot (J. Lee, pers. comm.). These are therefore likely to be poached from the wild.

POACHED AND SMUGGLED FROM INDONESIA?

The number of Indonesian birds intercepted while being smuggled into the Philippines, difficulty in captive breeding some species at commercial scale and an absence of CITES records proving legal import of parent stock into the country give credence to suspicions that at least some of the Indonesian bird species traded in or from the Philippines are wild-caught in Indonesia. One of the telltale signs that some of the birds offered for sale are wild-caught and smuggled is their condition:

- all adults;
- in poor condition with worn or missing feathers(especially tail feathers and wing

- tips) from trapping and confinement in smuggling cages
- visible wounds or soiled plumage from being trapped with glue and transported along a long route in cramped and unsanitary conditions (Figure 18)
- No closed leg bands (Figure 19) one of the ways captive-bred birds are marked.

In contrast, birds from captive facilities are typically younger birds in good health, with bright, healthy plumage, and that behaviourally also fare better in the presence of humans (J. Lee, pers. comm.).

FIGURE 18 Smuggled Moluccan Cockatoos in a trafficker's facility

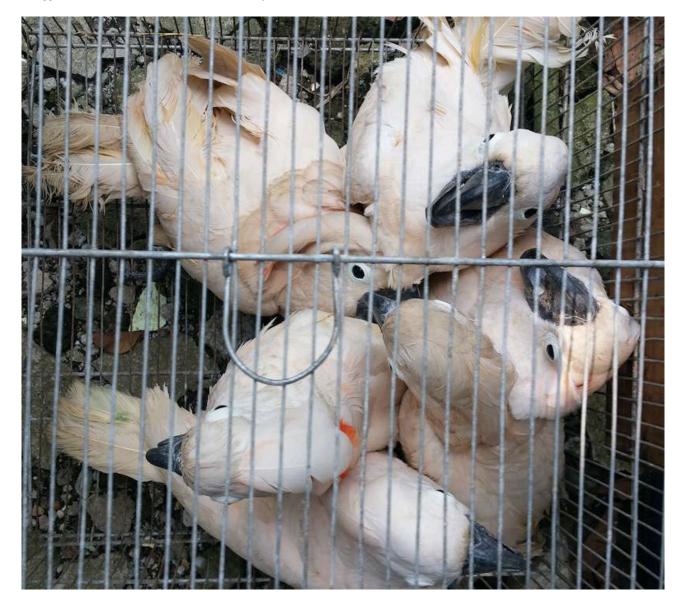


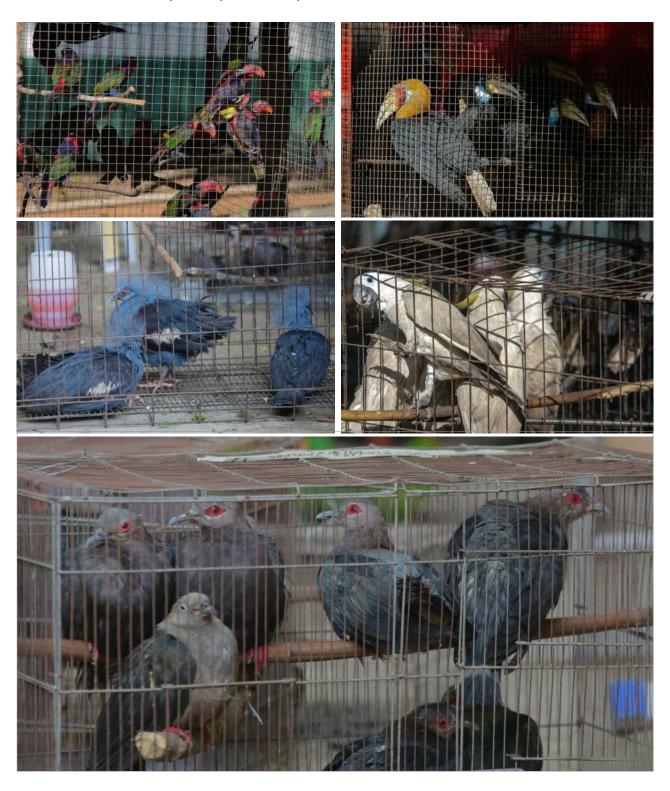
FIGURE 19 A White Cockatoo with closed leg band. Photos by Emerson Y. Sy



Smuggling of endemic wildlife from eastern Indonesia to the Philippines is a welldocumented modus operandi used by Filipino and Indonesian wildlife traffickers (Figure 20). A trader who had been arrested multiple times admitted to sourcing wildlife from Indonesian

poachers in eastern Indonesia, smuggling them into the Philippines, and storing them in a holding facility in Davao del Norte (MindaNews, 2007). He allegedly attempted to apply for a farm permit presumably to legitimise his illicit operations.

