

Chenopodium chaldoranicum (Chenopodiaceae), a new species from Iran

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Chenopodium chaldoranicum Rahiminejad & Ghaemmaghani *sp. nova* is described from Iran and illustrated in line drawings. It is compared with the morphologically close *C. bryoniaefolium*, *C. atripliciforme* and *C. sosnovskyi*.

Key words: *Chenopodium*, new species, taxonomy

Parsa (1949), in his account of the genus *Chenopodium* in Iran, recognised ten species and Uotila (1997) added five more. Assadi (2001) recognised these fifteen species in his account of the genus in Iran, and subsequently Rahiminejad *et al.* (2004) added one more. As a result of recent field work we describe here a further *Chenopodium* species from Iran.

Chenopodium chaldoranicum

Rahiminejad & Ghaemmaghani, *sp. nova* (Fig. 1)

Planta annua, farinosa, erecta, 10–30 cm alta. Folia rhombeo-hastati, semisagittati, rhombeo-ovati vel lanceolati, margini integrima, 5–10 × 3–14 mm. Inflorescentia dense paniculata, 5–25 flores continens.

TYPE: Iran. West Azarbayjan Province, 5 km from Chaldoran to Khoy, 39°–40°N, 44°–45°E, 1961 m, semi open slopes, 11.VII.2003 Rahiminejad & Dehghan 13892 (Herbarium of Isfahan University).

Annual, silvery grey plant, with a very weak

rotten fish odour. Stem erect, 10–30 cm tall. Leaves petiolate, 5–10 × 3–14 mm; leaf lamina rhomboid-hastate, semisagittate, uppermost ones deltoid or lanceolate, lowermost ones deltoid to rhomboid-ovate, broadly to narrowly cuneate at base, often with two basal lobes, leaf margin entire, leaf apex acute or slightly acuminate. Flowers perfect or very rarely small-pistillate, perianth lobes mostly five or rarely four, densely pubescent, united to the middle. Inflorescence of leafy compact axillary clusters of cymes or panicles, each with 5–25 flowers. Seeds horizontal, 1.0–1.2 mm in diameter, with obtuse margin and radial striae, shiny black.

Iljin and Aellen (1936) treated *C. atripliciforme* as synonym of *C. bryoniaefolium*, a species characterized by its leaves and inflorescence “triangular-hastate or oblongly ovate-hastate, acute or very rarely obtusish, always entire, always broadly cuneate at base, the spreading lobes of the hastate base sometimes additionally toothed” and “flowers perfect, in a broadly paniculate loose inflorescence”. Uotila (1993), using his own study of the genus *Chenopodium* in the *Flora Iranica* area, re-defined and lecto-

