

Check-list of the vascular plants collected during Iter Mediterraneum I

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Introduction

During the Iter Mediterraneum I, a large collection of flowering plants from SE Spain was made, with a total of 3003 numbers registered in the field books, and a real number of 3233 entries.

The following is a complete list of the specimens collected arranged alphabetically by taxa.

For each taxon the correct name and publication reference is given, together with the most relevant synonyms and the localities where it was collected.

Comments are added for some interesting taxa. These are offered by different members of the expedition or by specialists, and signed individually by their authors.

Many gatherings are apparent new records for the respective province. For example, *Carduus pycnocephalus* L. and *Melilotus neapolitana* Ten. are new for Jaén province; *Scleranthus delortii* Gren; *Bufoia tenuifolia* L., *Lepidium hirtum* (L.) Sm. subsp. *atlanticum* (Ball) Maire and *Scrophularia sciophila* Willk. are new for Almería province; *Tolpis umbellata* Bertol. and *T. xgrosii* Talavera are new for Granada province; *Allium vineale* L. and others are even recorded for the first time from E. Andalucía. Other taxa are new for particular areas, even for mountains that are believed to be specially well known such as the Sierra Nevada, from where not less than twenty gatherings, including *Aphanes floribunda* (Murb.) Rothm., *Montia fontana* L. subsp. *chondrosperma* and *Geranium lucidum* L. are new records; the Sierras de Cazorla and Segura, where many plants, such as *Elymus caninus* (L.) L. and *Phalaris arundinacea* L., seem to have been collected for the first time; and the Sierra de Gador, from where *Festuca hystrix* Boiss., *F. nevadensis* (Hackel) Markgr. and other species were not previously recorded. Only a few such records are commented on in the checklist. However, as the localities where the plants have been collected are given under each species, new records for any province or particular area may be easily traced.

The identification of the vascular plants collected has been made by the members of the expedition and by several specialists, as follows:

G. Alziar (Nice): mainly *Cistaceae*, woody *Leguminosae*, most *Labiatae*, *Rosa*, *Astragalus* and *Ononis*.

S. Fici (Palermo): *Polygala* and *Capparis*.

N. Galland (Lausanne): most *Cruciferae*.

- D. Jeanmonod (Genève): most *Rubiaceae*, *Schrophulariaceae*, *Dipsacaceae* and *Compositae*.
- U. Mathás (Berlin): most *Gramineae* and several numbers from various families.
- P. Minissale (Catania): several *Compositae*, *Allium*; and several members from various families.
- V. Stevanovic (Belgrade): most *Saxifraga* and *Scutellaria*.
- S. Talavera (Sevilla): most gatherings from no. 1.501 to no. 3.003, as well as *Silene* and *Centaurea*.
- B. Valdés (Sevilla): most gatherings from no. 1 to no. 1.500 except part of the *Saxifragaceae*, *Umbelliferae*, *Rubiaceae*, *Cyperaceae*, woody *Leguminosae*, *Orchidaceae*, *Helianthemum*, *Thymus*, *Teucrium*, *Silene* and *Centaurea*.
- M. Watson (Reading): many *Leguminosae* and *Carex*. He is also partly responsible for the correction of the English text.
- J. R. Akeroyd (Reading): *Polygonaceae*, *Anthyllis*.
- H. J. M. Bowen (Reading): a wide range of species of various families.
- Z. Díaz Lifante (Sevilla): *Asphodeleae*.
- F. García Martín (Sevilla): *Umbelliferae*.
- S. Gardner (Reading): many *Umbelliferae*.
- S. L. Jury (Reading): most *Umbelliferae* and *Psoralea*.
- M. Kerguèlen (La Minière): *Festuca*.
- M. Luceño (Madrid): *Carex*.
- H. McAlister (Reading): *Santolina*.
- J. A. Mejias (Sevilla): *Lactuceae*.
- G. Nieto Feliner (Madrid): *Armeria*.
- J. Pastor (Sevilla): *Chenopodiaceae*, *Polygonaceae* and *Allium*.
- S. Puech (Montpellier): *Teucrium*.
- C. Raynaud (Montpellier): *Helianthemum*.
- A. Rocchia (Roquebrune Cap Martin): *Carex*.
- C. Romero (Sevilla): most *Gramineae*, *Medicago*, *Vicia* and *Lathyrus*. He is also responsible for the curatorial data base for the checklist.
- H. Scholz (Berlin): most *Gramineae*.
- S. Silvestre (Sevilla): *Saxifragaceae*, *Plantaginaceae*, *Crassulaceae*, *Salicaceae*, *Frankeniaceae*, *Cyperaceae* and *Orchidaceae*.
- M. Southam (Reading): some *Umbelliferae*.
- D. A. Webb (Dublin): *Saxifraga*.
- P. Wilfin (Reading): some *Chenopodiaceae*.

