

## A NEW CAMPANULA FROM NE TURKEY

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ABSTRACT. *Campanula choruhensis* Kit Tan & Sorger (Campanulaceae), a new species belonging to sect. *Symphyandriiformes* (Fomin)Charadze, is described and illustrated from NE Turkey (grid square A8).

***Campanula choruhensis* Kit Tan & Sorger, sp. nov.** (Sect. *Symphyandriiformes* (Fomin)Charadze). Fig. 1.

Affinis *C. troegerae* Damboldt sed calycis appendicibus nullis, floribus solitariis albis, corolla campanulata ad 1/3 (haud 2/3) in lobos divisa, stylo incluso haud longe exserto inter alia facile distinguenda.

*Herba* perennis, saxatilis, multicaulis, rhizomate crasso rigido ob bases petiolorum persistentes squamosa. *Indumentum* caulium et foliorum et calycum breviter et dense crispule pubescens. *Caules* simplices, ascendentes-erecti, flexuosi, 7-10cm longi. *Folia basalia* anguste elliptico-obovata, 2.5-4 × 1.2-1.6cm, irregulariter argute dentata, pallide virentia vel cinereo-virentia, late acuta vel obtusa, ad 3.5cm petiolata. *Folia caulina* minora, 1-1.5 × 0.6cm, in petiolos breves vel subsessiles angustata. *Flores* terminales, solitarii, suberecti, pedicellati, manifeste proterandri; bracteae et bracteolae nullae. *Laciniae calycis* late triangulares, 7-10.5 × 4-5.5mm, virentes, acutae, exappendiculatae. *Corolla* campanulata, c.3cm longa, albescens (in sicco eburnea), extus adpresse pubescens vel puberula, ad 1/3 in lobos late triangulares acutos fissa; lobi 1-1.4 × 1.2cm, ciliati, intus pilosi. *Filamenta* ad basin leviter connata, 4mm longa, in partibus inferioribus late ovata, lateraliter compressa, dense albo-pilosa; *antherae* liberae, lineares, 9.5 × 0.6mm, pilis atrovioleaceis per totam longitudinem irregulariter dispersae provisae. *Ovarium* semi-inferum triloculare. *Stylus* tubo corollae inclusus, filiformis, 19 × 1.1mm, laevis, glaber, apice trifidus, stigmatibus 4-6.5mm longis deinde post anthesin recurvis. *Capsula* late depresso-obconica, poris basalibus dehiscens. *Semina* numerosa in loculis contigua, complanata-ellipsoidea, 1-1.1 × 0.4-0.5mm, brunnea, marginibus pallidis. *Fl.* Jul.-Aug.; *fr.* Sept.

Type: Turkey A8 Erzurum: Çoruh gorge, Çamlıkaya to Karakarmış, in crevices of near vertical shaded rock, 1800m, 17 vii 1981, *Kit Tan* 883 (holo. E). A8 Çoruh: 29km E of Demirkent, S of Salıköy 2500m, 16 viii 1981, *F. Sorger* 81-82-2 (para.Hb.F. Sorger; E).

Endemic to Turkey. Euxine element.

*Campanula choruhensis* is a beautiful saxatile species allied to *C. troegerae* Damboldt; the latter is known only from the type gathering also from A8 Çoruh. It differs from *C. troegerae* in lacking calyx appendages and in having solitary white flowers with a campanulate corolla divided only to one-third (not two-thirds) and an included (not long-exserted) style. The differences between these two and a third closely related species, *C. betulifolia* C. Koch, are compared in Table 1. This brings to three the

number of Turkish *Campanulas* in Sect. *Symphyandriiformes*, all endemic to NE Anatolia.

Of the three species *C. betulifolia* is more variable than the other two in habit, flower colour, and indumentum. It grows deep-rooted in rock crevices on sheer cliff. I have noted it is fairly common on the way up to Sumela (A7 Trabzon) at altitudes of 500 to 1300m. Here it forms very large (30cm diam.), almost pure white clumps, with the buds very faintly flushed pink, and with leaves of a very dark glossy green. Over on the drier southern side of the Kaçkar range, at altitudes of 1600–2300m, it is less common. Gatherings from near Ispir and along the Çoruh gorge have glabrous, pale green leaves and much smaller flowers with pale to very deep pink corollas. Damboldt (*Flora of Turkey and the East Aegean Islands* 6: 25, 1979) treats *C. finitima* Fomin and *C. betulifolia* as conspecific; however, examination of recently collected material possibly of the former taxon suggests it may be distinct, and further study is necessary.

