

***Fredolia aretioides* Coss. & Dur. ex Bunge.** Chenopodiaceae



Compiled by Dr. Salima Benhouhou

■ **Morphological description**

A vigorous cylindrical shrub, up to 1 m. high, it looks like a huge cauliflower. The branches are very compact with sand in the interstices.

The small fleshy leaves, not exceeding 5 mm., are opposite, very tightly attached to the stems, and blue-green. Each leaf ends in a small spine. There are 2 to 3 small flowers located at the tips of the stems.

The fruit is a small achene surrounded by transparent wings of the evergreen perianth.

Flowering occurs in autumn.

■ **Geographical distribution**

Local: Common in the north-western Sahara from the Tafilalet, Tinghir in Morocco to Béni-Abbès in Algeria across the eastern Moroccan desert, Béni-Ounif, Ain Sefra and Béchar.

Regional: South-east Morocco and south-west Algeria.

Global Endemic of Morocco and Algeria.

■ **Ecology**

Fredolia aretioides is found on rocky and stony plateaux (reg and hamada). It rarely grows in wadi beds or clayey depressions.

Its particular round shape, the small fleshy leaves and the long roots that creep through vertical crevices enable the plant to thrive in severe climatic conditions where the annual rainfall does not exceed 100 mm. per year.

***Fredolia aretioides* Coss. & Dur. ex Bunge**

Anabasis aretioides Coss. & Moq.

Noea aretioides

Arabic: degâa, el selig

French: choux-fleur de bouâmama

■ **Status**

According to the IUCN criteria this endemic species falls into the "E" category for the western Sahara. Its use by the nomads for several purposes is detrimental to its survival in the long term. Urgent conservation means are needed to maintain this unique plant community in the western Sahara. So far no data has been reported regarding its propagation and conservation.

■ **Part used**

The leaves are prepared as an infusion or decoction.

■ **Constituents**

Alkaloids, saponine (hederagenine).

■ **Pharmacological action and toxicity**

It is antirheumatismal, diuretic, and an antidote to poison.

■ **Pharmacopeias**

Not relevant for this species.

■ **Pharmaceutical products**

Not relevant for this species.

■ **Traditional medicine and local knowledge**

It is used for rheumatism, as a diuretic, and as an antidote to poison.

Its wood is used as firewood.

In the Tafilalet (Morocco), *Fredolia aretioides* is used for rheumatism, as a diuretic and as an antidote to all sorts of poisons.

■ References

Relevant to the plant and its uses

- Khedache, Z., 1999. Etude écologique et fonctionnelle de quatre populations de *Fredolia aretioides* sur le transect Béchar-Béni-Abbès. Contribution à l'analyse architecturale de *Fredolia aretioides* Coss et Moq. Thèse magister USTHB, Alger. 122 p.
- Rameaut, JL., Jadot, J., Lewalle d'Ardancourt, J., 1985. Contribution à l'étude phytochimique de *Fredolia aretioides* Moq. & Coss. (Chenopodiaceés). Actes du 1^{er} Colloque International sur les Plantes Médicinales et Aromatiques du Maroc. Pub. CNCPRST, Rabat. 308 p.

General references

- Baba Aissa, F., 1999. Encyclopédie des plantes utiles. Flore d'Algérie et du Maghreb. Edition Edas. 368 p.

- Bellakhdar, J., 1997. La pharmacopée marocaine traditionnelle. Médecine arabe ancienne et savoirs populaires. IBIS Press. 764 p.
- Benhouhou, S.S. & Saadoun, N., 1986., Contribution à l'étude de la flore de la région de Béni-Abbès. Undergraduate thesis. University of Algiers. 241 p.
- Ozenda, P., 1991. Flore et végétation du Sahara. Ed. CNRS, Paris. 662 p.
- Quézel, P. & Santa, S., 1962-1963. Nouvelle Flore de l'Algérie et des régions désertiques méridionales. CNRS, Paris, 2 vol. 1170 p.
- Sitouh, M., 1989. Les plantes utiles du Sahara. Ann. Inst. Nat. Agro. El Harrach, Alger, vol. 13, n°2. pp. 583-658.
- Trabut, L., 1935. Répertoires des noms indigènes des plantes spontanées, cultivées et utilisées dans le Nord de l'Afrique. Collection du Centenaire de l'Algérie, Alger. 355 p.