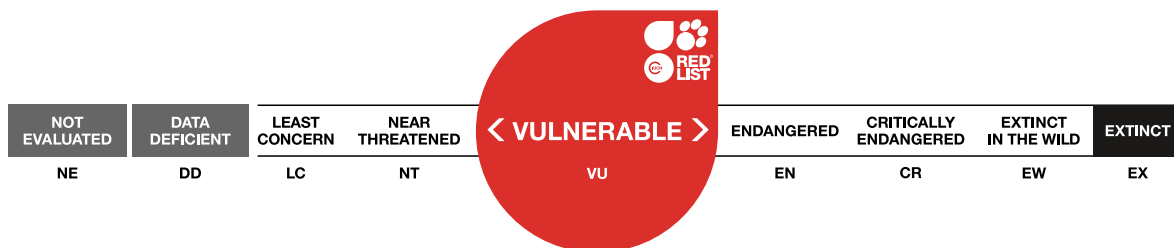


Silene aristidis

Assessment by: Mesbah, M., Bekdouche, F., Laidi, K., Sahnoune, M. & Véla, E.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Caryophyllales	Caryophyllaceae

Scientific Name: *Silene aristidis* Pomel

Taxonomic Source(s):

Board of Trustees, RBG Kew. 2018. Plants of the World Online Portal. Richmond, UK Available at: <http://www.plantsoftheworldonline.org>.

Assessment Information

Red List Category & Criteria: Vulnerable A3c; B1ab(iii,iv,v)+2ab(iii,iv,v); C2a(i) [ver 3.1](#)

Year Published: 2020

Date Assessed: March 3, 2020

Justification:

This species is endemic to the "Kabylies-Numidia-Kroumiria" plant diversity hotspot (Véla and Benhouhou 2007) in northern Algeria. The extent of occurrence (EOO) is estimated at 2,623 km² and the area of occupancy (AOO) is 32 km². The species is assessed as Vulnerable (A3c; B1ab(iii,iv,v)+2ab(iii,iv,v); C2a(i)) because of its natural restricted population and the future predicted decline of the population due to the presence of some active threats such as quarries close to the localities of Bouzegza and Ifri N'ziri, and the shotcrete concrete on the cliffs of Ammal gorges and Bin El Ghedrin gorges. An improvement in biological and ecological knowledge both *in situ* and *ex situ* with awareness-raising could be helpful to protect its natural habitat.

Geographic Range

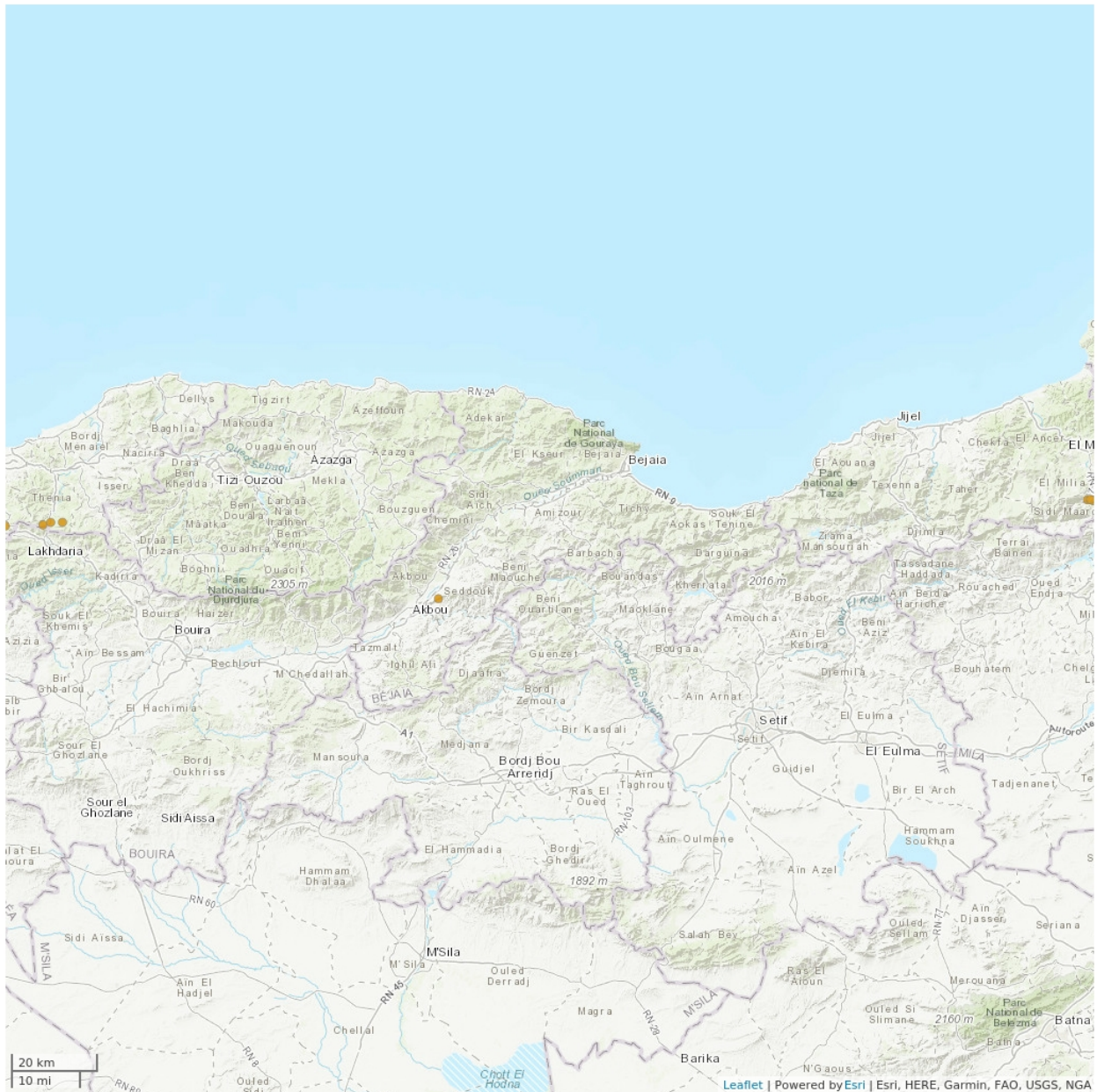
Range Description:

