CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA
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Twenty-fourth meeting of the Plants Committee
Geneva (Switzerland), 20, 21 and 23-26 July 2018

AN OVERVIEW OF CITES TRADE DATA TO ASSIST THE INTERSESSIONAL WORKING GROUP ON THE
DEFINITION OF THE TERM "ARTIFICIALLY PROPAGATED".

1. This document has been submitted by the representative of Oceania (Mr. Leach) and the acting
    representative of Asia (Ms. Setijo Rahajoe) as co-chairs of the intersessional working group in relation to
    agenda item 16.

2. This document has been prepared by a member (UK) of the intersessional working group (Ms Valentina
    Vaglica) and the Nomenclature Specialist for Plants, Mr Noel McGough, at the request of the co-chairs of
    the working group.

3. This document outlines the results of a brief analysis of CITES trade data, with the aim of assessing the
    levels of trade and identifying the major exporting countries of selected plant groups which are in trade as
    artificially propagated specimens. The overall object of the review was to assist the intersessional working
    group in identifying the major "users" of the CITES definition of "Artificially Propagated".

The Figures

CITES Trade Data Dashboards

The CITES Trade Data Dashboards (available at http://dashboards.cites.org/ and maintained by UNEP-WCMC for the CITES Secretariat) were utilised in January 2018. The Dashboards provide an interactive, dynamic way of viewing the trade data submitted by CITES Parties in their annual reports to the Convention. The Global Dashboard includes data as reported by both trading partners (exporters and corresponding importers). It should be noted, at the time of analysis, that although the guidance to the Dashboards indicate trade data as sourced at species level, it did actually include data from hybrids and at generic level as supplied by the Parties. Therefore, the automatically generated Dashboard figure headings may sometimes include the term "species" where "taxon/taxa" would be more appropriate.

The Global Dashboard was used to display global trade trends by the following groups:
- Plants (excluding cacti & orchids);
- Orchids;
- Cacti.

The following parameters were selected: "Year range": 2011- 2015; "Term": live; "Source": A- Artificially propagated. Per each of the three selected taxonomic groups (plants, orchids and cacti), data to display in graphics were selected as follows: "Trade volume over time", "Trade by source", "Top 10 exporting countries", "Top 5 terms in trade- Exports", "Top 10 species in trade", "Top 10 Families in Trade", "Appendix". The field "exports" was selected when allowed.

Annex II to this document presents commentary on Annex I's figures.

Results

Figure 1. CITES Trade Data Dashboards: Plants (excluding cacti & orchids)

Global trade in plants (excluding cacti & orchids)

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015
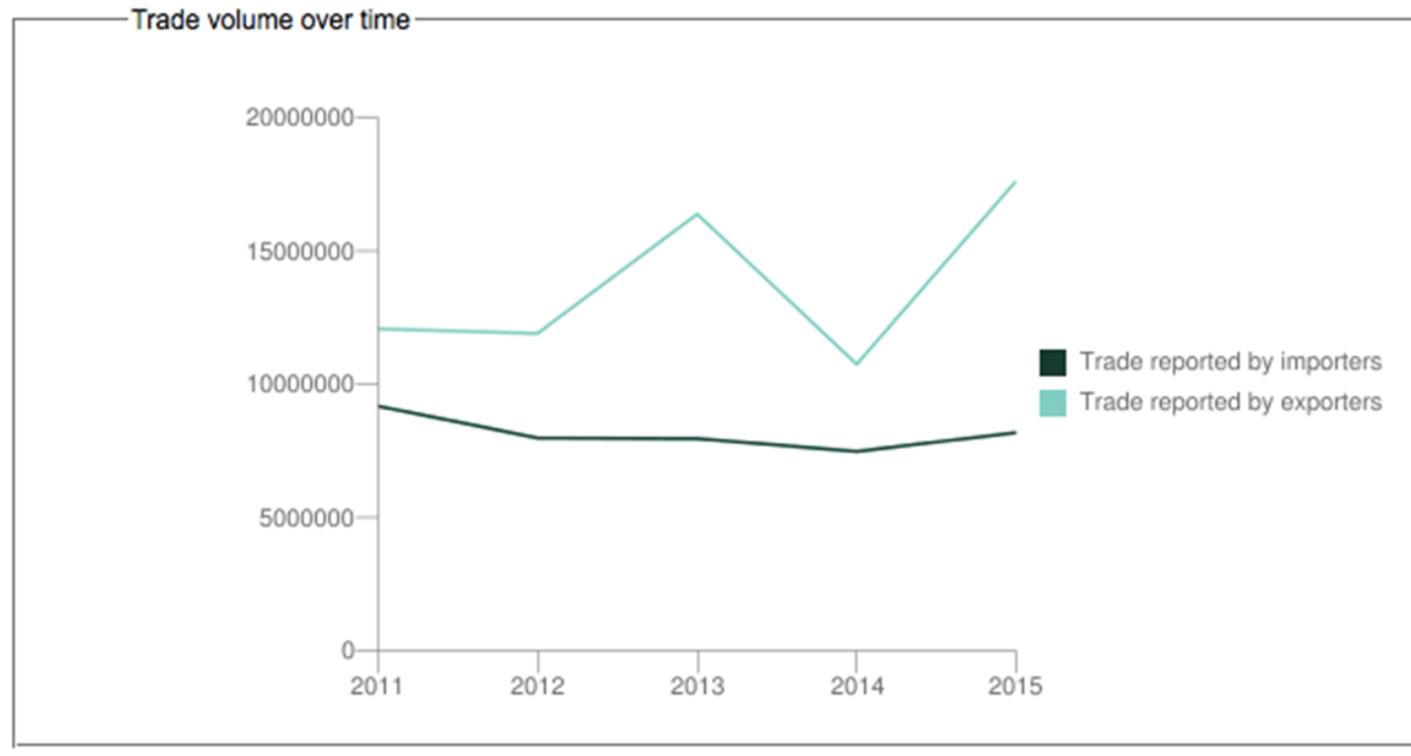
Figures 2 & 3. CITES Trade Data Dashboards: Plants (excluding cacti & orchids)

Global trade in plants (excluding cacti & orchids)
Term: Live Years: 2011-2015
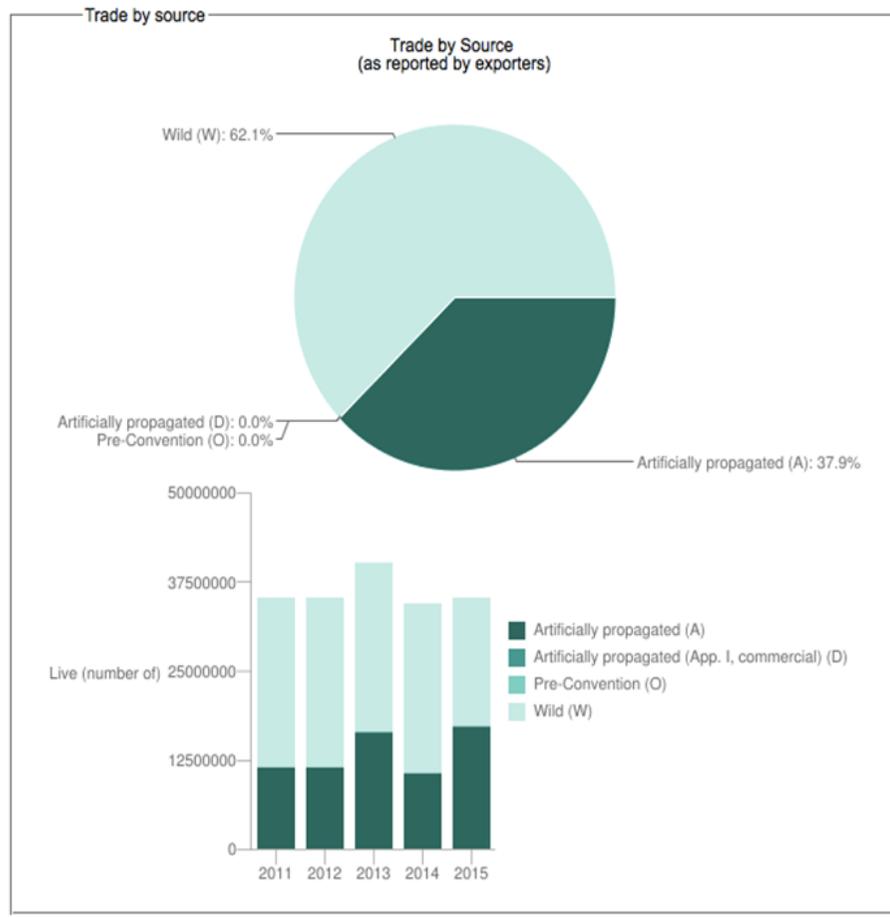
Imports **Exports**

