The IUCN Red List of Threatened Species™
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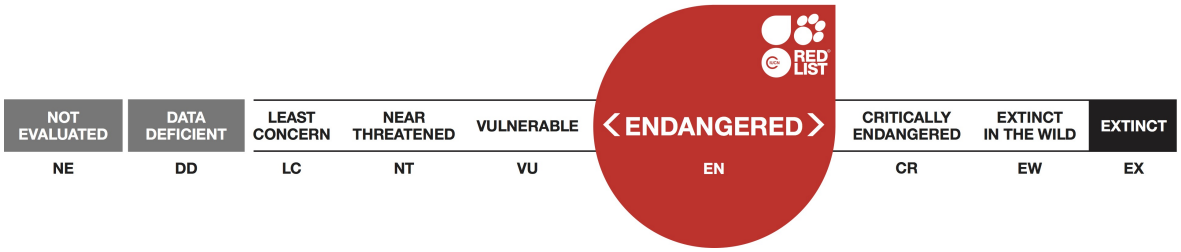
Scope: Global
Language: English

Gloiocephala cerkezii

Assessment by: Tkalcec, Z., Mešić, A., Ainsworth, A.M. & Jordal, J.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Basidiomycota	Agaricomycetes	Agaricales	Physalacriaceae

Taxon Name: *Gloiocephala cerkezii* Tkalčec & Mešić

Taxonomic Source(s):

Index Fungorum Partnership. 2019. Index Fungorum. Available at: http://www.indexfungorum.org.

Assessment Information

Red List Category & Criteria: Endangered D ver 3.1

Year Published: 2019

Date Assessed: March 28, 2019

Justification:

Gloiocephala cerkezii is a distinctive saprotrophic fungus growing on plant remains known only from two small localities in Croatia; a small grassland and a disused orchard, the latter of which is now destroyed. It was described in 2008 (Tkalčec and Mešić 2008). Its agaricoid sporocarps are rather small (5–20 mm broad and 10–25 mm high), but macroscopically very distinctive (dark, slender, central stipe and very reduced, vein-like lamellae), so it is obviously an exceptionally rare species. The real number of localities is estimated as fifteen since this fungus is so distinctive and the chance of overlooking is low. The population size is estimated as 225-250 mature individuals. It is therefore assessed as Endangered using criterion D.

Geographic Range

Range Description:

This species is only known from two small localities (sites) in northwest Croatia, 40 km apart. Adequate habitat on one of these two localities is now devastated and lost.

Country Occurrence:

Native: Croatia

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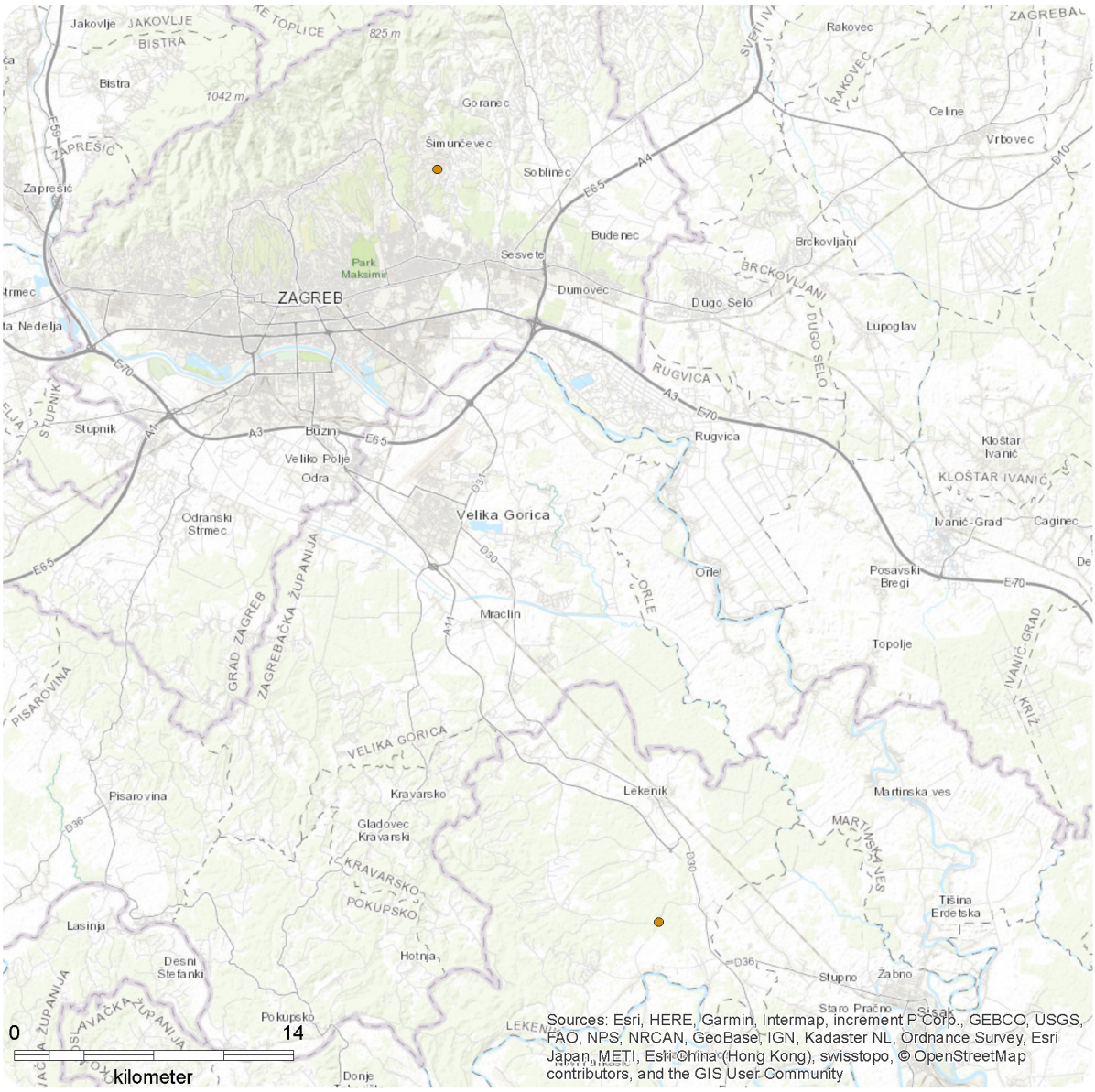
Distribution Map

