



World Organisation
for Animal Health
Founded as OIE



Australian Government
Department of Agriculture,
Fisheries and Forestry

Concept Note

WOAH Pilot Implementation of Guidelines for Addressing Disease Risks in Wildlife Trade :
Workshop on Assessing and Managing Health Risks in Wildlife Trade

The ecology of infectious diseases through wildlife trade

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But, then

11 January 2020, official announcement by WHO



Une personne est conduite à l'hôpital de Wuhan où des patients atteints d'une pneumonie inconnue sont traités, le 18 janvier 2020. STR / AFP

News / Wuhan Coronavirus

17 January 2020 - Imperial College London

Estimating the potential total number of novel Coronavirus (2019-nCoV) cases in Wuhan City, China

Estimation 1,723 cases of 2019-nCoV at Wuhan
(95% CI: 427 – 4,471)

China locking down cities with 18 million to stop virus

23 January 2020, by Ken M



Matère
à débattre • décider

Emergence of infectious diseases

Risks and issues for society

Serge Morand, Muriel Figuié, eds.



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An epidemic of epidemics

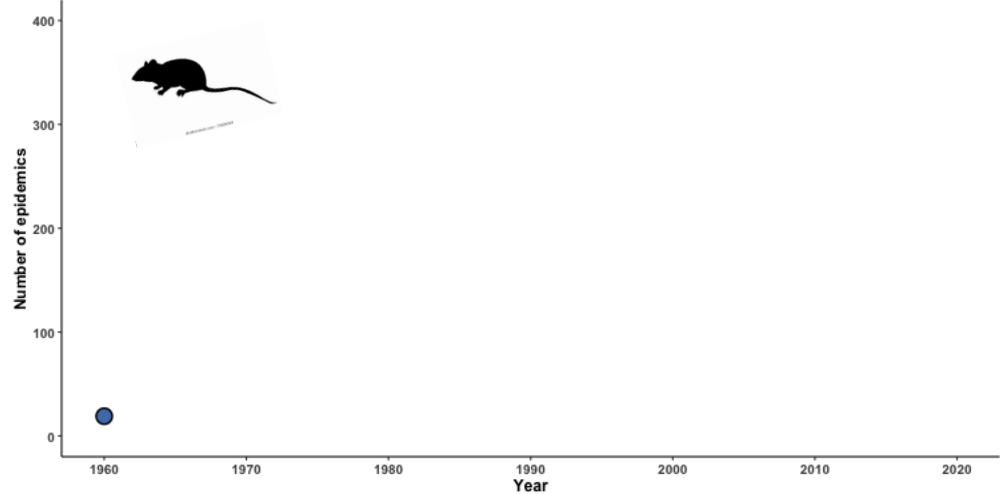
An increasing number of outbreaks



Humans

Outbreaks of zoonotic diseases

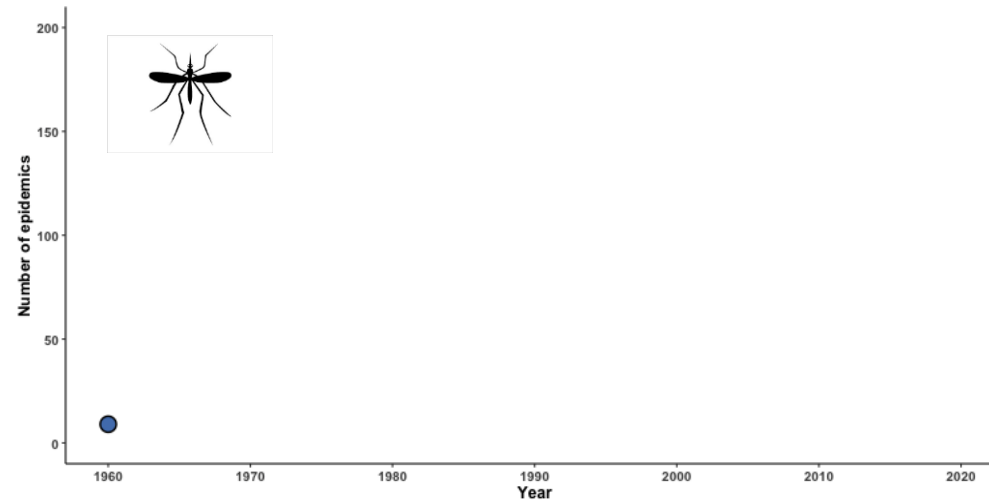
1960-2019



Data source: GIDEON

Outbreaks of vector-borne diseases

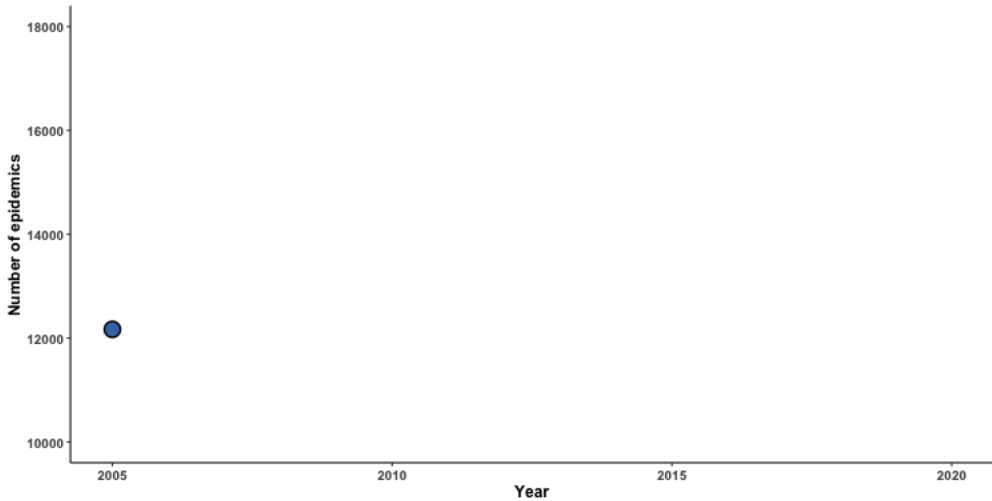
1960-2019



Data source: GIDEON

Outbreaks of livestock - poultry diseases

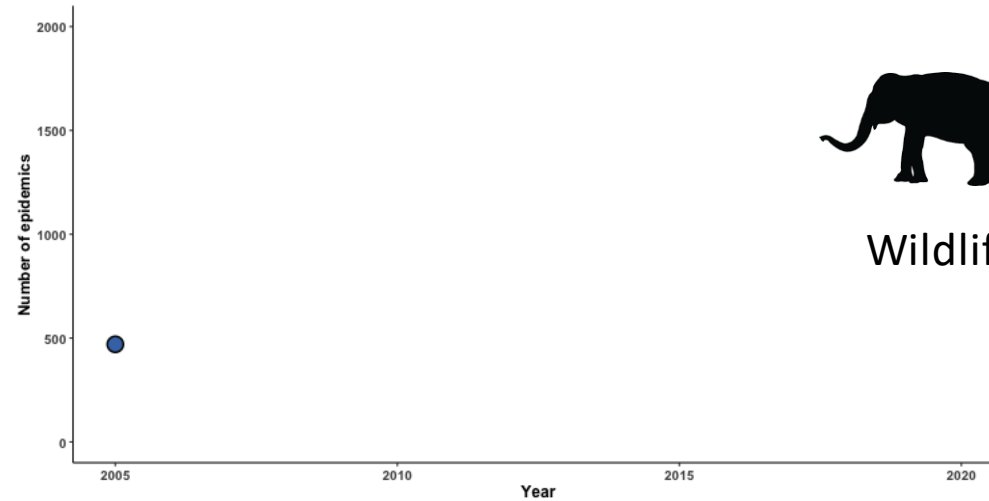
2005-2019



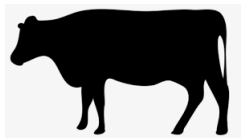
Data source: OIE-WAHIS

Outbreaks of wildlife diseases

2005-2019



Data source: OIE-WAHIS



Livestock



Wildlife



THE STATE OF
THE WORLD'S
BIODIVERSITY
FOR FOOD AND AGRICULTURE

Increase of fungal diseases in plants and animals



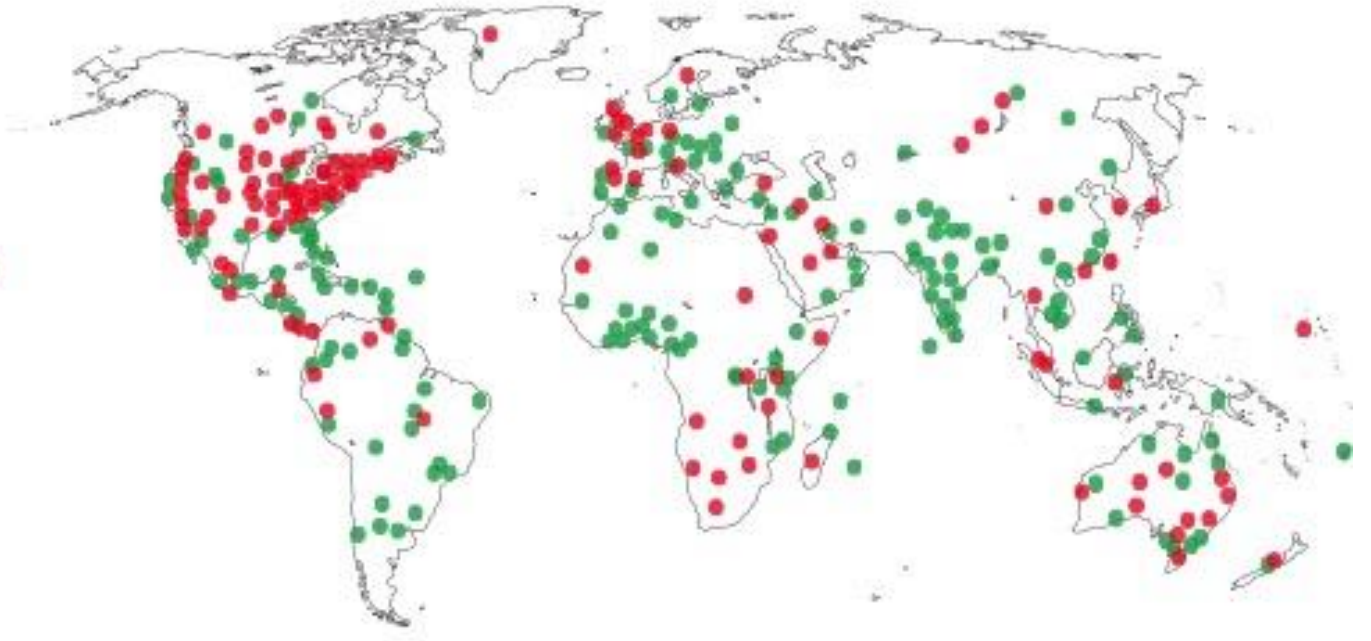
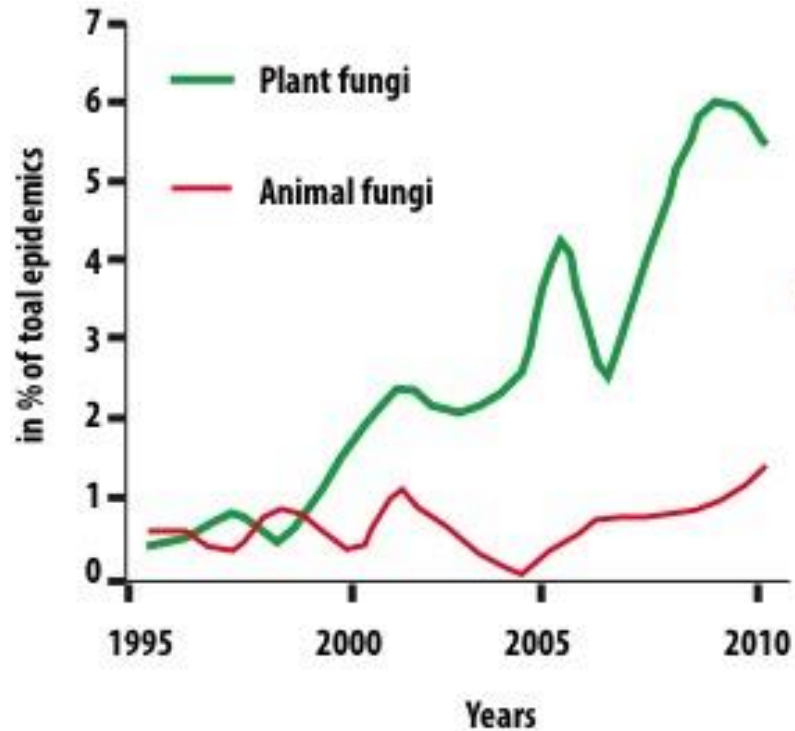
Bat white-nose syndrome

