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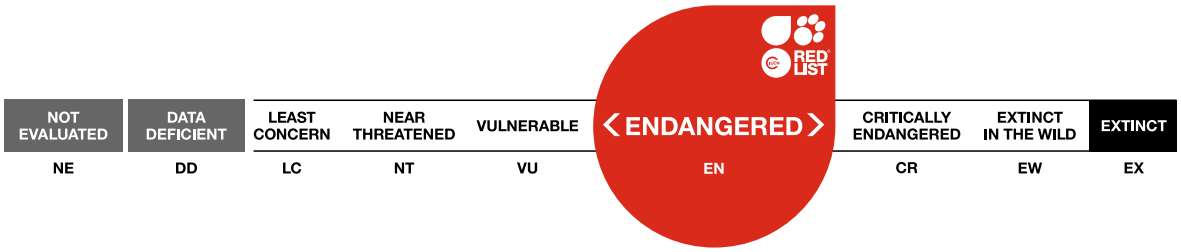
Scope(s): Global
Language: English

Populus caspica, Caspian Poplar

Assessment by: Yousefzadeh, H., Asadi, F., Kozlowski, G. & Crowley, D.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Malpighiales	Salicaceae

Scientific Name: *Populus caspica* (Bornm.) Bornm.

Synonym(s):

- *Populus alba* L. var. *caspica* Bornm.

Common Name(s):

- English: Caspian Poplar
- Persian: Espiar, Sefid Palat

Taxonomic Notes:

Some authors have treated this species as part of *Populus alba,* but genetic studies undertaken by Yousefzadeh *et al.* (2016) have shown that it is appropriate to be treated as a separate species.

Assessment Information

Red List Category & Criteria: Endangered A2ac+4ac ver 3.1

Year Published: 2022

Date Assessed: December 2, 2021

Justification:

Populus caspica is a large tree native to the Hyrcanian forests of Azerbaijan and Iran. It has an extent of occurrence of 66,235 km^2 and a total population of around 12,000 individuals. Over the last 50 years the population size has been reduced by at least 50% as a result of urbanization, dam construction, afforestation, and reforestation with non-native species and agriculture, all of which remain active threats to the species, despite cutting of tree being prohibited. On account of its continued population decline and ongoing threats, the species is assessed as Endangered.

Geographic Range

Range Description:

Populus caspica is distributed in the plain regions of the Hyrcanian forest in northern Iran and Azerbaijan. It has an extent of occurrence of 66,235 km^2.

Country Occurrence:

Native, Extant (resident): Azerbaijan; Iran, Islamic Republic of

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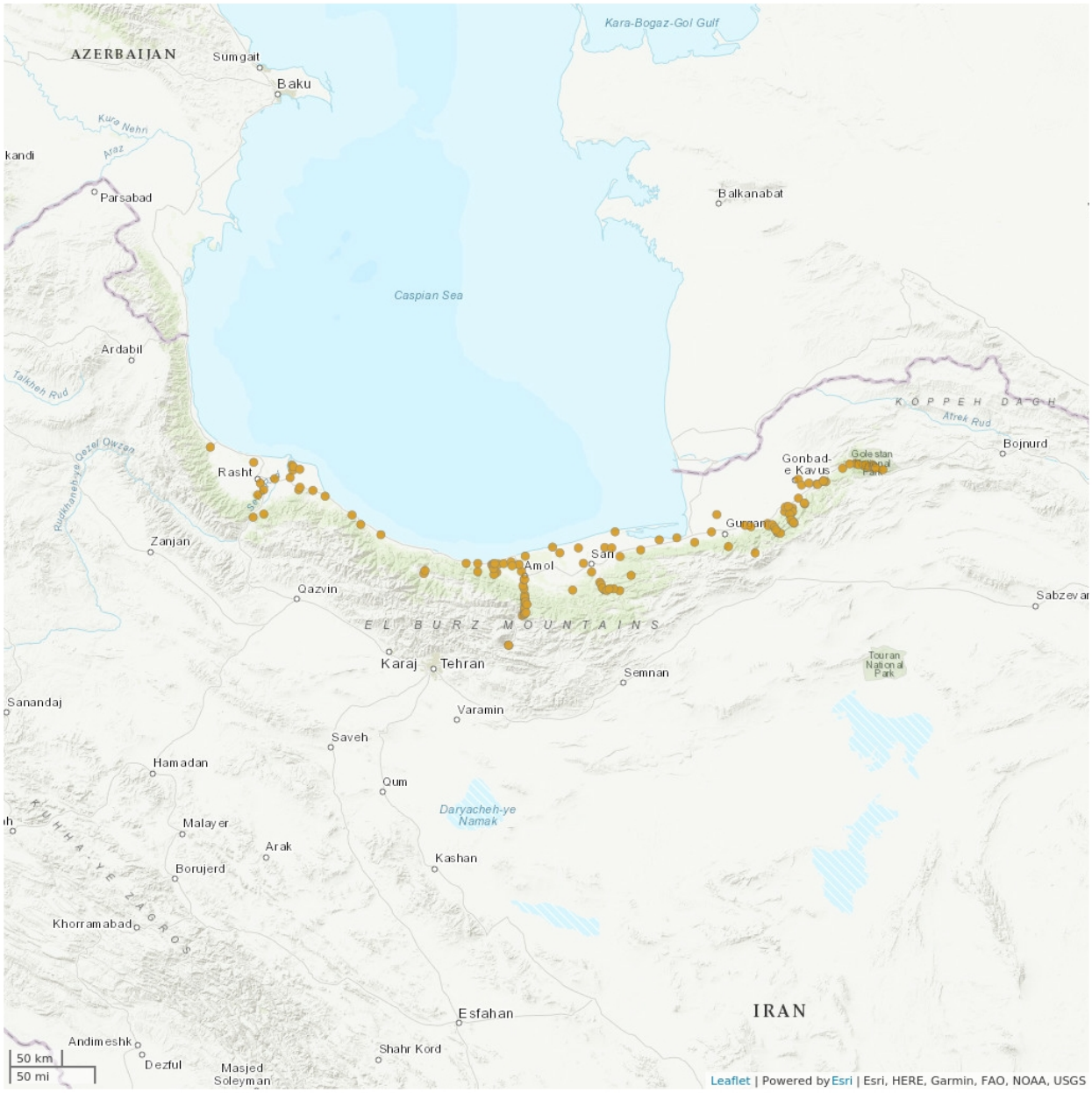
Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:
GTA 2021

