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Three new species (*Labiatae*) from Turkey

Abstract

Duman, H., Aytaç, Z., Ekici, M., Karaveliogullari, F. A., Dönmez, A. & Duran, A.: Three new species (*Labiatae*) from Turkey. — Fl. Medit. 5: 221-228. — ISSN 1120 - 4052.

Three new species of *Labiatae* are described and illustrated from Turkey: *Sideritis akmanii* Z. Aytaç, M. Ekici & A. Dönmez, *Sideritis gulendamii* H. Duman & F. A. Karaveliogullari, *Origanum husnucan-baserii* H. Duman, Z. Aytaç & A. Duran.

Introduction

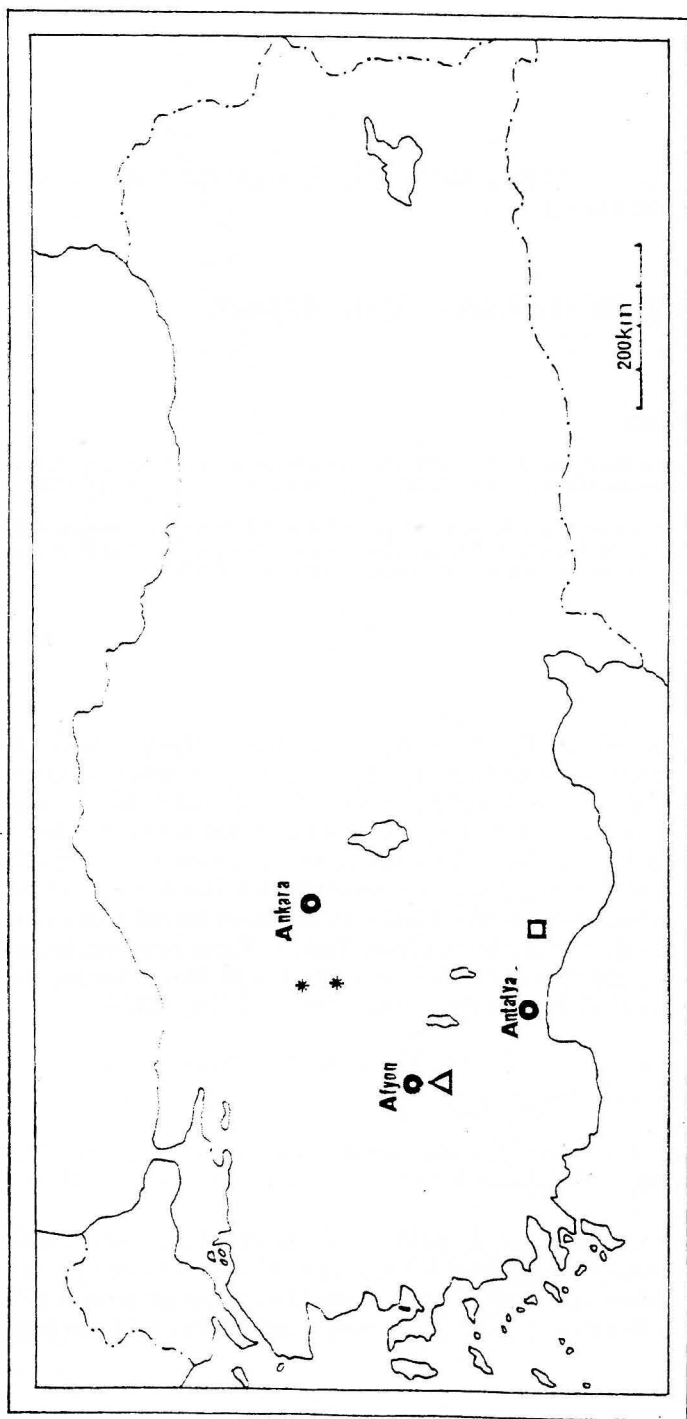
Since the genus *Sideritis* L. was revised by A. Huber-Morath for Flora of Turkey (1982) two new species have been described from Turkey, *S. huber-morathii* Greuter & Burdet, *S. athoa* Papanikolau & Kokkini (Davis, Mill & Tan 1988). *S. akmanii* and *S. gulendamii* are described as new species in this paper and this means that 42 *Sideritis* species are known from Turkey. After the genus *origanum* L. was revised by J. H. Ietswaart for Flora of Turkey (1982), *O. munzurensense* Kit Tan & Sorger (1988) has been described new to science from eastern Turkey. *O. husnucan-baserii* is described as new in this paper, then 23 species are known from Turkey. These new species are collected during the endemic plants project which is supported by State Planning Organization (SPO) by the means of TUBITAK (Project no.: TBAG-DPT/Ç.SEK4).