Check-list

Acer granatense Boiss., Elenchus 25 (1838)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 580; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1463.

Acer monspessulanum L., Sp. Pl. 1056 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1800.

Achillea ageratum L., Sp. Pl. 897 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 638.

Achillea odorata L., Syst. Nat. ed. 10, 2: 1225 (1759)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 836; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1313; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1692; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2718; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2787c.

Acinos alpinus (L.) Moench, Méth. 407 (1794) subsp. *meridionalis* (Nyman) P. W. Ball, Bot. Journ. Linn. Soc. 65: 344 (1972). [= *Calamintha granatensis* Boiss. & Reuter, Pugillus 49, 1852]

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almiraz, shale soils, WG1006, 1900-1980 m, 17.06.1988, 591; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 884; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 340; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 486; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1291; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1404; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1919b; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1998; idem, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2046; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 61.

Acinos rotundifolius Pers., Syn. Pl. 2: 131 (1806)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2559.

Adenocarpus decorticans Boiss., Biblioth. Univ. Genève ser. 2, 13: 407 (1838)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 411; Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 977.

Adiantum capillus-veneris L., Sp. Pl. 1096 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 540; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2193.

Adonis flammea Jacq., Fl. Austr. 4: 29 (1776)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2594; Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2049; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2781.

Aegilops geniculata Roth, Bot. Abh. 45 (1787)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 845b; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1635.

Aegilops neglecta Req. ex Bertol., Fl. al. 1: 787 (1834)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 260; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 112; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 112c.

Aegilops neglecta x *A. geniculata* Roth.

Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2779.

The specimens from this locality have 4 awns on the lower glume and 3 on the upper. The spike has 4 spikelets of which the lowermost and the highest are sterile or poorly developed and only the central two fertile. The plants are intermediate between *A. neglecta* and *A. geniculata*, and appear to be of hybrid origin.

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Aegilops triuncialis L., Sp. Pl. 1051 (1753)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 262; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1085; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1637; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2775; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 113.

Aegilops ventricosa Tausch, Flora (Regensb.) 20: 108 (1837)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1271; La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2064; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2346; idem, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2977b; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2772.

Aethionema saxatile (L.) R. Br. in Aon, Hort. Kew. ed. 2, 4: 80 (1812)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 789; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1396; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1927; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2696; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2939.

Agrimonia eupatoria L. subsp. *grandis* (Andrz. ex Ascherson & Graebner) Bornm. Feddes Repert. 89: 244 (1940)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2105.

Agrostemma ghago L., Sp. Pl. 435 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 726; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2362; idem, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2965.

Agrostis castellana Boiss. & Reuter, Diagn. Pl. Nov. Hisp. 26 (1842) var. *mutica*
Hackel, Catal. Rais. Gram. Port. 14 (1880)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2082;
idem, WH4523, 950 m, 25.06.1988, 2099; Marchena, Sierra de la Grana, calcareous soils,
WH4327, c. 1350 m, 25.06.1988, 2240; Sierra del Pozo, Nava de San Pablo, calcareous
soils, WG0997, c. 1450 m, 30.06.1988, 2896.

Agrostis nebulosa Boiss. & Reuter, Diagn. Pl. Nov. Hisp. 26 (1842)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields,
calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2443; Jaén: between Tobos and Ves,
bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2110; Sierra de Segura, descending to
Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2811; Sierra del
Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2962; idem, Nava de San
Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2903.

Aira caryophyllea L., Sp. Pl. 66 (1753) subsp. *caryophyllea*

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998,
1400 m, 19.06.1988, 1031; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous
soils, WH3118, 1530 m, 26.06.1988, 2417.