FIGURE 20 Seized Indonesian birds in Mati City. Photos by Eden Jhan Licayan



ROLE OF BREEDING FACILITIES

The export trade data from Philippines documents that most birds are sourced from captive breeding and further investigation is required to confirm whether this is true.

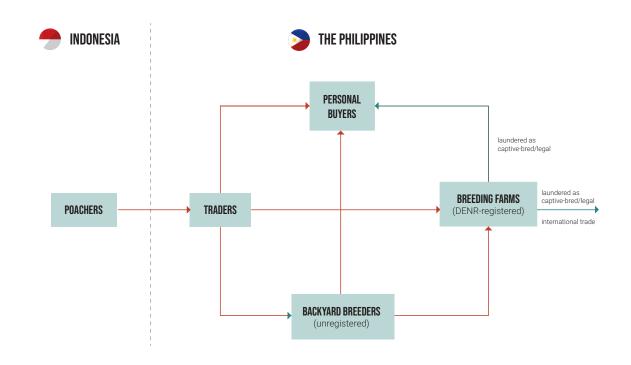
Some "backyard" or non-DENR registered keepers are known to buy wild-caught birds to attempt breeding them and to sell the offspring to other enthusiasts and registered wildlife farms/zoos. Some registered wildlife farms/zoos have been reported to continuously and illegally purchase wild-caught birds from traffickers (Figure 21) or unregistered captive-bred birds from backyard breeders, and declare them as part of their own captive breeding production (Figure 22). Export permits are then acquired to legally sell to international buyers (Sy, pers. obs.). This modus operandi to launder wildlife has been long known to occur in the country (Bennett, 2014; Sy et al., 2020), but no large exporting wildlife farms/zoos who are engaged in this illegal activity have been seriously sanctioned to date.



FIGURE 21

Delivery of smuggled Indonesian Cockatoos to a facility on Luzon Island. The van had a region 12 (southern Mindanao) plate number, a common entry point of smuggled Indonesian wildlife

Flow of wild-caught smuggled Indonesian birds into the Philippine bird trade



SPECIES EXAMPLES

Combining evidence from the online trade, CITES trade data, seizure data and other information, suspicious discrepancies arise in a few Indonesian species traded in the Philippines. These point towards the trade of illegally-sourced birds and therefore further investigation is warranted.

PALM COCKATOO

This CITES Appendix I-listed and Indonesiaprotected species (Figure 23) has a slow reproductive rate in the wild, with females breeding every two years (Rowley and Kirwan, 2020). In captivity, a pair produces on average one egg once a year, hatching and chick survival rates are low, and the median breeding lifespan is short (Furnell, 2019). Yet, the Philippines reported exporting 311 captivebred individuals (plus 22 individuals with undeclared source code) - the world's highest

number of Palm Cockatoos exported (Furnell, 2019) despite lacking CITES-registered captive breeding facilities for this species (CITES, 2021). Furthermore, given the difficulties in breeding the species, it is improbable that all of these exported birds were truly captive-bred. In addition, the species is frequently seized in smuggling attempts from Indonesia to the Philippines, with 56 individuals seized in eight incidents between 2010 and 2019.

