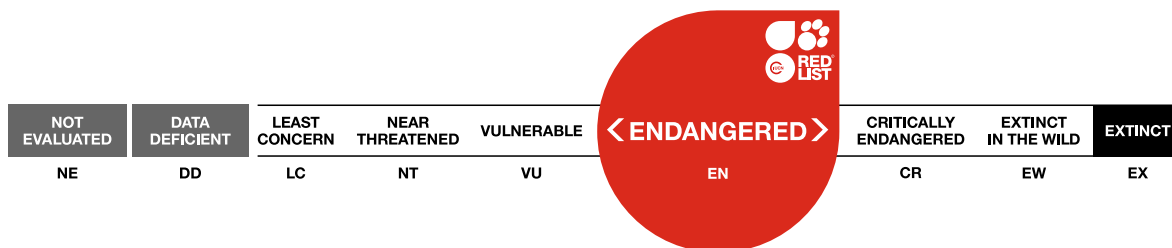


Salvia taraxacifolia, Salmia

Assessment by: Rankou, H., M'Sou, S., Ait Babahmad, R.A. & Diarra, A.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Lamiales	Lamiaceae

Scientific Name: *Salvia taraxacifolia* Coss. & Balansa

Common Name(s):

- Arabic: Salmia
- English: Wild Sage
- French: Sauge à feuille de Pissenlit
- Berber (Other): Tifzine

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: Endangered B1ab(i,ii,iii,v)+2ab(i,ii,iii,v) [ver 3.1](#)

Year Published: 2020

Date Assessed: May 15, 2018

Justification:

Salvia taraxacifolia is a strict endemic species to Morocco, found in two major floristic divisions of Morocco; High Atlas and Anti Atlas. *Salvia taraxacifolia* is very local with a varied abundance from very rare to occasional occurrences, with isolated subpopulations. The population trend of *Salvia taraxacifolia* is decreasing, the number of mature individuals and the population density is significantly reduced during the last decades due to numerous threats. The estimated extend of occurrence and area of occupancy of *Salvia taraxacifolia* are less than 5,000 km² and 500 km², respectively.

Salvia taraxacifolia is under numerous medium to high impact threats, especially; overharvesting for domestic uses, unsustainable harvesting, collection practices, overgrazing, agriculture intensification, erosion and drought, with an estimated continuing decline in the population size and the habitats quality on all the fragmented localities. Therefore, *Salvia taraxacifolia* is assessed globally as Endangered (EN B1ab(i,ii,iii,v)+2ab(i,ii,iii,v)).

Geographic Range

Range Description:

