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Source: Willdenowia, 36(1) : 323-327

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: <https://doi.org/10.3372/wi.36.36127>

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SVEN SNOGERUP, BRITT SNOGERUP & ARNE STRID

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Abstract

Snogerup, S., Snogerup, B. & Strid, A.: *Acanthus greuterianus* (*Acanthaceae*), a new species from NW Greece. – Willdenowia 36 (Special Issue): 323-327. – ISSN 0511-9618; © 2006 BGBM Berlin-Dahlem.

doi:10.3372/wi.36.36127 (available via <http://dx.doi.org/>)

Acanthus greuterianus from the Greek provinces of Kozanis, Florinis, Grevenon and Pellis is described as a species new to science, illustrated and compared with other members of the genus in Greece and SW Asia.

Key words: taxonomy, E Mediterranean, *Acanthus dioscoridis* group.

Introduction

A species of *Acanthus* was independently collected by the authors in the provinces of Kozanis, Florinis and Pellis. It could not be matched with any known taxon from Greece. Its closest affinities apparently are with some Anatolian representatives, especially *A. syriacus* Boiss. As preparatory work for the forthcoming corresponding volume of Flora Hellenica, the new species is here described together with a survey of the other E Mediterranean species. Three further collections, all by Eckhard Willing, were located in the herbarium at Berlin (B).

The *Acanthus* species known from Greece

The most common *Acanthus* species in Greece is *A. spinosus* L. (syn. *A. spinosissimus* Pers.), easily recognized by its purple, sometimes pale green bracts and dark green, (1-)2-3-pinnatisect leaves white-veined beneath, always with conspicuous spines.

Haussknecht (1886) described *Acanthus caroli-alexandri* (as “*Caroli Alexandri*”) based on his own collections in June and July 1885 from nomos (province) Karditsis in the S Pindos Mts, “Agrapha (Dolopia veterum): in reg. infer. m. Pindi circa monasterium Koróna, in nemorosis quercinis alt. 3500-3700' substratu schistoso” [39°19'N, 21°47'E]. In the original description accompanied by a fine drawing, Haussknecht stated why his new species was considered distinct from *A. spinosus*, which occurs at lower altitudes in the same area. Haussknecht's paper appears

to be largely overlooked. Collections by Heldreich in 1891 (1166, from Mt Parnitha, JE!, LD!) and by Sintenis in 1896 (442, from Kalampaka, JE!, LD!), which were distributed a few years later under the name *A. caroli-alexandri*, clearly are of *A. spinosus*. This has probably caused the former name to be treated as a synonym in later Floras. The type material of *A. caroli-alexandri* (8 sheets, JE!) differs from typical *A. spinosus* in a number of leaf and floral characters. Similar plants have been collected by Aldén in 1972 (1153, from Chatsipetron, nomos Trikalon, LD!) and by Willing in 1993 (28494, E of Dheskati, nomos Grevenon, B!). There are three species of *Acanthus* in the area – the widespread *A. spinosus* and two regional taxa, the new species *A. greuterianus* and *A. caroli-alexandri*, which we prefer to keep at species rank.

Acanthus hungaricus (Borbás) Baenitz (syn. *A. balcanicus* Heywood & I. Richardson, *A. longifolius* Host non Poir.) just reaches NE Greece. Its dull green basal leaves are shortly petiolate and divided into several segments narrowed at base.

Acanthus mollis L. is native to NW Africa but widespread as a cultivated plant, often escaping. In Greece it has been found on the E Aegean islands of Lesbos and Chios, and the N Aegean island of Agios Evstratios. The basal leaves are long-petiolate and oblong-obovate to suborbicular in outline, entire or lyrate-pinnatisect.

Acanthus hirsutus Boiss. occurs in Greece probably only on Rodhos. It is further treated in the following text.

The *Acanthus dioscoridis* group

Both *Acanthus spinosus* and *A. mollis* occur in Turkey but the other Anatolian and Irano-Turanian taxa belong to a group of closely related species, which include *A. dioscoridis* L., *A. hirsutus* Boiss. and *A. syriacus* Boiss. This group is known from SW Asia (including the Greek island of Rodhos) and Turkey-in-Europe. Wood & Brummitt (1989) recognized that *A. caroli-alexandri* belongs in this group and treated it as a subspecies of *A. hirsutus*. Members of this group have a characteristic habit with most leaves basal and the inflorescence long and conspicuous. The leaves are shortly petiolate and mostly pinnately divided into several triangular segments not narrowed at the base, but in *A. dioscoridis* often entire and sometimes with petiole up to 12 cm. There is considerable variation within Anatolian populations of this group. Some unusual local variants were included in *A. dioscoridis* by Enayet Hossain (1982), but a revision of the Anatolian and Irano-Turanian taxa seems desirable in the light of recent collections. Wood & Brummitt (1989) pointed out that flower colour is an unreliable character in this group, but differences in leaf shape, bracts, bracteoles and sepals make it possible to recognize taxa. We describe the recently discovered European representative of this group as a new species as it differs in some aspects from the SW Asian taxa as well as from *A. caroli-alexandri*.