Trade by source

Trade by Source
(as reported by exporters)

Wild (W): 62.1%

Artificially propagated (D): 0.0%
Pre-Convention (O): 0.0%

Artificially propagated (A): 37.9%

Live (number of)

- Artificially propagated (A)
- Artificially propagated (App. I, commercial) (D)
- Pre-Convention (O)
- Wild (W)

2011 2012 2013 2014 2015

Global trade in plants (excluding cacti & orchids)
Source: Artificially propagated (A) Term: Live Years: 2011-2015

Exporting countries

Top 10 exporters
(as reported by exporters)

0   17,860,550

Guatemala
Costa Rica
Dominican Republic
South Korea
China
Thailand
Sri Lanka
Georgia
Netherlands
Turkey

0   5000000   10000000   15000000   20000000
Live (number of)
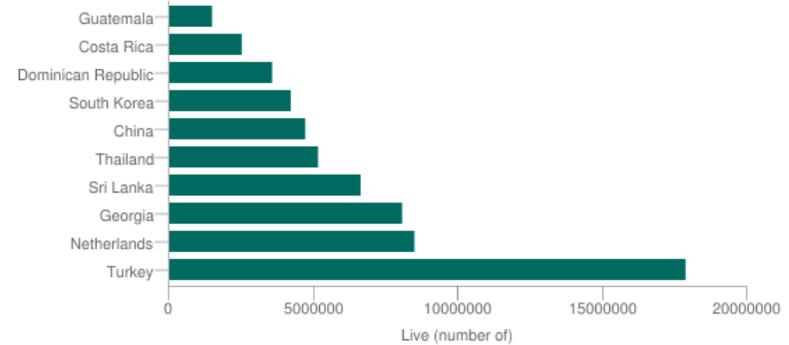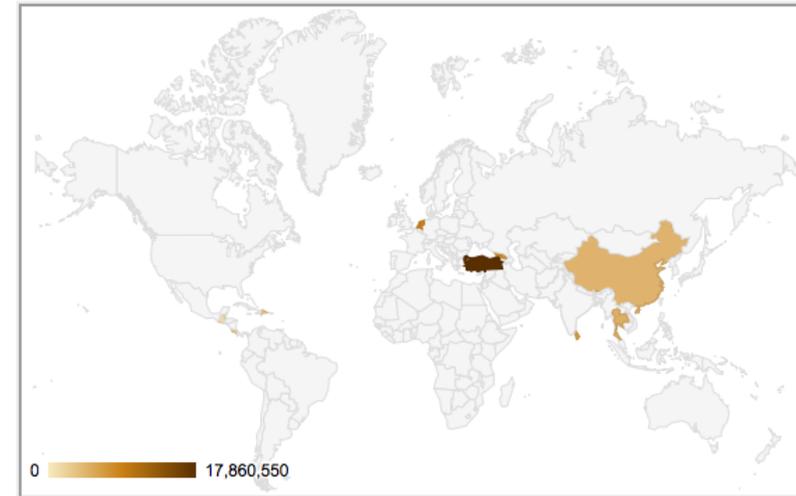
Figures 4 & 5. CITES Trade Data Dashboards: Plants (excluding cacti & orchids)

Global trade in plants (excluding cacti & orchids)

Source: Artificially propagated (A) Term: Live Years: 2011-2015

Imports **Exports**

Trade by Appendix

Trade by CITES Appendix
(as reported by exporters)

II: 99.7%
III: 0.0%
I: 0.3%

Live (number of)

Global trade in plants (excluding cacti & orchids)

Source: Artificially propagated (A) Years: 2011-2015

Imports **Exports**

Terms in trade

Top five terms in trade
(as reported by exporters)

Roots (kg): 13.3%
Roots: 3.8%
Stems: 1.4%
Powder (kg): 1.1%
Live: 80.3%
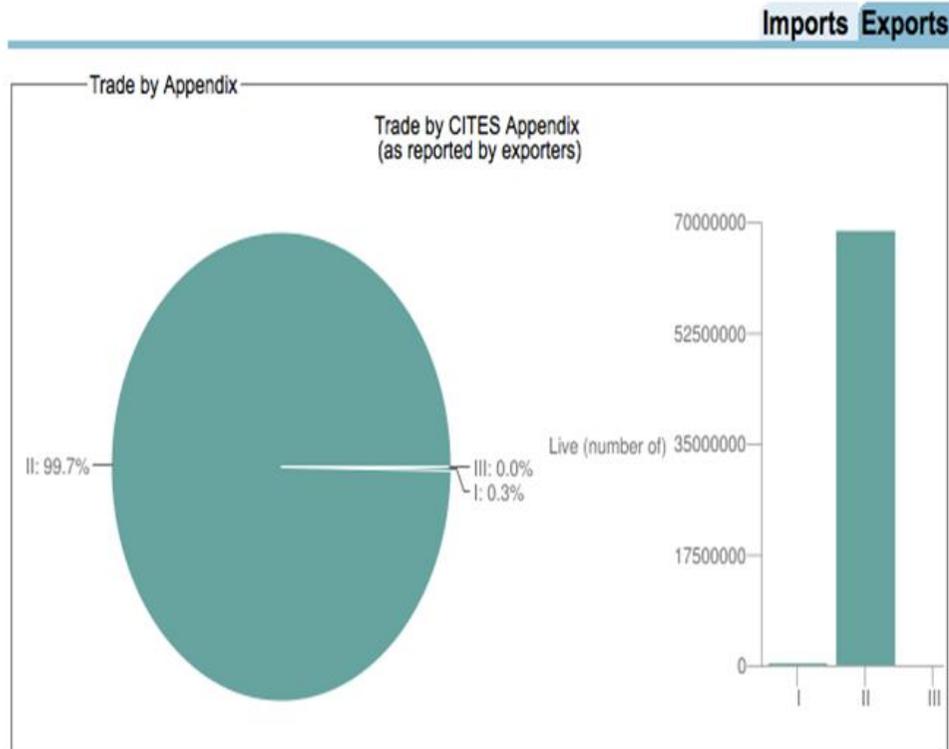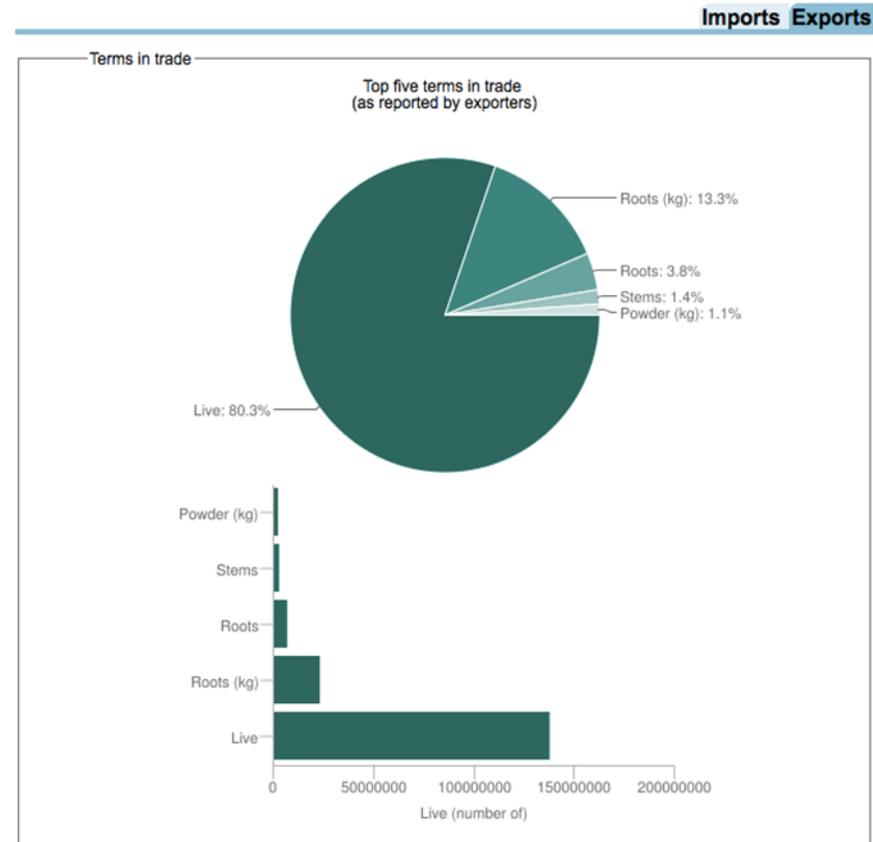
Figure 6. CITES Trade Data Dashboards: Plants (excluding cacti & orchids)

