

***Juniperus phoenicia* L.**
Cupressaceae



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■ **Morphological description**

This is a monoical shrub or tree that can live up to 300 years and can be 8 m. high. The trunk is short, sometimes 2 m. in circumference, and the bark peels off in strips. The young leaves are aciculate and become scaly. They are small, in 4-6 overlapping ranks, like those of the cypress, with on their back a small longitudinal resiniferous depression. Pollination results in the forming of a berry-like fruit the size of a chick-pea, tawny brown with bluish tints, borne on a non-reflected peduncle. Flowering takes place in winter-spring; the seeds will be ripe the following year, in summer.

■ **Geographical distribution**

Local: Cap Bon, the Tunisian dorsal ridge, the Kroumirie, central and southern Tunisia.

Regional: In North Africa, the species covered 450,000 ha., including 290,000 ha. in Algeria, 152,000 ha. in Morocco, and 8,000 ha. in Tunisia. It also develops in Cyrenaica.

Global: A typically Mediterranean and steppe plant, it is found from the Madeira Isles to Arabia.

***Juniperus phoenicia* L.** Sp. Pl. 1040. 1753

Arabic: araâr

French: Genévrier de Phénicie

English: Phoenician juniper

■ **Ecology**

The *Phoenician juniper* is a polymorphous species appearing in two areas, one littoral and another continental: along the North Africa coast, it goes from the upper arid to the humid in the hot and mild variants. On sea dunes being stabilised, the Phoenician juniper forms an unbroken line in association with *Juniperus oxycedrus* subsp. *Macrocarpa* in the interior, it goes from the lower arid to the upper semi-arid in the mild to fresh variants, where it is in association with several climax essences (holm oak, cork oak, kermes oak, Barbary thuya, Aleppo pine) that belong to different climax variants.

The minimal annual rainfall must be about 150 mm. In Tunisia, the distribution area of the Phoenician juniper goes no further than the 600 mm. isohyet. In Morocco, it goes up to 2,400 m. high. It develops on calcareous soils or marl or sandstone or gypsum.

■ **Status, conservation, culture**

The plant is not grown in Tunisia, but used in the wild state for medicinal, food or craft purposes. Climax formations based on the kermes oak developing in the Tunisian coastal regions (Nefza-Zouarâa) on sea dunes being stabilised are protected. In these formations, nice specimens of Phoenician juniper are found.

Germination of the seeds is inhibited by the resinous, fleshy part of the berry-like fruit, but is facilitated by the seeds passing through the digestive tubes of jackals and goats. Growth is slow.

■ **Part used**

The leaves and berry-like fruits.

■ **Constituents**

An essential oil (0.5-2%; min. 0.75%) whose qualitative and quantitative make-up depends on where

the plant comes from and how ripe the berries are; a resin; oligosaccharides (about 30%); catechic tannins (3-5%); biflavonoids; leucanthocyanes, alcohol acids and a terpenic alcohol (sabinol).

■ Pharmacological action and toxicity

The essential oil of the Phoenician juniper has antimicrobial and antifungal properties. The lignins of the plant act against cancer. Additionally, the bibliography mentions hypoglycaemic, diuretic and antiseptic activities for the urinary tract. The sabinol present in the plant is a strong irritant and can cause digestive, neurological, cardiorespiratory and hepato-renal disorders.

■ Traditional medicine

Diarrhoea: mix equal amounts of the powdered leaves of *Juniperus phoenicia* L. and bark of roots of *Rhus tripartita* (Ucria) Grande; a soup-spoonful to be taken by mouth three times a day before meals for a week.

Mix the powdered leaves of *Juniperus phoenicia* L., date paste and olive oil; a coffee-spoonful to be taken by mouth early every morning until a cure is obtained.

Mix equal amounts of the powdered leaves of *Juniperus phoenicia* L. and seeds of *Trigonella foenum-graecum* L. with honey; take two soup-spoonfuls early in the morning.

Rheumatism: bathe in a decoction of the leaves.

Bloated stomach: a soup-spoonful of the powdered leaves of *Juniperus phoenicia* L. mixed with water to be taken by mouth early in the morning.

Acute gonococcal infection (lower part of the genito-urinary system): an infusion of 30 grammes of leaves of *Juniperus phoenicia* L. in a litre of water for 15 mn.; two glasses a day to be taken by mouth before meals.

Eczema: for two weeks, daub with tar of *Juniperus phoenicia* L. three times a day.

Dysmenorrhoea: bathe with a decoction of the leaves of *Juniperus phoenicia* L., *Teucrium polium* L. and *Mandragora autumnalis* Bertol.

Gastric ulcer: a powder made from the bark of the stem of *Rhus pentaphylla* (Jacq.) Desf., the leaves of *Juniperus phoenicia* L., and the bark of the fruits of *Punica granatum* L. is mixed with honey; to be

taken early in the morning until a cure is obtained.

Sunstroke: equal amounts of the powdered leaves of *Lawsonia inermis* L., *Juniperus phoenicia* L., *Artemisia herba alba* Asso., and *Origanum vulgare* subsp. *glandulosum* are mixed with olive oil and applied to the crown of the head.

Prostatitis: boil 5 kilogrammes of equal amounts of leaves of *Rosmarinus officinalis* L., *Artemisia herba alba* Asso., *Marrubium alysson* L., *Juniperus phoenicia* L., *Stipa tenacissima* L., *Ampelodesma mauritanica* (Poir.) T. Dur. Sch., *Globularia alypum* L., and the bark of the trunk of *Pinus halepensis* Mill. in ten litres of water until it boils down to one litre; take a tea glass full early every day.



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