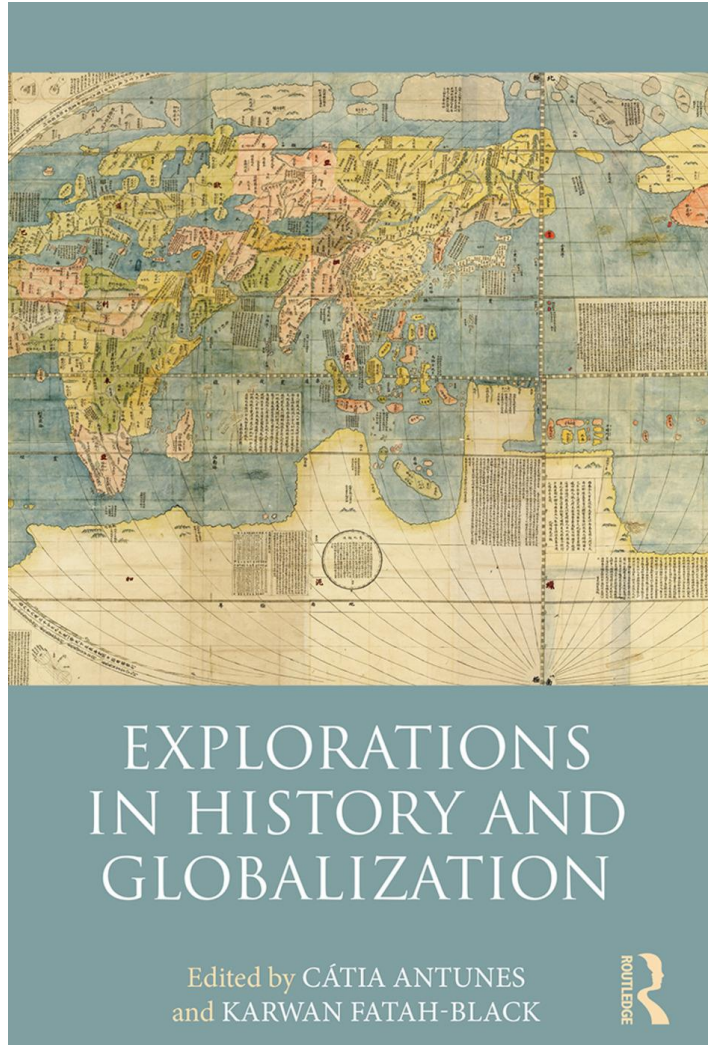


Amphibian chytrid



Plant fungal diseases

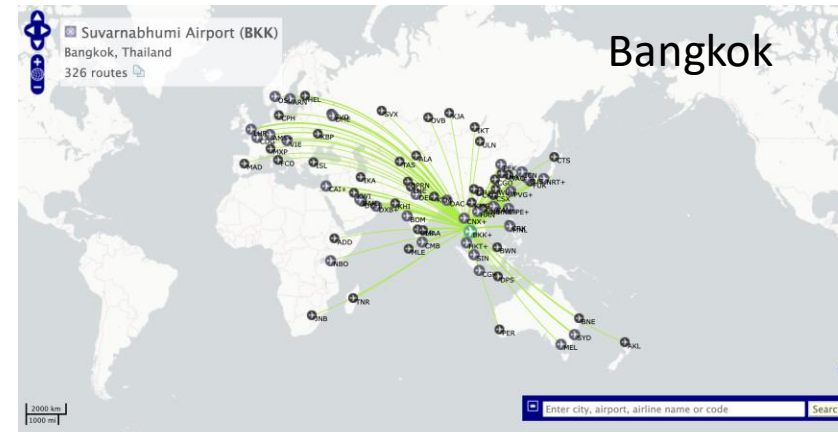
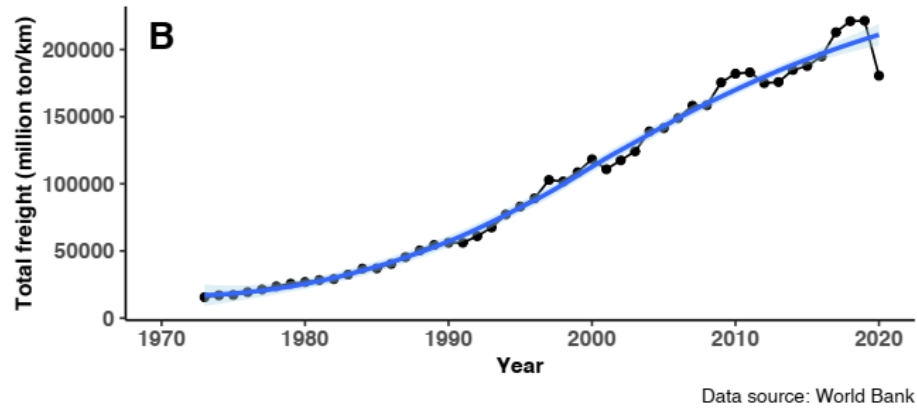
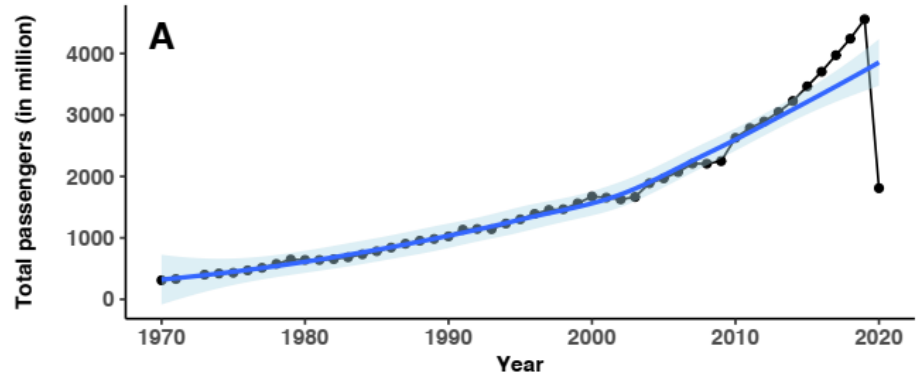




A globalized planet

World flight travels

1,300 % d'accroissement 1970-2019





Situation analysis on the roles and risks of wildlife in the emergence of human infectious diseases