FIGURE 23 A seized Palm Cockatoo in the national rescue center. Photo by Emerson Y. Sy

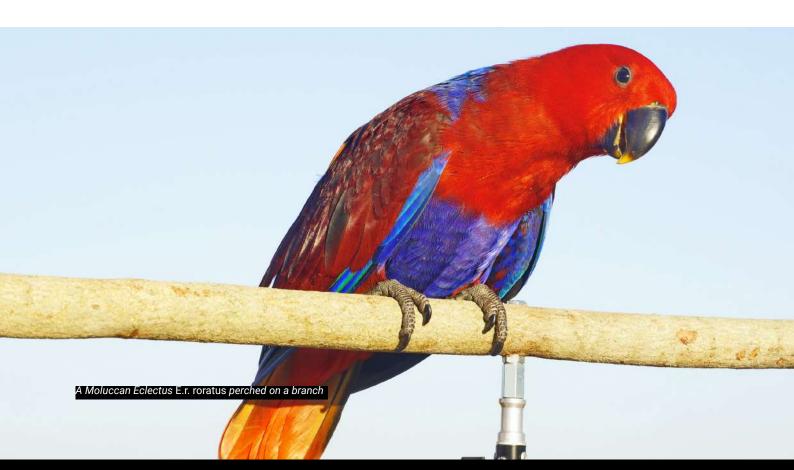


MOLUCCAN ECLECTUS

FIGURE 24 A group of female Moluccan Eclectus delivered to a facility



CITES Appendix II-listed and protected in Indonesia, this was the most widely available Indonesian bird online (n=281; Figure 24), but the Philippines reported legal importations of only 124 individuals in the last 41 years. Some of the Moluccan Eclectus were likely captive-bred in the Philippines, legally or otherwise. But many individuals were likely also smuggled from Indonesia; the species featured in nine seizure incidents involving 48 individuals between 2010 and 2019.



TANIMBAR CORELLA

The online survey documented 32 individuals of this CITES Appendix I-listed, Indonesia-protected species (Figure 25a-b), but there were no legal importations into the Philippines in the last 41 years. Interestingly, the Philippines reported exporting 12 individuals (six individuals when listed in Appendix II in 1981 and six individuals when listed in Appendix I in 1992) between 1989 and 2011. The Philippine authorities seized 60 Tanimbar Corellas in two incidents in 2017 (Sy, 2021). This species also features regularly in seizures and rescue centres in Indonesia, indicating poaching for illegal trade (J. Lee, pers. comm.).

FIGURE 25A Tanimbar Corellas in a DENR-registered facility on Luzon Island



FIGURE 25B An escapee Tanimbar Corella in Cavite Province, Luzon Island. Photo by David Escarda



WHY THIS IS A CONSERVATION CONCERN

Wild populations of Indonesian birds, particularly parrots, are at risk from poaching for the international bird trade. Of the species recorded for trade in this report, the Critically Endangered Yellow-crested Cockatoo, Endangered White Cockatoo and Red-andblue Lory Eos histrio are facing their current plight almost entirely due to trapping for the international pet trade. The other Vulnerable, Near Threatened and even Least Concern species are facing declines also due to trapping (IUCN Red List, 2021). Parrots tend to be long-lived and slow breeders, with offspring requiring high levels of parental care. Furthermore, many of the Indonesian parrots are range-restricted island endemics with relatively small wild populations. These characteristics make them vulnerable to overexploitation, and persistent off-take impact wild populations and their survival in the wild (Olah et al., 2016; Nandika et al., 2021).

The intentional misdeclaration of wild-caught individuals as captive-bred undermines the regulatory framework set up to protect wild populations of threatened species, and the businesses of legal breeders. The true volumes of wild offtake and harvest are also concealed or misrepresented when this trade is reported, resulting in a potential underestimate on how trade levels might impact existing wild populations.

Crucially, the smuggling of Indonesian birds into the Philippines carries avian health risks. Parrots are particularly susceptible to psittacine beak and feather disease, and the unsanctioned movement of non-native birds increases the risk transmission of such pathogens and disease to native bird populations that may be naïve (Fogell et al., 2018). Risks of infection and transmission are particularly high when birds are kept in poor welfare states and in close quarters in unsanitary conditions, common occurrences in the smuggling of birds. Indonesia is an avian influenza endemic country, but the Philippines is not, which is why many countries import live birds from the Philippines. The Philippines reported its first avian influenza outbreak in 2017. The Philippines' avicultural, poultry, and associated industries are placed at risk when such smuggling takes place.

There is a risk that non-native parrot species may escape and become invasive species, potentially threatening native Philippine species (Cardardor et al., 2021). While there are no known established feral populations of Indonesian parrots yet in the Philippines, there have been several recorded sightings of escapees (Figure 26a-d) on Luzon and Mindanao (Allen, 2020; Sy, unpubl. data).



