

PHANEROGAMARUM MONOGRAPHIÆ TOMUS XXI

To Dr. José Borja Carbonell
In Memoriam

A Taxonomic Revision of the Section *Sideritis*
(Genus *Sideritis*) (Labiatae)

by

CONCEPCIÓN OBÓN DE CASTRO and DIEGO RIVERA NUÑEZ

with 123 figures, 13 tables and 74 maps



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Djebel Tichka, 1883, *Ibrahim*, P (9568). - Djebel Afougueur (SW of Marrakech), VI-1874, *Ibrahim*, K (859 a). - Djebel Azighza (Province of Demnat), 14-VII-1882, *Ibrahim*, GH (5803), K (872). - Djebel Aziwel, 4-VIII-1884, *Ibrahim*, K (870). - Djebel Lalla-Aziza, 1883, *Ibrahim*, GH (5802), K (869), LY (4054), LY (3876) - Djebel Lalla-Aziza, 1885, *Ibrahim*, COI-GENERAL (5361). - Djebel Ouensa (SW of Marrakech), 28-VII-1876, *Ibrahim*, LY (4520), NICE (5829). - Djebel Ouensa (SW of Marrakech), 1876, *Ibrahim*, NY (6581). - Djebel Ouensa (SW of Marrakech), VIII-1873, *Ibrahim*, K (859 b), NICE (5831). - Djebel Ouensa (SW de Marrakech), 28-VII-1876, *Ibrahim* 1804, K (868 a, 868 b), TL (3680), P (123). - Djebel Ouensa, 187?, *Ibrahim*, LY (4051). - Djebel Ouensa, 28-VII-26?, *Ibrahim*, LY (3879). - Djebel Ouensa, IV-1870, *Ibrahim*, LY (3878). - Djebel Ouensa, IV-1873, *Ibrahim*, BM (1357), BM (1371), LY (4182), LY(3877). - Djebel Tagbount, 20-VII-1884, *Ibrahim*, LY (3875). - Glaoua above Tizi-n-Telouef, 7-VII-1924, *Maire*, P-MAIRE (9532). - Lalla Aziza, 1883, *Ibrahim*, US 2318092 (5985). - N. Taznadet, 8-VI-1936, *Balls* 2681, K (873). - N of Tizi n-Test, 24-VIII-1968, *Goodchild*, BM (1435). - Djebel Lalla Aziza, *s.d.*, *Ibrahim* 2883, BM (3046).

Moyen Atlas:

Mischliffen above Ifrane, 11-VII-1973, *Davis* 55098, BM (1448).

Series *Luteola* Rivera and Obón. *ser. nov.*

Diagnosis: *Corollae luteae a series typo differt.*

Type: *Sideritis luteola* Font Quer, Trab. Mus. Ci. Nat. Barcelona, 5/4: 32, 1924 (May).

Description: COROLLAS deep yellow.

60- *Sideritis ortonedae* Obón and Rivera *sp. nov.*

Diagnosis: *Pilis longiloribus, bracteis basalis minus dentatis et bracteis mediis magis dentatis a Sideritide arborescens differt.*

Type: Morocco: Rif, *loco dicto* Beni-Bu-Yahí, prope Afso, Tagzuf, die 21-VI-1932, Sennen et Mauricio *Legerunt*, 1933 Plantes d'Espagne F. Sennen, N° 8493.

Typification: HOLOTYPE: *Hic designatus dexter specimen in folio, Herbarium GH asservatus, hoc inscriptionem munitus: /1933 Plantes d'Espagne F. Sennen/ N° 8493/ Sideritis arborescens Salzm./ var. ortonedae F.Q. et Pau/ Maroc: Beni - Bu - Yahí, Afso, à Tagzuf, coteaux./ Leg. Sennen et Mauricio 21 - VI - 1932.*

Synonyms:

= *Sideritis arborescens* subsp. *kebdanensis* Font Quer and Sennen ex Sennen, in *exsiccata*, 1933 Plantes d'Espagne-F. Sennen, n° 8906.