Richard Kock and Hernan Caceres-Escobar



Wildlife trade

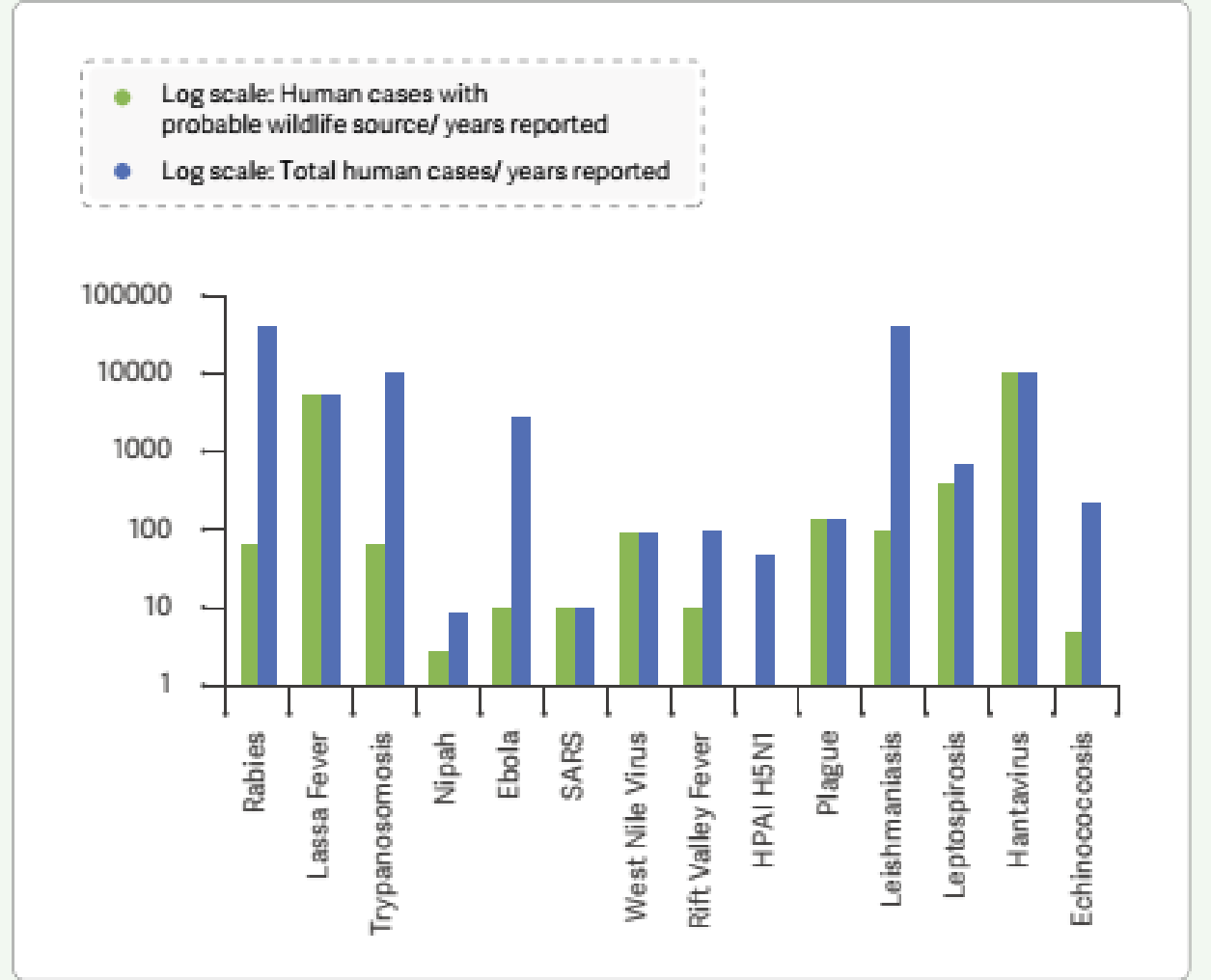
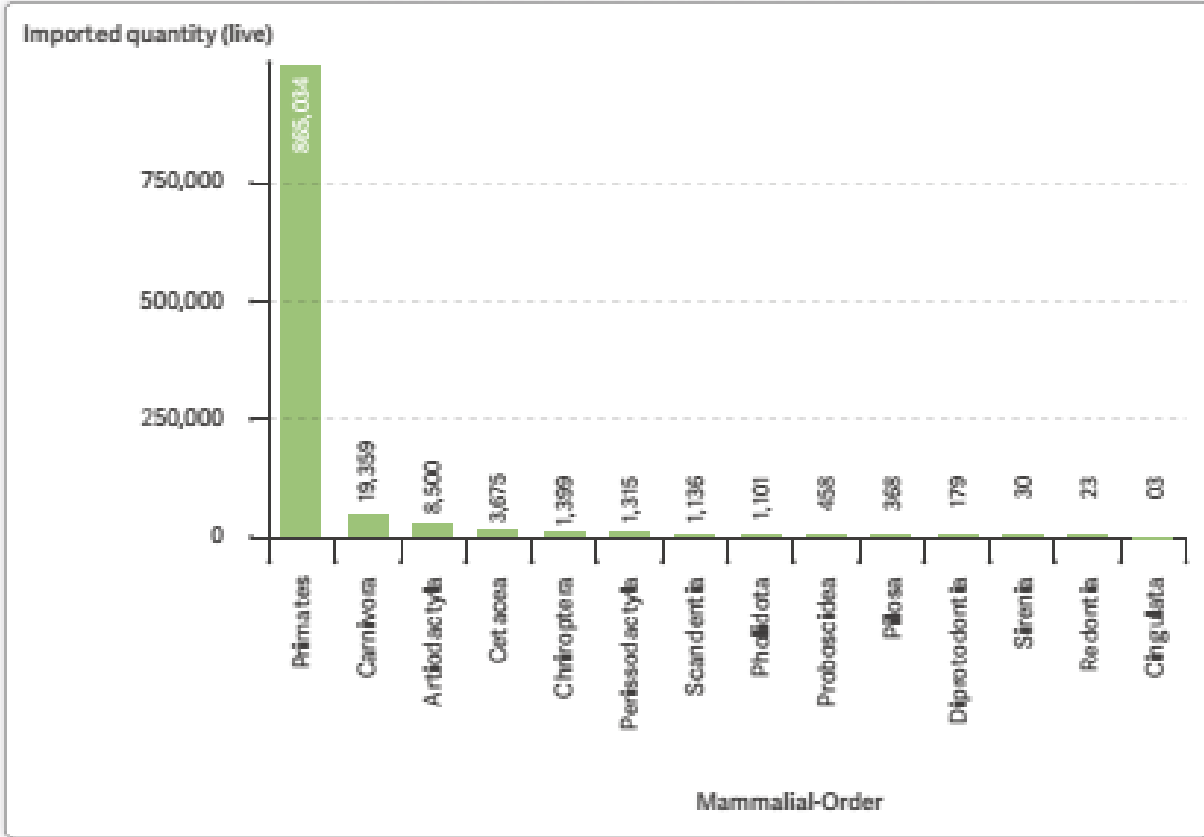