Acanthus greuterianus Snogerup, B. Snogerup & Strid, **sp. nov.** – Fig. 1

Holotype: Nomos Kozanis, Eparchia Eordeas, near the village of Pirgi, (SE of Limni Vegoritiss), 600 m, rocky limestone hill, edge of a cultivated field, 40°40'N, 21°51'E, 31.5.1989, *Strid & al.* 29920 (C; isotypes: ATH, G, LD, UPA).

Herba erecta, 30-50 cm alta, biennis vel subperennis. Folia pallide viridia, aculeis debilibus. Inflorescentia et bracteae et calyx pilis tenuibus patentibus eglandulosis sparsim pubescentes. Bracteae inferiores steriles; bracteae omnes albido-virides, nervis 3(-5) longitudinalibus validis et nervis anastomosantibus invalidis. Corolla alba.

Erect biennial or short-lived, rather pale green perennial 30-50 cm tall. *Rhizome* short, oblique. *Stem* 4-6 mm in diam., with low, obtuse, dark ridges, sparsely pubescent. *Leaves* at most basal and subbasal, 10-25 × 2-5 cm, thin, herbaceous, deeply pinnatisect with 5-10 pairs of segments; segments narrowly triangular, dentate, apex and some teeth with weak spines up to 2 mm, sparsely pubescent on both surfaces, midvein whitish green beneath. *Inflorescence* a dense, 10-20-flowered spike 15-25 cm long, composing $\frac{1}{2}$ - $\frac{2}{3}$ of the plant in height, finely patent-pubescent