Indonesian parrots

are mostly range-restricted island endemics



bird smuggling

between the two countries carries avian health risks

Feral Sulphur-crested Cockatoo (left) and White Cockatoo (right) in Mandaluyong City, NCR, Luzon Island. Photo by Raymond Dan.



FIGURE 26B-C Feral Moluccan Cockatoos in Quezon City (top) and Parañaque City (bottom), NCR, Luzon Island. Photos by Maria Katrina Constantino (B); Reynaldo Cruz (C)





FIGURE 26D

A pair of feral White Cockatoo Cacatua alba in General Santos City, South Cotabato Province, Mindanao Island. Photo by Reyman Rusty Jayme



REPATRIATING SEIZED INDONESIAN BIRDS

On 8 April 2019, 450 birds, mammals, and reptiles smuggled from Indonesia were seized in Davao Oriental, Mindanao Island. On 27 July 2020, amidst the first wave of COVID-19, 91 animals finally made their way back to Indonesia after a multi-lateral effort to repatriate the animals (DENR, 2020). This successful repatriation, the first-of-its-kind in the Philippines, was a result of decisive action and substantial investment by government agencies, wildlife rescue centres from the Philippines and Indonesia, and others.

There are benefits to promptly repatriating seized non-native wildlife to the source country. The maintenance of seized live wildlife places a costly burden on the seizing country, as they are likely to remain in captivity for the rest of their lifetime. This effectively removes any chance of returning them to the wild breeding pool. Repatriation allows the possibility of rehabilitating and releasing the rescued wildlife into their native habitat.

However, there are multiple challenges to overcome too. It is very costly to repatriate to the source country, and logistical arrangements to transport live animals can be complicated and expensive. External funding and logistical support are likely to be required. CITES and other legal documentation are required to transfer the animals across borders. Rescue centre veterinarians and staff on both sides require careful coordination, to ensure the health and proper quarantine of the animals before, during, and after the move. That said, this precedent should hopefully pave the way for future repatriations of Indonesian wildlife seized in the Philippines.

CONCLUSIONS AND RECOMMENDATIONS

FURTHER INVESTIGATION BY AUTHORITIES ON THE TRADE OF SMUGGLED INDONESIAN BIRD SPECIES IN THE PHILIPPINES IS WARRANTED

The trade of Indonesian bird species within the Philippines and exported from the Philippines include birds smuggled into the Philippines from Indonesia. Many online sellers and buyers operate without the required permits and deal in illegally-sourced birds. Some captive breeding facilities in the Philippines are involved in this illegal trade, laundering poached and smuggled birds into the supply chain. This

has legal implications, particularly for CITES-listed species, conservation implications on threatened Indonesian bird populations, and health implications in the transfer of avian diseases.

We urge the following actions to social media platforms and authorities based on the findings of this study:

FOR PHILIPPINE AUTHORITIES

FOCUS WILDLIFE ENFORCEMENT

on central Luzon (NCR, Region III, and IV-A) where majority of traffickers are concentrated, and southeastern Mindanao (XI, XII, and XIII) where traffickers transit to transport smuggled Indonesian wildlife.

AUDIT REGISTERED BREEDERS

Conduct regular and thorough physical checks and document audits of all registered Indonesian wildlife keepers and breeders, to validate legal sources and captive breeding claims.

ENGAGE INDEPENDENT THIRD-PARTY **INSPECTORS**

Consider engaging independent third-party inspectors with the appropriate wildlife expertise to carry out surprise physical audits, to improve the reliability and accuracy of reports.

FOR PHILIPPINE AND INDONESIAN AUTHORITIES

WORK **COLLABORATIVELY**

to tackle this cross-border issue and break wildlife crime networks smuggling Indonesian wildlife into the Philippines.

DEVELOP PROTOCOLS TO EXPEDITE REPATRIATION

of Indonesian wildlife seized in the Philippines, and in line with guidance provided by CITES7 and IUCN8.

FOR CITES MANAGEMENT AUTHORITIES IN COUNTRIES IMPORTING CAPTIVE-BRED CITES-LISTED INDONESIAN **BIRD SPECIES FROM THE PHILIPPINES**

REQUEST **DOCUMENTATION**

for proof of legality of captive-bred birds from the Philippines. These can include tamper-proof leg bands (e.g. closed metal leg rings), documentation of hatching, pedigree and DNA provenance details. They are also recommended to inspect shipments to ensure that the birds appear to be in good condition, without visible injuries or fear of humans.