Figure 14. Estimated global mortality burden for selected wildlife zoonoses

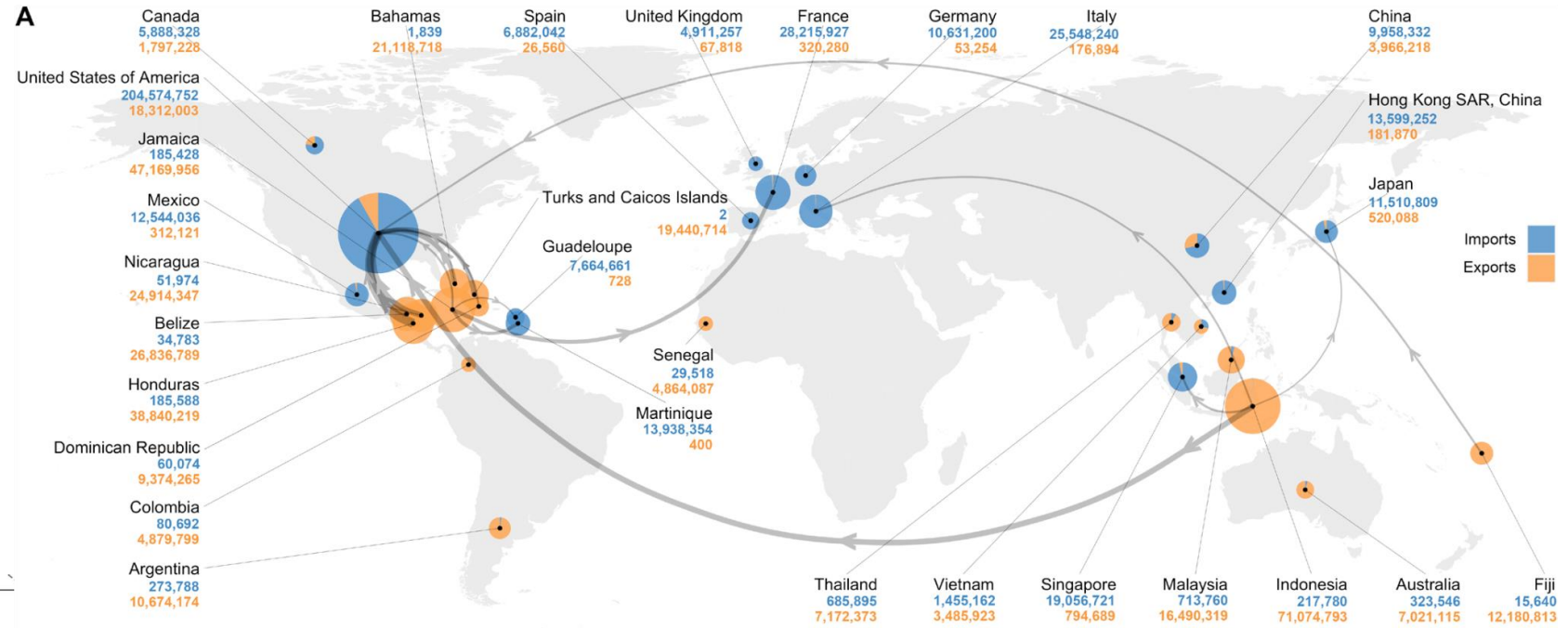
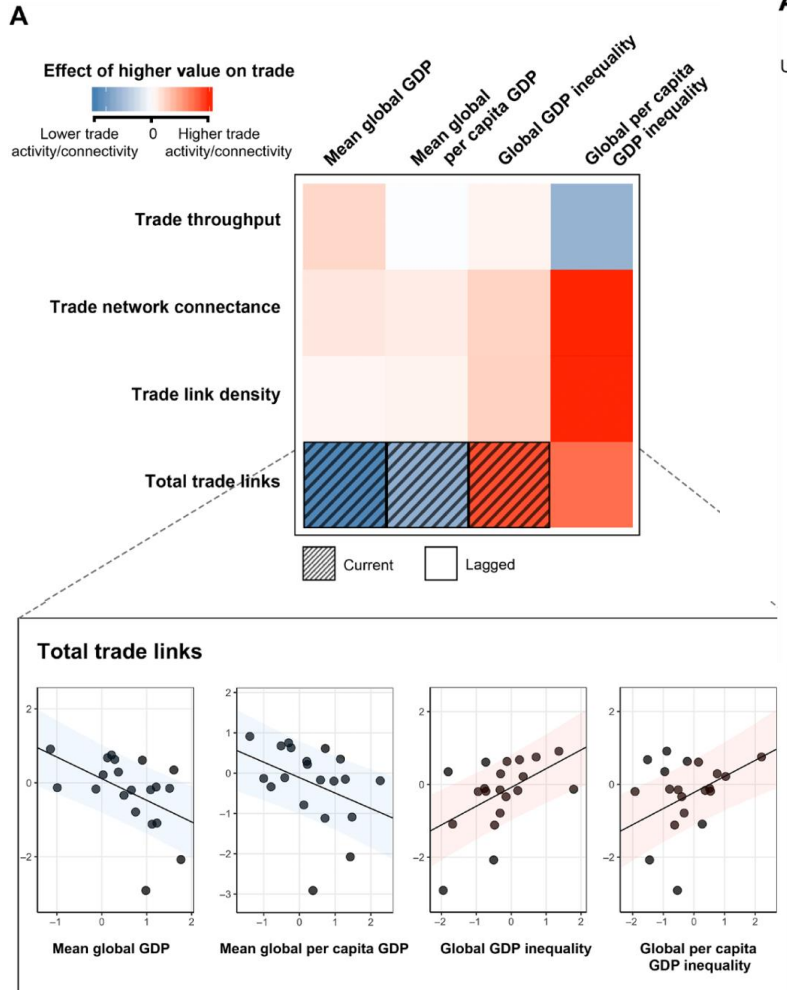
Table 8. Employment and direct output value of wild animal industry in China, 2016 (in a 2017 report by the Chinese Academy of Engineering on the development of the wildlife farming industry)

Industry	No. of Employment	Direct Output Value (Million CNY)
Fur Animal	7,600,000	398,483
Medicinal animal	210,800	5,027
Food animals	6,263,400	125,054
Exhibiting animals & pets	13,700	625
Experimental Animals	2,000	400
Total	14,089,900	520,616

Source: Prepared by the report authors.

International socioeconomic inequality drives trade patterns in the global wildlife market

Jia Huan Liew^{1,2*}, Zi Yi Kho³, Rayson Bock Hing Lim⁴, Caroline Dingle¹, Timothy Carlton Bonebrake¹, Yik Hei Sung², David Dudgeon¹





Article

Parrot Trade and the Potential Risk of Psittacosis as a Zoonotic Disease in Indonesian Bird Markets










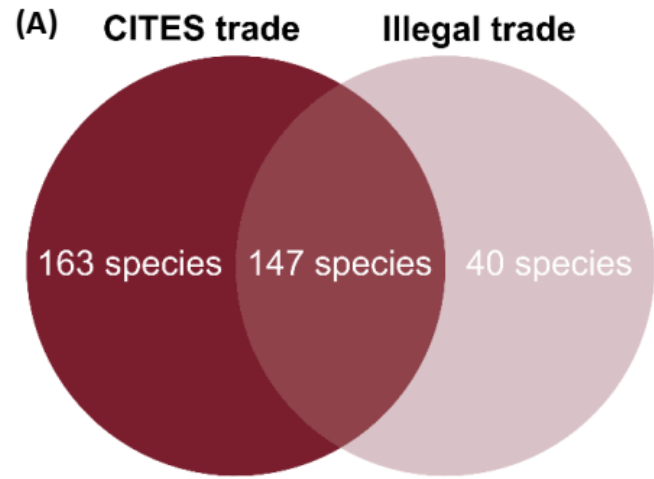
Abdullah Abdullah ¹, Ahmad Ardiansyah ^{2,3}, Michela Balestri ^{2,3}, Marco Campera ⁴, Jessica Chavez ^{2,4}, Tunga Dewi ^{3,5}, Anna Fourage ², Emma L. Hankinson ², Katherine Hedger ³, Boyd Leupen ⁶, Sophie Manson ^{2,3}, Thais Q. Morcatty ^{2,7,*}, K. A. I. Nekaris ^{2,3}, Vincent Nijman ^{2,*}, Paula E. R. Pereyra ⁸, Erly Sintya ⁹, Magdalena S. Svensson ² and Meng Xie ^{2,10}

Table 1. Prevalence of psittacosis in native and non-native parrot genera that were recorded in the bird markets in Java and Bali, Indonesia.

