

A new species of *Centaurea* (*Asteraceae*) from the island of Samothraki (NE Greece)

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Received: January 21, 2009 ▷ Accepted: May 10, 2009

Abstract. *Centaurea samothracica* (subgen. *Acrolophus*) is described and illustrated. It is known from a single locality on the North Aegean island of Samothraki, and appears most closely related to *C. chalcidicaea* from Mt Athos.

Key words: *Acrolophus*, *Centaurea*, Greece, Samothraki

Introduction

The North Aegean island of Samothraki appears as little more than a rocky hump, harbourless and uninviting, dominated by the Fengari massif looming dark over narrow coastal plains or, as in the uninhabited southeastern quarter of the island, falling sheer into the sea. Only in the west around Kamariotissa is a more extensive lowland area, now almost entirely cultivated, and an artificial harbour. Most of the island is made up of dark igneous rocks and the interior is very rugged. Overgrazing by feral goats has depleted the already sparse vegetation cover throughout most of the island.

Samothraki remains one of the botanically least explored of the major Greek islands. The first botanist to visit Samothraki was Árpád von Degen who landed at Kamariotissa on 27 June 1890 and spent only a few days on the island but climbed the highest summit (Fengari, 1611 m) and collected extensively. An interesting account of his travels including a list of c. 160 species was published the following year (Degen 1891). The next botanical visitors were A. Ade (28 June to 7 July, 1933) and K.H. Rechinger (17–20 June, 1936). In a joint publication (Ade & Rechinger 1938) they described the

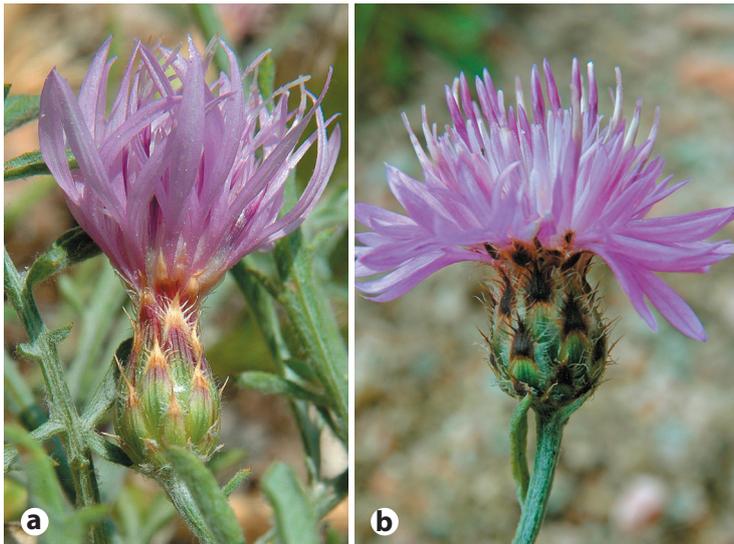
vegetation of the island and increased the number of species considerably, to a total of 688. Stojanov & Kitanov (1944) published a major floristic paper based on their explorations of the previous year, and as a result the number of species known from the island increased to 882. A few additional species had been listed in a little known Greek publication (Katsikopoulos 1936) so that the total flora known by the mid-20th century amounted to nearly 900 species. There are no recorded botanical visits between 1943 and 1970 when E. Stamatiadou spent a few days on Samothraki and made a sizable collection of 256 specimens. Smaller contributions were made by a few others (Akeroyd, Bigazzi & Selvi, Kit Tan & Vold, Krendl, Newton, Preston, Raus, Schuler, Tzanoudakis & al.) in the period 1980–1999. A student excursion from the University of Copenhagen 26–29 May, 1997, yielded 396 herbarium specimens and 126 field notes (see Strid & Kit Tan 1998), including 53 species unknown from the island at that time. More recently, floristic explorations by B. Biel have led to the discovery of several additional species (see Biel 2004, Biel & Kit Tan 2006a, b, 2007a, b, 2008a, b, c). Brief visits by Strid (5–7 July 1998 and 20–21 June 2005) added a few more. According to the Flora Hellenica Database the number