Sideritis akmanii Z. Aytaç, M. Ekici & A. Dönmez spec. nov. Section: *Empedoclia* (Rafin) Bentham Fig. 1, Map 1.

Typus: Turkey B3 Afyon: Sandikli-Suhut yolu, Kumalar Yaylasi, 1520-1550 m, step, 4.8.1993, Aytaç (6515), Ekici & Dönmez (Holo-GAZI; iso-ANK, HUB).

Affinis *S. condensata* Boiss. & Heldr., sed infernis et medianus caulibus foliatis oblanceolatis, petiolulatis, petiolis 0.5-3 cm (non oblongis ad ellipticis vel lineariboblongis et sessilibus vel subsessilibus), verticillastris 10-20 (non 6-12), medianis bracteis 15-30 x 5-10 mm (non 9-12 x 8-15 mm) et acuminibus 5-15 mm (non 3-10 mm) differt.

Perennial; 40-50 cm, erect, branched from the base. Stems simple or few branched, long wooly tomentose and short glandular pilose.



Map 1. Distribution of *Sideritis akmanii* D; *Sideritis gulendamii* *; *Origanum husnucan-baserii* p.



Fig. 1. *Sideritis akmanii*: a. habit; b. flower; c. calyx; d. corolla.

Lower leaves adpressed white-silky hairy, petiolate; petioles 1-3 cm; lamina oblong to oblanceolate, attenuate at the base, margins serrate-serrulate, mucronate at the apex, mucro 0.5 mm and yellowish. Middle cauline leaves petiolate, petiole 0.5-2.5 cm, oblanceolate, margins serrate-serrulate, mucronate at the apex. Upper leaves sessile, lanceolate, margins serrate-serrulate. Inflorescence simple or a few branched. Verticillasters 10-22, 6 flowered, the lowest 1-5 cm distant, middle and upper crowded. Lower bracts ovate-cordate to lanceolate, 2-4 x 0.9-1.2 cm, acuminate, acumen 1-2.5 cm. Middle bracts broadly ovate-cordate 1.5-3 x 0.5-1 cm (including acumen) acumen 0.5-1.5 cm. Lower and middle bracts always longer than verticillaster. All bracts adpressed long simple and short glandular hairy. Calyx 9-15 mm spreading long simple pilose and glandular hairy, teeth 3-5 mm. Corolla yellow, 10-12 mm, spreading simple or stellately tubercles hairy outside, and brown striate inside. Corolla as long as or a little longer than calyx. Seeds ovoid, with wing above, 2.5-3 x 1.5-2 mm, blackish-beown. Fl. August.

West Anatolia. endemic. B3 Afyon: Sandikli-Suhut yolu, Kumalar Yaylasi, steppe, 1520-1550 m, 9 Aug 1994, *Duman* (5657) *Aytaç & Duran*, ibid. 15 Aug 1985, *Akman* 14108.

This species is similar to *S. condensata* Boiss. & heldr., which is distributed in Antalya (C3) province. But lower and middle cauline leaves oblanceolate, petiolate and petiole 0.5-3 cm long (not oblong to elliptic or linear-oblong and sessile or subsessile), verticillaster 10-22 (not 6-12), middle bracts 15-30 x 8-10 mm (not 9-12 x 8-15 mm), acumen 5-15 mm (not 3-10 mm) long.

