Allium roseum L. var. odoratissimum (Desf.) Coss. Liliaceae



Compiled by: Dr. Zeineb Ghrabi

Morphological description

Rose garlic is a perennial with a small or medium ovoid bulb, white with greyish or yellowish integuments, with many little bulbils and a cylindrical floral scape. The leaves are fleshy, very narrow (5-15 mm. wide), linear, semi-cylindrical, deeply grooved and smooth at the edges.

The spathe is 2-5-fid, white, translucent, sometimes a purplish pink. The flowers have a smell of carnations, and are big, pink, sometimes white, and umbellate. The stamens are all alike, with a simple filament, enclosed and with little yellow anthers. The seeds are black, obovate and three-edged. The plant usually starts its vegetative cycle with the first autumn rains and reaches full flowering at the end of the winter. Pollination of the flowers is allogamous.

Allium roseum L. is a highly polymorphous species in that in North Africa it presents twelve different taxa: four varieties, four subvarieties, and four forms. In Tunisia, only three varieties are mentioned:

- the var. grandiflorum Briq., which includes two subvar.: the subvar. typicum Regel., characterised by inflorescences that do not have bulbils, with well-developed flowers, and the subvar.bulbiferum Kerl.-Gawl., where the flowers are replaced by sessile bulbils
- 2. the var. *perrotii* Maire, with a single subvar.: *bulbillosum* Maire, where the umbel bears both flowers and bulbils
- 3. the var. odoratissimum (Desf.) Coss., whose flo-

Allium roseum L.,

Sp. 296 (1753) var. *odoratissimum* (Desf.) Coss., B. Soc. France, 22, p. 50 (1875)

Arabic: Lazoul, gazoul, korrath English: Rose garlic French: Ail rosé

wers smell like carnations.

The var. *odoratissimum* is diploid, 2n=16 and is unlike the other taxa because of its narrow, fleshy, semi-cylindrical leaves and its very highly scented white or pinkish flowers.

Geographical description
Local: Common in the J'fara plain, Gafsa, Tozeur, Gabès, on the Matmata jbels, at El Ouara...
Regional: Pre-saharan Tunisia, on sandy steppes.
Global: North African endemic, from Cyrenaica to Morocco.

Ecology

Allium roseum var. odoratissimum develops on relatively light soils, and is widespread in the arid and desert parts of Tunisia. It is a wild geophyte that behaves like the annuals.

Conservation, culture and status In rainy years, Allium roseum var. odoratissimum is sold in the spring at roadsides. Today it is marketed very cheaply in the fruit and vegetable markets of southern Tunisia. This not yet cultivated taxon must be protected since the way it is gathered is very destructive. When it is picked, even the bulbs are torn up. Given the growing economic interest of Allium roseum var. odoratissimum, and the risk of genetic erosion hanging over it, protecting and domesticating this species have today become an urgent necessity. The Mednine Institut des Regions Arides has recently developed a research programme to protect, conserve, improve (collection, morphological features, genetics, agronomy, chemistry, etc.) and domesticate (farming, packaging production, etc. this taxon.

Part used

The fresh leaves and inflorescences.

Traditional medicine

The plant is famous for its many therapeutic values; it is basically used to cure colds. It is also edible, used by local people as a condiment, sometimes replacing the onion.

The fresh leaves are pounded with a little salt and then olive oil is added to make a *loussa* that can be eaten immediately or kept (for about a month). The crushed leaves are also mixed with wheat or barley flour to make a kind of omelette or pancake.

References

- Jendoubi R. 1999 : Etude de la diversité biologique chez *Allium roseum* L. : Ecologie-Phénologie. DEA en Ecophysiologie Végétale. Fac. des Sc. de Tunis. 56 p.
- Jendoubi R., M. Neffati, B. Henchi et A. Yobi, 2001 : Système de reproduction et variabilité morpho-phénologique chez *Allium roseum* L. Plant Génet. Res. Newsletter. 127 : 29 – 34.
- Chaieb M. et M. Boukhris, 1998 : Flore succincte et illustrée des zones arides et sahariennes de Tunisie. ATPNE, Sfax. 290 p.



Cuenod A. 1954 : *Flore analytique et synoptique de la Tunisie*. Cryptogames vasculaires, Gymnospermes et Monocotylédones. Tunis Imp. S.E.F.A.N. 300 p.

- Ferchichi A . 1997 : Contribution à l'étude caryologique, caryosystématique, morphobiologique et écologique de la flore de la Tunisie présaharienne. Doctorat d'Etat ; Fac. des Sc. de Tunis. 214p.
- Le Floc'h E. 1983 : Contribution à une étude ethnobotanique de la flore tunisienne. Programme Flore et Végétation tunisienne. Min. de l'En. Sup. et de la Rech. Sci. 387 p.
- Maire R. 1958 : Flore de l'Afrique du Nord. Volume 5 ; Monocotylédones : Liliales : Liliacées. Edit. Lechevalier. 310 p.
- Ministère de l'Environnement et de l'Aménagement du Territoire 1996 : Plantes Naturelles du Sud Tunisien. Programme Main verte. 223 p.