

Closing Shop? – an analysis of wildlife trade in Indonesia through Traders' eyes



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Wildlife Trade

"Trade is the arch-exterminator of animal life" – RWG Hingston (1930)

- Sale or exchange of wild animal and plant resources
- Live trade or processed (parts and derivatives) for consumption and traditional medicine
- Ranked as the 3rd largest illegal trade after drugs and weapons
- Southeast Asia is the hub for international wildlife trade as key consumer and supplier (TRAFFIC 2008)
- **CITES** – Convention on International Trade in Endangered Species of Fauna and Flora



Research Site



Source: UNEP

Focal Species



Strawheaded Bulbul



Hill Myna



Black-capped Lorikeet



Slow Loris



White-rumped Shama



Black-winged Starling



Radiated Tortoise



Greater Flying-Fox



Tanimbar Cockatoo



Sumatran Laughingthrush



Pig-nosed Turtle



Tokay Gecko

Birds, Birds, Birds

- Bird-keeping is an Asian tradition which plays a significant role in people's lives
- Bird-keeping and song-bird contests (*Bird Idol*) are deeply entrenched in Indonesian culture
- Wildlife markets are found in nearly every city and town in Indonesia – in Java alone there are more than 70 bird markets!



Wildlife shops – in all shapes and sizes



Methods

"Fieldwork is an intensely personal experience and the quality of that experience is often as important for the final analysis as the data gathered" (H.Russell Bernard)

- Conducted face-to-face, semi-structured interviews with traders (N=21) at 6 markets in Jakarta and Bali;
 - Jatinegara
 - Pramuka
 - Barito,
 - Kartini,
 - Satria
 - Sesetan
- Conducted Pilot to test effectiveness and sensitivity of questionnaire
- Key Informant interviews

Research Objectives

- Traders' socio-economic profile and demography
- Market Trends
- Cultural and spatial trends
- Mortality Rates Vs Rate of Inventory Replenishment
- Captive-Breeding - *a sustainable conservation tool?*
- Impact of Zoonosis
- Correlation between CITES and IUCN Red List

Traders' Socio-economic Profile

- Males dominate in both selling and buying roles (20 out of 21)
- Emerging trends of younger traders
- Ethnic Origin - 18/21 traders were Javanese
- **Hobby** and **Income** are key motivational drivers to become a wildlife trader
- Three types of Customers
 1. Hobbyist
 2. Pet Owner
 3. Consumption and Traditional Medicine

Market Trends

- **Rarity** is a huge 'selling-point' and influences trade dynamics
- Traders use a species' threatened status to capitalise on consumer demand
- Rationale for listing a species' Rarity or Conservation status is to protect it and raise awareness, yet can actually jeopardise conservation of the species.
- **Anthropogenic Allee Effect (AAE)** - paradox of value driving species into an extinction vortex (Courchamp *et al*, 2006)
the rarer the species, the higher the demand, the higher the price.

Market Trends



Market Trends



Captive Breeding: *a sustainable conservation tool?*

- Wildlife laundering; sale of wild-caught animals as captive-bred
- All traders interviewed only sold wild-caught animals
- "Hobbyists" are the predominant customers that prefer wild-caught animals
- In Indonesia, protected species can be legally traded if captive-bred with a permit
- Market-Based Incentive schemes to undercut illegal trade