HEALTH CHECKS

Test incoming shipments of birds from the Philippines for avian diseases.

FOR FACEBOOK

ENHANCE MONITORING, DETECTION AND ACTION

on content violating Facebook policy and national laws, in addition to existing actions deactivating posts and groups reported by concerned individuals and conservation groups.

STRENGTHEN ALGORITHMS

Incorporate new methods used by wildlife traffickers to circumvent evolving online regulations on wildlife trade (e.g. using code words or embedding text on photos) into their algorithms to improve detection of wildlife sale posts. This can be supported by enhancing collaboration with conservation groups and consistent monitoring.

DEACTIVATE VIOLATORS

Take stern and prompt action against those who violate Facebook's policies, by suspending or deactivating individual accounts, permanently shutting down groups involved in illegal wildlife trade, and holding administrators of such groups accountable.

REFERENCES

- Allen, D. (2020). Birds of the Philippines. Lynx Edicions, Barcelona. 400 pp.
- Agence France-Presse (2014a). Large cache of smuggled exotic animals seized in Surigao. Philippine Daily Inquirer, 19 February 2014. http://globalnation.inquirer.net/99200/large-cache-of-smuggled-exotic-animals-seized-in-surigao
- Agence France-Presse (2014b). New haul of exotic animals seized in Philippines. Philippine Daily Inquirer, 25 February 2014. http://globalnation.inquirer.net/99463/new-haul-of-exotic-animals-seized-in-philippines
- Bajo, R. (2006). 11 exotic birds seized in General Santos port. Philippine Star, 27 March 2006. https://www.philstar.com/nation/2006/03/27/328335/11-exotic-birds-seized-general-santos-port
- Bashari, H. and Nurdin, K. (2009). Burung Paruh Bengkok Status Perburuan dan Perdagangannya di Maluku Utara 2008–2009. Laporan Teknis No. 06. Program Kemiteraan untuk Pengelolaan Konservasi di Kawasan TN Aketajawe Lolobata. Burung Indonesia, Bogor. xviii + 91 pp.
- Bennett, D. 2014. A dubious account of breeding *Varanus olivaceus* in captivity at the Paradise Reptile zoo in Mindoro, Philippines. *Biawak* 8(1): 12-14.
- BirdLife International. (2018). Cacatua sulphurea. The IUCN Red List of Threatened Species 2018: e.T22684777A131874695. https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T22684777A131874695.en. Accessed on 04 May 2021.
- Burung Indonesia (2018). Collaboration on combatting parrots trade in north Maluku. 1 August 2018. https://www.burung.org/2018/08/01/collaboration-on-combatting-parrots-trade-in-north-maluku/?lang=en
- Canlas, C., Sy, E.Y. and Chng, S. (2017). A rapid survey of online trade in live birds and reptiles in the Philippines. *TRAFFIC Bulletin* 29(2): 58–63
- CITES. (2020). Register of captive-breeding operations Philippines. Accessed on 14 April 2021. Available at: https://www.cites.org/eng/common/reg/cb/PH
- Coalition to End Wildlife Trafficking Online. (2020). Offline and in the wild: a progress report of the Coalition to End Wildlife Trafficking Online. Accessed on 4 November 2020. Available at: https://www.endwildlifetraffickingonline.org/our-progress
- Department of Environment and Natural Resources (DENR). (2020). Rescued Wildlife Animals Repatriated to Indonesia. Accessed on 13 August 2021. https://r11.denr.gov.ph/index.php/news-events/press-releases/1333-rescued-wildlife-animals-repatriated-to-indonesia
- Fogell, D.J., Martin, R.O., Bunbury, N., Lawson, B., Sells, J., McKeand, A.M., Tatayah, V., Trung, C.T. and Groombridge, J.J. (2018). Trade and conservation implications of new beak and feather disease virus detection in native and introduced parrots. *Conservation Biology* 32(6): 1325–1335
- Forshaw, J.M. (2010). Parrots of the world. Princeton University Press, New Jersey, USA. 328 pp.
- Furnell, S. (2019). Strengthening CITES processes for reviewing trade in captive-bred specimens and preventing mis-declaration and laundering: A review of trade in Southeast Asian parrot species. CITES CoP18 Information Document. TRAFFIC and BirdLife International, Cambridge, United Kingdom.
- Krishnasamy, K. and Stoner, S. (2016). *Trading faces: a rapid assessment on the use of Facebook to trade wildlife in peninsular Malaysia*. TRAFFIC, Petaling Jaya, Selangor, Malaysia. xi + 30 pp.
- Lepiten-Tabao, M.V. and Tabaranza, B.T.B. Jr. (2003). Recent information on the trade of Indonesian parrots in the Philippines. *Sylvatrop* 13(1&2): 107–118.
- Low, R. (1993). Cockatoos in aviculture. Blandford Book, London, UK. 270 pp.
- MindaNews. (2007). Nearly 300 smuggled birds from Indonesia burned. 10 July. Accessed on 14 November 2021. https://www.mindanews.com/c3-news/2007/07/nearly-300-smuggled-birds-from-indonesia-burned/
- Nandika, D., Agustina, D., Heinsohn, R. and Olah, G. (2021). Wildlife trade influencing natural parrot populations on a biodiverse Indonesian island. Diversity 13(483). https://doi.org/10.3390/d13100483
- Olah, G., Butchart, S. H., Symes, A., Guzmán, I. M., Cunningham, R., Brightsmith, D. J. and Heinsohn, R. (2016). Ecological and socio-economic factors affecting extinction risk in parrots. *Biodiversity and Conservation 25*(2): 205–223.
- Profauna. (2008). Pirated parrots: Profauna's investigation of the Indonesian parrot smuggling to the Philippines. Profauna, Jakarta, Indonesia. 9 pp
- Rowley, I. and G.M. Kirwan (2020). Palm Cockatoo (*Probosciger aterrimus*), version 1.0. In: (J. del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (Editors). Birds of the World. Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.palcoc1.01
- Setiyani, A.D., and Ahmadi, M.A. (2020). An overview of illegal parrot trade in Maluku and North Maluku Provinces. Forest and Society 4(1):
- Shepherd, C.R. (2005) Indonesia and the Philippines meet to curb trade in parrots. TRAFFIC Bulletin 20(2): 54.

