

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: 18201

STSM title: Overview and analysis of existing conservation policy documents

STSM start and end date: 03/09/2021 to 01/10/2021

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PURPOSE OF THE STSM:

(max. 200 words)

The STSM's main aim was identifying gaps in plant conservation in Europe through creating an overview of existing European policy documents/mechanisms in plant conservation. The project proposal relied on the fact there exists a lack of coherence in plant conservation in European countries. There is an uneven finance distribution and different legal mechanisms in these countries (primarily between EU and non-EU countries), and also a human resources lack in certain areas. This has caused, over the years, a lack of data in various regions, or data collected based on different, often outdated scientific principles.

To accomplish the aim, we chose to unite species conservation data using countries' red lists, as one of the most widespread conservation mechanisms common to all countries. The research output will be a study and a data base (tabular and cartographic) presenting the results, also incorporated into the web page of this COST action. This would then serve as a basis for further conservation planning that is coherent on a European level, potentially invaluable for the creation of country-level plans for species assessments, planning of aligning with modern approaches and harmonization with other European countries etc.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMs

(max. 500 words)

The working procedure was extended during the STSM to include not only 1. Gathering of existing documents and red list database preparation, but also 2. Gathering data on red lists as policy documents. During the work on 1) we realized there is a possibility to encompass also gathering of information on red lists as policy documents, as most of the preparation for this was done beforehand, although this was initially planned for to be implemented differently (not via the STSM mechanism) within WG3.

1. First, we gathered national/regional red lists through involving national MC members participating to the COST action. Some data cleaning procedures performed are: separation of authors names and families from species names, deleting taxa not determined to the species level, deleting of abbreviations, deletion of nominal subspecies names, transcription of non-readable documents. Red list categories used by countries & definitions collected from the red lists were used to create a unique red list categories system for the database.

2. Complementary to this work, we wanted to understand the role red list documents have throughout European countries, to enlighten existing gaps throughout Europe. We collected this information through a questionnaire sent to MC members, originally provided by MC representative of Austria, sent for edits and suggestions to all MC representatives, of whom several provided significant input. The questionnaire had 13 questions, encompassing formal procedures (organizations responsible for funding and publishing, legal and financial implications etc.), assessment procedures (methods used, any biases), promotion procedures and availability to

the general public and existence of regional red lists. We disseminated the questionnaire to 42 countries out of 43 participating in the Action. Romania was not contacted so far since we could not get a relevant contact.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

500 word summary

1. The majority of the country's red lists data are cleaned and prepared for the database. A preliminary proposition of red list categories unified system has been made and offered for discussion to the working group. Threat categories data was analyzed, to see the % of critically endangered, endangered and vulnerable species to countries' total flora. This was done using total flora information provided through the questionnaire, hence not all countries were assessed through this analysis. The data has yet to be prepared for a common database of all European countries' red listed species, and the database further structured, cleaned, prepared for publication and analyses based on data done, causing a delay in finalizing the database than originally planned. The work on the database will be extended because a lot was planned to be done in the STSM duration and there were difficulties in coordinating the team working on the database due to increased workload of team members and non convenient time of the year for the work (immediately after vacations).
2. So far we gathered and analyzed data through the questionnaire from 27 countries. The results are presented in a preliminary report, but data collection from the remaining countries is expected, to be able to finalize the analysis. The results will be used to inform future activities planning of the WG towards analyzing the gaps in plant conservation in Europe and potentially tackling some of the identified issues.

A few of the relevant and interesting results we have from our analysis so far:

- a. Most countries publish red lists irregularly and with more than a 5 year span between the publishing (15 countries). The remaining countries in our sample publish red lists regularly, mostly on a 5 or 10 year span.
- b. Governmental organizations are in most cases responsible for funding of the creation of red lists (17).
- c. For half of the countries in our sample, national red lists either result in recommendations for legal actions for conservation or have no legal implications at all. For the remaining half the results are varied, often countries have a mix of different legal implications.
- d. Mostly, national red lists serve to facilitate applications for funds for conservation research and/or actions for some listed taxa, or have no funding implications at all.
- e. The procedure of species red listing across all countries mostly follows IUCN red listing criteria.
- f. When it comes to promotion and visibility of the red lists, most countries have one or two promotion activities they implemented, or had no promotion at all, with usually no continuity of promotion.
- g. Eight countries have regional red lists, besides the national ones, with legal implications not existing or being the same as national red lists implications.

FUTURE COLLABORATIONS (if applicable)

500 word summary

Due to ambitious work planned and undertaken in the STSM, there are several activities to be completed, and also several that are planned as a continuation of the work carried out.

The red lists database must be completed in its entirety, to be able to proceed with analysis and planning of further activities. This means that all the countries red lists should be merged and species matched to World Flora Online, than the database cleaned for errors and irregularities and national red list data further sorted based on information on species status from WFO. A preliminary version of the database has 12 119 entries, with 3668 that are "not matched" i.e. there is an issue with them and have to be revised manually. The new database version will be larger, due to inclusion of more countries that were lacking in the first version. Some of this work will require consultations with MC representatives and other countries' botanists or similar, as numerous species are not recognized by WFO and their status has to be checked further.

Furthermore, after the database is prepared, threat categories data analysis can be performed fully, as well as red list indices prepared and other relevant analysis performed. Parallel to this, upon receiving all questionnaire responses, the results collected would be analyzed and discussed, and finally the work undertaken (red lists analysis and data collection through the questionnaire) presented through a review paper.

Mid-term follow up on the STSM: discussion of database publishing and structure related to that, as well as inclusion of additional data in the database (i.e. data from European Environment Agency red list assessment that exists for certain species)

More long-term follow up: planning of synergy with other red list initiatives such as IUCN's nationalredlist.org etc.