Trade Hotspots

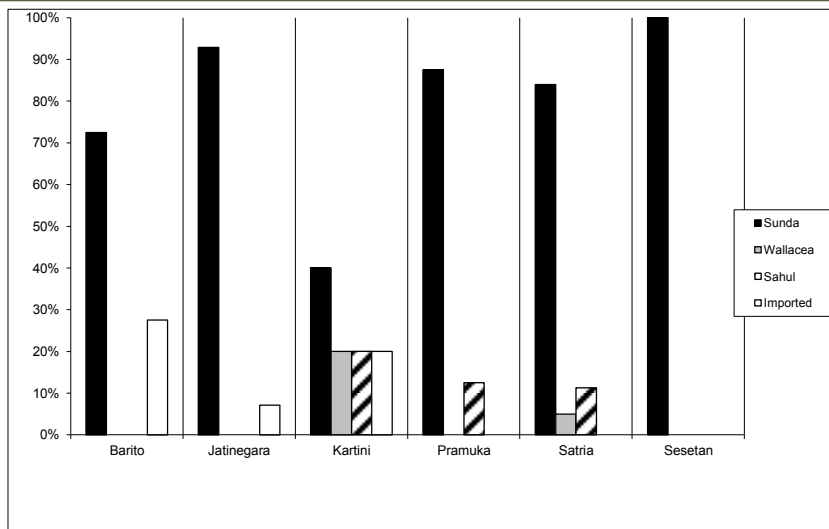


Fig 1.1 Regional source of origin break-down

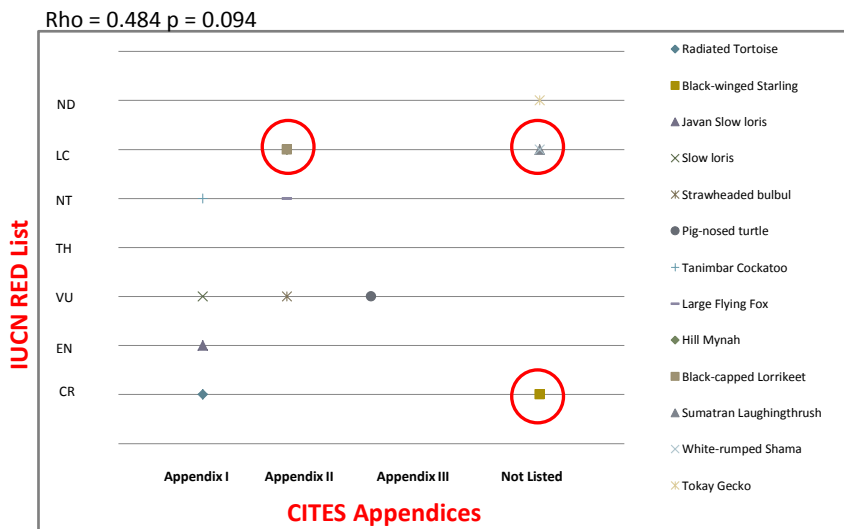
Zoonosis: – could the fear of potential emerging infectious diseases curb demand?

- Wildlife trade is a mechanism for disease transmission to humans

Zoonosis	Host Origin
Bird Flu (H5N1)	Aquatic Birds (Horimoto, 2001)
SARS	Civet cats and Bats (Bell <i>et al</i> , 2004)
Ebola	Contact with infected great apes (Leroy <i>et al</i> , 2004)
HIV	Consumption of bushmeat (Feng <i>et al</i> , 2009)

- Bird Flu epidemic did DECREASE trade
- Spread of possible zoonoses through the utilisation of infected wildlife for consumption or traditional medicine.
- Lessons learnt and *Precautionary Principle* to reduce transmission and prevent future pandemics

Correlation between CITES and IUCN Red List



Spearman's Correlation ranking between CITES and IUCN Red List

A protected Slow Loris anyone?



Conclusion and further research

- **Reduce consumer demand** and change public perception through education and government intervention
- **Shift cultural beliefs** of keeping wildlife and work towards with TCM practitioners towards finding sustainable alternatives
- Increase awareness of zoonosis to avoid future global pandemics
- Regulate the listing and description of a species' conservation status
- **Enforce** wildlife trade policies and regulations
- Market based Incentive schemes?



Acknowledgements

- Professor E.J. Milner-Gulland for her guidance and supervision during the project
- JAAN – Jakarta Animal Aid Network
- Jatmiko Wiwoho – ProFauna
- Dwi Nugroho – WCS, Wildlife Crime Unit, Indonesia
- Dr Ron Lilley
- TRAFFIC
- Student Conference on Conservation Science (SCCS) – Australia 2013

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TRAFFIC
the wild trade monitoring network