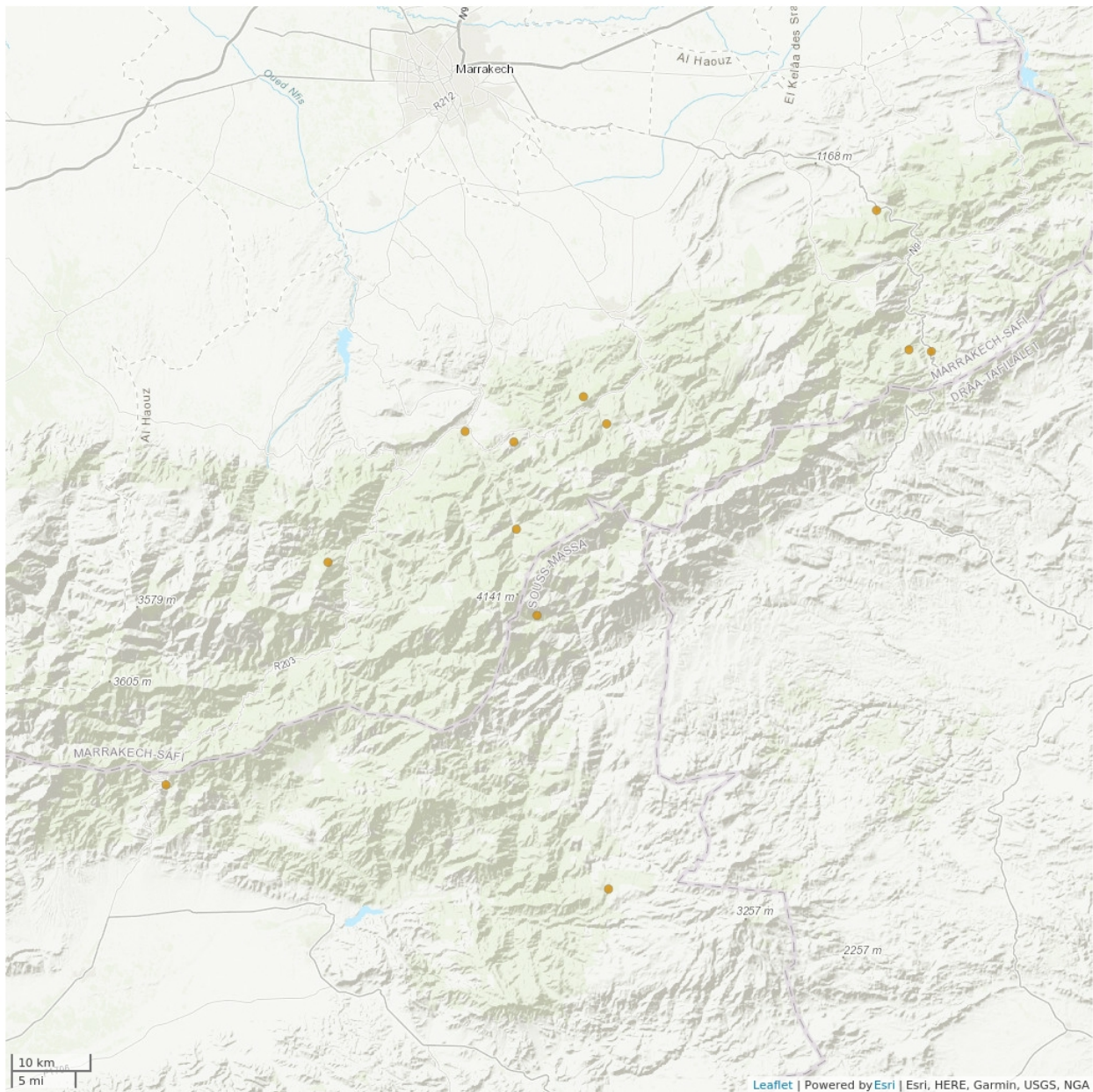
Salvia taraxacifolia is a strict endemic species to Morocco, found in two major floristic divisions of Morocco, including; High Atlas (Imegdal, Ourika valley, South side of Tizi-n-Test, near the Ifni lake, Asni, gravel of the Reraïa wadi, Ait Messane, Aguersioual and Fiméliil) and Anti Atlas in Siroua (Jahandiez and Maire 1934, Fennane and Ibn Tattou 1998, Fennane and Ibn Tattou 2005, Fennane *et al.* 2007, Dobignard and Chatelain 2010, Rankou *et al.* 2013, Euro+Med 2018, IPNI 2018, WCSP 2018, H. Rankou

et al. pers. comm. 2018). *Salvia taraxacifolia* can be found up to 2,400 m of altitude (Jahandiez and Maire 1934). The estimated extent of occurrence (EOO) and the estimated area of occupancy (AOO) of *Salvia taraxacifolia* is around 4,500 km² and 60 km², respectively.

Country Occurrence:

Native, Extant (resident): Morocco

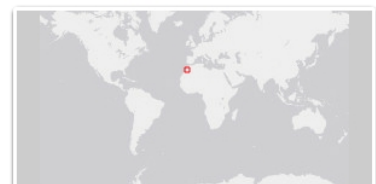
Distribution Map



Legend

■ EXTANT (RESIDENT)

Compiled by:
IUCN 2019



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



Population

Salvia taraxacifolia is very local with a varied abundance from very rare to occasional occurrences in some locations, with isolated subpopulations (H. Rankou *et al.* pers. comm. 2018). The overall trend of the population size and the number of mature individuals are decreasing due to the numerous threats affecting the species.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Salvia traxacifolia typical habitats include forest clearings, rocky pastures, alluvial rivers, wet meadows, river banks and edges of the irrigation canals in low and medium limestone and siliceous mountains (Jahandiez and Maire 1934, Fennane and Ibn Tattou 2005, Fennane *et al.* 2007, H. Rankou *et al.* comm. 2018). *Salvia traxacifolia* is a perennial species that flowers in May and June, prefers open and sunny habitats, and grows in semi-arid cold and subhumid Mediterranean bioclimate (Jahandiez and Maire 1934, Fennane and Ibn Tattou 2005, Fennane *et al.* 2007, H. Rankou *et al.* comm. 2018).

