

## **Categories, criteria and classification of threatened vascular plants species and threatened animal species in the Carpathians**

### ***1. Objectives of the assessment***

The objectives of regional assessments can be defined e.g. according to Freyhof & Brooks (2011):

- To contribute to regional conservation planning through the provision of a baseline dataset describing the conservation status of the regions species.
- To identify those geographic areas and habitats that need conservation measures to prevent extinctions and ensure that species reach and maintain a favourable conservation status.
- To identify the major threats and propose mitigating measures and conservation actions to address them.
- To strengthen the network of experts focused on conservation of species in the region, so that the assessments can be kept up-to-date, and expertise be targeted to address the highest conservation priorities.

Based on common consultations of the project partners, the aim of the methodology is to create the Red List of threatened vascular plant species and threatened animal species of the Carpathians. The Red List would be based on IUCN categories used in version 3.1 (IUCN 2001, 2003, 2005) and the criteria used for categorisation of the species shall be listed. To gain the results that would be comparable with global evaluation, other regional evaluations and that would be internationally accepted, the use of internationally agreed and valued criteria is crucial.

### ***2. Assessment methodology***

In order to create the Carpathian Red List of threatened taxons there is a need to first of all create national red lists of Carpathian species in individual Carpathian countries. These will be done by each country itself. The structure of national lists should be kept consistent and each country should provide information needed for editing of the final whole – Carpathian Red List. For this reason also, the proposal is to use the Guidelines for Application of IUCN Red List Criteria at Regional Levels, (IUCN 2003)

[http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Red\\_List/regionalguidelinesEn.pdf](http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Red_List/regionalguidelinesEn.pdf).

To categorise the species on whole – Carpathian scale, relevant information on taxons from all the Carpathian countries are needed. The proposal is to make an overview of all taxons, synonyms excluding (using MS Excel) that will be categorised in every Carpathian country. National lists of these taxons from each country should be sent to the coordinator (PP9) by the end of April 2012. Categorisation of Carpathian taxons in individual countries would need to be done by the end of 2012.

Once the categorisation of the taxons on national level is complete, taxons in categories **VU, EN, CR, CR(PE), RE?, RE, EX?, EW and EX** will be selected as a basis for creation of draft Carpathian Red List. Final categorisation of the species on Carpathian level will be done by common consultations and workshops in 2013.

Evaluation on regional level will take into consideration the information of Global Red List ([www.iucnredlist.org](http://www.iucnredlist.org)) and of European lists ([www.iucnredlist.org/europe](http://www.iucnredlist.org/europe) and <http://ec.europa.eu/environment/nature/conservation/species/redlist>).

## 2.1. Geographic scope

The boundaries of the Carpathians as proposed for the purpose of this assessment are shown in Figure 1. This map was used in previous projects for development of the Carpathian Biodiversity Information System (CBIS), this includes borders of 309 orographic units and the organisation of data collection can be compatible with previous Carpathian projects. This can serve as a basis for data gathering and display the species distribution, and is available on [www.carpates.org/cbis/orogs.html](http://www.carpates.org/cbis/orogs.html). The details and GIS layers will be provided by the PP9.

Figure 1. Map of the Carpathian eco-region as used in the CBIS.



## 2.3. Taxonomic scope

**National check-list that is generally used and accepted as well as Euro+Med/PGR Forum database are proposed for identification of plant taxons named in the national lists.**

For animal species the use of names in *Fauna Europaea* ([www.faunaeur.org](http://www.faunaeur.org)) is recommended. In the National Lists of plant species, taxons should be listed to the level of subspecies. If the taxon is listed on the level of subspecies, it is not necessary to use the species name. If the subspecies name is not listed, the assumption is that a particular species has no subspecies or that it is a nominatous subspecies.

It is possible to name the archaeophytes in the National List. Listing of neophytes is recommended only in case of naturalised rare taxons, which do not behave invasively at regional level and occur on maximum of 5 sites. Listing of cross-breeds is not possible.

Regarding animal species, it is recommended to evaluate a threat of extinction for following taxonomic groups: Vertebrates – all (Petromyzones, Osteichtyes, Amphibia, Reptilia, Aves, Mammalia); Invertebrates – Mollusca, Odonata, Coleoptera (selected groups), Lepidoptera; Alternatively (in case of sufficient data and willing specialists – Araneae, Orthoptera).

## 2.4. The proposal for creation of national Carpathian red lists of threatened vascular plant species and threatened animal species

Taxons named in national Carpathian red list of threatened vascular plants and animal species will be, based on actual knowledge and data, categorised into IUCN categories named in version 3.1 (IUCN 2001, 2003, 2005). In order to create a whole – Carpathian Red List, naming the criteria (IUCN 2001, 2003, 2005) used for categorisation is crucial. When choosing the criteria named in chapter V. The Criteria for Critically Endangered, Endangered and Vulnerable species ([IUCN Red List Categories and Criteria: Version 3.1](#)) needed for categorisation of vascular plant species (VU – CR) it is proposed to use criteria in paragraph B1, B2, C, D especially. Apart from evaluating the taxons in the national red list, it is also necessary to evaluate other taxons listed in the whole- Carpathian taxon overview, providing these occur in your country. The sites with clearly non-native occurrence of categorised taxons should not be considered.

