

CHENOPODIUM EXSUCCUM AND ITS AFFINITIES

by

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Abstract

UOTILA, P. (1981) *Chenopodium exsuccum* and its affinities. *Actas III Congr. OPTIMA. Anales Jard. Bot. Madrid* 37(2): 463-466.

The West Mediterranean species of the *Chenopodium foliosum* aggregate are compared and briefly discussed. *C. exsuccum* (Loscos) Uotila is infrequent but fairly widespread on the Iberian Peninsula and in mountains of Northwestern Africa, *C. foliosum* Ascherson has a wide range from the high mountains of Spain to the Western Himalayas.

Resumen

UOTILA, P. (1981). *Chenopodium exsuccum* y sus afines. *Actas III Congr. OPTIMA. Anales Jard. Bot. Madrid* 37 (2): 463-466 (En inglés).

Se comparan las especies del grupo *Chenopodium foliosum* del oeste del Mediterráneo. *C. exsuccum* (Loscos) Uotila es raro pero con amplia distribución en la Península Ibérica y montañas del Noroeste de África. *C. foliosum* Ascherson tiene área más amplia, desde las altas montañas de España hasta el Himalaya occidental.

Chenopodium foliosum Ascherson and *C. capitatum* (L.) Ascherson are the two widespread species that are commonly accepted to constitute *Chenopodium* subgen. *Blitum* (L.) Hiit. Sometimes the rare North American *C. overi* Aellen, related to *C. capitatum*, is also included in the subgenus. *C. foliosum* s. lat. is far more variable than *C. capitatum* s.lat., and the aggregate includes several related taxa.

The *C. foliosum* aggregate has a wide distribution from the West Mediterranean to the West Himalayas and the Altay Mts. Speciation process in mountains and marginal parts of the area has resulted in several morphologically recognizable taxa, four in the east (Altay, Alay-Karakorum, Hindukush, and Elburs Mts.), and one in the west.

C. exsuccum (Loscos) Uotila is the West Mediterranean member of the aggregate (UOTILA, 1979). It is fairly easy to distinguish from *C. foliosum*

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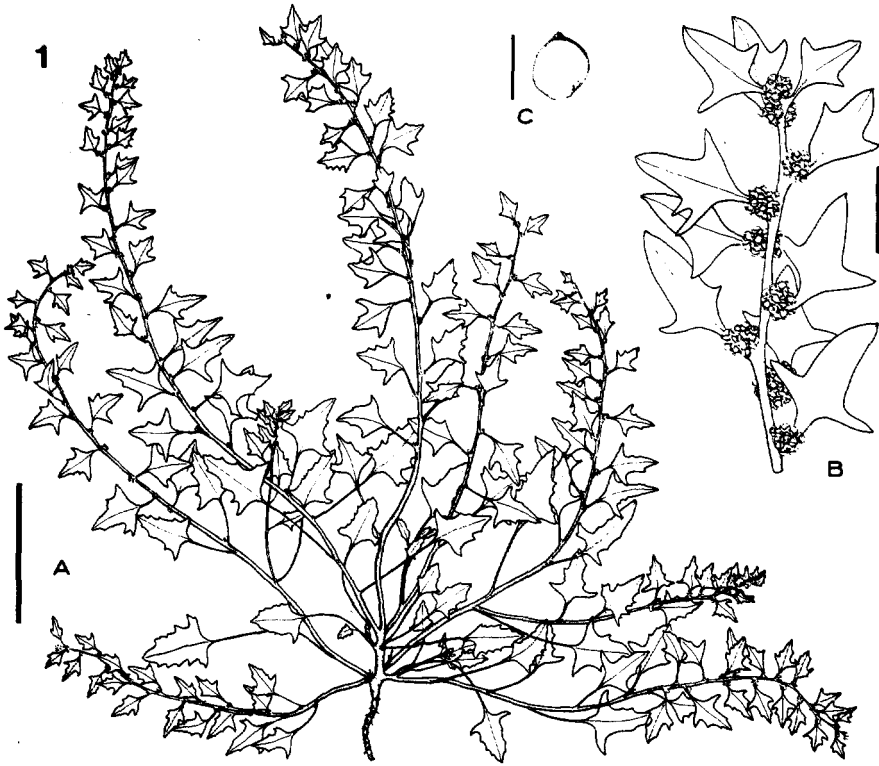


Fig. 1.—*Chenopodium exsuccum*: A. Habitus of flowering plant (scale 5 cm). B. Top of a fruiting branch (scale 1 cm). C. Seed (scale 1 mm). Del. Marja Koistinen.

s.str. through its \pm ascending habit, leaf shape, usually non-succulent glomerules, and small seeds (0.85-1.10 mm, resp. 1.05-1.35 mm) (Figs. 1, 2). In morphology it has closer affinities to certain taxa of the aggregate in the Asian mountains than *C. foliosum* s.str.

Furthermore, *C. exsuccum* varies morphologically to some extent. Some of specimens seen are small, fairly slender, more erect, and leaves are triangular, with roundish teeth, and not very conspicuously hastate. The majority of the specimens are taller, more robust and ascending, leaves are \pm hastate, with few acute teeth. Cultivation experiments are needed in order to find out whether the variation is environmental or genetical, and whether it has taxonomic importance.

C. exsuccum is restricted to the Iberian Peninsula (Central Plains) and North Africa, in the latter area ranging from the Toubkal in Morocco to Gabes in Tunis, possibly over to Libya (see JAFRI & RATEEB, 1979). For detailed distribution maps, see UOTILA (1979), JALAS & SUOMINEN (1980). The species is widespread, though infrequent, and the localities are in lower altitudes (500-1.500 m) on the Iberian Peninsula, but at



Fig. 2.—*Chenopodium foliosum* s.str.: A. Habitus of fruiting plant (scale 5 cm). B. Top of a fruiting branch (scale 1 cm). C. Seed (scale 1 mm). Del. Marja Koistinen.

higher levels in North Africa (up to 3,200 m), in villages, pastures, etc., often on calcareous soil.

On the Iberian Peninsula, *C. foliosum* s.str. is possibly native in high altitudes only (Sierra de Gador and Sierra Nevada, 2,000-2,500 m, the Pyrenees 1,200 m). This may be true in the whole range of the species. MONTSERRAT (1979) paid attention to its occurrence on burnt pastures in the Pyrenees.

However, probable lowland finds are known from Spain and one from Algeria, Oran (see UOTILA, 1979). In older times *C. foliosum* was more or less commonly cultivated in gardens and this might have brought about naturalized occurrences in Central Europe, as well as in lowland regions of the West Mediterranean area.

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