of species of vascular plants known from Samothraki is now 1186 as compared to 1270 for the larger, adjacent island of Thasos. The flora is an interesting mixture of continental and Aegean elements. Several mainland species (e.g., *Ostrya carpinifolia* and *Thymus sibthorpii*) extend to the islands of Thasos and Samothraki but do not occur elsewhere on the Aegean islands (except on Evvia which is virtually connected to the mainland), whereas common Aegean species such as *Ballota acetabulosa* and *Parietaria cretica* have their northernmost occurrences on these two islands and do not extend to the Thracian hinterland immediately to the north. Endemic or range-restricted species on Samothraki include, e.g., *Allium samothracicum*, *Alyssum degenianum*, *Anchusa samothracica*, *Dianthus arpadianus*, *Drymocallis (Potentilla) halacsyana*, *Erysimum krendlii*, *Polygonum icaricum*, *Scrophularia spinulescens*, *Symphandra samothracica* and *Viola samothracica*.

***Centaurea samothracica* Strid & Kit Tan, sp. nov.**
(Figs. 1a-b, 2)

Centaureae chalcidicaeae Hayek simile sed differt ab haec characteribus sequentibus: planta 25–45 cm alta pedunculis longis gracilibus. Appendices phyllariorum mediorum anguste triangulares, transientes in phyllariis, pallide brunneae utriusque ciliis 3–6 ornatae. Achaenia cinerea, pappus achenium longitudine aequans.

Holotype: Island of Samothraki, southern side, by the chapel of Panagia Kremniotissa, 300 m. Crevices of dark igneous rocks. 20 June 2005, Strid 55795



(ATH; **Isotypes** G, LD, herb. Strid, herb. Kit). Additional collection from same locality: 7 July 1998, Strid 47017 (ATH, G, herb. Strid, herb. Kit).

Perennial herb, somewhat woody at base, 25–45 cm tall. Stems few to several, with petiolar remains of old basal leaves, ascending-spreading or somewhat pendent, branched at or below middle; branches erecto-patent to divaricate, longer than or equalling basal leaves, green to greyish-white araneous. Basal and lower cauline leaves pinnatisect to pinnatifid, 5–10 × 1.5–2 cm with elliptic-lanceolate to linear-lanceolate segments up to 20 × 2 mm. Basal leaves white-tomentose to white-adpressed araneous on both surfaces; cauline leaves greyish-green, minutely glandular, scabridulous at and towards margin of upper surface. Peduncles long and straight. Upper cauline leaves reduced, linear to lanceolate, denticulate or entire, gradually bract-like. Capitula solitary, heterogamous, up to 20 mm wide at anthesis. Involucre 10–15 × 5–9 mm, narrowly ovoid at anthesis. Phyllaries 4–5-seriate, imbricate, coriaceous, with 3–5 thin longitudinal veins, pale green, suffused purple towards apex. Outer phyllaries broadly triangular, 3–4 mm long, ciliate. Middle phyllaries oblong-lanceolate, 7–8 mm long; appendage pale brown to yellowish-brown, merging into phyllary, exauriculate, shortly decurrent, narrowly triangular, c. 1.5 mm broad at base (excl. cilia), with 3–6 fimbriae 1–2 mm long on either side; terminal spinule weak and not longer than fimbriae. Inner phyllaries lanceolate; appendage without cilia but with broad hyaline, slightly lacerated margin. Marginal florets sterile, glandular, infundibular with pale purplish-pink, linear-lanceolate lobes 3–5 mm long. Central florets

hermaphrodite, tubular with dark pink lobes 2–3 mm long. Achenes c. 3 × 1.3 mm, cylindrical to narrowly obovoid, slightly compressed, grey, sparsely puberulent; pappus white, of scabridulous bristles, the outer short, the inner about as long as body of achene.

The new species is apparently very local, so far known only from a small population immediately above the chapel of Panagia Kremniotissa, growing in rock crevices out of reach for the omnipresent goats. Other interesting species in this locality are *Dianthus*

Fig. 1. a, *Centaurea samothracica*; b, *C. chalcidicaeae* (both photos by A. Strid).