It is recommended to use the most recent version of red list of the Carpathian part of the country (providing it exists) or the most recent version of the national red list as a basis for taxon overview. When using national red list, it is necessary to select taxons occurring in the Carpathian part of the country. Taxons with temporary occurrence which were up till now categorised in EX category and occurrence of which can be proved (a herbarium or a preparation), can be added to the national red list.

**It is recommended to use:**

**-the category „RE“, or extinct „EX“ - if the species is absent in the area for more than 50 years**

**- unofficial category possibly extinct „RE?“ , or „EX?“ – if the species is absent in the area for 25-50 years**

**- unofficial category critically endangered (possibly extinct) „CR(PE)“ - if the occurrence of the species was not confirmed for up to 25 years.**

Taxons with centre of their occurrence outside of the Carpathian area (in accordance with the border of Carpathians agreed for the project), reaching the Carpathians only marginally, should be included in the national Carpathian red list and marked with a special symbol. A special symbol should also be given to taxons occurring on anthropic habitats.

It is recommended to create a working version of national red list in MS Excel. Final table could be done in a following format:

Taxon		Category	Criterion used	Note
Euro+Med/PGR Forum	National Checklist			
				Name the area of arela in the country (when using criterion B1 or B2), or number of individuals (when using criterion C or D)

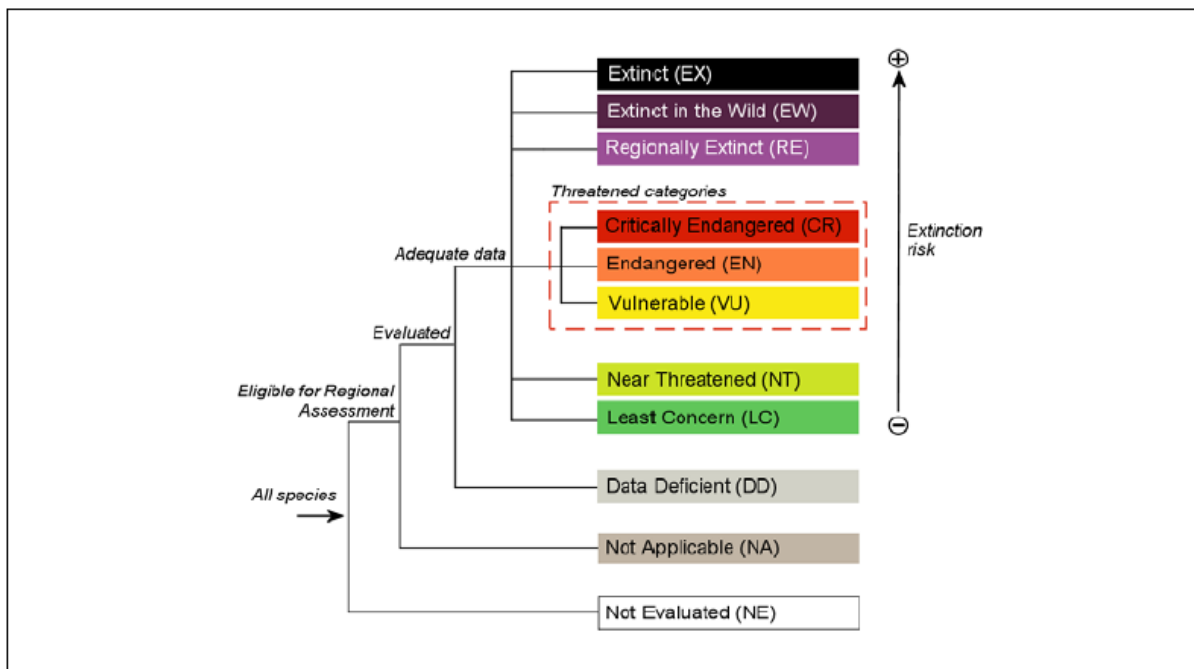
## 2.4. Regional assessment

Categories for regional assessment are shown in Fig.2. Information needed for regional assessment (species summary) are in Annex 1.

In case the taxon did not occur in the area for the last 50 years, it is recommended to use the category regionally extinct (RE). In case the taxon did not occur in the area for the period of 25 – 50 years, it is recommended to use unofficial category „presumably extinct (RE?)“.

Final version of the Carpathian Red List will be the result of a scientific consensus reached by chosen experts. It will be publicised on BIOREGIO and Carpathian Convention website for following discussion and updating. It will be a list of Carpathian taxons classified in categories, described by criteria, data on endemism and listings in other Conventions (Bern Convention, Habitats Directive, Birds Directive), documentation to each categorised species and distribution maps (mostly on level of orographic units) in the Carpathians.

Figure 2. IUCN Red List categories at regional scale



## Annex 1

### Species Assessments and Evaluation

#### Species taxonomic classification

Scientific Name: *compulsory*

Common Names (in English and in national languages): *compulsory*

Synonyms: *compulsory*

Taxonomic Notes:

#### Red List Assessment

Red List Status: *compulsory*

Assessment Information:

Date of Evaluation:

Assessor(s):

Reviewer(s):

Assessment Rationale: *compulsory*

#### Distribution

Geographic Range: *compulsory (orographical units or points)*

Biogeographic Realms:

(Distribution Map)

#### Occurrence

Countries of Occurrence:

Country-Presence-Origin-Seasonality

## **Population**

### **Habitats and Ecology**

Habitats Preferences (IUCN Habitats Classification Scheme):

Life History

### **Use and Trade**

General Use and Trade Information

### **Major Threats**

*compulsory*

## **Conservation**

### **Bibliography**

(Key literature references)