# Illicit succulent plant trade and pathways towards sustainability



Plant Conservation Alliance January 13, 2020

Jared Margulies Assistant Professor Department of Geography University of Alabama



① Open Access 🙃 🕦



#### Illegal wildlife trade and the persistence of "plant blindness"

Jared D. Margulies M, Leigh-Anne Bullough, Amy Hinsley, Daniel J. Ingram, Carly Cowell, Bárbara Goettsch, Bente B. Klitgård, Anita Lavorgna, Pablo Sinovas, Jacob Phelps ... See fewer authors 🔨

First published: 12 July 2019 | https://doi.org/10.1002/ppp3.10053 | Citations: 8

SECTIONS









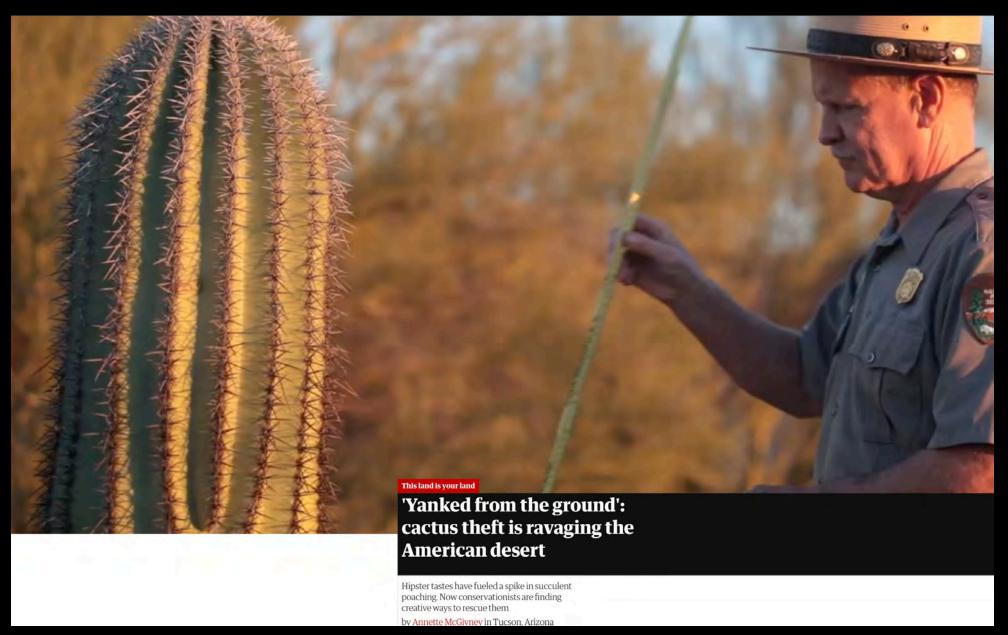
#### Societal Impact Statement

A wide variety of plant species are threatened by illegal wildlife trade (IWT), and yet plants receive scant attention in IWT policy and research, a matter of pressing global concern. This review examines how "plant blindness" manifests within policy and research on IWT, with serious and detrimental effects for biodiversity conservation. We suggest several key points: (a) perhaps with the exception of the illegal timber market, plants are overlooked in IWT policy and research; (b) there is insufficient attention from funding agencies to the presence and persistence of illegal trade in plants; and (c) these absences are at least in part resultant from plant blindness as codified in governmental laws defining the meaning of "wildlife."

# Illicit Trade in Plants is Global, Pervasive, yet Poorly Characterized and Understood

- CITES lists a total of 5,811 registered faunal species compared to 29,990 species of plants (excluding subspecies).
- Between 2005 and 2014, 35% of all seizures recorded in UNODC World Wildlife Seizures database were "rosewood" species, representing the highest proportion of all wildlife recorded as seized in the database (UNODC, 2016).
- Within the cactus family,  $^31\%$  of all cactus species are threatened with extinction, and 47% are impacted by collection for the horticultural trade, much of which is illegal Goettsch et al. (2015) .
- 60%–90% of medicinal and aromatic plants in trade are wild collected, valued at 3 billion USD annually, yet traceability and documentation within this trade is often opaque—much is likely illegal (TRAFFIC, 2018)
- Cycads are at high risk from illegal trade as ornamental plants, and are now considered the most endangered plant group on the planet (Brummitt et al., 2015; IUCN, 2010)





