

Introduction

What is CITES

The convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an accord between 183 countries tasked with preventing over-exploitation of animal and plant species, since it came into force in 1975. It actions trade controls on specimens of endangered species through permit requirements which are dependent on the allocation of the species to one of three appendices.

Appendix 2

This appendix is described to contain species not under immediate risk of extinction but if subject to unregulated trade could very soon be. Individual trades in these species must be investigated and permits only issued if it is found to not cause a detriment to Wild populations. Species can only be moved in and out of this category by a vote of the parties, usually occurring at the Conference of the parties held ever 2-3 years. It is acknowledged by the convention that the correct classification of species within the three appendices are integral to it's function and the convention aims to review every species listed at least once every 10 years. However it was noted in Conf 9.24 CoP15 that less than 10 species had been reviewed in the 10 years previous.

Aims

This project focused on the 2794 Vertebrate species listed on CITES Appendix 2. Data was gathered for each species on the biological extinction risk and the trade demands on each species to provide a broad overview analysis to identify individual or groups of species which may be classified incorrectly. Due to the low number of species having been reviewed recently it is expected that a large number of species will appear unjustified and deserve further review.

Methods

All data and documents published by CITES were downloaded from the CITES website and trade data from the CITES trade database maintained by UNEP-WCMC. The IUCN red list of threatened species was used as an indication of extinction risk as it is a trusted source based on a secure set of biological criteria. Due to the differing units of trade, trade demand was measured in the number of trades per year and recorded over 10 years (2006-2015) using the coding software R (version 3.3.1).

Results

57.3% of all species classified were Least Concern

A total of 1377 of the vertebrates on CITES appendix 2 were classified as Least Concern, including 70% of Birds (Aves). 14% were Unclassified (Unassessed, Unknown or Data Deficient). Of those species unclassified 57.29% were reptiles whereas 0.8% of Birds were unclassified (Fig.1)