- Shepherd, C.R. and Sy, E.Y. (2018). First record of international trafficking of Critically Endangered long-beaked echidnas (Zaglossus sp.). Journal of Indonesian Natural History 5(1/2): 22-261.
- Shepherd, C.R., Sy, E.Y., Janssen, J. and Morgan, J. (2019). Protection from exploitation needed for the endemic Sulawesi Bear Cuscus Ailurops ursinus in Indonesia. Journal of Indonesian Natural History 6(2): 30-35.
- Schubot, R.M., Clubb, K.J. and Clubb, S.L. (1992). Psittacine aviculture: perspectives, techniques and research. Avicultural Breeding and Research Center, Florida, USA
- Sy, E.Y. (2018). Trading faces: utilisation of Facebook to trade live reptiles in the Philippines. TRAFFIC, Petaling Jaya, Selangor, Malaysia. vii + 34 pp.
- Sy, E.Y. (2021). Wildlife from forests to cages: an analysis of wildlife seizures in the Philippines. USAID Philippines, Manila. 45 pp.
- Sy, E.Y., Schoppe, S., Diesmos, M.L.L., Lim, T.M.S. and Diesmos, A.C. (2020). Endangered by trade: seizure analysis of the critically endangered Philippine Forest Turtle Siebenrockiella leytensis from 2004-2018. Philippine Journal of Systematic Biology 14(2). DOI: 10.26757/
- TRAFFIC. (2018). Philippine bird trade targets Indonesian species. Available at: https://www.traffic.org/news/philippine-bird-trade-targetsindonesian-species/
- TRAFFIC. (2019). Critically Endangered Echidna among wildlife menagerie seized in Philippines. Available at: https://www.traffic.org/news/ echidna-among-wildlife-menagerie-seized-in-philippines/
- Zonio, A.Z. (2014). 5 in smuggle of exotic birds, other animals face charge. Philippine Daily Inquirer, 26 February 2014. http://newsinfo. inquirer.net/580659/5-in-smuggle-of-exotic-birds-other-animals-face-charge