Aizoon hispanicum L., Sp. Pl. 488 (1753)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1516.

Ajuga chamaepys (L.) Schreber, Pl. Verticill. Unilab. 25 (1773)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2051.

Alchemilla glabra Neygenf., Enchirid. Bot. Siles. 67 (1821)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils,
WG1006, 1900-1980 m, 17.06.1988, 623.

Alchemilla saxatilis Buser, Not. Alchim. 3 (1891)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils,
WG1006, 1900-1980 m, 17.06.1988, 628.

Alliaria petiolata (Bieb.) Cavara & Grande, Boll. Orto Bot. Napoli 3: 418 (1913)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 463; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes calcareous soils, WH3222, 1250 m, 26.06.1988, 2398.

Allium ampeloprasum L., Sp. Pl. 294 (1753)

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 509; **Granada:** Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1110; **Jaén:** Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2188; Sierra de Segura, descending to Hornos, Pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2828.

Allium pallens L., Sp. Pl., ed. 2: 427 (1762) subsp. *pallens*

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2558; **Almería:** Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 152; between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 511; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 699; **Granada:** between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1125; **Huéscar:** Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1619; **Almaciles:** Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2488; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2516.

Allium roseum L., Sp. Pl. 296 (1753)

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2310; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2897; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 67.

Allium scorodoprasum L., Sp. Pl. 297 (1753) subsp. *rotundum* (L.) Stearn, Ann. Mus. Goulandris 4: 178 (1978)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2428; **Jaén:** Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2921.

Allium sphaerocephalon L., Sp. Pl. 297 (1753)

Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 521; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 698b; Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 140; Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2486; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1126; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1581; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1904b; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 68.

Allium stearni Pastor & Valdés, Rev. Allium Penin. Ibér. 86 (1983)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 96.

Allium vineale L., Sp. Pl. 299 (1753)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2250.

Alopecurus arundinaceus Poirlet in Lam., Encycl. Méth., Bot. 8: 778 (1808)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 303.

Alopecurus myosuroides Hudson, Fl. Angl. 23 (1762)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2180.

Althaea cannabina L., Sp. Pl. 686 (1753)

Jaén: Villanueva del Arzobispo, in roadside ditches, WH0026, 01.07.1988, 2985.

Althaea hirsuta L., Sp. Pl. 687 (1753)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2572; Granada: Sierra de la Sagra, calcareous soils,

WG3597, 1400-1700 m, 24.06.1988, 2059c.

Alyssum atlanticum Desf., Fl. Atl. 2: 71 (1898)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1923.

Alyssum granatense Boiss. & Reuter, Pugillus 9 (1852)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 316; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 360; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 422; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1210.

Alyssum montanum L., Sp. Pl. 650 (1753), subsp. *montanum*

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2555; **Almería:** Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 873; Sierra Nevada, Cerro del Almirante, shale soils, WG0804, 2240-2280 m, 19.06.1988, 933; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1240b; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2702.

Alyssum serpyllifolium Desf., Fl. Atl. 2: 70 (1798)

Almería: Sierra de Gador, above the Lote de Bardagí, calcareous soils, WF1784, 1700-1900 m, 18.06.1988, 850; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1595; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2268.

Alyssum simplex Rudolphi, Journ. Bot. (Schrader) 2: 290 (1799). [= *A. minus* (L.) Rothm., Repert. Spec. Nov. Regni Veg. 50: 77, 1941]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 766b; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1719; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 22.

Alyssum spinosum L., Sp. Pl. 650 (1753). [= *Ptilotrichum spinosum* (L.) Boiss., Voy. Bot. Midi Esp. 2: 46, 1839]

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1419.

Amelanchier rotundifolia (Lam.) Dum.-Courset, Bot. Cult. ed. 2, 5: 459 (1811)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 829; idem, low part of El Morrón, Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 859; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1470; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1741.

Ammoides pusilla (Brot.) Breistr., Bull. Soc. Sci. Dauph. 61: 628 (1947)

Jaén: Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2845.

Anacamptis pyramidalis (L.) L. C. M. Richard, Orchid. Eur. Annot. 33 (1817)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2331.