Systems: Terrestrial

Use and Trade

Salvia traxacifolia is used as an infusion to treat winter diseases, colds, sore throats, coughs, rheumatic pains, general antiseptic, digestive, antispasmodic, stimulant and tonic (Boulos 1983, Bellakhder 1997, Bellakhdar 2006, Sijelmassi 2011). *Salvia traxacifolia* commonly used for tea flavouring and animal food. The essential oil of *Salvia traxacifolia* is considered a broad-spectrum antimicrobial and antioxidant properties containing mainly limonene and Germacrene.

Threats (see Appendix for additional information)

Salvia traxacifolia population size decreasing and the habitats quality declining due to numerous medium to high impact threats, including, overharvesting for domestic uses (medicinal and food), unsustainable harvesting (cutting begin before the flowering time), collection practices (successive cuts and cutting the entire plant including the roots), overgrazing, smallholder agriculture intensification in the wetlands habitats and erosion.

Salvia traxacifolia is more generally threatened by the direct and indirect impact of human activities such as infrastructure development, land clearing, management practices of water canals and long periods of drought (Benabid 2002, Blondel and Medail 2009, Plan Bleu 2009, Taleb and Fennane 2011).

In a study carried out on a selection of different Mediterranean plant species on how warmer climate could affect nectar production on these plants (Takkis *et al.* 2018), it was found that there was a significant effect of temperature on nectar secretion, with a negative effect of very high temperatures in all species. Takkis *et al.* (2018) conclude that climate warming will likely have a distinctive effect on both plant and pollinator populations and their interactions across different seasons, either by direct effects or by the consequent shifts in the plant phenology.

Conservation Actions (see Appendix for additional information)

Salvia taraxacifolia is not subject to any conservation measures. The following actions are recommended to protect the species and its habitats from further decline;

- Protection of the species sites from habitat loss and fragmentation, random cutting and overgrazing.
- The creation of protected areas to ensure complete regeneration of the species, ecosystems and to restore the quality of wild environments.
- Rising of public awareness.
- *Ex situ* conservation: artificial propagation, re-introduction, seed collections.
- Monitoring and surveillance of the existing populations and sites.
- Estimation of population sizes and study of their dynamics, trends, biology and ecology.

Credits

Assessor(s): Rankou, H., M'Sou, S., Ait Babahmad, R.A. & Diarra, A.

Reviewer(s): Perez Graber, A. & Véla, E.

Contributor(s): Martínez Richart, A.I.

Partner(s) and Institution(s): Royal Botanic Gardens, Kew

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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	Resident	Suitable	Yes
3. Shrubland -> 3.4. Shrubland - Temperate	Resident	Suitable	Yes
3. Shrubland -> 3.8. Shrubland - Mediterranean-type Shrubby Vegetation	Resident	Suitable	Yes
4. Grassland -> 4.4. Grassland - Temperate	Resident	Suitable	Yes

Plant Growth Forms

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

Plant Growth Form
F. Forb or Herb

Use and Trade

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

End Use	Local	National	International
Food - human	Yes	No	Yes
Food - animal	Yes	No	Yes
Medicine - human & veterinary	Yes	No	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming	Ongoing	Majority (50-90%)	Very rapid declines	High impact: 8
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.1. Nomadic grazing	Ongoing	Whole (>90%)	Very rapid declines	High impact: 9
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		

			1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance	
5. Biological resource use -> 5.2. Gathering terrestrial plants -> 5.2.1. Intentional use (species is the target)	Ongoing	Whole (>90%)	Very rapid declines	High impact: 9
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
6. Human intrusions & disturbance -> 6.3. Work & other activities	Ongoing	Majority (50-90%)	Very rapid declines	High impact: 8
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
11. Climate change & severe weather -> 11.2. Droughts	Ongoing	Whole (>90%)	Very rapid declines	High impact: 9
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

Conservation Actions Needed

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

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management
3. Species management -> 3.2. Species recovery
3. Species management -> 3.3. Species re-introduction -> 3.3.1. Reintroduction
3. Species management -> 3.4. Ex-situ conservation -> 3.4.1. Captive breeding/artificial propagation
3. Species management -> 3.4. Ex-situ conservation -> 3.4.2. Genome resource bank
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 60
Continuing decline in area of occupancy (AOO): Yes
Estimated extent of occurrence (EOO) (km ²): 4500
Continuing decline in extent of occurrence (EOO): Yes

Distribution
Number of Locations: 9
Lower elevation limit (m): 1,600
Upper elevation limit (m): 2,400
Population
Continuing decline of mature individuals: Yes
Population severely fragmented: Yes
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes

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