Global trade in plants (excluding cacti & orchids)

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015

Imports **Exports**

Top Families in Trade

Top ten plants (excluding cacti & orchids) Families in trade
(as reported by exporters)
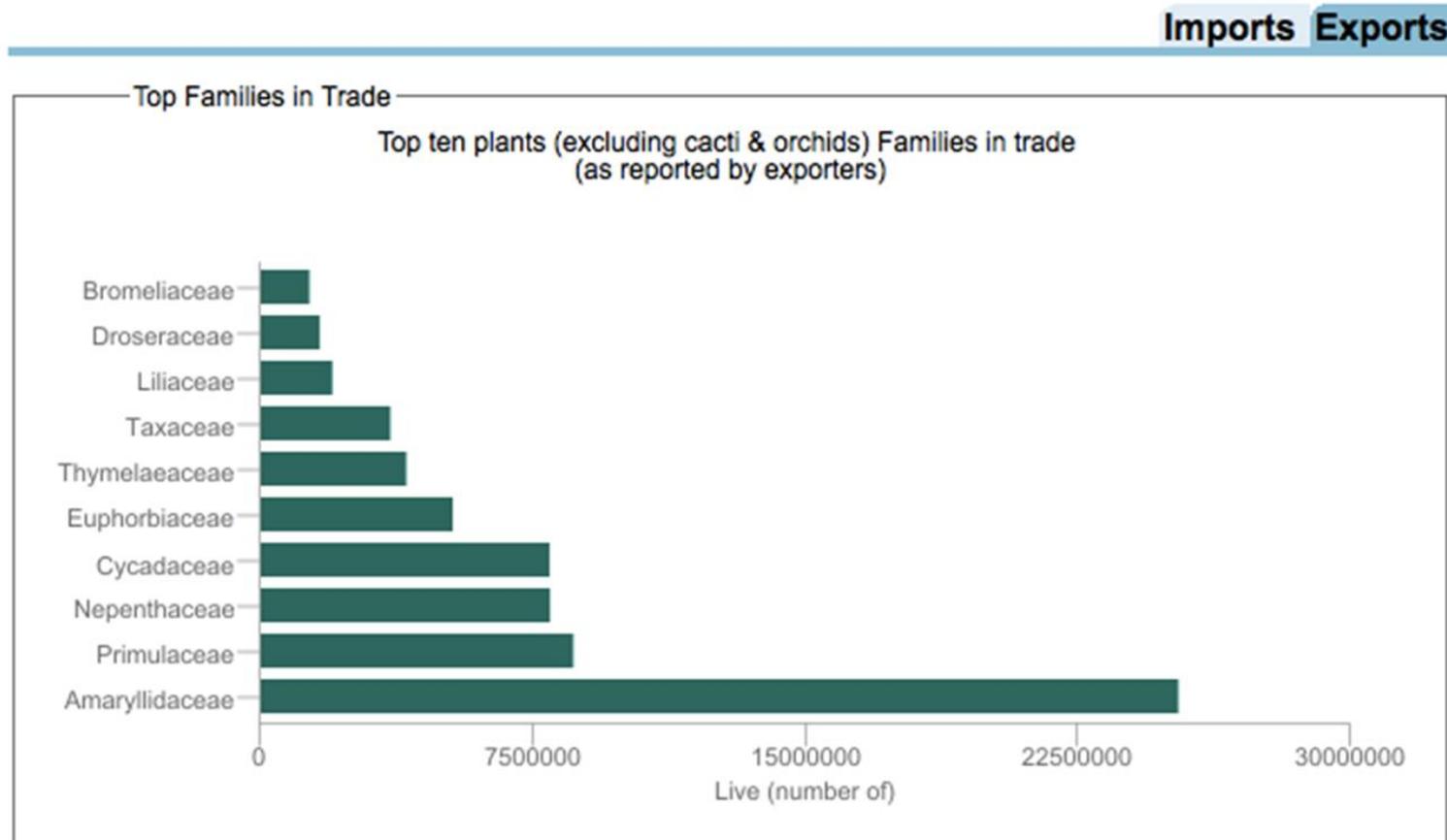
Figure 7. CITES Trade Data Dashboards: Plants (excluding cacti & orchids)

Global trade in plants (excluding cacti & orchids)

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015

Imports **Exports**

Top Species in Trade

Top ten plants (excluding cacti & orchids) in trade
(as reported by exporters)

- Euphorbia milii
- Euphorbia lactea
- Taxus cuspidata
- Aquilaria crassna
- Galanthus nivalis
- Nepenthes hybrid
- Cyclamen hederifolium
- Galanthus elwesii
- Cycas revoluta
- Galanthus woronowii

Live (number of)
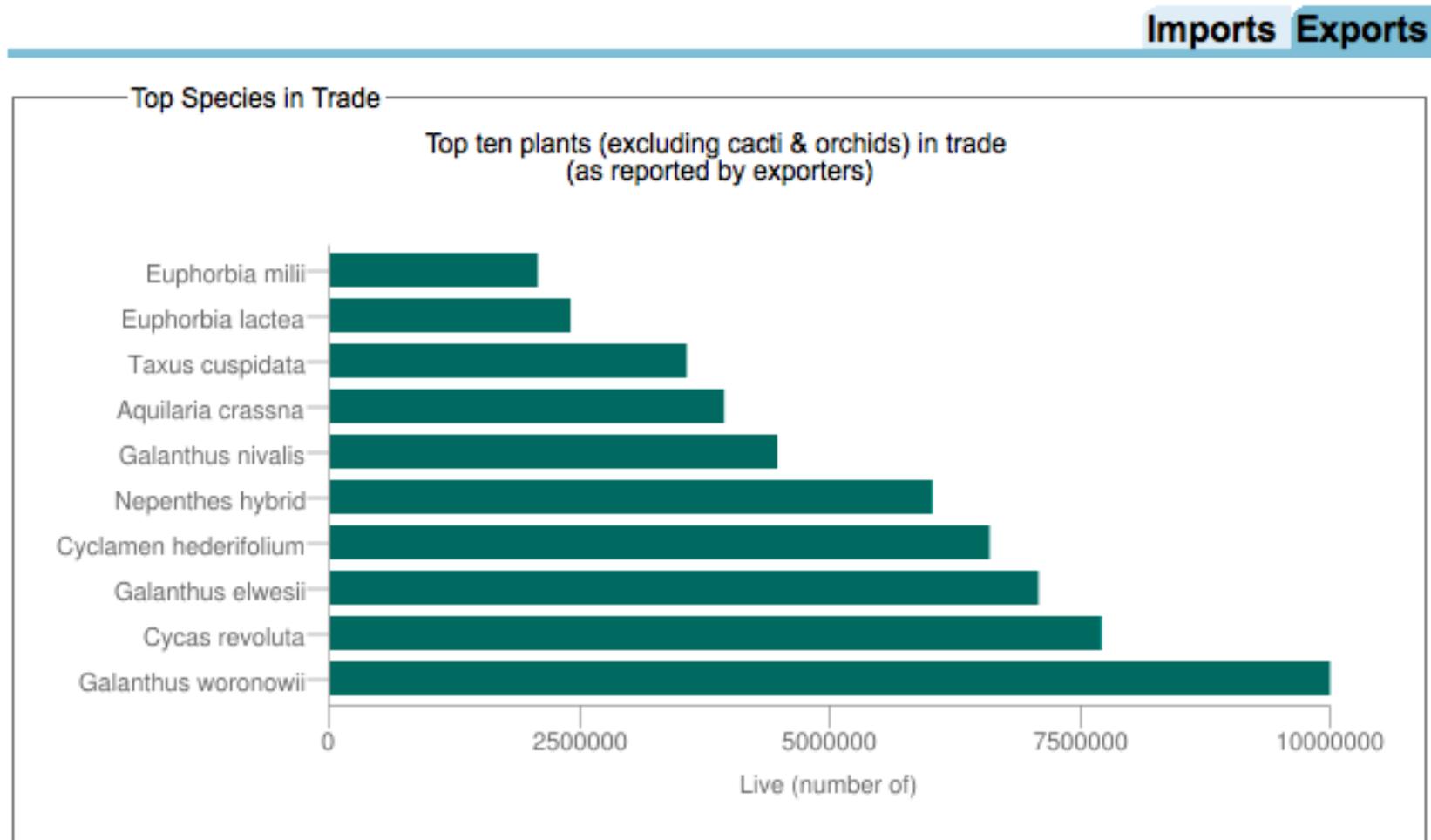
Figure 8. CITES Trade Data Dashboards: Cacti