Anacyclus clavatus (Desf.) Pers., Syn. Pl. 2: 465 (1807)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 132; **Granada:** Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1081.

Anagallis arvensis L., Sp. Pl. 148 (1753)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1156; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1228.

Anagallis monelli L., Sp. Pl. 148 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1791; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2132.

Anagallis tenella (L.) L., Syst. Veg. ed. 13: 165 (1774)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2102.

Anarrhinum laxiflorum Boiss., Elenchus 71 (1838)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 737; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 921; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1000; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1491; idem, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1325; idem, limestone, WG1340, 1400-1600 m, 21.06.1988, 1354; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1685; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 487; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2751.

Anchusa undulata L., Sp. Pl. 133 (1753) subsp. *granatensis* (Boiss.) Valdés, Lagasalia 10: 109 (1981). [= *A. granatensis* Boiss., Voy. Bot. Midi Esp. 2: 430, 1841]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 325; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1688; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2364.

Androsace maxima L., Sp. Pl. 141 (1753)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 878; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1246; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1409; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1994.

Androsace vandellii (Turra) Chiov., Nuovo Gior. Bot. al., nov. ser. 26: 27 (1919)

Almería: Abrugena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 585; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 940.

***Andryala agardhii* Haenseler ex DC., Prodr. 7: 244 (1838)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1459; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1916; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2762.

***Andryala integrifolia* L., Sp. Pl. 808 (1753)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 681; **Granada:** Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1832; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 70.

***Andryala laxiflora* DC., Prodr. 7: 246 (1838)**

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 514.

***Andryala ragusina* L., Sp. Pl. ed. 2: 1136 (1763). [= *A. lyrata* Pourret, Hist. Mém. Roy. Acad. Toulouse 3: 308, 1788]**

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 185; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 682; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1204; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2175.

***Anthemis arvensis* L., Sp. Pl. 894 (1753). [= *A. granatensis* Boiss., Elenchus 60, 1838]**

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 425; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1669; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 77.

***Anthemis cotula* L., Sp. Pl. 894 (1753)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2171; Santiago de la Espada, WH3918, 1430 m, 30.06.1988, 2983.

Anthemis tuberculata Boiss., Elenchus 59 (1838)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 812; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1345; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1469; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1826; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2739.

Anthericum liliago L., Sp. Pl. 310 (1753)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1831.

Anthoxanthum odoratum L., Sp. Pl. 28 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 567; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 918.

Anthriscus caucalis Bieb., Fl. Taur.-Cauc. 1: 230 (1808)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 762; idem, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 784b.

Anthriscus sylvestris (L.) Koch, Syn. Pl. Germ., ed. 2, 348 (1843)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2337.

Anthyllis cytisoides L., Sp. Pl. 720 (1753)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 226; Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1096; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1145.

Anthyllis montana* L., Sp. Pl. 719 (1753) subsp. *montana

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1501; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1701; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1870; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2352.

***Anthyllis ramburei* Boiss., Elenchus 35 (1838)**

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2630; **Granada:** Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1922; idem, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 2003; **Jaén:** Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2204; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2938.

***Anthyllis terniflora* (Lag.) Pau, Bull. Acad. Int. Géogr. Bot. (Le Mans) 16 (Mém.): 75 (1906). [= *A. genistae* Dufour ex DC., Prodr. 2: 169, 1825]**

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 224.

***Anthyllis tetraphylla* L., Sp. Pl. 719 (1753)**

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1100 m, 29.06.1988, 2979.

***Anthyllis vulneraria* L., Sp. Pl. 719 (1753) subsp. *argyrophylla* (Rothm.) Cullen, Watsonia 6: 389 (1968)**

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2710.

***Anthyllis vulneraria* subsp. *arundana* (Boiss. & Reuter) H. Lindb., Acta Soc. Sci. Fenn., nov. ser., B, 1(2): 77 (1932); subsp. *arundana* (Boiss. & Reuter) H. Lindb., Anais Inst. Vinho Porto 1:73 (1941)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1451; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1865; Sierra de la Sagra, amongst rocks and

stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1999.

Anthyllis vulneraria subsp. *atlantis* Emberger & Maire, Bull. Soc. Hist. Nat. Afr. Nord 24: 209 (1933)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1445.