PUBLISHED: 5 OCTOBER 2015 | ARTICLE NUMBER: 15142 | DOI: 10.1038/NPLANTS.2015.142

## High proportion of cactus species threatened with extinction

Bárbara Goettsch et al.\*

A high proportion of plant species is predicted to be threatened with extinction in the near future. However, the threat status of only a small number has been evaluated compared with key animal groups, rendering the magnitude and nature of the risks plants face unclear. Here we report the results of a global species assessment for the largest plant taxon evaluated to date under the International Union for Conservation of Nature (IUCN) Red List Categories and Criteria, the iconic Cactaceae (cacti). We show that cacti are among the most threatened taxonomic groups assessed to date, with 31% of the 1,478 evaluated species threatened, demonstrating the high anthropogenic pressures on biodiversity in arid lands. The distribution of threatened species and the predominant threatening processes and drivers are different to those described for other taxa. The most significant threat processes comprise land conversion to agriculture and aquaculture, collection as biological resources, and residential and commercial development. The dominant drivers of extinction risk are the unscrupulous collection of live plants and seeds for horticultural trade and private ornamental collections, smallholder livestock ranching and smallholder annual agriculture. Our findings demonstrate that global species assessments are readily achievable for major groups of plants with relatively moderate resources, and highlight different conservation priorities and actions to those derived from species assessments of key animal groups.

## Guiding Research Questions:

- How do rare/threatened species enter illicit markets and global circulation as commodities?
- Who are succulent collectors, and what motivates certain collectors to possess rare and threatened plants, especially wild-harvested ones?
- How effective are international trade regulations (CITES) in curbing illicit succulent <u>trade?</u>
- Where is demand for illicit succulents? What is revealed through attention to both supply and demand side drivers of these trades?



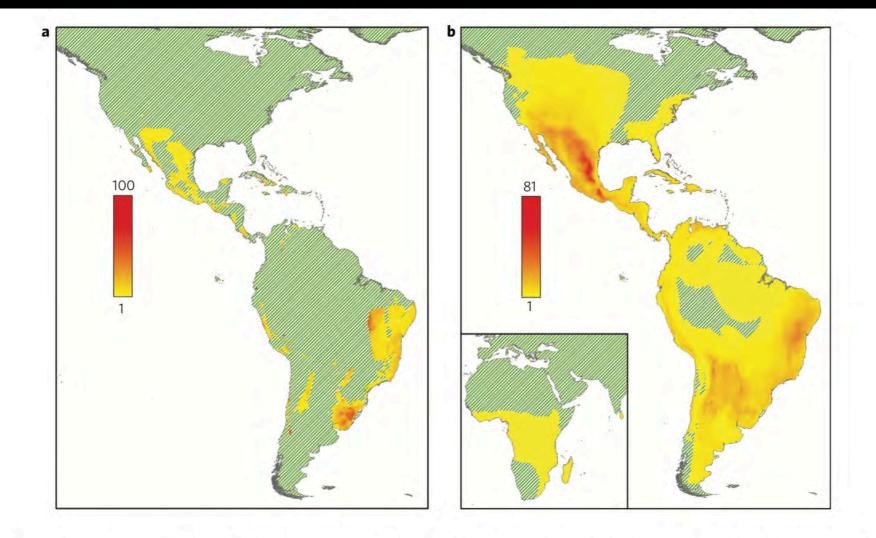


Figure 2 | Patterns of biodiversity of Cactaceae. a, Proportion of species that are threatened (Vulnerable, Endangered and Critically Endangered). b, Total species richness.

Goettsch et al. (2015).

#### Wildlife Trafficking between the European Union and Mexico

Inés Arroyo-Quiroz

Universidad Nacional Autónoma de México, Mexico

**Tanya Wyatt** 

Northumbria University, United Kingdom

#### Abstract

Illegal wildlife trade or wildlife trafficking is a global threat to all kinds of species, not just charismatic megafauna or wildlife in Africa and Asia. This paper presents the findings of an investigation of the illegal trade in native and non-native wildlife and wildlife products between the European Union and Mexico. Using literature analysis, secondary trade data and expert interviews, this study explores the nature and extent of wildlife trafficking between these two regions, including the involvement of organised crime within an eco-global criminological framework. This is important for the regions studied and for the global community more generally, as wildlife trafficking is contributing not only to species extinction, but also to instability, violence and unhealthy physical environments for humans.

#### Keywords

Green criminology; illegal wildlife trade; Mexico; organised crime; wildlife trafficking.