Global trade in cacti

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015

Trade volume over time

Legend:
- Trade reported by importers
- Trade reported by exporters
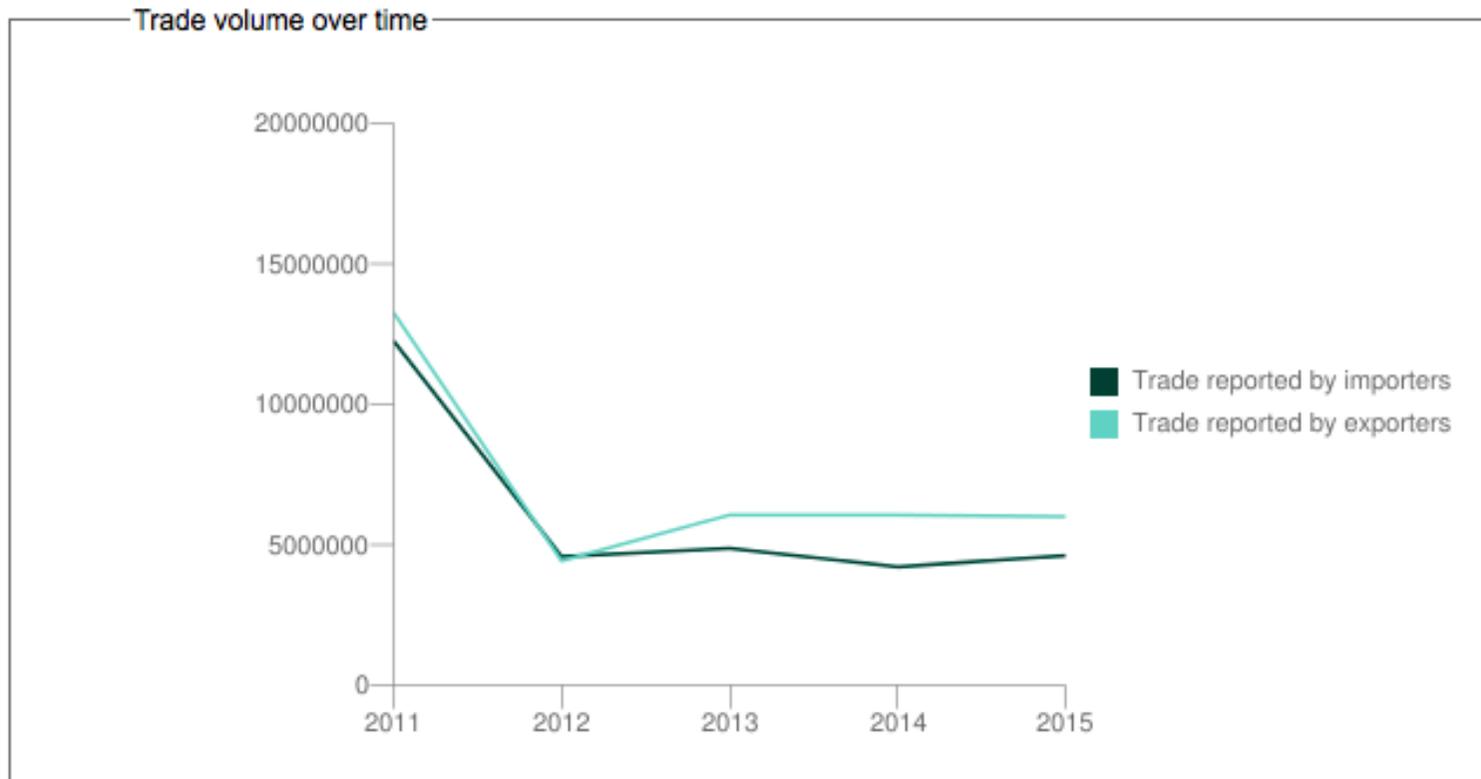
**Figures 9 & 10. CITES Trade Data Dashboards: Cacti**

Global trade in cacti
Term: Live Years: 2011-2015
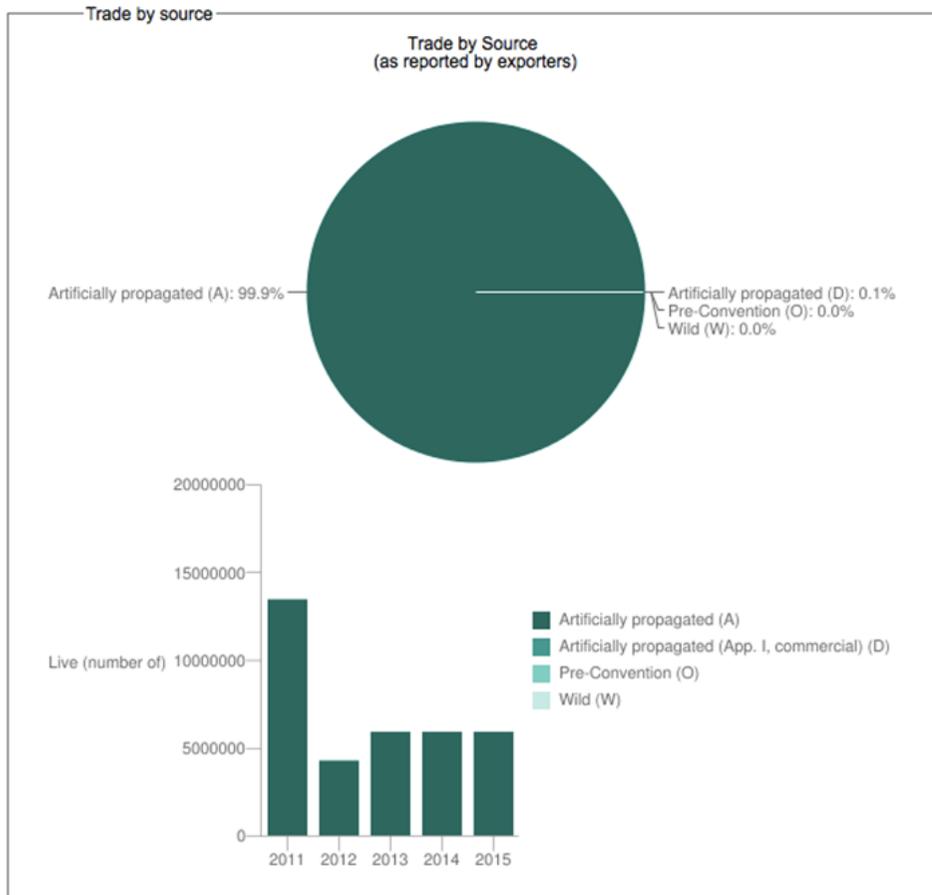
Imports **Exports**

Trade by source

Trade by Source
(as reported by exporters)

Artificially propagated (A): 99.9%

Artificially propagated (D): 0.1%
Pre-Convention (O): 0.0%
Wild (W): 0.0%

- Artificially propagated (A)
- Artificially propagated (App. I, commercial) (D)
- Pre-Convention (O)
- Wild (W)

Live (number of)

Global trade in cacti
Source: Artificially propagated (A) Term: Live Years: 2011-2015

Exporting countries

Top 10 exporters
(as reported by exporters)

0 — 22,349,128

Tunisia
Thailand
Kenya
South Africa
Dominican Republic
Spain
USA
Netherlands
South Korea
China