Anthyllis vulneraria subsp. *maura* (Beck) Lindb. fil., Acta Soc. Sci. Fenn., nov. ser., B, 1(2): 77 (1932)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1703.

Anthyllis vulneraria subsp. *reuteri* Cullen, Watsonia 6: 389 (1968)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2603; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 802; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 373; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1253; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2030; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 95.

Antirrhinum australe Rothm., Feddes Repert. Spec. Nov. Regni Veg. (Beih.) 136: 91 (1956)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1682b; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2057; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2734; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 10.

Antirrhinum barrelieri Boreau, Graines Recolt. Jard. Bot. Angers 1854(2) (1855)

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1483, 1780 m, 18.06.1988, 856; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2522.

Antirrhinum charidemi Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1881: 99 (1982)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 150.

Antirrhinum granicum Rothm., Bol. Soc. Brot., ser. 2, 13: 279 (1939)

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2312.

Antirrhinum hispanicum Chav., Monogr. Antirrh. 83 (1833) subsp. *mollissimum* (Pau) Fernández-Casas, Candollea 29: 332 (1974)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1016.

Antirrhinum rupestre Boiss. & Reuter, Pugillus 82 (1852)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 319; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 369; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1069.

Apera interrupta (L.) Beauv., Agrost. 31, 151 (1812)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1760; idem, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1763; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2693; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2901.

Aphanes floribunda (Murb.) Rothm., Repert. Spec. Nov. Regni Veg. 42: 172 (1937)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1036; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2270.

Aphyllanthes monspeliensis L., Sp. Pl. 294 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-

1350 m, 21.06.1988, 1304.

Apium nodiflorum (L.) Lag., Amen. Nat. 1: 101 (1821)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 538; Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1514; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2137; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2928.

Aquilegia vulgaris L., Sp. Pl. 533 (1753) subsp. *vulgaris*

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2392.

Aquilegia vulgaris subsp. *nevadensis* (Boiss. & Reuter) T. E. Díaz, Anales Jardín Bot. Madrid 41: 211 (1984). [= *A. nevadensis* Boiss. & Reuter, Cat. Graines Jard. Bot. Genève 1854: 4, 1854]

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 553.

Arabidopsis thaliana (L.) Heynh. in Holl & Heynh., Fl. Sachs. 1: 538 (1842)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 941; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 470.

Some specimens have simple, bifid and trifid hairs on the leaves B.VALDÉS

Arabis alpina L., Sp. Pl. 664 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 607; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1443.

Arabis auriculata Lam., Encycl. Méth. Bot. 1: 219 (1783). [= *A. recta* Vill., Hist. Pl. Dauph. 3: 319, 1788]

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523g; Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-

1600 m, 18.06.1988, 785b; **Granada**: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 474; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1358; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1462c; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1392; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2016b; **Jaén**: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2686.

Arabis planisiliqua (Pers.) Reichenb., Ic. Fl. Germ. 2: 13 (1847)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2943c.

Arabis verna (L.) R. Br. in W. T. Aon, Hort. Kew., ed. 2, 4: 105 (1812)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 41.

Arbutus unedo L., Sp. Pl. 395 (1753)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2650.

Arceuthobium oxycedri (DC.) Bieb., Fl. Taur.-Cauc. 3: 629 (1819)

Granada: La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2070.

Arctostaphylos uva-ursi (L.) Sprengel, Syst. Veg. 2: 287 (1825)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1300; idem, limestone, WG1340, 1400-1600 m, 21.06.1988, 1347; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1819; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1992.

Arenaria arcuatociliata G. López & Nieto Feliner, Anales Jardín Bot. Madrid 42: 353 (1986)

Granada: Sierra de Baza, near Cortijo del Bardfn, calcareous soils, WG1044, 1120 m, 21.06.1988, 1218.

Arenaria armerina Bory, Ann. Gén. Sci. Phys. (Bruxelles) 3: 5 (1820) subsp. *armerina*

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 780; idem, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 879; Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1868; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1958; idem, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1960; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2255; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2329; idem, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2416; idem, calcareous soils, WH3118, 1530 m, 26.06.1988, 2421; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2662; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2671.

