

PHANEROGAMARUM MONOGRAPHIÆ TOMUS XXI

To Dr. José Borja Carbonell
In Memoriam

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

by

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with 123 figures, 13 tables and 74 maps



J. CRAMER

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Barrancon Valentina, VII-1904, *Reverchon 1361*, LY (4299, 4303), LY (4003). - Near la Toba, 2-VIII-1985, *Rios and Alcaraz*, MUB (394). - Cazorla (Arrollo Vadecazores), 17-VII-1984, *Fernández López and Cobos*, JAEN 841828 (5976), JAEN 841829 (5977), JAEN 841830 (5978), JAEN 841831 (5979). - Cazorla (Arroyo Valdeazores), 17-VII-1984, *C. Fernández*, MA 435937 (6287). - Cazorla (cross to Valdeazorillos), 12-VII-1985, *C. Fernández and J. Cobos*, MA 851625 (6293), JAEN 851621 (5972), JAEN 851622 (5973), JAEN 851623 (5974), JAEN 851624 (5975). - El Pozo, VI-1905, *Reverchon 1157*, LY (4021). - El Pozo, VI-1905, *Reverchon 1371*, A (5716), BM 9254 (1115), LY (4001), MA 100487 (1959), P (135). - Between Cazorla and Cueva la Magdalena, 24-VI-1948, *Heywood?*, BM (991). - La Junta, 23-VI-1976, *Castroviejo and Valdés Bermejo*, MA 436759 (6376). - Lentiscares (Cuesta Carnicera), 1849, *Blanco 182*, BM (1005). - Montes Cazorla, 24-VI-1948, *Heywood and Davis 241*, BM (977). - Sierra Cazorla (Barranco del Guadalentín), 12-VII-1926, *Cuatrecasas*, MAF 32443 (7233), MAF 32443 (7234). - Sierra Cazorla (Borosa), 5-VI-1986, *Rivera and Obón*, MUB (433), MUB (434). - Sierra Cazorla (road to Fuentes del Guadalquivir), 7-VII-1988, *Auriault*, AURIAULT (4999). - Sierra Cazorla (Nava Pablo), VII-1980, *Mansanet and Currás*, MA 475245 (6230). - Sierra Cazorla (Rio Borosa), 14-VI-1985, *Auriault*, AURIAULT (5000). - Sierra Cazorla near Fuente Rechitas, 14-VI-1927, *Lacaita 316-27*, BM 31283 (1117), BM 31282 (1118). - Sierra Cazorla, 15-VI-1928, *Lacaita 443-28*, BM 32535 (1116). - Sierra las Malezas, VII-1907, *Reverchon 1371*, P (136). - Sierra del Segura, VI-1906, *Reverchon 1371*, LY (4002), MA 100486 (1960). - Sierra Maleza, VI-1906, *Reverchon 1371*, GH (5717). - Above Cazorla near Fuente la Magdalena, 1-VI-1927, *Wilmott*, BM (978), BM (1000).

44- *Sideritis beniboufraiana* Obón and Rivera, *sp. nov.*

Diagnosis: Floribus luteis a Sideritide hirsuta differt.

Type: Morocco: *Loco dicto* Beni-Bu-Frah, *prope* Torres de Alcalá in saxosis calc. littoris rhiphaei, ad 100 m. alt; 4 junii 1927, Font Quer legit.

Typification: HOLOTYPE: Designated here the only specimen affixed to the sheet kept in the Herbarium UC 370029. *ISOTYPE:* The specimen affixed to the sheet kept in the Herbarium BM, pick up in Beni-Bu-Frah (Torres Alcalá), 4-VI-1927, *Font Quer 532*, (1452).

Synonyms:

≡ *Sideritis arborescens* var. *africana* Font Quer and Pau ex Pau, in *exsiccata* Dr, Font Quer-Iter Maroccanum 1927, n° 532. 1927 (10-III-1928). (BM, 1454). Type: *Hab. in saxosis calc. littoris rhiphaei*, pr Torres Alcalá (Beni-Bu-Frah), 100 m. alt; 4 junii. *Typification: LECTOTYPE:* Designated here, the only specimen affixed to the sheet kept in the Herbarium UC 370029.

Description: BASAL PARTS woody, persistent and erect; to 50-55 cm including branches. Non woody branches erect, to 45 cm. Hair covering at the base of branchlets goniotrichous and heterotrichous. Glands absent or very scarce, glandular hairs absent. Trichomes abundant and short in two sides and scarce in the other two, short retrorse and patent, short 400-1400 µm, long 1800-2200 µm, with 2(3) cylindrical cells, and 1 apical cell conical. LOWER LEAVES (20)30-40 x (3)5-7 mm, petiole absent, serrate, spatulate, obtuse, glands absent to scarce, glandular hairs absent. Trichomes absent or very scarce, in the margin indistinct, 600-1300 µm, with 1 cylindrical cells, and 1 apical cell conical. UPPER LEAVES narrower than the lower. AXILAR FASCICLES occasionally present in flowering time. BRANCHES without paracladial

INFLORESCENCES with a yellowish tint in the angles of the axis, calyces and bracts, cylindrical, 6-13 cm, 4-7 verticillasters, the central pair (10)12-14(17) mm apart. On inflorescence axis, glands absent or very scarce, glandular hairs (with thin glands) scarce or very scarce. Trichomes abundant to very abundant, patent, 1500-2200 µm, with 2 cylindrical cells, and 1 apical cell conical. LOWER BRACTS erecto-patent or patent, ovate, with greatest width 1/5-1/4 above the base and basal emargination null, cut 1/4, 9-12 x 13-16 mm, 9-11 teeth on each side. MIDDLE BRACTS erecto-patent or patent, ovate, with greatest width 1/5-1/3 above the base and basal emargination null, cut 1/4, 8-10 x 10-17 mm, 11-13 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 scarce or very scarce, 800-1800 µm, with 1-2 cylindrical cells, and 1 apical cell conical.