This species is named in honour of Prof. Dr Y. Akman who is a senior botanist at Ankara University and was the first to collect the plant in the same area. His specimens were firstly determined as *S. cf. condensata*. When we collected our specimens, it was thought they should be *S. condensata*, but after careful checking, we recognized that its lower and cauline leaves were oblanceolate to oblong and the middle bracts' acumen much longer than in *S. condensata*. Then we decided to collect *S. condensata* from type locality (C3 Antalya: Akseki-Antalya 305 m). One year later we visited Antalya province and collected it just from this locality. We realised that the leaves of *S. condensata* and the acumen of the middle bract were really different from our specimens and the other important difference was the habitats. While our species grows in *Astragalus flavescens* steppe, *S. condensata* grows under the *Pinus brutia* forest and phrygana.

Sideritis gulendamii H. Duman & F. A. Karavelioğullari spec. nov. Sections *Empedoelia* (Rafin.) Bentham Fig. 2, Map 1.

Typus: Turkey B3 Eskişehir; Sivrihisar-Afyon, Aşağıkepen köyü güneydoğusu, jipsli step, 900-950 m, 20.7.1993, *Duman* 5219 & *Aytaç* (holo-GAZI; iso-ANK, HUB).

Affinis *S. galactica* Bornm., sed medianis caulibus foliatis linearibus, 1-4 x 0.2-0.5 cm (non lanceolatis ad lineari-oblanceolatis, (2) 8-10 x 0.3-2 cm), medianis bracteis 0.6-1.2 x 0.6-0.8 cm (non 1-1.5 x 0.9-1.5 cm), corollis 11-12 mm (non 13-15 mm), intra brunneis signatis differt.

Perennial; stems 20-60 cm simple or branched, densely adpressed white woolly-tomentose, sometimes glabrescent above, eglandular.