This species is endemic to calcareous gorges and hill cliffs of northeastern Algeria. The historical localities from the Ammal gorges (Palestro) and the mountain of Bouzegza Kaddara in the province of Boumerdes (Pomel 1874, Battandier and Trabut 1888, Maire 1963, Quézel and Santa 1963) are completed by records from Ifri N'ziri and Azrou Imadiyen. The second historical sub-population of Bin El Gadar in the province of Jijel (Jeanmonod 1982) is completed by the locality of Sassnan and Ouled Yahia Khedrouche. A new subpopulation was recently discovered through further fieldwork in Adrar n'Gueldamane near Akbou, Béjaïa Province (E. Véla and K. Rebbas). Based on currently known localities, the EOO is 2,605 km² and the AOO is 32 km².

Country Occurrence:

Native, Extant (resident): Algeria

Distribution Map

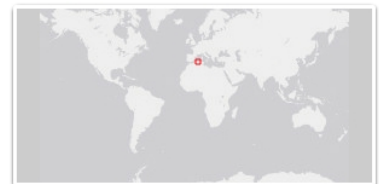


Legend

■ EXTANT (RESIDENT)

Compiled by:

SSC Mediterranean Plant SG 2020



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



Population

An exhaustive inventory was carried out in the field over two years, commencing in 2017 (February to August), completed during December 2018 to June 2019 and February 2020 without climbing on the cliffs but using binoculars. A total of 1,174 individuals were counted, with approximately 135 non-mature ones. Three subpopulations were delimited because of the long geographic distance (c. 152 km and 89 km in a beeline respectively from the Jijel subpopulation to the Béjaïa subpopulation and the Boumerdes subpopulation calculated using Google Earth Pro).

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

This species is found on steep gorge and hill cliffs made of liassic limestone (Jeanmonod 1982) with northeast to northwest or rarely southern orientation. It is a chasmophytic perennial plant. The maximum lifetime of the species is not known, but based on the size of the oldest tufts, it seems that it can survive for several decades. The surrounding vegetation is dominated by Mediterranean species such as *Olea europea* var. *sylvestris*, *Ceratonia siliqua*, *Pistacia lentiscus*...etc. But the cliffs themselves are characterised by various rupicolous taxa, including the endemics *Fumaria mairei* and *Sanguisorba ancistroides* var. *battandieri*.

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

The species is not known to be used.

Threats (see Appendix for additional information)

The main emerging threat seems to be the growing exploitation of the quarry near of the locality of Bouzegza and Ifri N'ziri and the shotcrete on the cliffs of Ammal and Bin El Ghedrin gorges. The recent emergence of the climbing activities in Ifri N'ziri have not yet affected the population. The localities of Sassnan and Ouled Yahia Khedrouche are accessible by the inhabitants. Their impact is not yet known. The new locality discovered in Adrar n'Gueldamane is completely safe at this time.

Conservation Actions (see Appendix for additional information)

This species is not protected by any Algerian law and it is not included in any protected area. No specific conservation actions are in place. The species was assessed as "R" (Rare) in 1997 under an earlier version of the IUCN Red List categories and criteria (Walter and Gillett 1998).

The extent of the road protection against the cliffs landslides with the shotcrete must be studied. The trend to create new quarries between the Ammal gorges and Bouzegza could be problematic.

Credits

Assessor(s): Mesbah, M., Bekdouche, F., Laidi, K., Sahnoune, M. & Véla, E.

Reviewer(s): Allen, D.J.

Contributor(s): Hini, A. & Rebbas, K.

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Walter, K.S. and Gillett, H.J. (eds). 1998. *1997 IUCN Red List of Threatened Plants*. Compiled by the World Conservation Monitoring Centre. IUCN – The World Conservation Union, Gland, Switzerland and Cambridge, UK.

Citation

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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?
3. Shrubland -> 3.8. Shrubland - Mediterranean-type Shrubby Vegetation	Resident	Marginal	-

Plant Growth Forms

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

Plant Growth Form
SS. Shrub - small

Threats

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

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	Majority (50-90%)	Negligible declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	Majority (50-90%)	Negligible declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
6. Human intrusions & disturbance -> 6.3. Work & other activities	Ongoing	Minority (50%)	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No

Conservation Action in Place
In-place land/water protection
Conservation sites identified: No
Percentage of population protected by PAs: 0
Occurs in at least one protected area: No
Invasive species control or prevention: No
In-place species management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-place education
Subject to recent education and awareness programmes: No
Included in international legislation: No
Subject to any international management / trade controls: No

Conservation Actions Needed

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

Conservation Action Needed
3. Species management -> 3.2. Species recovery
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level

Research Needed

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

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
2. Conservation Planning -> 2.2. Area-based Management Plan

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 32
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km ²): 2605
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 8
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 185
Upper elevation limit (m): 640
Population
Number of mature individuals: 1,022
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
No. of subpopulations: 2
Continuing decline in subpopulations: No
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: No
No. of individuals in largest subpopulation: 875
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 35-50

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