Arenaria armerina var. *elongata* (Boiss.) Pau, Mem. Mus. Ci. Nat. Barcelona 1: 30 (1922)

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 434.

Arenaria grandiflora L., Syst. Nat. ed. 10, 2: 1034 (1759) subsp. *grandiflora*

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 783; idem, above the Lote de Bardagí, calcareous soils, WF1784, 1700-1900 m, 18.06.1988, 853; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1359; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1386; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1777; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1871; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1940b; idem, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1953; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2674.

Arenaria leptoclados (Reichenb.) Guss., Fl. Sic. Syn. 2: 824 (1845)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2556; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1229; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1647; Sierra de la Sagra, amongst

rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1924; idem, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2045; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2890.

Arenaria modesta Dufour, Ann. Gén. Sci. Phys. (Bruxelles) 7: 291 (1821)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1133; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2479.

Arenaria modesta subsp. *tenuis* (Gay) G. López & Nieto Feliner, Anales Jardín Bot. Madrid 42: 359 (1986)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1657.

Arenaria pungens Clemente ex Lag., Gen. Sp. Nov. 15 (1816)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 290; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 989.

Arenaria serpyllifolia L., Sp. Pl. 423 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 739c; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 943; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 329; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1030b; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1364b; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1462; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2037; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2749c.

Arenaria tenuis Gay in Webb & Heldr., Cat. Pl. Hisp. App., n. 357 (1850)

Granada: Sierra de Gujllimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1771; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2018; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2130; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2220; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2258; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100

m, 30.06.1988, 2861; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2913.

***Arenaria tetraquetra* L., Sp. Pl. 423 (1753) subsp. *murcica* (Font Quer) Favarger & Nieto Feliner**

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 928; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1483; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1960b; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2664.

***Argyrolobium zanonii* (Turra) P. W. Ball, Feddes Repert. 79: 41 (1968). [= *A. argenteum* (L.) Willk. in Willk. & Lange, Prodr. Fl. Hisp. 3: 464, 1877; non (Jacq.) Ecklon & Zeyher, 1835]**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 743; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 372; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2260; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 93.

***Aristida coerulescens* Desf., Fl. Atl. 1: 109 (1798)**

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 180.

***Aristolochia paucinervis* Pomel, Bull. Soc. Sci. Phys. Algérie 11: 136 (1874). [= *A. longa* auct., non L., Sp. Pl. 961, 1753]**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 37; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2891.

***Aristolochia pistolochia* L., Sp. Pl. 962 (1753)**

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2618.

Armeria alliacea (Cav.) Hoffmanns. & Link, Fl. Port. 1: 441 (1813-1820)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 738.

Armeria bourgaei Boiss. ex Merino, Fl. Galicia 3: 586 (1909)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1921.

The populations of La Sagra are difficult to include in either subsp. *willkommiana* (Bernis) Nieto Feliner or subsp. *lanceobracteata* (Lawrence) Nieto Feliner (cf. Nieto Feliner, 1987, Anales Jard. Bot. Madrid 44: 336). G. NIETO FELINER

Armeria bourgaei subsp. *lanceobracteata* (Lawrence) Nieto Feliner, Anales Jardín Bot. Madrid 44: 336 (1987)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2722.

Armeria bourgaei subsp. *willkommiana* (Bernis) Nieto Feliner, Anales Jardín Bot. Madrid 44: 336 (1987)

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2237; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2215.

Armeria filicaulis (Boiss.) Boiss., Voy. Bot. Midi Esp. 2: 527 (1841)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2349; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2900.

Armeria villosa Girard, Ann. Sci. Nat. ser. 3, 2: 323 (1844) subsp. *bernisii* Nieto Feliner, Anales Jardín Bot. Madrid 44(2): 337 (1987). [= *A. marima* var. *allioides* sensu Bernis, non *A. allioides* Boiss., Voy. Bot. Midi Esp. 2: 535, 1841]

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 823b; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1242b; idem, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1344; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1418; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1493; Granada:

between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 424.

Armeria villosa subsp. *longiaristata* (Boiss. & Reuter) Nieto Feliner, Anales Jardín Bot. Madrid 44(2): 336 (1987)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1690; Sierra de la Sagra, calcareous scree, WG3699, 1700-1850 m, 4.06.1988, 2015; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2429.