Fig. 2. *Centaurea samothracica* (drawn from the holotype).

pinifolius, *Ranunculus isthmicus*, *Scrophularia spinulescens*, *Symphyanthra samothracica* and *Polygonum icaricum*, the last-mentioned being much more common here than in its *locus classicus* on the island of Ikaria. A short distance south of Panagia Kremnitissa is Pachia Ammos, the only sandy beach of any size on the island and *locus classicus* for the recently described *Anchusa samothracica* (Bigazzi & Selvi 2000). Other species at Pachia Ammos include *Anthyllis hermanniae*, *Carex distachya*, *Cionura erecta*, *Corynephorus articulatus*, *Crithmum maritimum*, *Echium angustifolium*, *Frankenia hirsuta*, *Jasione hederichii*, *Juncus capitatus*, *Medicago marina*, *Mollugo cerviana*, *Scirpoides holoschoenus*, *Silene colorata* and *S. subconica*.

Centaurea is one of the largest and most complex genera in the Greek flora, with c. 120 species including many local and regional endemics. *C. samothracica* belongs to subgen. *Acrolophus* which has at least 40 species in Greece and a high incidence of endemism (Georgiadis 1980). Members of this subgenus are usually much-branched biennial or perennial herbs with comparatively small capitula. The appendage of the middle phyllaries is shortly decurrent and fimbriate, sometimes with a longer apical spine. In most species the florets are pinkish-purple. *C. samothracica* is probably most closely related to *C. chalcidicaea* Hayek, an endemic of Mt Athos growing on rocky limestone slopes at 1200–1900 m. Georgiadis (1980) reduced the latter to a subspecies of the widespread *C. affinis* Friv., but it appears reasonably distinct. The most important differences between *C. samothracica* and *C. chalcidicaea* are:

Habit: 25–45 cm tall, soft and more or less pendent in *C. samothracica*; 15–35 cm tall, suberect and rather stiff in *C. chalcidicaea*.

Leaf indumentum: Lower leaves grey-tomentose, cauline leaves sparsely arachnoid-tomentose and green in *C. samothracica*; all leaves grey-tomentose in *C. chalcidicaea*.

Peduncles: Long, slender, sparsely arachnoid-tomentose to glabrescent in *C. samothracica*; rather short and densely arachnoid-tomentose in *C. chalcidicaea*.

Middle phyllaries: Pale greenish with slender veins in *C. samothracica*; dark green, often suffused purple and with conspicuous elevated veins in *C. chalcidicaea*.

Appendage of middle phyllaries: Merging into phyllary, narrowly triangular, pale brown, with 3–6 fimbriae on either side in *C. samothracica*; distinctly set-off, broadly triangular, dark chestnut brown, with 5–8 fimbriae on either side in *C. chalcidicaea*.

Pappus: As long as achene in *C. samothracica*; c. half as long as achene in *C. chalcidicaea*.

Habitat: Crevices of igneous rocks at c. 300 m for *C. samothracica*; rocky limestone slopes at 1200–1900 m for *C. chalcidicaea*.

Centaurea grisebachii (Nyman) Form. and especially *C. pallidior* Halácsy are also similar to *C. samothracica* but have smaller and relatively narrower capitula and shorter pappus. Both are scattered in the central and northern parts of the Greek mainland. *C. cuneifolia* Sm., a species of low and moderate altitudes in the C and E Balkan Peninsula, resembles *C. samothracica* in capitula and phyllaries, but is a much-branched biennial with characteristically simple, obovate upper leaves. *C. ipsaria* Stoj. & Kitanov, endemic to the adjacent island of Thasos, is another member of subgen. *Acrolophus*, but probably not closely related to *C. samothracica*. It is a much shorter plant with broad-lobed basal leaves, densely grey-tomentose throughout, with somewhat larger capitula and a distinct spine on the appendage of the middle phyllaries.

Acknowledgements. Kit Tan thanks Günter Gottschlich (Tübingen) for kindly translating the diagnosis to Latin and Anna Skoumalová-Hadacová for the excellent illustration.

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