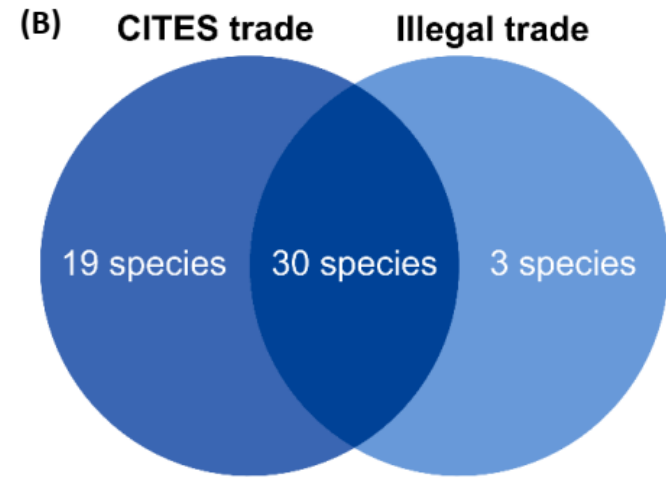
Genus	Percentage Tested Positive (Combined Sample Size)	Reference
<i>Lorius</i>	50 (2)	[32]
<i>Psittacula</i>	33 (103)	[32–36]
<i>Trichoglossus</i>	58 (12)	[35]
<i>Cacatua</i>	4 (156)	[32,35]
<i>Platycercus</i>	9 (112)	[34,35]
<i>Ara</i>	48 (50)	[34,36]
<i>Amazona</i>	35 (52)	[34,36]
<i>Aprosmictus</i>	50 (2)	[36]
<i>Psittacus</i>	20 (20)	[36]
<i>Aratinga</i>	50 (6)	[36]
<i>Eos</i>	50 (2)	[36]
<i>Eclectus</i>	17 (12)	[32,34,36]



Zoonotic Potential of International Trade in CITES-Listed Species: Addendum



CITES-listed species belonging to families associated with a WHO R&D Blueprint priority disease



CITES-listed species directly associated with a WHO R&D Blueprint priority disease



ZOONOSES

THE TIES THAT BIND HUMANS
TO ANIMALS

GWENAËL VOURC'H, FRANÇOIS MOUTOU,
SERGE MORAND, ELSA JOURDAIN

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Disease transmission at the interface



Pandemic origins and a One Health approach to preparedness and prevention: Solutions based on SARS-CoV-2 and other RNA viruses

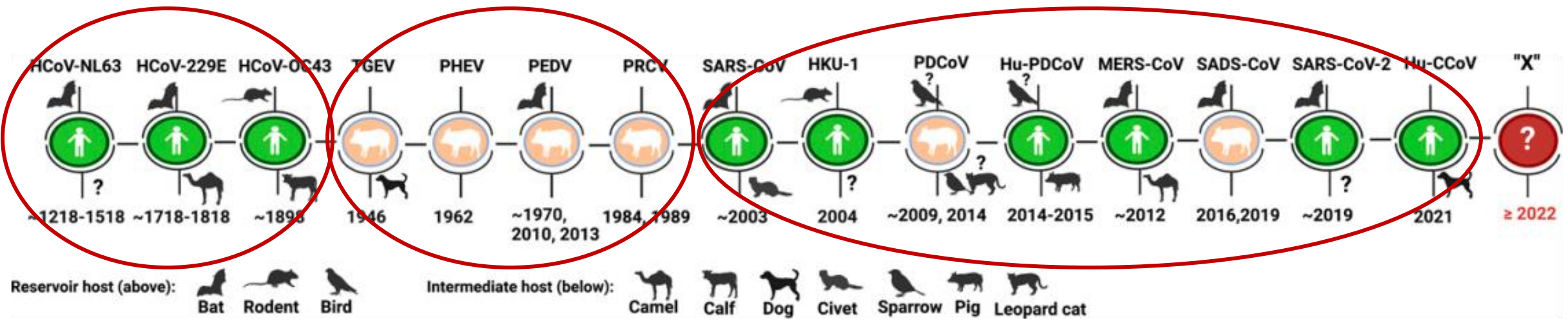
Gerald T. Keusch^{a,1}, John H. Amuasi^{b,c,d}, Danielle E. Anderson^e, Peter Daszak^f, Isabella Eckerle^{g,h}, Hume Field^{i,j}, Marion Koopmans^k, Sai Kit Lam^k, Carlos G. Das Neves^{l,m}, Malik Peirisⁿ, Stanley Periman^o, Supaporn Wacharapluesadee^p, Su Yadana^q, and Linda Saif^{r,1}

Emerged CoVs in humans and domestic animals

7 centuries (13th - 19th)

One century (20th)

Two decades (21st)



Susceptibility of White-Tailed Deer (*Odocoileus virginianus*) to SARS-CoV-2

① Mitchell V. Palmer,^a ① Mathias Martins,^b Shollie Falkenberg,^c Alexandra Buckley,^d Leonardo C. Caserta,^b Patrick K. Mitchell,^b ① Eric D. Cassmann,^d Alicia Rollins,^b Nancy C. Zylch,^b Randall W. Renshaw,^b Cassandra Guarino,^b Bettina Wagner,^b Kelly Lager,^d ① Diego G. Diehl^b



SARS-CoV-2 in animals used for fur farming

GLEWS+
Risk assessment



20 January 2021

Confirmation of COVID-19 in Deer in Ohio



CORONAVIRUS

Susceptibility of ferrets, cats, dogs, and other domesticated animals to SARS-coronavirus 2

Jianzhong Shi^{1,*}, Zhiyuan Wen^{1,*}, Gongxun Zhong^{1,*}, Huanliang Yang^{1,*}, Chong Wang^{1,*}, Baoying Huang^{2,*}, Renqiang Liu¹, Xijun He³, Lei Shuai¹, Ziruo Sun¹, Yubo Zhao¹, Peipei Liu², Libin Liang¹, Pengfei Cui¹, Jinliang Wang¹, Xianfeng Zhang³, Yuntao Guan³, Wenjie Tan², Guizhen Wu^{2,†}, Hualan Chen^{1,†}, Zhigao Bu^{1,3,†}