Live (number of)
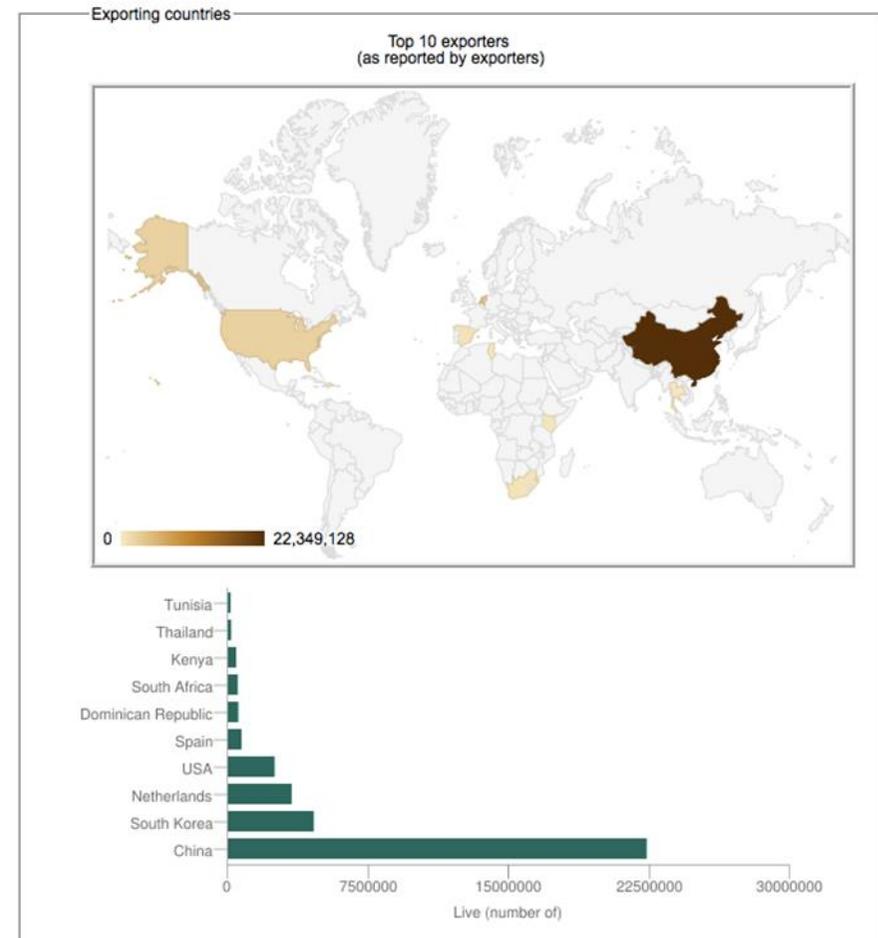
Figures11 & 12. CITES Trade Data Dashboards: Cacti
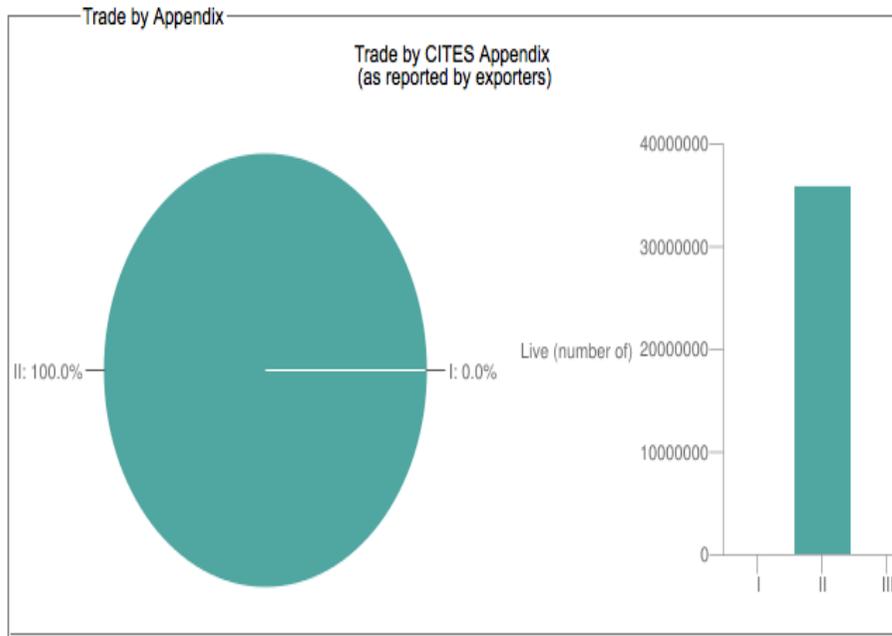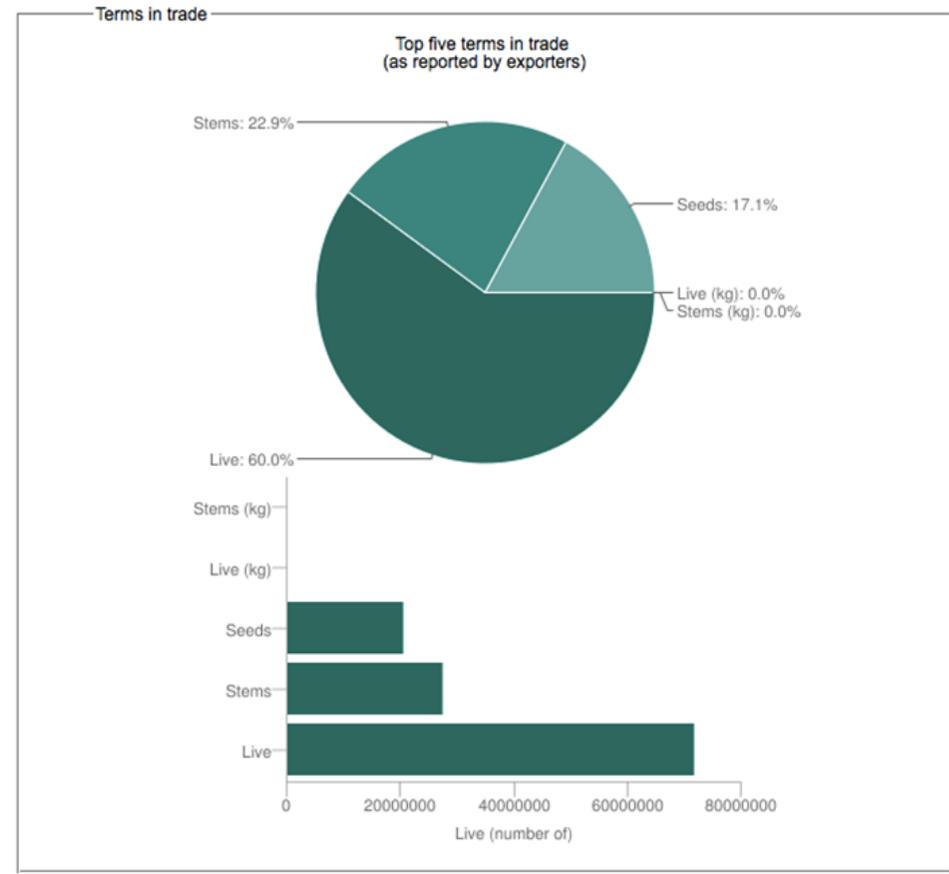
Figure 13. CITES Trade Data Dashboards: Cacti