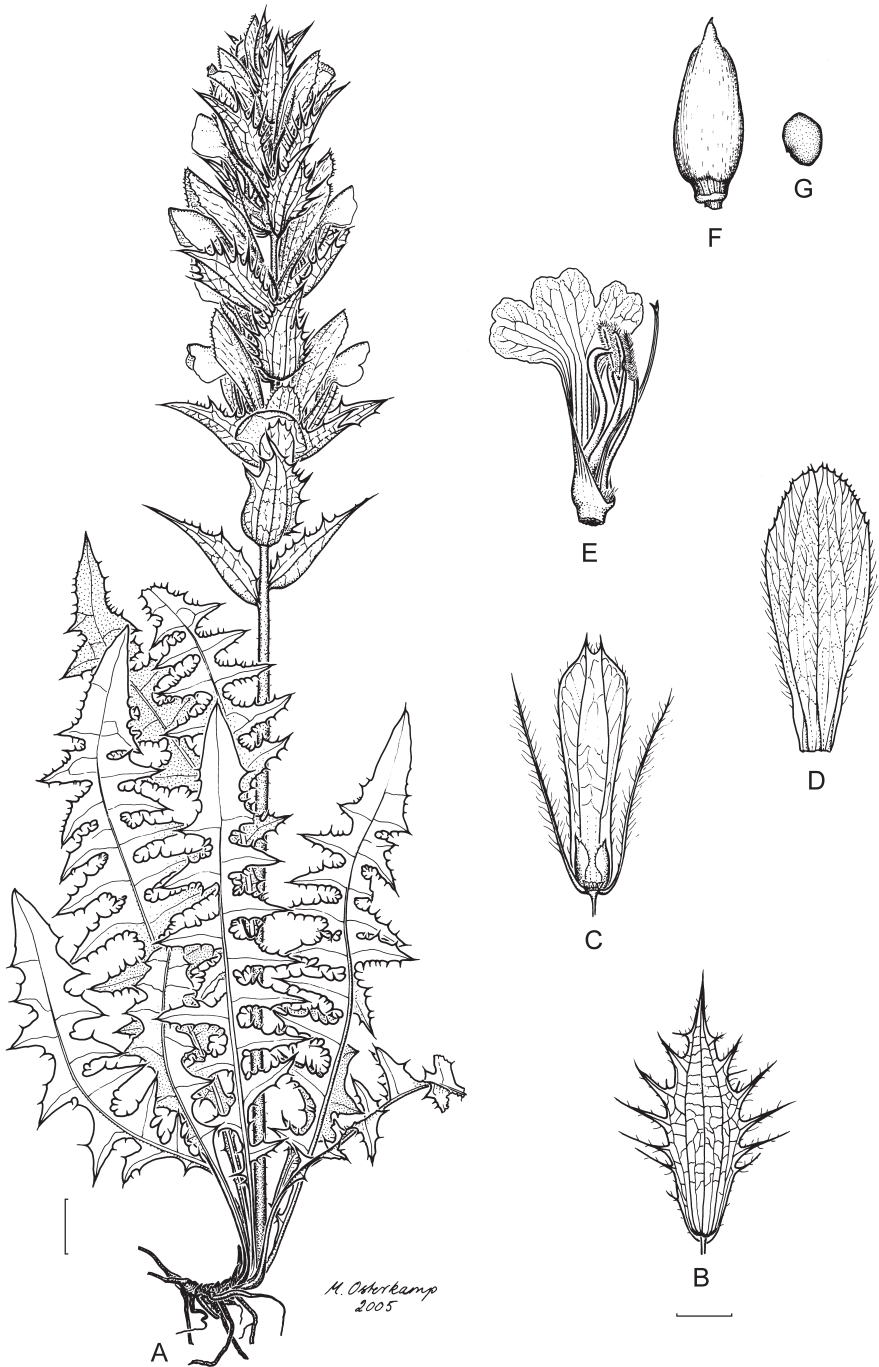


Fig. 1. *Acanthus greuterianus* – A: habit; B: bract; C: bracteoles, lateral sepals, lower sepal; D: upper sepal; E: corolla, stamens, style; F: fruit; G: seed. – Scale bars: A = 2 cm, B-G = 1 cm; drawings by M. Osterkamp Madsen after *Snogerup 15442, LD (A), Willing 28988, B (B-E) and Strid & Vassiliades 55367, GB (F-G)*.

throughout, usually with 1-2 sterile bracts at base; flowers sessile or subsessile. *Bracts* 4-6 × 2-3 cm, ovate, with 4-6 spinose teeth, whitish green, finely strigulose-papillose, with conspicuous veins running into the spines; spines of apex and teeth slender, up to 10 mm. *Bracteoles* 40-50 × 1.5-2 mm, linear, with thick midrib ending in an apical spine, pubescent, pale green. *Upper and lower sepals* 50-80 mm; upper slightly longer, obovate-spathulate, exceeding bract, pale green, with 1-4 apical acuminate teeth or small spines, thin, pale green, pubescent especially on veins, ciliolate; *lateral sepals* 9-12 × 5-7 mm, broadly ovate, with weak apical spine up to 8 mm, thin, membranous, with slender veins, ciliolate. *Corolla* with tube 5-8 mm, indurate, sparsely villos; lower lip 55-80 mm, with broad, dorsally indurated claw, apically 3-lobed and up to 25 mm broad, white with pale greenish veins, pubescent at base with short glandular and eglandular hairs; upper surface pilose with short eglandular hairs and subsessile glands. *Stamens* 4, 30-40 mm; filaments indurate; anthers 7-8 mm, yellow, hairy on adaxial surface. *Style* equalling stamens, slender, sparsely pilose at base; stigma shortly 2-lobed. *Fruit* a 2-locular, loculicidal capsule 25-35 × 10-15 mm, ellipsoid-cylindrical, slightly dorsiventrally flattened, acute; capsule walls persisting soft and greenish for a long time, finally parchment-like, stramineous, glabrous, smooth; septum broad, flat and strongly indurate. *Ovules* 2 per locule with only 1 seed developing, on indurate, uncinat funicle 4-5 mm long. *Seeds* 7-8.5 × 5.5-6.5 mm, suborbicular-discoid, 3-4 mm thick, smooth, medium reddish brown when ripe.

Habitat and distribution. – Dry, often disturbed meadows, roadsides and field margins, 500-850 m. The few known occurrences of *Acanthus greuterianus* are probably of a relict nature. Intense cultivation and grazing at the low altitudes in its area may have reduced a former distribution.

Additional specimens examined. – NOM. KOZANIS, EP. KOZANIS: 3.3 km OSO Metaxas, Felsfluren auf Kalk, 850 m, 40°04'N, 22°00'E, 24.5.1993, *Willing 28135* (B). — NOM. FLORINIS, EP. FLORINIS: 1 km SW of Klidi, disturbed meadow near the railway, 800 m, 40°44'N, 21°37'E, 22.6.1998, S. & B. *Snogerup 15442* (LD). — NOM. GREVENON, EP. GREVENON: 6.3 km SW Dheskati, aufgelassener Acker in Eichenwald, feuchter Straßengraben, 670 m, 39°53'N, 21°45'E, 28.5.1993, *Willing 28988* (B); SW Grevena, krautige Hänge mit Eichengebüsch, Ackerrand, 510 m, 40°01'N, 21°23'E, 18.4.2002, *Willing 100963* (B). — NOM. PELLIS, EP. EDESSIS: near the village of Perea just E of Limni Vegoritiss, edge of cultivated fields, limestone, 600 m, 40°43'N, 21°49'E, 30.6.2004, *Strid & Vassiliades 55367* (GB).

Differences from the other members of the group. – *Acanthus greuterianus* differs from its closest relatives in its pale green, non-spiny vegetative habit. It has sterile bracts at the base of the inflorescence. When leaves appear in a similar position in the other species, they are intermediate between bract and basal leaf in shape. The leaves are comparatively thin with short weak spines, not thistle-like. *A. dioscoridis* differs by its mostly purple to rose-red corollas and usually entire or slightly divided leaves. *A. hirsutus* has greenish yellow bracts and corollas and is densely hirsute on most plant parts. *A. syriacus*, by Wood & Brummitt (1989) regarded as a subspecies of *A. hirsutus*, has strongly spinose bracts, which are recurved above and violaceous at least at apex.

Acknowledgements

The Latin diagnosis was prepared by Dr Manfred A. Fischer and the illustration by Monika Osterkamp Madsen.

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