

Compiled by Dr. Salima Benhouhou

Morphological description

A small annual plant, usually between 10-20 cm. high, rarely reaching 40 cm. Whitish, woolly leaves dissected in their upper parts with flat lobes. The flowers are grouped in yellow discoid hemispherical heads 6-10 mm. in diameter. The fruits are small achenes no bigger than 5 mm.

It flowers in early spring in the northern Algerian Sahara, and any time after rain in the central Algerian Sahara.

Geographical distribution

Local: Very common in the Algerian Sahara.

Regional: North Africa.

Global: It is common throughout the Sahara, including the Red Sea region and Sinai.

Ecology

A small annual plant that thrives in desert conditions with an average 100 mm, rainfall a year and favours sand-loamy soils. The plant is usually found on non-saline wadi beds, on gravelly-sandy soils.

Status

According to the IUCN criteria this Saharo-sindian species falls into the "C" category.

Although no problems are reported for this species, human collection near settlement may be a threat in the long term. In the wild, the best means of conservation is the remoteness of its sites as well as the seed bank that contains the plant during drought. The best way to conserve this annual is to collect the seeds and sow them in nurseries. So far no data has been reported regarding its propagation and conservation.

Cotula cinerea Del.

Brocchia cinerea (Del) Vis.

Cotula: from the Greek kotule, small cup, referring to the cupped area at the base of the leaves: cinerea: ash coloured. like ashes

Arabic: gartoufa, robita, chiriya

Tarqui: takkélt

English: Saharan camomile French: camomille du Sahara

Part used

The whole plant, dried; the flower heads. These are collected in the spring when in flower, and sold in the market in several places in the south (Djanet, El Golea). The plant is prepared as a decoction, a powder of the entire plant, and mixed with other plants: it is taken internally as a decoction and used externally as a poultice.

Constituents

Flavonoids.

Pharmacological action and toxicity

Antibacterial activity. A search on its toxicity appears to be negative.

Pharmacopeias

Not relevant for this species.

Pharmaceutical products Not relevant for this species.

Traditional medicine and local

knowledge It is used for broncho-pulmonary conditions,

coughs, digestive problems (including nausea, vomiting and stomach pain), sunstroke and rheumatism. It is applied as a poultice to the forehead for its febrifugal properties.

In the Sahara, it is much appreciated in green tea, and is also mixed with food to enhance the flavour. In the Dra region of Morocco, it is used as a febrifuge, either drunk as a decoction or as a poultice on the forehead and temples.

References

Relevant to the plant and its uses

Markouk, M., Redwane, A., Lazrek H.B., Jana M., Benjama, A. 1999. Antibacterial activity of *Cotula cinerea* extracts. Fitoterapia, 70 (3). pp. 314-316.

General references

- Baba Aissa, F., 1999. Encyclopédie des plantes utiles. Flore d'Algérie et du Maghreb.
- Edition Edas. 368 p.
- Batanouny, K.H., 1999. Wild Medicinal Plants in Egypt. The Palm Press. Cairo. 207 p.
- Bellakhdar, J., 1997. La pharmacopée marocaine traditionnelle. Médecine arabe ancienne et savoirs populaires. IBIS Press. 764 p.
- Benchelah, A.C., Bouziane, H., Maka, M. & Ouahes, C., 2000. Fleurs du Sahara. Voyage et ethnobotanique avec les touaregs du Tassili. Ed.lbis Press, Paris. 255 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.
- Boulos, L., 1983. Medicinal Plants of North Africa. Reference Publication Algonac, Michigan. 286 p.
- Bounaga, N. & Brac de la Perriere, R.A., 1989. Les ressources phytogénétiques du Sahara. Ann. Inst. Nat. Agro. El Harrach, Vol. 12 (1). pp. 79-94.
- 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.