Global trade in cacti

Source: Artificially propagated (A) Term: Live Years: 2011-2015

Imports **Exports**

Top Species in Trade

Top ten cacti in trade
(as reported by exporters)
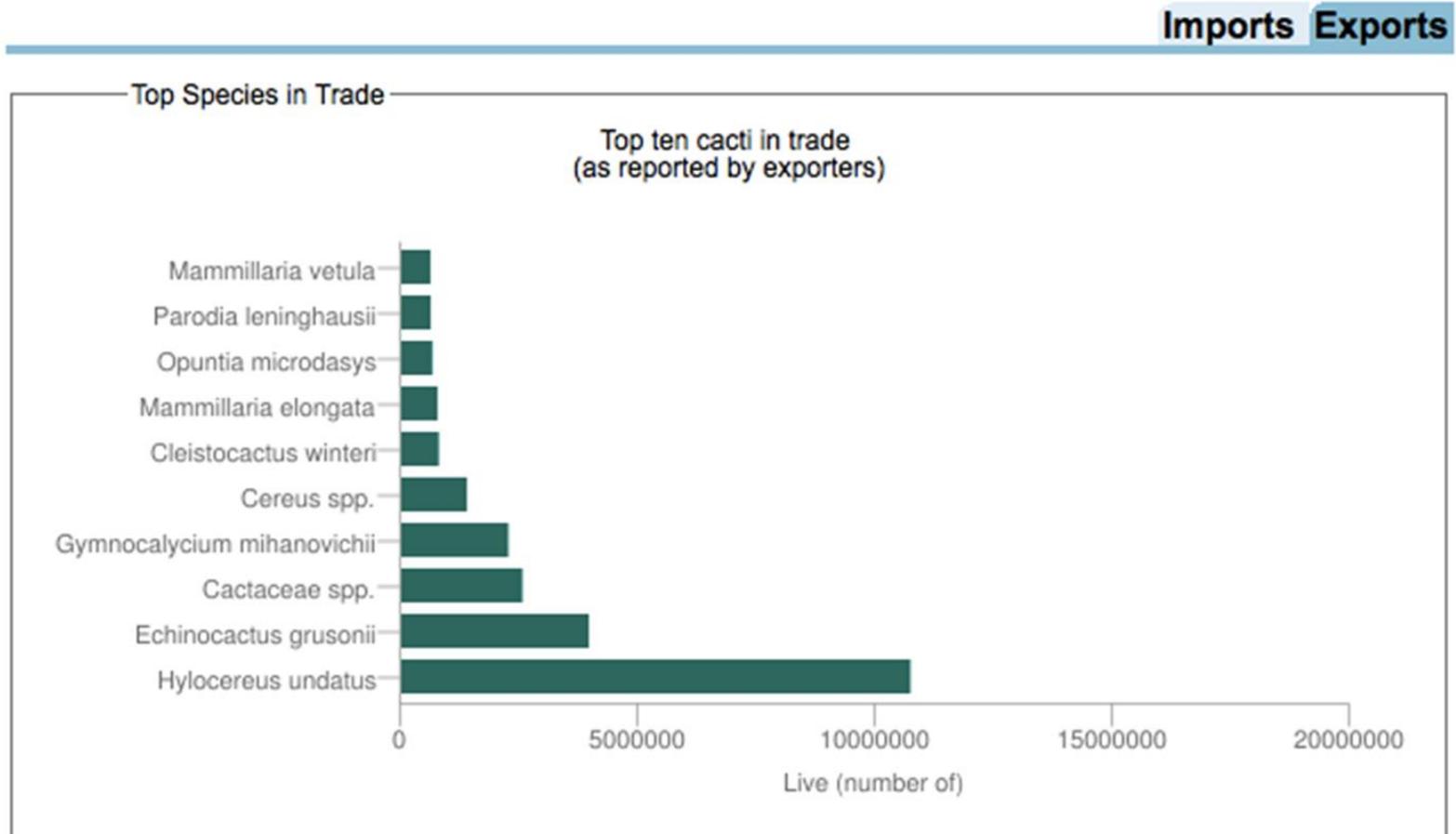
Figure 14. CITES Trade Data Dashboards: Orchids

Global trade in orchids

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015
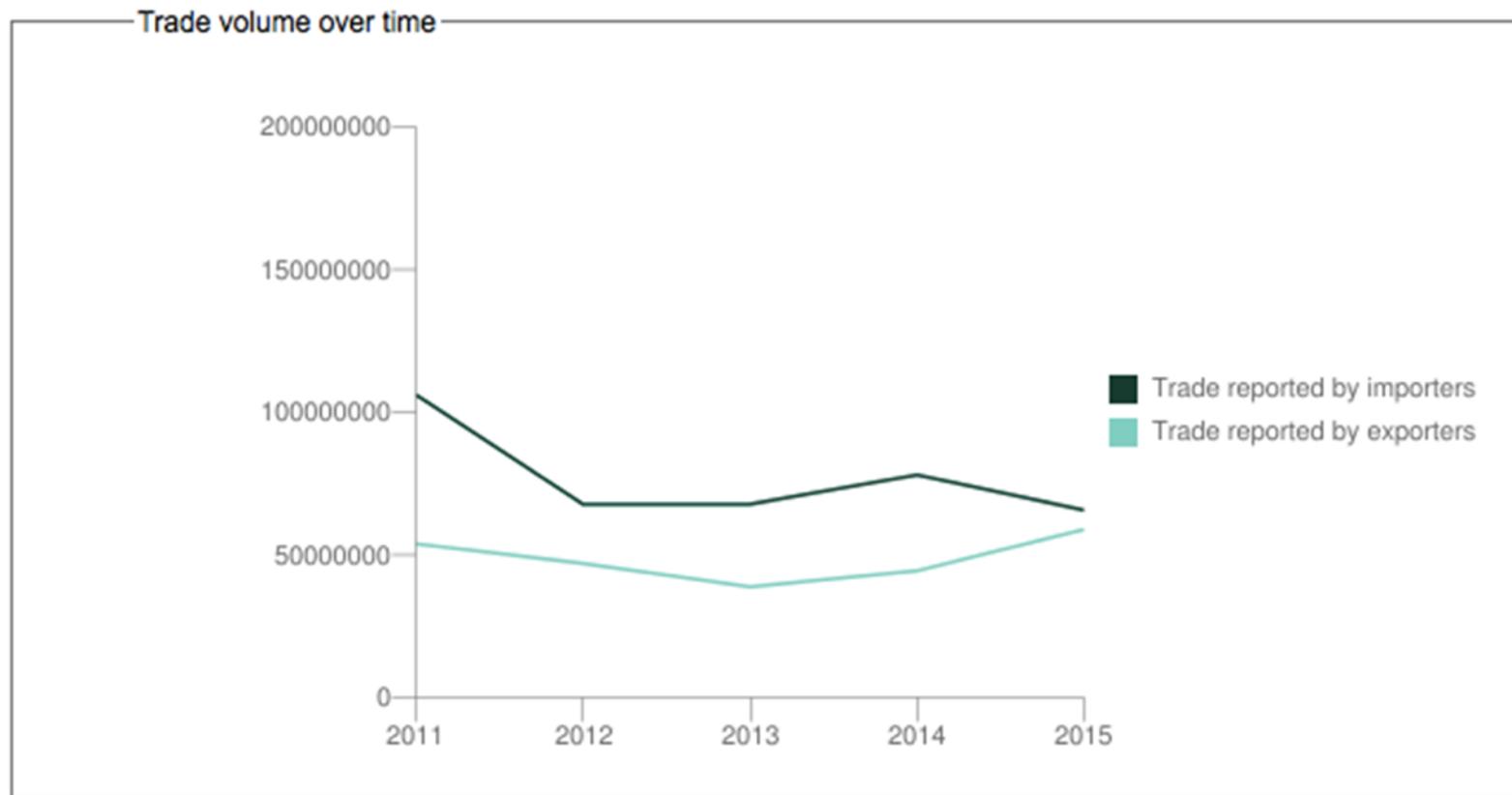
Figures 15 & 16. CITES Trade Data Dashboards: Orchids

Global trade in orchids

Term: Live Years: 2011-2015
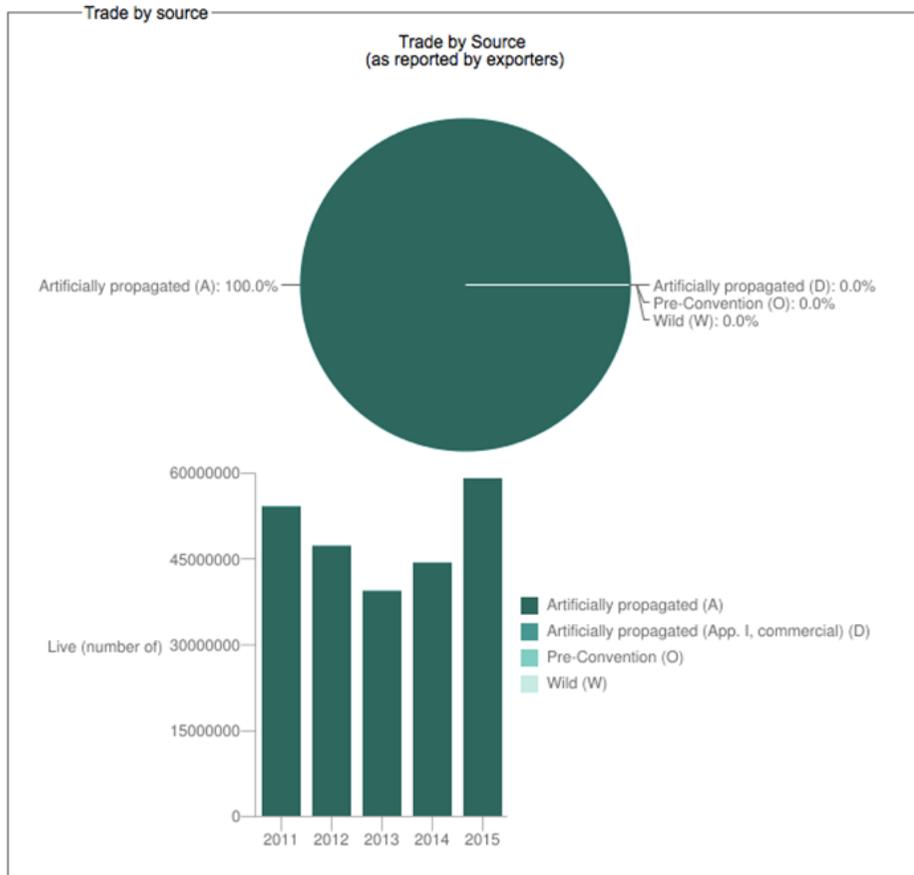
Trade by source