Article

First Description of SARS-CoV-2 Infection in Two Feral American Mink (*Neovison vison*) Caught in the Wild

Jordi Aguiló-Gisbert^{1,†} ①, Miguel Padilla-Blanco^{2,†}, Victor Lizana^{1,3} ①, Elisa Maiques⁴, Marta Muñoz-Baquero¹, Eva Chillida-Martínez¹, Jesús Cardells^{1,3,*} and Consuelo Rubio-Guerri^{2,*}

Pangolins harboring coronavirus underscored risk of wildlife markets

BY SAUL ELBEIN - 03/09/22 04:06 PM EST

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Distribution of trade-confiscated pangolins screened for Sarbecoviruses in Viet Nam

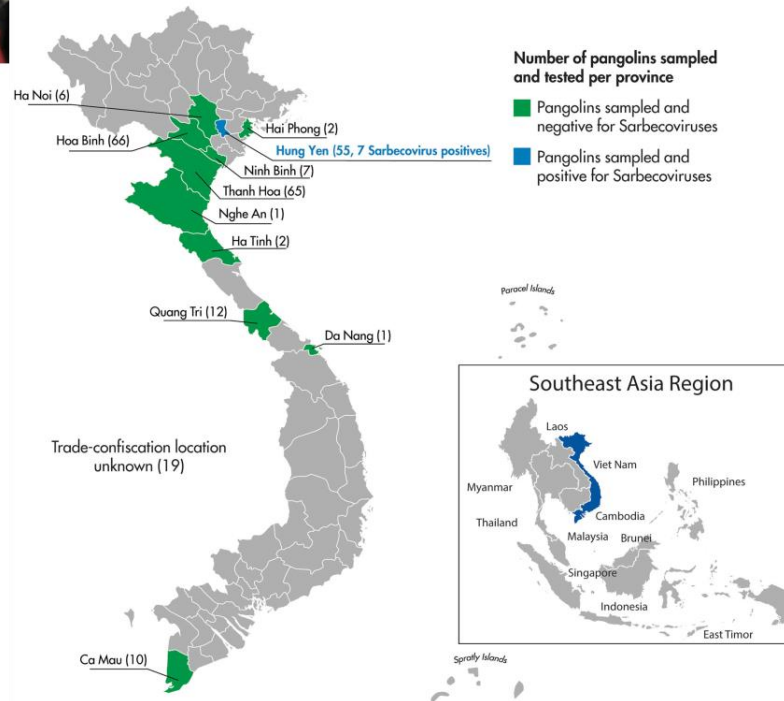
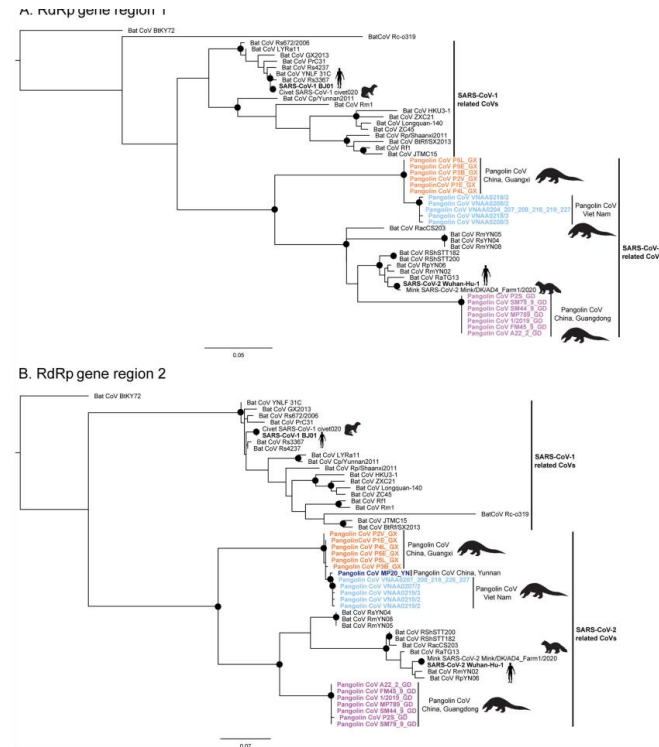


FIGURE 3 | The location by province of pangolin confiscation events and the associated number of individual pangolins screened for Sarbecoviruses as part of this study.

Evidence of SARS-CoV-2 Related Coronaviruses Circulating in Sunda pangolins (*Manis javanica*) Confiscated From the Illegal Wildlife Trade in Viet Nam

Nguyen Thi Thanh Nga^{1†}, Alice Latinne^{1,2†}, Hoang Bich Thuy¹, Nguyen Van Long¹, Pham Thi Bich Ngoc¹, Nguyen Thi Lan Anh¹, Nguyen Van Thai³, Tran Quang Phuong⁴, Hoang Van Thai⁴, Lam Kim Hai³, Pham Thanh Long⁵, Nguyen Thanh Phuong⁶, Vo Van Hung⁶, Le Tin Vinh Quang⁶, Nguyen Thi Lan⁷, Nguyen Thi Hoa⁷, Christine K. Johnson⁸, Jonna A. K. Mazet⁸, Scott I. Robertson², Chris Walzer^{2,9}, Sarah H. Olson² and Amanda E. Fine^{1,2*}