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FIG. 1. *Campanula choruhensis* Kit Tan & Sorger: A, habit  $\times 0.8$ ; B, half flower  $\times 1.5$ ; C, stamens after dehiscence  $\times 3$ ; D & E, L.S. & T.S. ovary (not on same scale); F, seed  $\times 10$ .

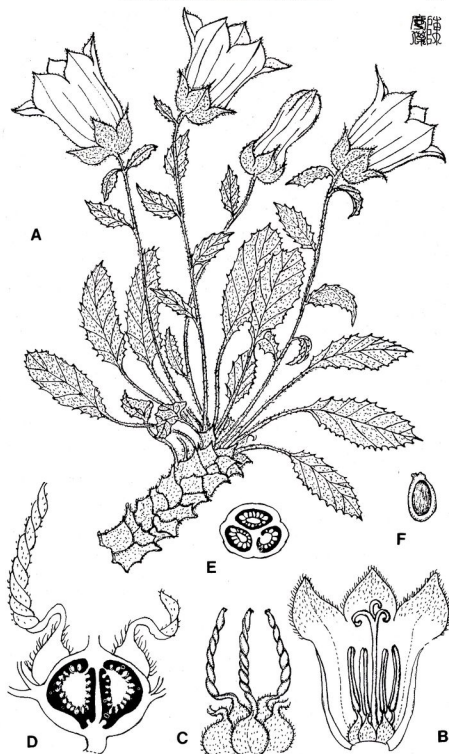


TABLE 1

| <i>C. betulifolia</i>                                                                                 | <i>C. troegerae</i>                                                                 | <i>C. choruhensis</i>                                                                        |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <i>Stems</i> ascending, decumbent by weight of flowers, (6-)10-25(-35)cm, branched only in upper part | ascending-erect, 12-17cm, unbranched                                                | ascending-erect, 7-10cm, unbranched                                                          |
| <i>Leaves</i> pale or glossy green, glabrous or subglabrous, rarely pubescent                         | adaxial surface pale green, pubescent; abaxial greyish sericeous                    | both surfaces green or greyish green, densely crispate-pubescent                             |
| <i>Basal leaves</i> ovate to narrowly ovate, 25-50 × 15-25mm                                          | ovate-cordate, 10-30 × 10-20mm                                                      | narrowly elliptic-obovate, 25-40 × 12-16mm                                                   |
| <i>Median cauline leaves</i> ovate to broadly ovate, 10-17 × 7-40mm, bi- or irregularly dentate       | ovate-cordate, 15-30 × 15-25mm, serrate to biserrate                                | ovate-lanceolate, 10-15 × 6mm, irregularly dentate                                           |
| <i>Flowers</i> 2-12 per stem, erect, in ± corymbose inflorescence                                     | 1-3, suberect, terminal or axillary                                                 | 1, suberect, terminal                                                                        |
| <i>Calyx lobes</i> glabrous or finely pubescent                                                       | sericeous                                                                           | densely crispate-pubescent                                                                   |
| <i>Calyx appendages</i> lanceolate, shorter than ovary                                                | lanceolate, longer than ovary                                                       | absent                                                                                       |
| <i>Corolla</i> campanulate, 16-35 × 10-30mm, divided to ¼, white to deep pink                         | broadly infundibular, 20 × 30-45mm, divided to ¾, pale pink in bud, white in flower | campanulate, 30 × 30mm, divided to ½, pure white                                             |
| <i>Corolla lobes</i> ovate to broadly triangular, acute, glabrous or pubescent on outer surface       | broadly ovate, ± obtuse, ciliate at apex, densely pubescent on outer surface        | broadly triangular, acute, ciliate, adpressed-pubescent on outer surface, long pilose within |
| <i>Style</i> included                                                                                 | long-exserted                                                                       | included                                                                                     |