citesr: An R package to access the CITES Speciesplus database

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Introduction

Biodiversity, its conservation and sustainable use are a highly political issue.

CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, is a multilateral environmental agreement that was established in 1975 (CITES, n.d.) and today is one of the eight main international agreements relevant to biodiversity (CBD, n.d.). It aims to monitor and regulate the trade of endangered species so that their trade does not threaten the survival of the species in the wild (CITES, n.d.).

The Speciesplus database

In 2013, the UNEP World Conservation Monitoring Centre (UNEP-WCMC) and the CITES Secretariat initiated a partnership funded by UNEP, the European Commission and the CITES Secretariat. Together, they created Speciesplus (or Species+), a comprehensive database of not only CITES listed species and their status within CITES but also the species' status within the EU legislation and last but not least the species' status within the Convention on the Conservation of Migratory Species of Wild Animals (CMS) (UNEP, n.d.). Speciesplus is publicly available at https://speciesplus.net (UNEP, n.d.).

The citesr R package

With citesr we provide an R client to the Species+/CITES Checklist API, in other words a R package that gives access to the Speciesplus database. We provide functions to:

- 1. access the Speciesplus taxon concept, and thereafter
- 2. get a species' legislation status, both from CITES and from the European Union,
- 3. get a species' country-wise distribution range, as listed in Speciesplus, and
- 4. get the references that a Speciesplus listing is based on.

citesr is available at Github (https://github.com/ibartomeus/citesr).

citesr may support researchers and national authorities in more efficiently dealing with taxonomy information of endangered species and their legislation status. Recent publications with data extraction from the Speciesplus database illustrate in what kind of research the package may be of help (Hinsley and Roberts 2018; Robinson and Sinovas 2018). In the spirit of CITES, taxonomic research in regard to illegal wildlife trade may be pointed out especially (Zhou et al. 2016; Ingram et al. 2015; Zhou 2015).

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— just for background info — JOSS welcomes submissions from broadly diverse research areas. For this reason, we request that authors include in the paper some sentences that would explain the software functionality and domain of use to a non-specialist reader. Your submission should probably be somewhere between 250-1000 words.

In addition, your paper should include:

A list of the authors of the software and their affiliations A summary describing the high-level functionality and purpose of the software for a diverse, non-specialist audience A clear statement of need that illustrates the purpose of the software A list of key references including a link to the software archive Mentions (if applicable) of any ongoing research projects using the software or recent scholarly publications enabled by it

https://joss.readthedocs.io/en/latest/submitting.html — just for background info —

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