Trade by Source
(as reported by exporters)

Artificially propagated (A): 100.0%
Artificially propagated (D): 0.0%
Pre-Convention (O): 0.0%
Wild (W): 0.0%

- Artificially propagated (A)
- Artificially propagated (App. I, commercial) (D)
- Pre-Convention (O)
- Wild (W)

Live (number of)

Global trade in orchids

Source: Artificially propagated (A) Term: Live Years: 2011-2015

Exporting countries

Top 10 exporters
(as reported by exporters)

0 — 106,485,053.5

Philippines
USA
Japan
Indonesia
Malaysia
Costa Rica
Netherlands
South Korea
China
Thailand

Live (number of)
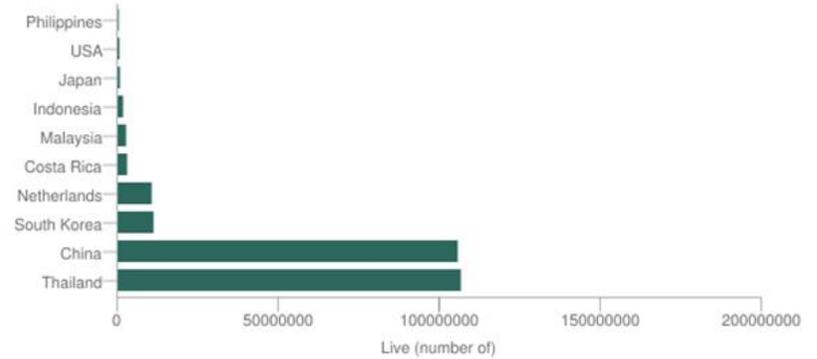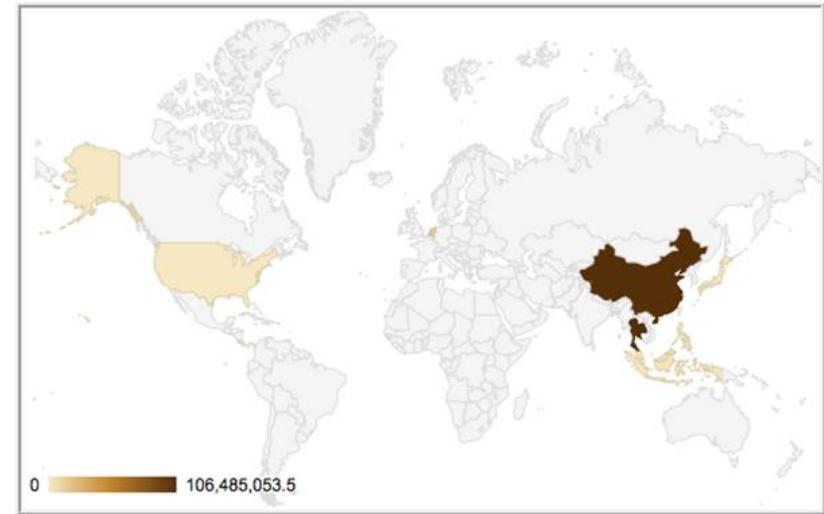
Figures 17 & 18. CITES Trade Data Dashboards: Orchids

Global trade in orchids

Source: Artificially propagated (A) Term: Live Years: 2011-2015

Imports **Exports**

Trade by Appendix

Trade by CITES Appendix
(as reported by exporters)

II: 99.9% — I: 0.1%

Global trade in orchids

Source: Artificially propagated (A) Years: 2011-2015

Imports **Exports**

Terms in trade

Top five terms in trade
(as reported by exporters)

Dried Plants (kg): 4.1%
Dried Plants: 0.4%
Live (kg): 0.3%
Live: 95.2%
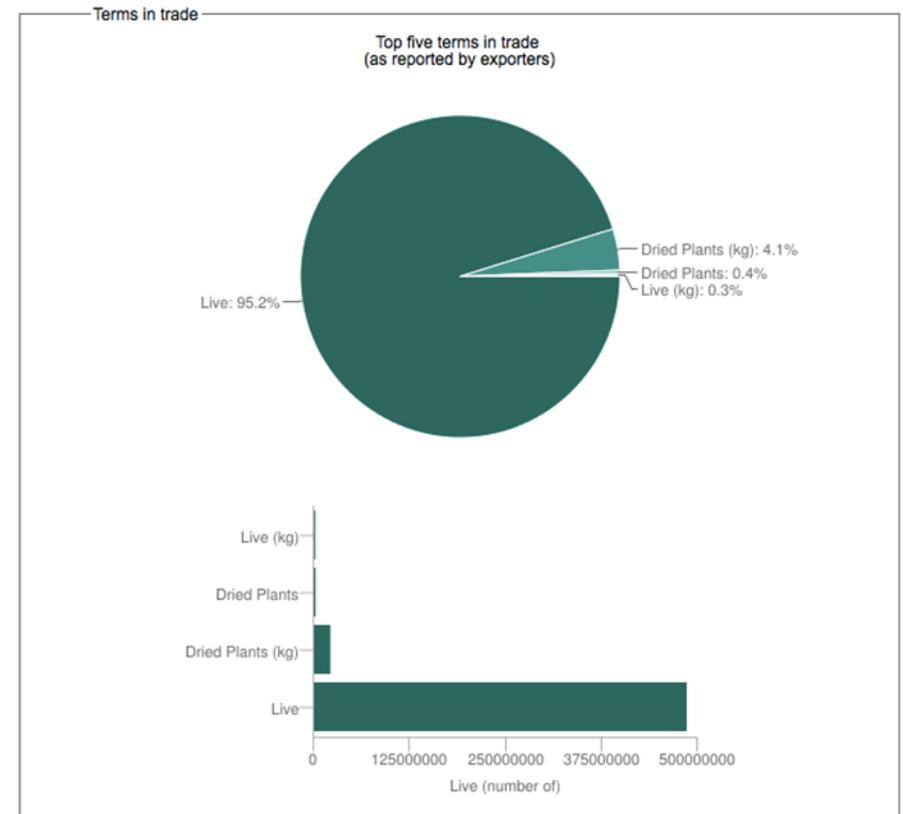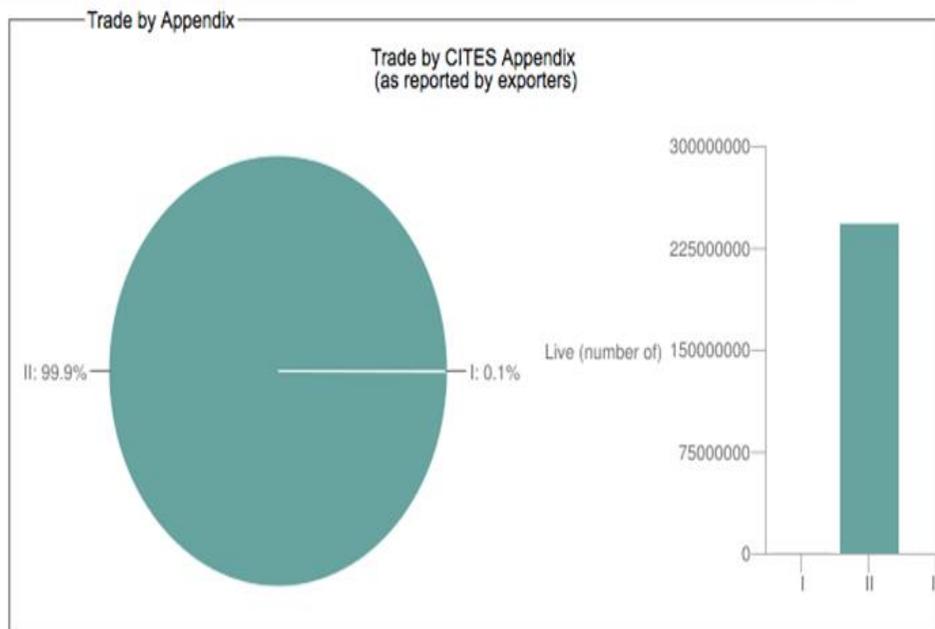
Figure 19. CITES Trade Data Dashboards: Orchids