Armeria villosa subsp. *provillosa* (Bernis) Nieto Feliner, Anales Jardín Bot. Madrid 44(2): 337 (1987)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2593.

Arnoseris minima (L.) Schweigger & Koerte, Fl. Erlang. 2: 72 (1811)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 900.

Arrhenatherum album (Vahl) W. D. Clayton, Kew Bull. 16: 250 (1962) var. *album*

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 273; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 299; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1770; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2691; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 74.

Arrhenatherum elatius (L.) Beauv. ex J. & C. Presl, Fl. Cechica 17 (1819) subsp. *baeticum* Romero Zarco, Acta Bot. Malacana 10: 134 (1985)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 766; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1400; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2246.

Arrhenatherum elatius* subsp. *baeticum* x *A. album* var. *album

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2244.

Arthrocnemum macrostachyum (Moric) Moris, in Moris & Delponte, Index Sem. Horti Bot. Taur. 35 (1854)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1544.

***Arum maculatum* L.**, Sp. Pl. 966 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 608.

***Asparagus acutifolius* L.**, Sp. Pl. 314 (1753)

Albacete: Sierra de Taibilla, near Nerpio, calcareous soils, WH6122, c. 1000 m, 28.06.1988, 2613.

***Asparagus horridus* L.**, in J. A. Murray, Syst. Veg. ed. 13: 274 (1774). [= *A. stipularis* Forsskål, Fl. Aegypt. 72, 1775]

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 170; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2533.

***Asperugo procumbens* L.**, Sp. Pl. 138 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1465; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1978.

***Asperula aristata* L. fil.**, Suppl. 120 (1781) subsp. *scabra* (J. & C. Presl) Nyman, Consp. 334 (1879)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 692; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2170.

Asperula arvensis L., Sp. Pl. 103 (1753)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1243c; **Jaén:** Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2790.

Asperula hirsuta Desf., Fl. Atl. 1: 127 (1798)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1624; idem, calcareous soils, WG3395, 22.06.1988, 1649; **Jaén:** Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2303; Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2822; Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2849; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 62.

Asphodelus cerasiferus J. Gay, Bull. Soc. Bot. Fr. 4: 601 (1857)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 822.

Asphodelus fistulosus L., Sp. Pl. 309 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 169.

Asphodelus tenuifolius Cav., Anales Ci. Nat. 3: 46 (1801)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 219.

Asplenium adiantum-nigrum L., Sp. Pl. 1081 (1753)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1025.

Asplenium ceterach L., Sp. Pl. 1080 (1753). [= *Ceterach officinarum* DC. in Lam. & DC., Fl. Fr. ed. 3, 2: 566, 1805]

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 432; Sierra de la Sagra, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2035b; **Jaén:** Poyotello, Sierra de Segura, gorge of

river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2347; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2919; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 43.

Asplenium ruta-muraria* L., Sp. Pl. 1081 (1753) subsp. *ruta-muraria

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1969; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2035c; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2763.

Asplenium septentrionale* (L.) Hoffm., Deutschl. Fl. 2: 12 (1796) subsp. *septentrionale

Almería: Sierra Nevada, Cerro del Almiraz, shale soils, WG0804, 2240-2280 m, 19.06.1988, 927.

Asplenium trichomanes* L., Sp. Pl. 1080 (1753) subsp. *trichomanes

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1464.

***Asplenium trichomanes* subsp. *inexpectans* Lovis, Br. Fern Gaz. 9: 155 (1964)**

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2728c.

This subspecies was indicated for Spain by Nogueira & Ormonde (1986, Fl. Iber. 1: 95) only for the Balearic Islands. Soriano (1988, Fontqueria 20: 42-43) gave the first record of this taxon for the Iberian Peninsula (Sierra de Cazorla). Its finding in Sierra Seca (El Chaparral) confirms its existence in southern Spain. S. TALAVERA

***Asplenium trichomanes* subsp. *quadrivalens* D. E. Meyer, Ber. Deutsch. Bot. Ges. 74: 456 (1962)**

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 480; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1797; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1918; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-

1450 m, 26.06.1988, 2386; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2915.