1933. Type: Hab.- Maroc: Kebdana, Ain-Zais, 780 m. *Typification*: LECTOTYPE: Designated here, the specimen affixed to the right part of the sheet kept in the Herbarium BM, which contains also a label with the printed diagnosis. (1447).

= *Sideritis arborescens* var. *kebdanensis* Font Quer and Sennen ex Sennen, in exsiccata, 1933 Plantes d'Espagne-F. Sennen, n° 8906. 1933. Type: Hab.- Maroc: Kebdana, Ain-Zais, 780 m. *Typification*: LECTOTYPE: simultationally created with the subspecies. (1447).

= *Sideritis arborescens* var. *kebdanensis* fma. *laxispica* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 252, 1936 (July). Type: Hab.- Maroc: Montes de Kebdana, à Sidi-Mimon.

= *Sideritis arborescens* var. *angustifolia* Font Quer and Sennen, ex Sennen Diagn. Pl. Esp. Maroc, 1933: 203, 1936 (July). Type: Hab.- Maroc: Beni-Bu-Yahi, Montes Bu-Idbiren. Leg. Sennen and Mauricio.

= *Sideritis arborescens* var. *kerkerana* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1932: 163, 1936 (July). Type: Hab.- Maroc: Djebel Kerker, en montant par Arrof et Fun-el-Krima, de caniculaire mémoire. Leg. Sennen et Mauricio.

= *Sideritis arborescens* var. *lazari* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1932: 163, 1936 (July). Type: Hab.- Maroc: Beni-Bu-Yahi, Tagzuf, à la base de coteaux broussailleux.

= *Sideritis arborescens* var. *ortonedae* fma. *densiuscula* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 253, 1936 (July). Type: s.l., s.c., (Sennen, 9732).

= *Sideritis arborescens* var. *ortonedae* fma. *gracilis* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 254, 1936 (July). Type: Hab.- Garrigues des contreforts du Kerker.

= *Sideritis arborescens* var. *ortonedae* fma. *joachimi* Sennen, Diagn. Pl. Esp. Maroc, 1932: 162-163, 1936 (July). Type: Hab.- Maroc: Beni-Bu-Yahi, Tagzuf, coteaux calcaires. Leg. Sennen et Mauricio.

= *Sideritis arborescens* var. *ortonedae* fma. *kerkerana* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 253, 1936 (July). Type: s.l., s.c., (Sennen, 9730).

= *Sideritis arborescens* var. *ortonedae* fma. *lazari* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 253, 1936 (July). Type: Hab.- Maroc: Beni-Bu-Yahi, contreforts du Kerker.

= *Sideritis arborescens* var. *ortonedae* fma. *longibracteata* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1934: 253, 1936 (July). Type: s.l., s.c., (Sennen, 9733).

= *Sideritis arborescens* var. *ortonedae* Font Quer and Pau ex Font Quer, Cavanillesia, 3: 60-61, 1930. Type: Hab. cum praecedente (*S. briquetiana*) in monte Cudia Arneb dicto. *Typification*: LECTOTYPE: Designated here, the specimen affixed to the right part of the sheet kept in the Herbarium UC, 420142. (9009).

= *Sideritis arborescens* var. *ortonedae* Font Quer and Pau ex Sennen, Diagn. Pl. Esp. Maroc, 1932: 163, 1936 (July). Type: Hab.- Maroc: Beni-Beni-Yahi, coteaux calcaires de Tagzuf vers Afso. Leg. Sennen et Mauricio.

- *Sideritis arborescens* subsp. *eu-arborescens* Maire, in Jahandiez and Maire, Cat. pl. Maroc, 3: 629, 1934. (Nomen superfluum Art. 63.1 and Nomen nudum Art. 32.1.).

- *Sideritis arborescens* var. *kebdanensis* Font Quer and Sennen ex Sennen, Diagn. Pl. Esp. Maroc, 1933: 203-204, 1936 (July). Type: Hab.- Maroc: Montes de Kebdana. Leg. Sennen and Mauricio. (Nomen superfluum, Art. 63.1).

- *Sideritis arborescens* var. *kebdanensis* fma. *angustifolia* Sennen, in exsiccata, 1933 Plantes d'Espagne-F. Sennen, n° 8906. 1933. (Nomen nudum; nomen invalidum, Art. 32.1.c) (P, 8535).