IMAGE CREDITS

Cover	Emerson Y. Sy / TRAFFIC
Inside sleeve	Rendy Novantino Unsplash.com
4	Brian Scantlebury Dreamstime.com
5	Chuttersnap Unsplash.com
6	Szefei Dreamstime.com
8	Akhejda Dreamstime.com
9	Gills Rolland Monet Unsplash.com
10	Cowboy54 Dreamstime.com
11	Maksim Golovko Unsplash.com
12	Ouvalres Dreamstime.com
14	musthaqsms Pixabay.com
16	Kelli Mcclintock Unsplash.com
24	Alexes Gerard Unsplash.com
33	Dodohawe Dreamstime.com
31	David Clode Unsplash.com
35	Hopsalka Dreamstime.com
37	Nilankaaro Dreamstime.com
43	Banosan1 Dreamstime.com
55	Tamara Schipchinskaya Unsplash.com

ANNEX

Comparison of live Indonesian bird import and export in the Philippines during a 41-year period (1979-2019).

TAXON	PHI	MPORT	PH EXPORT						
	PH REPORTED	EXPORTER REPORTED	PH REPORTED	IMPORTER REPORTED					
Rhabdotorrhinus corrugatus		8	18	18					
Alisterus amboinensis		457	58	73					
Alisterus chloropterus		167							
Anthracoceros albirostris			7	7					
Anthracoceros malayanus		4	1	2					
Aprosmictus erythropterus	28	86							
Argusianus argus		8							
Berenicornis comatus	1	1	7	3					
Buceros bicornis		2	4	4					
Buceros rhinoceros		1	13	7					
Cacatua alba	197	387	1,298	1,845					
Cacatua galerita	117	123	1,046	1,112					
Cacatua goffiniana		15	12	23					
Cacatua moluccensis	4	244	254	254					
Cacatua sulphurea	21	210	1,090	1,112					
Chalcopsitta atra		72	17	15					
Chalcopsitta duivenbodei		135	1						
Chalcopsitta scintillata		26	6						
Charmosyna josefinae		11							
Charmosyna multistriata		10							
Charmosyna papou		167	14	4					
Charmosyna placentis		139	12	1					
Charmosyna pulchella	10	90		4					
Charmosyna rubronotata		10							
Cyclopsitta diophthalma		168	93	69					
Cyclopsitta gulielmitertii	10	62	3	7					
Cyclopsitta spp.			4						
Eclectus roratus	124	82	2,465	2,120					
Eos cyanogenia		38	32	21					
Eos histrio		26	24	124					
Eos reticulata		32	15	183					
Eos rubra (valid syn. = Eos bornea)	102	930	111	72					
Eos squamata		267	101	244					
Geoffroyus geoffroyi		158							
Goura cristata	24	8	104	67					
Goura victoria			224	197					
Loriculus galgulus		215							
Loriculus pusillus		60							

TAXON	PH IMP	PORT	PH EXPORT							
	PH REPORTED	EXPORTER REPORTED	PH REPORTED	IMPORTER REPORTED						
Loriculus stigmatus		90								
Lorius domicella		1	61	33						
Lorius garrulus	133	634	444	656						
Lorius lory		21	226	131						
Neopsittacus musschenbroekii		56	1							
Neopsittacus pullicauda		40	11	18						
Oreopsittacus arfaki		58								
Prioniturus platurus	25	140								
Probosciger aterrimus	180	51	333	358						
Pseudeos fuscata		115	4							
Psittacula alexandri	21	645	6							
Belocercus longicaudus		185	2							
Psittaculirostris desmarestii		170	76	72						
Psittaculirostris edwardsii		132	85	70						
Psittaculirostris salvadorii		92	91	46						
Psitteuteles goldiei		24	30	8						
Trichoglossus iris			9	10						
Psittinus cyanurus	12	46	10	9						
Psittrichas fulgidus	1		39	49						
Rhyticeros plicatus			11	13						
Rhyticeros undulatus		5	2.	3						
Rollulus rouloul	12	26								
Seleucidis melanoleucus			8							
Tanygnathus megalorynchos	1	93	19	30						
Trichoglossus euteles		4	28	15						
Trichoglossus flavoviridis	8	16	25	2						
Trichoglossus haematodus	3	1,232	311	733						
Trichoglossus ornatus			5							
GRAND TOTAL	1,034	8,295	8,871	9,854						
NUMBER OF SPECIES	21	58	51	44						