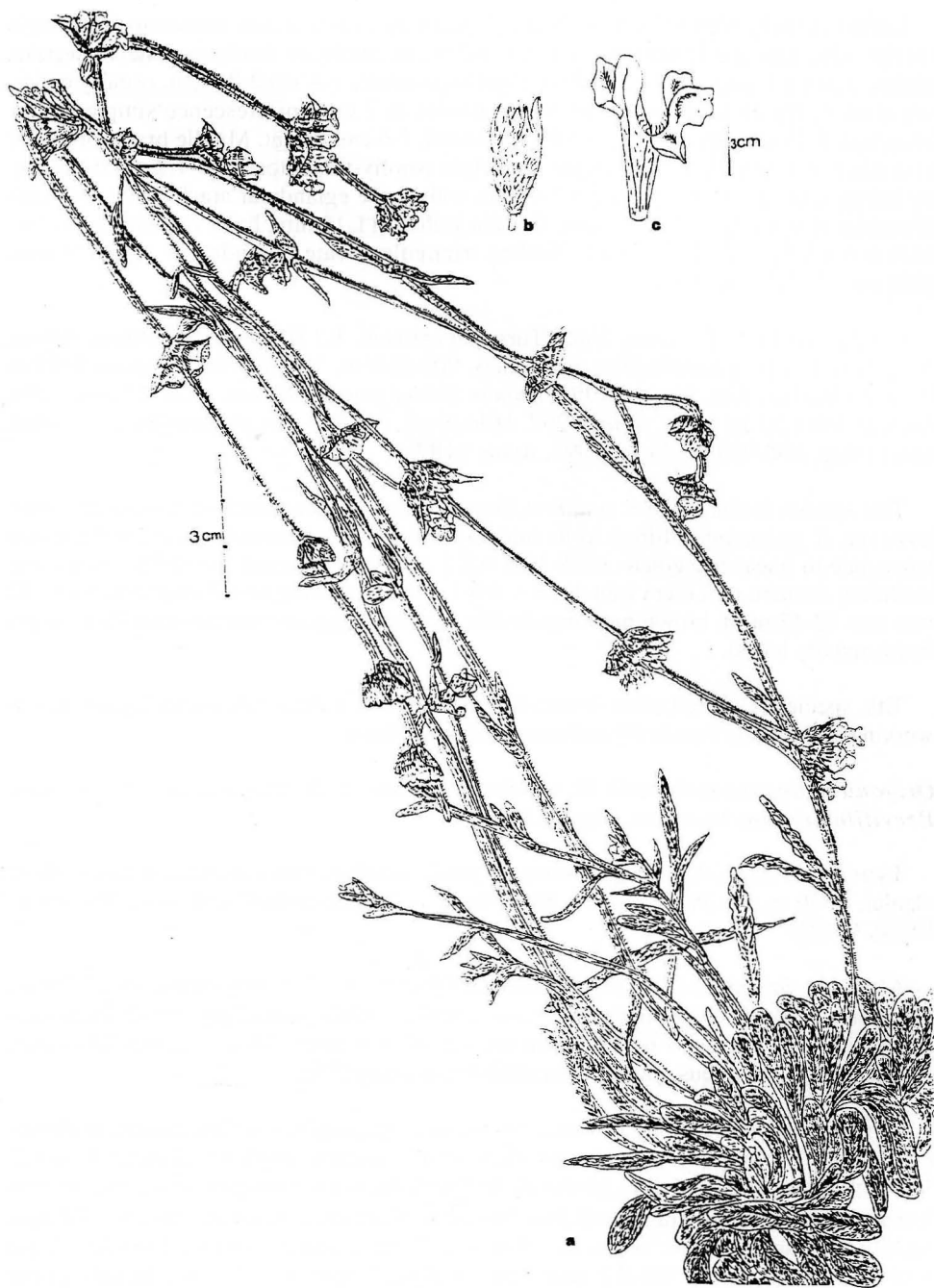


Fig. 2. *Sideritis gulendamii*. a. habit; b. calyx; c. corolla.

Leaves densely adpressed white woolly-tomentose; basal leaves numerous, forming a rosette, oblanceolate-spathulate, 1-6 x 0.4-0.6 cm, entire or finely crenate to serrate; middle cauline leaves linear, sessile or shortly petiolate, 1-4 x 0.2-0.5 cm, usually entire, sometimes crenate to serrulate, acute, internodes to 7 cm. Inflorescence simple or few branched, 5-15 cm; verticillasters 2-8, 6 flowered, 1-6 cm distant. Middle bracts orbicular to cordate, acuminate, densely adpressed white woolly-tomentose, 0.6-1.2 x 0.6-0.8 cm, including acumen to 0.6 cm. Calyx 7-9 mm, with dense eglandular arachnoid hairs; teeth triangular-lanceolate, acute, 2-3 mm. Corolla yellow, 11-12 mm, hairy outside and inside, brown markings, limb 3-4 mm. Nutlets triangular-ovate, rounded at apex, brown, glabrous. Fl. July-August.

Central Anatolia. Endemic. Irano-Turanian element. B3 Eskişehir: Sivrihisar-Afyon, Aşağıkepen köyü güneydoğusu, jipsli step, 900-950 m, 10 Jul 1993, *Duman* 5017 & Karavelioğulları; ibid. 21 Aug 1993, *Duman* 5236 *Aytaç & Dönmez*; ibid. 13 Aug 1994, *Duman* 5660; 30 Jul 1993, *Aytaç* 6297, *Mihaliççik*, Alper ovası, Doğanolu köyü batısı, marnli step, 880-950 m, 23 Jul 1993, *Aytaç* 6187.