- *Sideritis arborescens* var. *kerkerana* Sennen, in exsiccata, 1932 Plantes d'Espagne-F. Sennen, n° 8491. 1932. (Nomen nudum; nomen invalidum, Art. 32.1.c) (BM, 1445).

- *Sideritis arborescens* var. *ortonedae* fma. *altera* Font Quer, in exsiccata, Dr. Font Quer-Iter Maroccanum 1929, n° 374. 1929. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MA, BM, 2859, 2860, 1452).

- *Sideritis arborescens* var. *ortonedae* fma. *densiuscula* Sennen, in exsiccata, 1934 Plantes d'Espagne-F. Sennen, n° 9732. 1934. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, BM, 7075, 7096, 1433).

- *Sideritis arborescens* var. *ortonedae* fma. *gracilis* Sennen, in exsiccata, 1934 Plantes d'Espagne-F. Sennen, n° 9735. 1934. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, MA, BM, 7076, 7101, 2861, 1439).

- *Sideritis arborescens* var. *ortonedae* fma. *joachimi* Font Quer and Sennen, ex Sennen Diagn. Pl. Esp. Maroc, 1934: 253, 1936 (July). (Nomen nudum, Art. 32.1.).

- *Sideritis arborescens* var. *ortonedae* fma. *joachimi* Sennen, in exsiccata, 1932 Plantes d'Espagne-F. Sennen, n° 8489. 1932. 9734. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, BM, P 7073, 7074, 7095, 2857, 8539, 1429).

- *Sideritis arborescens* var. *ortonedae* fma. *kerkerana* Sennen, in exsiccata, 1934 Plantes d'Espagne-F. Sennen, n° 9730. 1934. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, MA, BM, 7072, 7099, 2858, 1441).

- *Sideritis arborescens* var. *ortonedae* fma. *lazari* Sennen, in exsiccata, 1934 Plantes d'Espagne-F. Sennen, n° 9731, 9734. 1934. (Nomen nudum; nomen invalidum, Art. 32.1.c) (BM, MAF, MA, 1430, 7081, 7098, 2864)(P, 8540).

- *Sideritis arborescens* var. *ortonedae* fma. *longibracteata* Sennen, in exsiccata, 1934 Plantes d'Espagne-F. Sennen, n° 9733. 1934. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, BM, 7093, 7094, 1431).

- *Sideritis arborescens* var. *ortonedae* fma. *longifolia* Sennen, in *exsiccata*, 1932 *Plantes d'Espagne-F.* Sennen, n° 8492. 1932. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, BM, 7102, 1441).

- *Sideritis arborescens* var. *ortonedae* Font Quer and Pau, in *exsiccata*, 1932 *Plantes d'Espagne-F.* Sennen, n° 8493. 1932. (7069, 7084, 2856, 41, 5728. MAF, MA, P, GH. (Nomen nudum; nomen invalidum, Art. 32.1.c)

- *Sideritis arborescens* var. *ortonedae* Font Quer and Sennen ex Sennen *Diagn. Pl. Esp. Maroc*, 1932: 163, 1936 (July). Type: Hab.- Maroc: Djebel Kerker, du versant de Arrof, dans la broussaille. Leg. Sennen et Mauricio. (Nomen illegitimum, Art. 64.1. Simultaneously published with the var. *ortonedae* Font Quer et Pau ex Sennen considered by us as later homonym).

- *Sideritis arborescens* var. *pozasi* Sennen, in *exsiccata*, 1932 *Plantes d'Espagne-F.* Sennen, n° 8490. 1932. (Nomen nudum; nomen invalidum, Art. 32.1.c) (MAF, MA, BM, 7103, 2855, 1443, 1444).