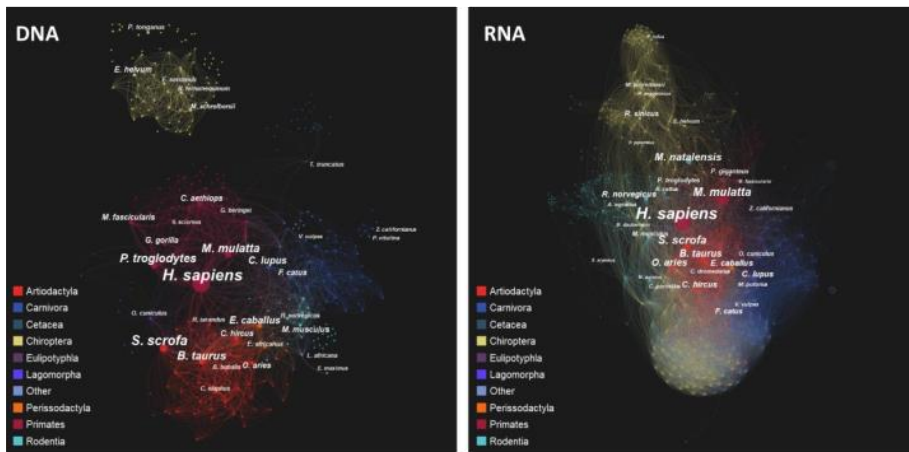
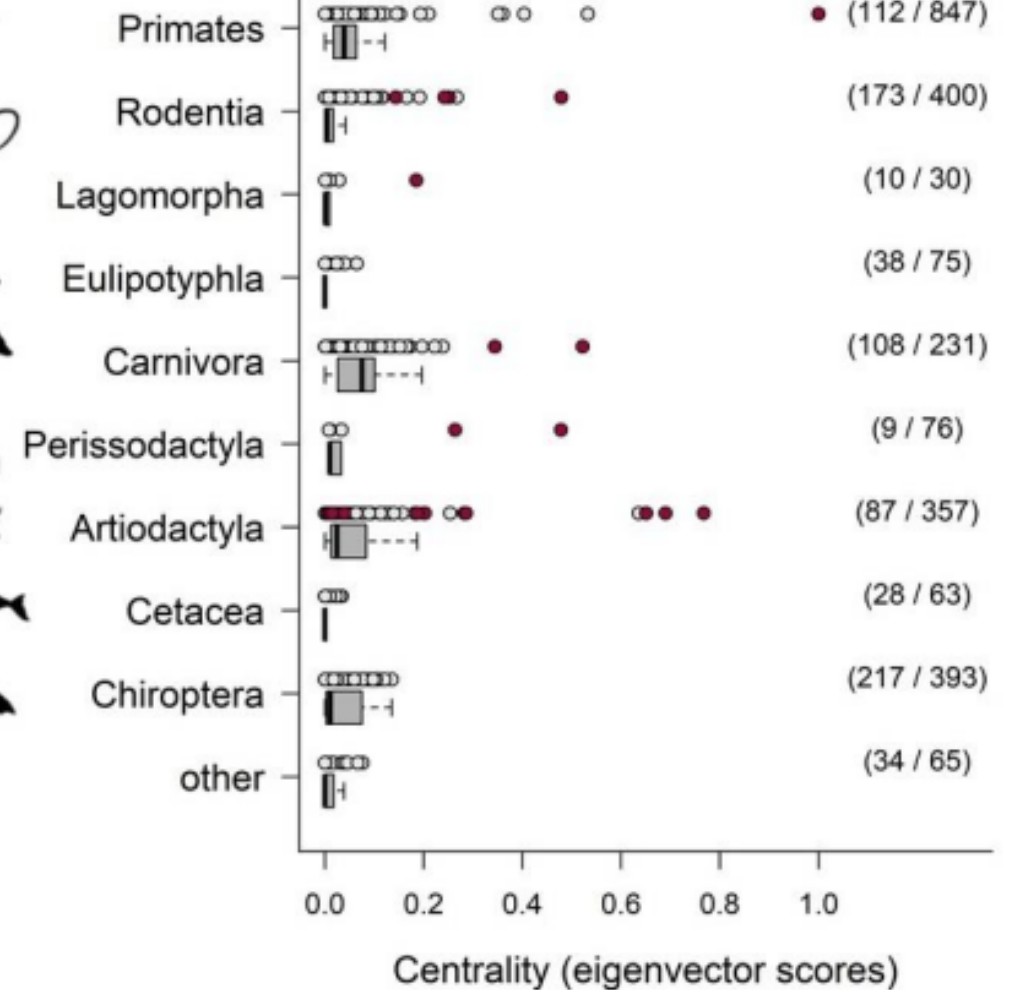
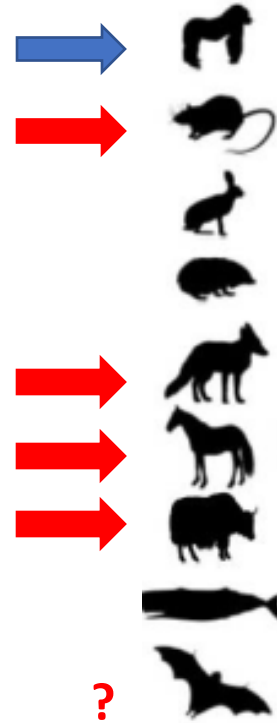
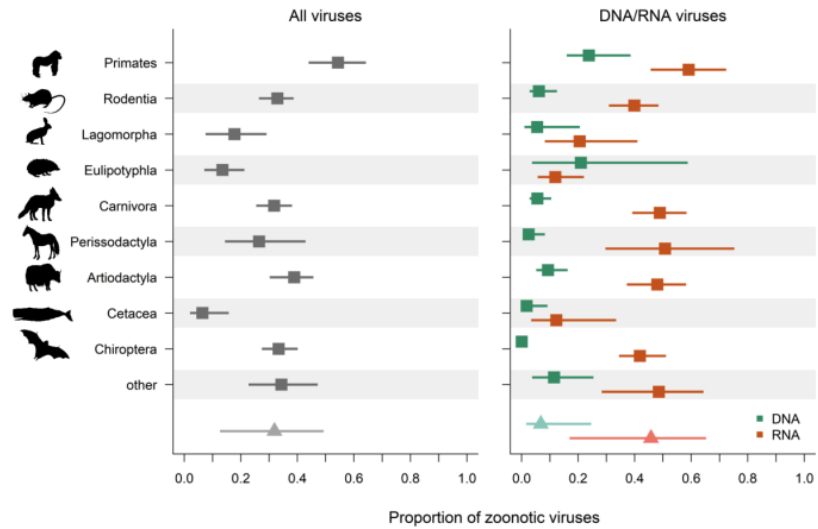


Distinct spread of DNA and RNA viruses among mammals amid prominent role of domestic species

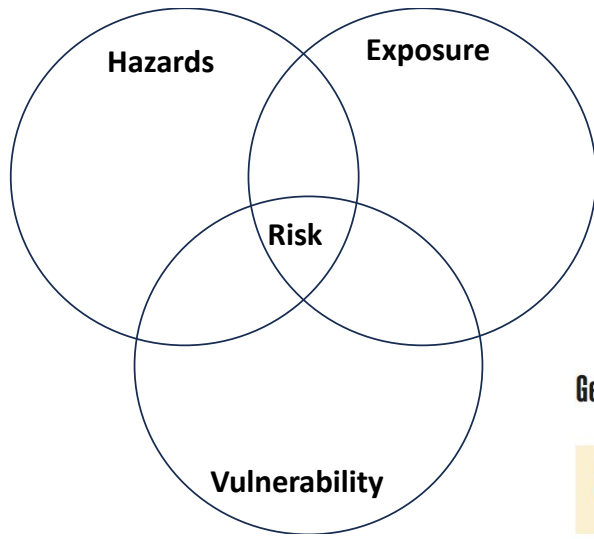
1,785 DNA / RNAD viruses

725 mammal species

Konstans Wells, Serge Morand, Maya Wardeh, Matthew Baylis



(GEB 2020)



Guidelines for Reducing the Risk of Disease Spillover Events at Markets Selling Wildlife and along the Wildlife Supply Chain

Generic Wildlife Supply Chain