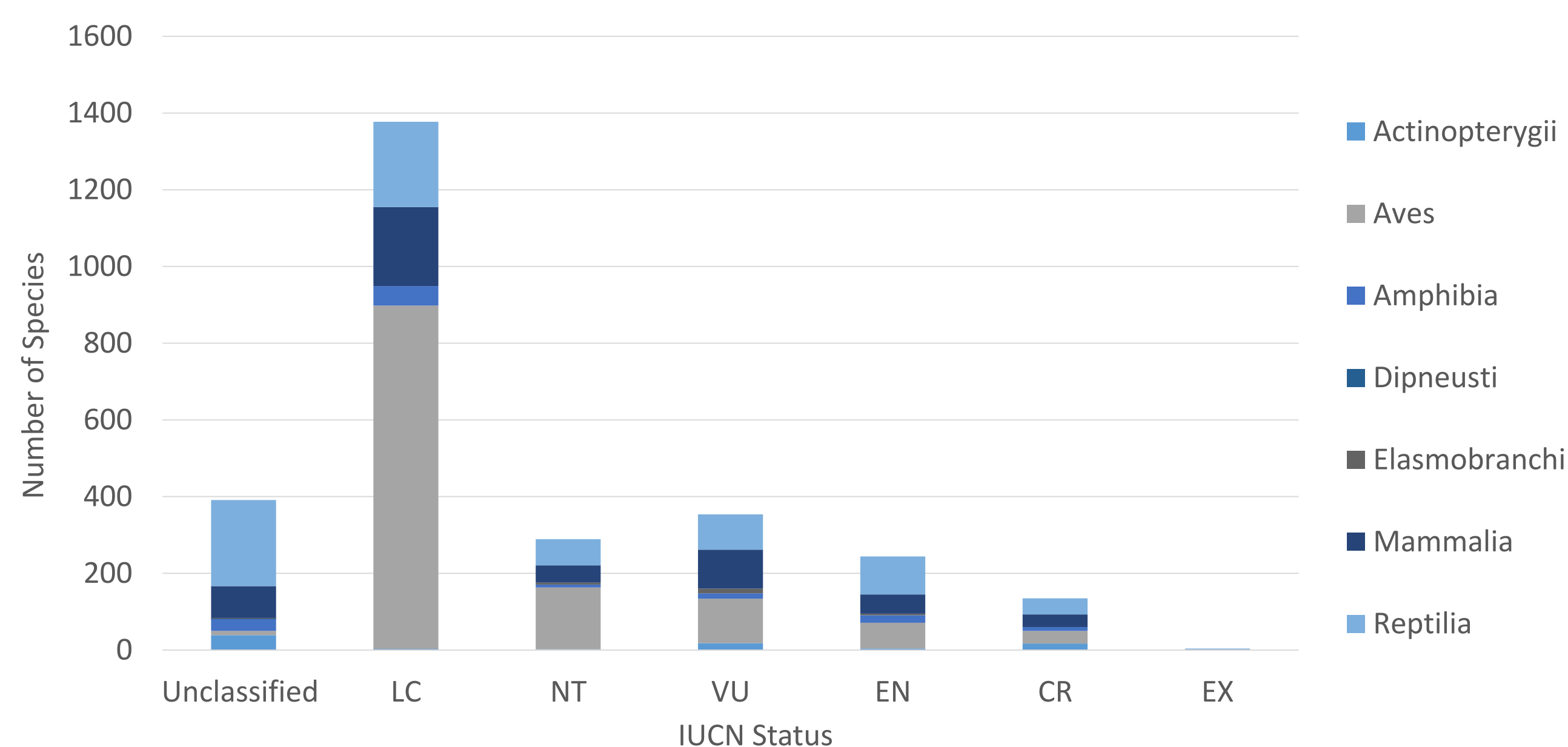


Figure 1. The number of chordate species on CITES Appendix 2 of each IUCN red list category with the proportion of taxonomic classes making up each. Data collected from the IUCN red list of threatened species and CITES species checklist (Accessed 5th July 2017).

212 Appendix 2 Species were classified as Least Concern and had 0 trade

This equates to 15% of those classified as having the lowest extinction risk did not have a single trade record in the last 10 years.

Of these 1 was of the class Actinopterygii, 14 Amphibia, 119 Aves, 41 Mammalia and 37 Reptilia. In addition, 1739 species had a mean annual trade of greater than 0 but less than 10, 134 species were traded on average 10-20 times per year, 97 species were traded between 20 and 50 times, 48 species were traded between 50 and 100 times, and 51 species had an average yearly trade of over 100.

Of the species that had a mean annual trade of over 100, 2 were classified as Endangered and 2 were classified as Critically Endangered

Of these 4 species with high extinction risk and high levels of trade, 3 were Fish (*Acipenser baerii*, *Acipenser gueldenstaedtii*, *Huso huso*) and one was a species of Falcon (*Falco cherrua*)

Conclusions

The large proportion (212 species) classified as Least Concern that experienced absolutely no trade during the past 10 years provides strong evidence that at a minimum these do not merit the protection they are being awarded.

Much fewer species were found to potentially deserve up listing to Appendix 1. Only 14 Vulnerable species were found to have over 1% of their population traded during the 10 year period and only three lost over 5%. 3 of the Endangered of Critically Endangered species which were found to have a mean annual trade of over 100 accounts were Sturgeon. This reiterates one of the previously highlighted faults of CITES in that it tends to show bias towards large charismatic animals such as mammals and birds (Oldfield 2003).

A common issue encountered when carrying out this study was a lack of paradigm in the nomenclature (scientific naming) of species which made allocating an IUCN extinction risk to species difficult. In some cases up to 4 databases had to be searched for synonyms and Common names used in order to find for sure whether a species was classified by IUCN and under what name. It therefore seems apparent that by maintaining the CITES species checklist to be in correspondence with IUCN in correct and up to date nomenclature, time and money could be saved on consulting experts for various administrative purposes. Money which could be better spent conserving species.

It has been shown that a large proportion of species are no longer correctly classified. This is costing the Convention money in the high cost of consulting Scientific Authorities to carry out non-detriment finding reports and process permits every time an application is submitted. A more efficient allocation of funds could be to helping individual parties to improve their enforcement of CITES controls and uphold the legislation and giving priority to the periodic review process. Similarly, an effort should be made to get population approximations for all species such that the reproductive units of the overall population and thus a more accurate consequence of trade is known.