Description: BASAL PARTS, woody, persistent and erect; to 40 cm including branches. Non woody branches erect or ascendent, to 35 cm. Hair covering at the base of branchlets goniotrichous and homotrichous or heterotrichous. Glands absent, very scarce to scarce, glandular hairs absent. Trichomes scarce or abundant on two opposite sides and absent on the other two sides, retrorse, seldom patent, 400-700 μ m, with 2-3 cylindrical cells, and 1 apical cell conical. LOWER LEAVES 20-30 x (2)3(4) mm, petiole absent, entire or serrate, linear or spatulate, obtuse or acute. Glands absent, scarce or very scarce, glandular hairs absent. Trichomes very scarce or scarce, indistinct in the margin or absent, 200-600 μ m, with 1-2 cylindrical cells, and 1 apical cell conical. UPPER LEAVES similar to the lower. AXILAR FASCICLES, occasionally during flowering time. BRANCHES sometime with paracladial

INFLORESCENCES with a greenish tint in the angles of the axis, calyces and bracts, cylindrical, 5-12 cm, 5-12 verticillasters, the central pair 7-9 mm apart. On inflorescence axis, glands very scarce or scarce, glandular hairs (with thin glands) absent, very scarce or scarce. Trichomes abundant, patent, 800-1200 μ m, with 3-4 cylindrical cells, and 1 apical cell conical. LOWER BRACTS patent, ovate, with greatest width 1/5 above the base and basal emargination 1/10 x 1/9, cut 1/7, 10-13 x 12-14 mm, 7-10 teeth on each side. MIDDLE BRACTS erecto-patent, ovate, with greatest width 1/4-1/5 above the base and basal emargination 1/9 x 1/8, cut 1/7, 7-8 x 12-15 mm, 11-14 teeth on each side. Adaxial surface glabrous. Abaxial surface with glands absent or very scarce,

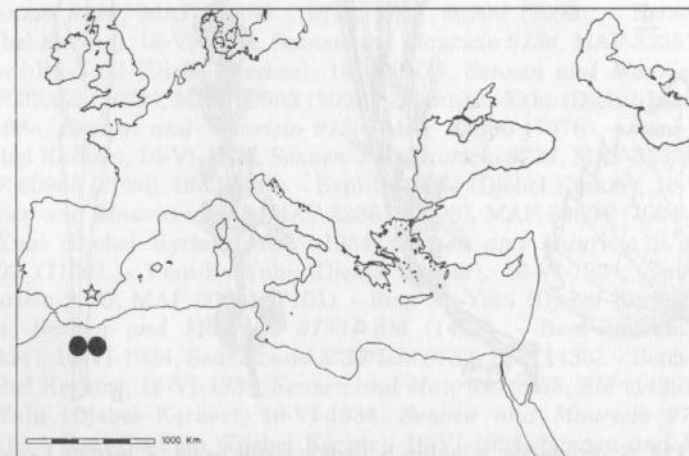
glandular hairs (with thin glands) absent or very scarce. Trichomes very scarce or scarce, 300-900 μ m, with 2 cylindrical cells, and 1 apical cell conical.

VERTICILLASTERS 6 flowered. BRACTEOLES absent. CALYCES campanulate, 7-8 mm, with five teeth divergent, subequal, 2-3 mm, ending in spines 1 mm. Carpostegium continuous. In the external surface of calyx glands very scarce or scarce, glandular hairs (with thin and ample glands) scarce or abundant. Trichomes very scarce, 1-2 μ m. COROLLAS 10 mm, 2-lipped in 1/3 of their length, upper lip yellow, emarginate or notched; lower lip yellow, cut in 3 unequal lobes; gorge yellow. STAMENS included in the corolla tube, filaments 1 mm. STYLE 4-5 mm.

CREMOCARPS ovoid, 1.8-2.2 mm.

CHROMOSOME NUMBERS: Unknown.

NOTE: In the mountains of Beni Bu Yahí has been detected an introgression band of this species with *S. briquetiana*, this introgression determined the presence of intermediate forms between the hybrid *S. x candellii* and the parent species *S. ortonedae*. This variation range lead Sennen to produce a very long list of species, varieties and forms whose adscription to a determined taxon is extremely complex. In the Kerdanna mountain this species cohabits with *S. faurei*, and a similar phenomenon has been detected.



Map 70. Distribution map of *S. ortonedae* (●) and *S. luteola* (☆).