Gloiocephala cerkezii

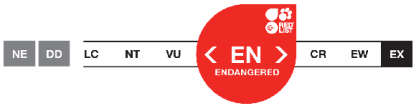


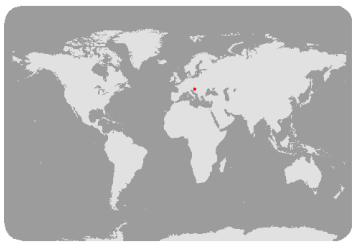
Range

- Extant (resident)

Compiled by:

IUCN





The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

Gloiocephala cerkezii is known only from two small localities in Croatia, at one of which its habitat has already been destroyed. It was found for the first time in 2002, published as new in 2008, and has never been reported from anywhere else despite the fact that it is highly distinctive and has been the subject of deliberate search effort. Today, the habitat on the northern locality (neglected orchard with *Prunus domestica* as substrate of *G. cerkezii*) is completely devastated and changed. The habitat on the southern locality (small grassland with *Carex hirta* sedge as substrate of *G. cerkezii*, ca 20 x 10 m) is still there, but abundance of *Carex hirta* is lower than 15 years ago. Therefore, the known population of the species is declining. However, since *G. cerkezii* can live on two different plant substrates which are not rare, it can be assumed that other localities exist, at least in Croatia. In the currently known extant locality the fungus seems to be restricted to discrete patches on individual *Carex* plants. It is estimated that there are four discrete patches at this locality. Four genets are expected to comprise the site, with four ramets per genet, i.e. about fifteen mature individuals at the only known extant site. The real number of localities is estimated as fifteen since this fungus is so distinctive and the chance of overlooking is low. This gives an estimate of 225-250 mature individuals in total (Dahlberg and Mueller 2011).

Current Population Trend: Decreasing

Habitat and Ecology **(see Appendix for additional information)**

Gloiocephala cerkezii lives as a saprotroph on plant remnants. It was found in two different habitats: (1) in a small grassland with a few *Alnus glutinosa* trees, on dead parts of *Carex hirta* sedge, and (2) in a neglected orchard with *Prunus domestica* trees, on dead plum twigs on the ground. Sporocarps found between July and October.

Systems: Terrestrial

Use and Trade

This species is not utilized.

Threats **(see Appendix for additional information)**

Considering that only one known locality with adequate habitat remains (in a very small area, near the forest road and hunting lodge), and that the number of assumed localities is rather small, the species is under threat from stochastic events which can lead to habitat degradation and loss. The known extant site is very near the road, such that damage by vehicles is a real threat.

Conservation Actions **(see Appendix for additional information)**

To prevent a degradation or loss of habitat on the single known site with adequate habitat remaining (near the forest road and hunting lodge), it is important to enclose a small grassland to prevent access for vehicles and disposal of material. This small area should get some sort of formal protection status.

Further field research on adequate habitats (grasslands with *Carex hirta* and extensive or neglected plum orchards) is needed, in order to get a more accurate knowledge of its population size and distribution.

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It is possible that further research will indicate that it can also occur on other substrates, since the two substrates on which it has been found to date are very different. DNA studies are also required.

Credits

Assessor(s): Tkalcec, Z., Mešić, A., Ainsworth, A.M. & Jordal, J.

Reviewer(s): Dahlberg, A.

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Citation

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External Resources

For Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.4. Forest - Temperate	-	Suitable	-
14. Artificial/Terrestrial -> 14.4. Artificial/Terrestrial - Rural Gardens	-	Suitable	-

Plant Growth Forms
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Plant Growth Forms
Fungus

Threats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	-	-	-
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	-
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	-	-	-

Conservation Actions Needed
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.1. Site/area management
4. Education & awareness -> 4.3. Awareness & communications

Research Needed
(http://www.iucnredlist.org/technical-documents/classification-schemes)

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Research Needed
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Population
Number of mature individuals: 200

The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

The IUCN Red List Partners are: Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.