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

The species is thought to be represented by around 12,000 mature individuals, though this maybe an underestimate. The largest subpopulations, comprising more than 250 individuals, occur in national parks. It is most infrequent in eastern Gilan province, and most frequent in Golestan National Park, the Kiasar valley, and along northern parts of the Sefidrood river. Though it is frequent in parts of its range, the species has experienced a population decline of at least 50% in the last 50 years, and thus more than a 50% decline in three generations (150 years), though is not thought to have declined by over 80% in that time period. However, it is continuing to decrease as a result of urbanization, dam construction, afforestation, and reforestation with non-native species and agriculture.

Current Population Trend: Decreasing

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

The species is a large, deciduous tree, growing to heights of 35 m. It grows in mixed broadleaved forests with *Alnus glutinosa*, *Fraxinus excelsior*, *Parrotia persica*, *Pterocarya fraxinifolia*, *Diospyros lotus*, *Albizia julibrissin*, *Ulmus glabra*, *Celtis australis*, *Ulmus carpinifolia*, *Ficus carica*, *Quercus castaneifolia* and *Gleditsia caspica*, mostly along river banks (Akhani *et al*. 2010, Grossheim 1939, Hamzeh'ee *et al*. 2008). It is a hygrophytic tree present in semi-humid and humid habitats with 600 mm rainfall in the eastern regions to about 1600 mm rainfall in the west of the Hyrcanian forests, growing on fine-textured quaternary sediments and calcareous soils (pH > 7.5) (Fallah *et al*. 2011, Nazari and Fallah 2016).

Systems: Terrestrial

Use and Trade

In the past, Caspian Poplar was used for furniture, matchmaking, box making, building and ladder industries. But at the moment, it is not exploited, because it has been forbidden to cut it for two decades.

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

Natural habitats of the species have largely been lost due to urbanization, dam construction, afforestation, and reforestation with non-native species and the clearing of plain forests for agricultural purposes (Akhani *et al*. 2010, Jalili and Jamzad 1999, Khoshravesh *et al*. 2009, Sagheb-Talebi *et al*. 2013). Habitat degradation also impacts the regeneration of the species due to inadequate seedbed conditions (Asadi and Mirzaie-Nodoushan 2011). The species shows vigorous clonal growth via resprouting (Asadi and Ghasemi 2007, Sadati *et al*. 2010), but due to the high vegetation cover, clonal reproduction is also limited.

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

The species is grown in at least one *ex situ* collections globally (BGCI 2021). Further *ex situ* collections are in establishment. The species is listed as Endangered in the Red Data Book of Iran (Jallili and Jamzad 1999), while cutting of trees has been banned for decades.

Credits

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Reviewer(s): Rivers, M.C.

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External Resources

For Supplementary Material, and 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	-

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

Plant Growth Form
TL. Tree - large

Use and Trade
(http://www.iucnredlist.org/technical-documents/classification-schemes)

End Use	Local	National	International
9. Construction or structural materials	No	No	No

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

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.4. Scale Unknown/Unrecorded	Ongoing	-	-	Low impact: 3
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.11. Dams (size unknown)	Ongoing	-	-	Low impact: 3
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species	Ongoing	-	-	Low impact: 3

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

Conservation Action in Place
In-place species management

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Conservation Action in Place
Subject to ex-situ conservation: Yes

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection

Additional Data Fields

Distribution
Estimated extent of occurrence (EOO) (km²): 66235
Lower elevation limit (m): -26
Upper elevation limit (m): 1,400
Population
Number of mature individuals: 12,000
Continuing decline of mature individuals: Yes
Population severely fragmented: No
Habitats and Ecology
Generation Length (years): 50

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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: ABQ BioPark; Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; Missouri Botanical Garden; NatureServe; Re:wild; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.