Global trade in orchids

Source: Artificially propagated (A) **Term:** Live **Years:** 2011-2015

Imports **Exports**

Top Species in Trade

Top ten orchids in trade
(as reported by exporters)
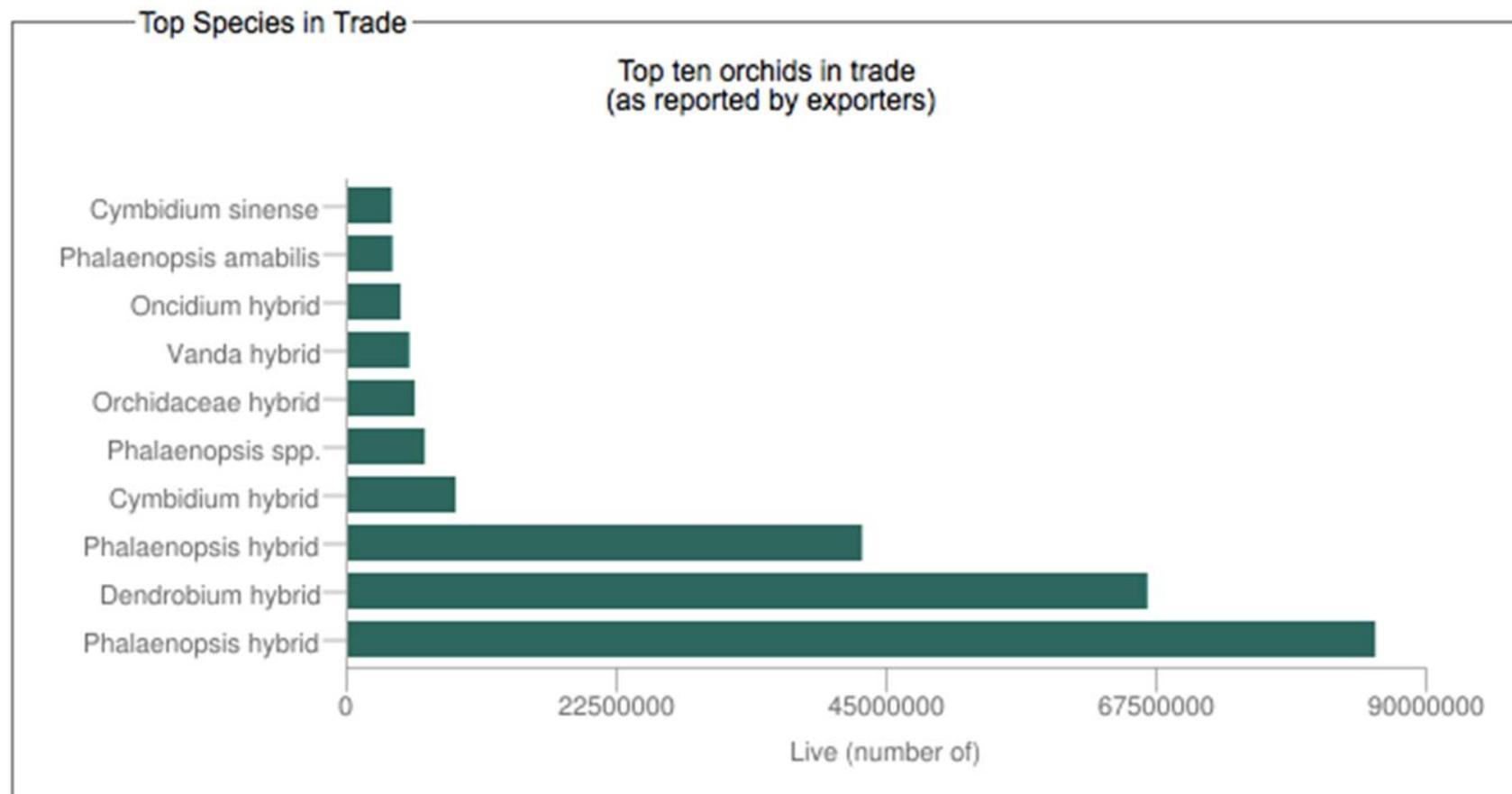
Commentary on Figures

Figure 1

Outlines the global trade in live plants in the period 2011-2015. The analysis includes artificially propagated plants, recorded under the term "live". The large groups orchids and cacti are excluded. Trade reported by importers is stable, running below 10 million per year, exporters consistently reported higher than importers, reaching above 15 million in 2013 and 2015.

Figure 2

Outlines the global trade in live plants over the period 2011-2015. The analysis includes artificially propagated and wild plants, recorded under the term "live". The large groups orchids and cacti are excluded. As "live" only is recorded, parts and derivatives and trade recorded under any other terms are not included. Trade per year averages below 38 million live plants. It appears to be relatively stable in the recorded groups. Trade in wild plants is just over 60% of the trade.

Figure 3

Records the Top 10 exporting countries for live artificially propagated plants for the period 2011-2015. As in Figures 1 and 2, the use of the term "live" will, for example, exclude all products and timber. This in effect, gives us an overview of the CITES "horticultural" exporters. Turkey is the largest exporter due to its bulb exports, followed by The Netherlands, a traditional key player in global plant exports, Georgia (bulbs again), Sri Lanka – a growing exporter of propagated plants and in particular specialist Carnivorous plants. For the remaining countries, Thailand, China and South Korea export similar amounts. It is interesting to note that a snapshot based on the same criteria for the period 1991-1995 shows the Top 10 exporters to be: The Netherlands, Canada, Denmark, USA, India, Israel, Hungary, Australia, Brazil, Madagascar with The Netherlands exporting 5 times that of its nearest rival.

Figures 4 & 5

Displays trade by CITES Appendix (Figure 4) and the top 5 terms (Live, Roots -kg, Roots, Stems and Powder) for artificially propagated material. The roots, stems, and powders are likely to apply to medicinal material and it should be noted that bulbs/corms are sometimes also mis-recorded as roots.

Figure 6

Displays the Top 10 families in AP "live" trade outside cacti and orchids. Primulaceae and Amaryllidaceae lead this group due to the high exports of bulbs and corms of *Galanthus* and *Cyclamen*. The numbers of Cycadaceae and Nephenthaceae are worthy of note. This Top 10 grouping gives a good range of the type of plants that the definition of artificial propagation is being applied to on a daily basis.

Figure 7

In Dashboard terms this shows us the Top 10 "species" in trade but we should note this includes hybrids – as declared as generic hybrids in the reported data. Again, here we see a range of taxa which are in large scale propagation and may be useful for the working group to ascertain if Parties have developed any guidance on applying the definition to groups in such high levels of international trade.

Figure 8 - Cacti

Looks at trade reported by exporters vs importers. Disparity here not as notable as that displayed in Figure 1 - covering the other plant groups.

Figure 9 - Cacti

This displays trade by source and records trade in live Cacti to be 99.9% artificially propagated over the period.

Figure 10 - Cacti

The Top 10 exporters of "live" artificially propagated cacti. Again, this is the basic live plant trade with no products or trade under other terms displayed. China leads the exporters, exporting more than three times that of the country next in line – South Korea, followed by The Netherlands and USA. A similar data shot from 1991-1995, shows the Top 10 exporters to be: Canada, South Korea, Brazil, Denmark, The Netherlands, USA, Spain, Poland, Belgium and Morocco. China was not then in the Top 10.

Figures 11 & 12 - Cacti

Trade is 100% recorded as Appendix II. Live plants make up 60% of terms declared in trade.

Figure 13 - Cacti

The Top 10 "species" in trade. The spectacular *Hylocereus undatus* tops the pole.

Figure 14 - Orchids

Looks at trade reported by exporters vs importers. Importers report consistently higher than exporters.

Figures 15 & 16 - Orchids

Trade reported to be 100% artificially propagated for live plants. Top 10 exporters show Thailand and China to be joint leaders followed by the significantly lower exporters South Korea and The Netherlands. A similar data shot for 1991 -1995 puts Thailand as the lead exporter followed by China, USA, Netherlands, Brazil, Japan, Sri Lanka, Australia, Canada and New Zealand.

Figures 17 & 18 - Orchids

99.9% of Live AP trade is Appendix II. About 5% of terms used in AP trade relate to dried plants or live Kg – this probably relates to medicinal material.

Figure 19 - Orchids

The Top ten "species" in trade clearly shows the importance of hybrids with hybrid taxa taking 7 of the top slots. The global trade in orchids is very large and is in high quality material. The ubiquitous *Phalaenopsis* hybrid shows trade of 90 million over this period despite the exemptions for hybrid taxa in place.