



## A new subspecies of *Plantago uliginosa* from Central Anatolia (Turkey)

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**Abstract.** A new subspecies, *Plantago uliginosa* subsp. *mandakii* CHRTEK, is described from the mountains of Central Anatolia. It differs from subsp. *uliginosa* first of all by rigid, hairy, and irregularly serrate-dentate leaves. Taxonomic problems related to *Plantago uliginosa* and *P. major* are briefly discussed.

■ Plantaginaceae, *Plantago*, new subspecies, Turkey

### INTRODUCTION

In 2000, B. Mandák participated in an expedition to the mountain ranges in central Turkey. On the slopes of Mt. Erciyes Dagi (3916 m) he collected interesting plants belonging to the genus *Plantago*. At the first sight the plants resemble those of *Plantago major* L., and according to available identification keys (Tutel 1982) they can be referred to *P. major* subsp. *intermedia* (GILIB.) LANGE. However, they differ in many morphological characters.

A brief taxonomic note should be added here. Although *P. major* subsp. *intermedia* is undoubtedly closely related to *P. major* subsp. *major*, it differs in a number of morphological characters (see Tab. 1), and a species rank seems to be justified (correct name *Plantago uliginosa* F. W. SCHMIDT).

As mentioned above, the Turkish plants cannot be fully identified with *Plantago uliginosa* in the narrow sense (*P. uliginosa* subsp. *uliginosa*). They differ first of all by distinctly rigid, deep green, usually densely hairy (mainly on upper surface – hairs adpressed), irregularly obtuse serrate-dentate leaves (leaves usually soft, thin, light to yellowish green, sparsely hairy to (glabrous, lobate to irregularly obtuse-dentate in *P. uliginosa* subsp. *uliginosa*), and by whitish margin of bracts and sepals (bracts and sepals without whitish margin in *P. uliginosa* subsp. *uliginosa*).

As the plants cannot be identified with any taxon known hitherto, it is here described as a new one in subspecific rank.

### SYSTEMATIC PART

*Plantago uliginosa* subsp. *mandakii* CHRTEK, subsp. nova

**Descriptio:** Perennes, plantae mediocres vel minores, 3–7 cm altae, rhizoma breve, crassiusculum. Folia in rosula dense congesta 4.5–8 cm in diam., decumbentia, ovata vel ovato-elliptica, 2.5–3 cm longa et 2–2.5 cm lata, 3-nervia, viridia usque fusco-viridia,

Table 1. Distinguishing characters of *Plantago major* and *P. uliginosa*

<i>P. major</i>	<i>P. uliginosa</i>
Scapes erect	Scapes erect to distinctly arcuate, often decumbent
Leaf lamina usually entire, cordate to broadly cuneate at base, with 5(-9) veins	Leaf lamina lobed to serrate, rarely $\pm$ entire, gradually narrowing into petiole, with 3(-5) veins
Leaves green, usually glabrous	Leaves light to yellowish green, rarely deep green, glabrous or sparsely to densely hairy
Capsules $\pm$ conical, with (2-)4-11(-17) seeds	Capsules ovoid, with (4-)9-35 seeds
Seeds 12-18 mm long	Seeds 8-12 mm long

crassiuscula, coriacea, rigida, irregulariter dentata, in petiolum angustata, petiolus brevis, 0,5-1 cm longus; lamina breviter albido pilosa usque dense pilosa. Spicae pedunculus rectus vel arcuatus 2-4,5 cm altus, obscure striatus, pilosus, basin saepissime dense pilosus. Spica suprema densa, inferne  $\pm$  laxa, 1,5-3,2 cm longa. Bractea calycem circ. aequans, fuscoatra, margine anguste albida. Corollae tubus ca 2 mm longus, lobi parvi, ca 0,8 mm longi, reflexi. Capsula brunnea, basin rotundata, parte superiore semi-ellipsoidea ( $\pm$  ovoidea); semina 10-14, ca 1 mm lata.

H o l o t y p u s : Turcia, Anatolia centr.: Secundum viam sub cacumine montis Erciyes Dagi, prope campum, prope oppidum Kaiseri, ca 3000 m s.m., leg. B. Mandák, 20. 9. 2000. Typus in herb. PR 11860 asservatur.

#### REMARKS

Another taxon, *Plantago major* subsp. *winteri* (WIRTGEN) W. LUDWIG should be placed to *P. uliginosa*, first of all because of its leaf shape. A new combination is proposed as follows:

***Plantago uliginosa*** F. W. SCHMIDT subsp. ***winteri*** (WIRTGEN) CHRTEK, comb. nova

Bas.: *Plantago winteri* WIRTGEN Verh. Naturhist. Ver. Rheinl. Westph. 23, Correspondenzbl. 2: 44, 1866.

It is predominantly known from salt meadows and marshes in the Western and Central Europe and has so far not been reported from Turkey. Nevertheless, occurrence in the area cannot be fully excluded.

#### REFERENCES

Tutel, B. (1982): *Plantago* L. – In: Davis P. H. (ed.): Flora of Turkey, vol. 7: 505-521. Edinburgh.