ANNEX II Monthly online trade of Indonesian bird species from 2018–2019

				2018											2019												
			TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Cacatuidae	White-crested Cockatoo	Cacatua alba	80	7	6		2		4	7	6	3	1	6	4	2	1	3	6	6	2	1	4	6	2	1	
Cacatuidae	Sulfur-crested Cockatoo	Cacatua galerita	152	14	14	7	9		4	8	8	6	21	2	7	1	8	3	6	3	4	10	6	1	3	5	2
Cacatuidae	Goffin's Cockatoo	Cacatua goffiniana	32		2	4				4	4	2	2	1	3		2	3		2	1	2					
Cacatuidae	Moluccan Cockatoo	Cacatua moluccensis	74	8	7	1			5	12	3	5		3	3	6	7		6	2		2	2			2	
Cacatuidae	Yellow-crested Cockatoo	Cacatua sulphurea	2			2																					
Casuariidae	Double-wattled Cassowary	Casuarius casuarius	1					1																			
Psittaculidae (Loriinae)	Black Lory	Chalcopsitta atra	8				2			2		1					1					2					
Psittaculidae (Loriinae)	Yellow-streaked Lory	Chalcopsitta scintillata	2						2																		
Psittaculidae (Psittacinae)	Moluccan Eclectus	Eclectus roratus	281	13	13	5	2	2	14	15	21	11	12	12	9	21	12	7	2	23	11	12	14	14	10	19	7
Psittaculidae (Psittacinae)	Papuan Eclectus	Eclectus polychloros	31					2					8	1				1			4	2	4	3	3	1	2
Psittaculidae (Psittacinae)	Tanimbar Eclectus	Eclectus riedeli	4																		4						
Psittaculidae (Loriinae)	Red Lory	Eos bornea	2																			2					
Psittaculidae (Loriinae)	Red and Blue Lory	Eos histrio	4															2						2			
Psittaculidae (Loriinae)	Lory	Eos – hybrid	3																	2	1						
Psittaculidae (Loriinae)	Lory	Eos sp.	2															1				1					
Psittaculidae (Loriinae)	Blue-streaked Lory	Eos reticulata	15							1	3	1	2	4					1			3					
Psittaculidae (Loriinae)	Violet-necked Lory	Eos squamata	2																					2			
Columbidae	Crowned Pigeon	Goura sp.	1															1									
Psittaculidae (Loriinae)	Chattering Lory	Lorius garrulus	22		3					1	11	1		1	1	2					1		1				
Psittaculidae (Loriinae)	Black-caped Lory	Lorius lory	23							1	2	3				8	1					8					
Paradisaeidae	Red Bird-of-paradise	Paradisaea rubra	2								2																
Cacatuidae	Palm Cockatoo	Probosciger aterrimus	38			1			4	7	1	5	3	1	2	3		2		2		2				5	
Psittaculidae (Loriinae)	Dusky Lory	Pseudeos fuscata	7									2			2		1					2					
Psittaculidae (Loriinae)	Large Fig Parrot	Psittaculirostris desmarestii	2																		2						
Psittrichasiidae	Pesquet's Parrot	Psittrichas fulgidus	4								3							1									
Bucerotidae	Papuan Hornbill	Rhyticeros plicatus	5										2					1			2						
Psittaculidae (Loriinae)	Coconut Lorikeet	Trichoglossus haematodus	42	2	2	4	3				4		5	1	6	3	2	4				4					2
	NUMBER OF INDIVIDUALS		841	44	47	24	18	5	33	58	68	40	56	32	37	46	35	29	21	40	32	51	33	28	18	33	13
	NUMBER OF POSTS		501	25	29	17	11	3	19	37	34	26	30	24	22	26	18	16	14	25	19	30	19	18	11	19	9
	SPECIES			5	7	7	5	3	6	10	12	11	9	10	9	8	9	10	5	6	7	11	7	6	4	6	1

WORKING TO ENSURE THE TRADE IN WILD PLANTS AND ANIMALS IS NOT A THREAT TO THE CONSERVATION OF NATURE