VERTICILLASTERS 6 flowered. BRACTEOLES absent. CALYCES campanulate, 8-10(11) mm, with five teeth divergent, subequal, 3 mm, ending in spines, 1 mm. Carpostegium discontinuous. In the external surface of calyx: glands absent or very scarce, glandular hairs (with thin glands) absent or very scarce. Trichomes scarce or very scarce, 1500-2200 µm. COROLLAS 10-11(12) mm, 2-lipped in 1/5-1/4 of their length, upper lip yellow, entire or emarginate; 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.

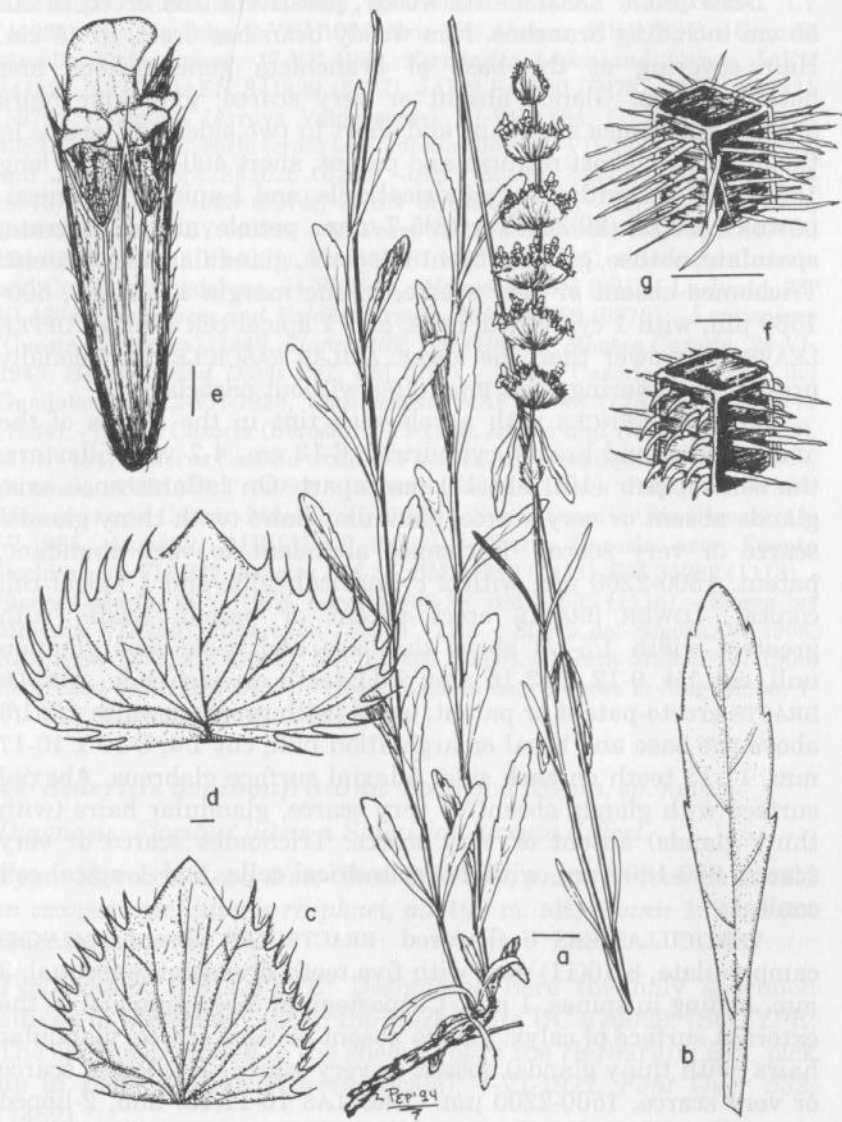


Figure 91. *S. beniboufraiana*: a. habit; b. leaf; c. lower bract; d. middle bract; e. flower; f. base of branchlet; g. inflorescence axis. Scale bars, a = 1 cm; b, c, d, e, f, g = 1 mm. (J. Alvarez).

DISTRIBUTION: Endemic to the Rif (Secteur Beni-Bou-Frah) (Province Atlásico-Rifeña) (Map 55).



Map 55. Distribution map of *S. beniboufraiana*.

PHENOLOGY: Flowering in May-June, fruiting in June-July.

HABITAT: Thermo, meso-Mediterranean, dry. 500-800 m. **ARID GARRIGUES:** Scrubs, colonizing gravels among the *Smilaci mauritanicae-Quercetum rotundifoliae* Barbero, Quezel and Rivas-Martínez, 1981.

COMMON NAMES: Unknown.

USES: Unknown.

SPECIMENS STUDIED

MOROCCO:

Rif:

Beni-Bu-Frah (Torres de Alcalá), 4-VI-1927, *Font Quer 532*, BC 74187 (10518), BM (1454), UC 370029 (9006).

45- *Sideritis bubani* Font Quer, Butll. Inst. Catalana Hist. Nat., 20 (October): 141, 1920.

Type: *Hab. in declivibus montosis Vallis Sicoris (Ilerda), prope pagos Martinet et Bellver, 950-1000 m. alt., ubi 4 jul. 1920 legi.*

Typification: **LECTOTYPE:** Designated here, the specimen affixed to the lower part of the sheet kept in the Herbarium MA 100497.

Synonyms:

≡ *Sideritis hirsuta* var. *bubani* (Font Quer) O. Bolós and Vigo, *Collect. Bot. (Barcelona)*, 14: 93, 1983.