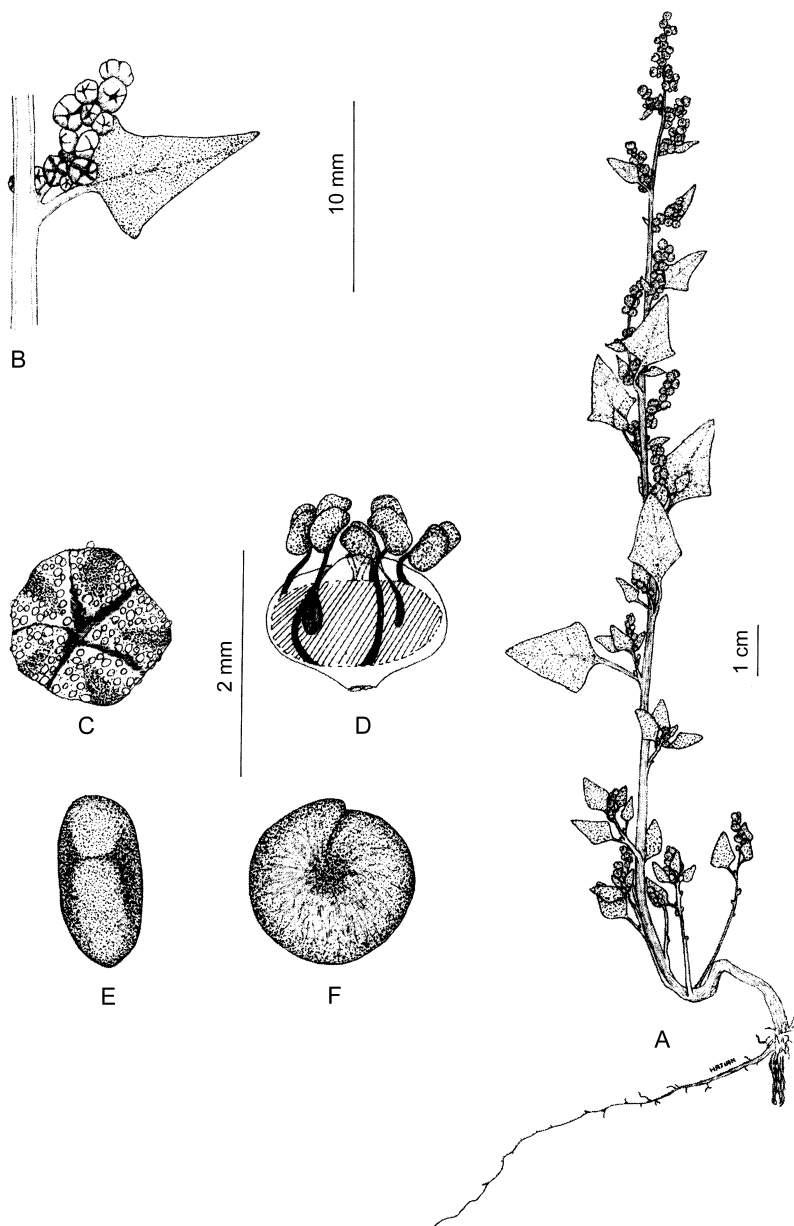


Fig. 1. *Chenopodium chaldoranicum* (from holotype). — A: Habit. — B: Inflorescence. — C: Fruit enclosed in perianth. — D: Hermaphroditic flower. — E: Seed, marginal view. — F: Seed sculpturing.

typified *C. atripliciforme* as a species occurring from E Afghanistan to N India and S Tibet, and possibly E Himalaya. These two morphologically close species are partly sympatric (see Iljin & Aellen 1936). Uotila (1993) suggested that *C. atripliciforme* differs from *C. bryoniaefolium* in “leaf shape”; both have a lax inflorescence (Iljin & Aellen 1936, Uotila 1993).

Despite the more or less similar leaf shape to *C. bryoniaefolium*, our new species is clearly different from the above-mentioned species

in having a compact paniculate inflorescence. Furthermore, the geographical area of *C. chaldoranicum* is completely separate from *C. bryoniaefolium* and *C. atripliciforme*. Uotila (1993) believed that *C. atripliciforme* has a fairly similar leaf shape to that of *C. opulifolium*, but our observations showed that the leaf shape of *C. chaldoranicum* is clearly different from that of the former (Rahiminejad 1994).

Chenopodium chaldoranicum occurs sympatrically with *C. sosnovskyi*, a species very

similar to *C. vulvaria* (Uotila 1997, Assadi 2001, and pers. obs.). However, several morphological characters distinguish *C. sosnovskyi* from *C. chaldoranicum*. The leaves of the former are 35×35 mm, broadly triangular to broadly ovate or ovate, entire or slightly 3-lobed. Also, the stems of *C. sosnovskyi* are erect or ascending and branched particularly from the base while *C. chaldoranicum* consistently has non-branched, erect stems. Likely the most prominent difference between the two taxa is in their inflorescence. The more or less terminal, small, fairly lax inflorescence with small glomerules in *C. sosnovskyi* (Uotila 1997: table 16) differs clearly from the leafy, compact axillary 5–25-flowered cymes scattered all along the stem in *C. chaldoranicum* (Fig. 1).

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