Original Contribution | Open Access | Published: 07 February 2017

#### Summarizing US Wildlife Trade with an Eye Toward Assessing the Risk of Infectious Disease Introduction

K. M. Smith, C. Zambrana-Torrelio, A. White, M. Asmussen, C. Machalaba, S. Kennedy, K. Lopez, T. M. Wolf, P. Daszak, D. A. Travis & W. B. Karesh

EcoHealth 14, 29-39(2017) | Cite this article

5616 Accesses | 28 Citations | 297 Altmetric | Metrics

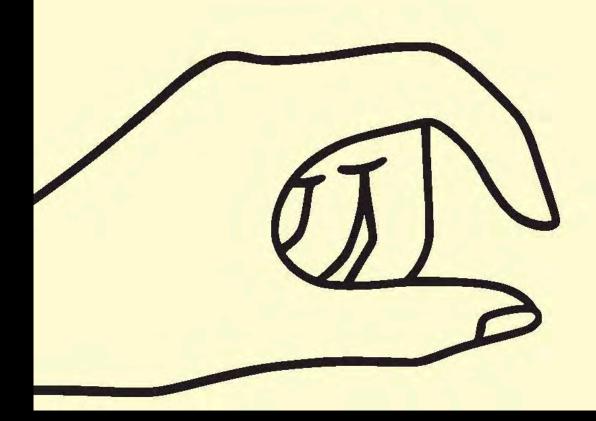


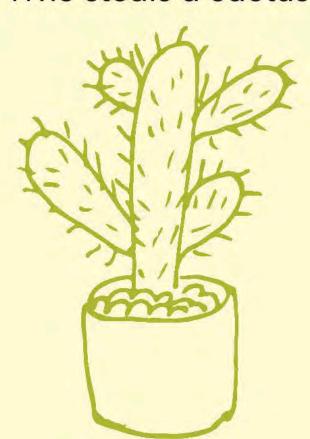
A Related Article is available

#### Abstract

The aim of this study was to characterize the role of the USA in the global exchange of wildlife and describe high volume trade with an eye toward prioritizing health risk assessment questions for further analysis. Here we summarize nearly 14 years (2000-2013) of the most comprehensive data available (USFWS LEMIS system), involving 11 billion individual specimens and an additional 977 million kilograms of wildlife. The majority of shipments contained mammals (27%), while the majority of specimens imported were shells (57%) and tropical fish (25%). Most imports were facilitated by the aquatic and pet industry, resulting in one-third of all shipments containing live animals. The importer reported origin of wildlife was 77.7% wildcaught and 17.7% captive-reared. Indonesia was the leading exporter of legal shipments, while Mexico was the leading source reported for illegal shipments. At the specimen level, China was the leading exporter of legal and illegal wildlife imports. The number of annual declared shipments doubled during the period examined, illustrating continually increasing demand, which reinforces the need to scale up capacity for border inspections, risk management protocols and disease surveillance. Most regulatory oversight of wildlife trade is aimed at conservation, rather than prevention of disease introduction.

### Who steals a cactus?





## Mammillaria bertholdii





Mammillaria bertholdii

11 - XEROPHILIA • Volume VI, No. 1 (20), March 2017 | ISSN 2285-3987

Photo: Rodrigo H González



#### 1080. Mammillaria bertholdii ,grafted

Condition: --

"WE SHIP WORLDWIDE!"

Time left: 6d 21h Tuesday, 7:18AM

Price: US \$18.90

**Buy It Now** 

Add to cart

Best Offer:

**Make Offer** 

Add to watch list

30-day returns

100% positive feedback

Shipping: \$14.00 Standard International Shipping | See details

See details about international shipping here.

Item location: Kharkiv, Kharkiv, Ukraine

Ships to: Worldwide

## The collector

"It is always exciting when I really sensational new cactus is found and named. The description of Mammillaria bertholdii by Thomas Linzen in the German Mammillaria journal is one of those moments."





## Robinhood Conservationists?

- Justify illicit behavior by answering to "higher loyalty" (Mackenzie and Yates, 2016: 342)
- Position themselves as "bad boys" of cactus conservation (e.g. "The Guerilla Cactus Group")
- See themselves of victims of well-meaning but misguided bureaucracy:
  - "If not for us, this plant might already be extinct in the wild, and yet we are made out as criminals."
- "Flooding the market" is framed as a kind of harm reduction- pre-emptive collection can lead to longer-term conservation.



"Undoubtedly **we** are the biggest threat to M. Bertholdii at the site, all cactus enthusiasts and all who think they are...It is the urge, the craving to possess everything that is new and still has the appearance of the unusual. As far as I know M. Bertholdii should be classified as endangered in habitat. My great hope is that the few people who had been at the site, are aware and therefore circumvent accordingly in their actions and with sharing their knowledge. I quite understand the interest of cactus lovers for this new taxon. But an assault on its habitat...M. Bertholdii [would] not survive. It would be destroyed even before properly known to the world." (Linzen,, 2014: pg 50)