This species is similar to *S. galatica* Bornm. which is distributed in Ankara province, however, *S. gulendamii* differs in its middle cauline linear leaves 1-4 x 0.2-0.5 cm (not lanceolate to linear-lanceolate, (2) 8-10 x 0.3-2 cm); middle bracts 0.6-1.2 x 0.6-0.8 cm, including acumen to 0.6 cm (not 1-1.5 x 0.9-1.5 cm, including to 0.3 cm); corolla 11-12 mm (not 13-15 mm), brown markings inside; habitat is gypsum steppes (not *Pinus nigra* forest and dry lopes).

This species is named after Assoc. Prof. Gülendam Tümen (pharmacologist) who is working at Balıkesir University and interested in *Labiatae*.

Origanum husnucan-baserii H. Duman, Z. Aytaç & A. Duran spec. nov. section: ***Brevifilamentum*** Ietswaart, Fig. 3, Map 1.

Typus: Turkey. C4, Antalya: Alanya, Çökele-Gökbel, *Pinus nigra* açıklığı, kalkerli alanlar, 1350 m, 9.8.1984, *Duman* 5602 *Aytaç & Duran* (holo-GAZI; iso-ANK, HUB, ESSE, GAZI).

Affinis *O. brevidens* (Bornm.) Dinsm. sed foliis 3-10 x 2-10 mm (non c. 16 x 14 mm), sessilibus, glandibus 10-300 per cm² (non c. 600), floribus pedicellatis, 0.5-2.5 mm (non subsessilibus), bracteis 5-6 x 2-3 mm (non c. 10 x 6 mm). Ab *O. bargyli* Mouterde caulibus foliis, calycibus, glabris et bracteis brevioribus differt.

Subshrub, stem ascending or erect, 10-30 cm long, purplish or dark brown, glabrous, unbranched. Leaves up to 13 pairs per stem, sessile, cordate, ovate to orbicular 3-10 x 2-10 mm, acute to acuminate, glaucous to purplish, veins conspicuous, more or less leathery, glabrous, sessile gland 100-300 cm². Spicules cylindrical, to 25 x 12 mm, nodding. Bracts elliptic or ovate, 5-6 x 2-3 mm, acute, purple. Flowers 2 per verticillaster; pedicels 0.5-2.5 mm long. Calyx 2 lipped, 6-7 mm, throats pilose otherwise glabrous; upper lips divided into 3 equal lobes, lobes triangular, acute c. 2-2.5 mm; somewhat shorter than the upper lips. Corolla pink, 13-15 mm., not saccate, outside pilosellous; tube slightly curved downwards; 2 lipped for c. 1/5; upper 2 lips c. 0.5 mm; lower 3 lips slightly unequal, lobes c. 1.5 mm.

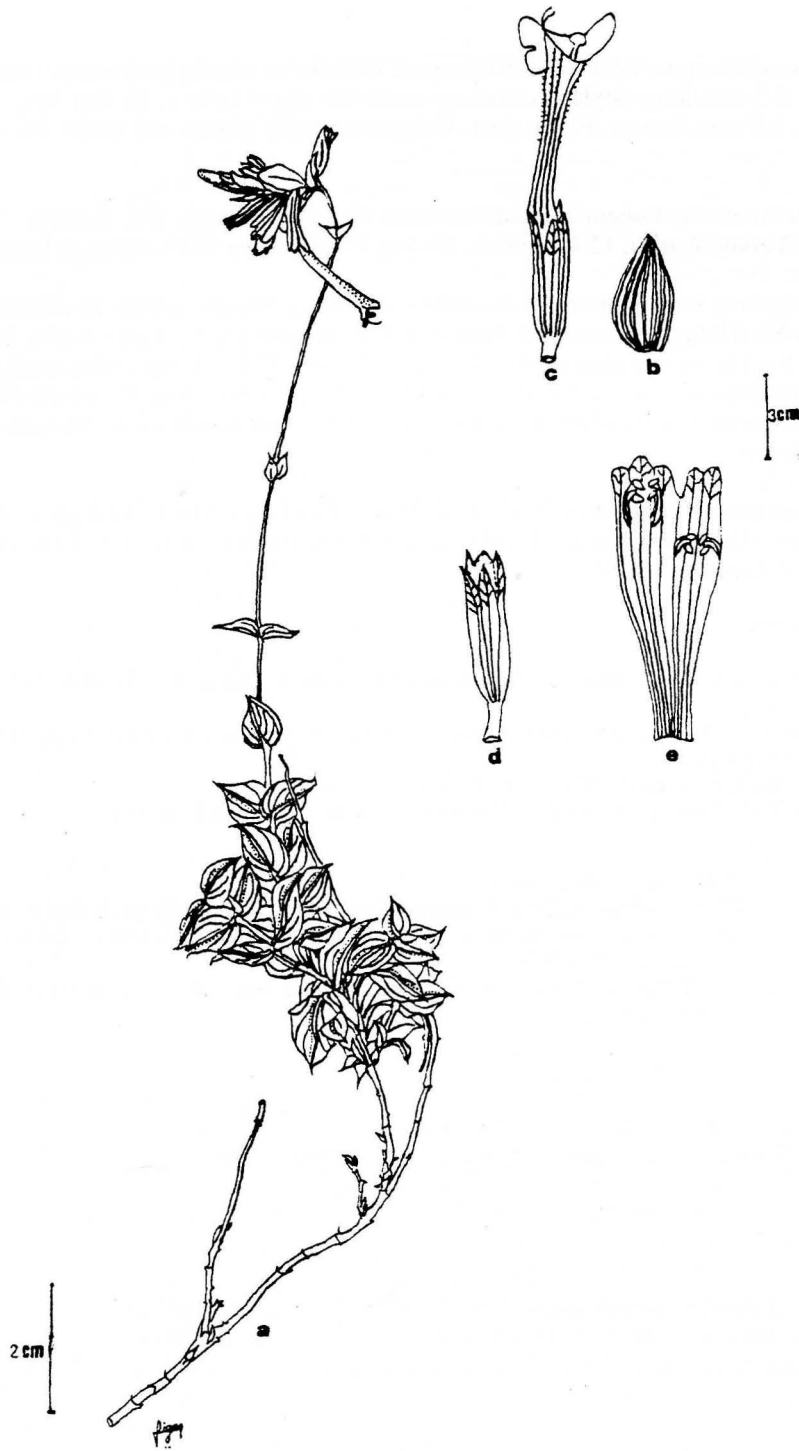


Fig. 3. *Origanum husnucan-baserii*. a. habit; b. leaf; c. flowers; d. calyx; e. corolla.

Stamens; the upper 2 included, the lower 2 included or shortly protruding; filaments c. 0.5 and 2-3 mm long. Styles protruding under the upper lips, c. 16 mm long. Nutlets ovoid c. 1.5 mm, brown. Fl. August. Calcareous rocky places and under *Pinus nigra* forest.

South Anatolia. Endemic. Mediterranean element. Turkey. C4, Antalya: Alanya; Derince-Yerköprü arasi, 1200-1300 m, 10 Aug 1994, *Duman* 5619, Aytaç & Duran.

This species is similar to *O. brevidens* (Bornm.) Dinsm. which is distributed at Amanos Mt (Hatay); however, *O. husnucan-baserii* differs in its leaves 3-10 x 2-10 mm (not c. 16 x 14), sessile glands 100-300 per cm² (not c. 600); flowers pedicellate 0.5-2.5 mm (not subsessile), bracts 5-6 x 2-3 mm (not c. 10 x 6 mm). From *O. bargyli* Mouterd, it differs likewise in its glabrous stems leaves, calyx (not hirtellous or pilosellous) and smaller bracts.

This species is named after Prof. Dr K. Hüsnu Can Başer who is working at Anadolu University (Dean of Farmacy Faculty at the moment) and interested in the aromatic features of *Labiatae* as well.

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