Asteriscus marimus (L.) Less., Syn. Gen. Comp. 210 (1832)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 165.

Asterolinum linum-stellatum (L.) Duby in DC., Prodr. 8: 68 (1844)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1005.

Astracantha granatensis (Lam.) Podl., Mt. Bot. Staatssamml. München 19: 12 (1983)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 701; idem, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 846; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1336.

Astragalus bourgaeanus Cosson, Not. Pl. Cr. 160 (1852)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1726.

Astragalus clusii Boiss., Diagn. Pl. Or. Nov. 9: 70 (1849)

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1038; idem, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1055; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1587.

Astragalus depressus L., Cent. Pl. 2: 29 (1756)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1997; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2705.

Astragalus epiglottis L. Sp. Pl. 759 (1753) subsp. *asperulus* (Dufour) Nyman, Consp. 196 (1878)

Jaén: Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2846.

Astragalus glaux L., Sp. Pl. 759 (1753)

Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2529.

Astragalus hamosus L., Sp. Pl. 758 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1718.

Astragalus incanus L., Syst. Nat. ed. 10: 1175 (1759) subsp. *incanus*

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 662.

Astragalus incanus subsp. *incurvus* (Desf.) Maire, Cavanillesia 2: 52 (1929)

Granada: between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 497; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1250.

Astragalus incanus subsp. *macrorhizus* (Cav.) Láinz, Collect. Bot. (Barcelona) 7: 583 (1968)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1605; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1709; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2249.

Astragalus incanus subsp. *nummularioides* (Desf. ex DC.) Maire in Jahandiez & Maire, Cat. Pl. Maroc 414 (1932)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1435.

Astragalus monspessulanus L., Sp. Pl. 761 (1753)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1626.

Astragalus sempervirens Lam., Encycl. Méth. Bot. 1: 320 (1783) subsp. *nevadensis* (Boiss.) P. Monts., Collect. Bot. (Barcelona) 2: 266 (1949)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1336b; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2711.

Astragalus sesameus L., Sp. Pl. 759 (1753)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1261.

Astragalus stella Gouan, Obs. Bot. 50 (1773)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1259.

Astragalus vesicarius L., Sp. Pl. 760 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1317; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1434; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1435b; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2703.

Atractylis cancellata L., Sp. Pl. 830 (1753) subsp. *cancellata*

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 649b; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 239; Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1152; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2807; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 9.

***Atractylis humilis* L., Sp. Pl. 829 (1753)**

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1151; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2510; idem, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2543.

***Atriplex glauca* L., Sp. Pl. ed. 2: 1493 (1763)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1558; idem, salt marsh, WG3865, 22.06.1988, 1560.

***Atriplex halimus* L., Sp. Pl. 1052 (1753)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1554.

***Atriplex rosea* L., Sp. Pl. ed. 2: 1493 (1763)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1527; idem, salt marsh, WG3865, 22.06.1988, 1545.

***Atriplex cf. chenopodioides* Batt. in Batt. & Trabut, Fl. Alger. (Dicot.) 755 (1890)**

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 193.

***Atropa bella-donna* L., Sp. Pl. 181 (1753)**

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2397.

***Avena barbata* Pott ex Link, Journ. Bot. (Schrader) 1799(2): 315 (1800)**

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1141; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2081; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 91.

Avena sterilis L., Sp. Pl. ed. 2:118 (1762) subsp. *sterilis*

Sevilla: between Ecija and La Luisiana, cultivated fields of *Helianthus annuus*, 01.07.1988, 3003b.

Avena sterilis subsp. *ludoviciana* (Durieu) Guillot & Magne, Fl. Fr., ed. 3: 532 (1875)

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2305; Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2848.

Avenula bromoides (Gouan) H. Scholz, Willdenowia 7: 420 (1974) subsp. *pauneroi* Romero Zarco, Lagasalia 13: 11 (1984)

Granada: between El Marquesado and Alque, Cerrò de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 439; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 274; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 412; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1007; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1270; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1398; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1160; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1178; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1178b; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1586; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2033; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2496; idem, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2498; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2195; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2279; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2728d; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2878; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2908.

Avenula gervaisii J. Holub, Preslia 49: 205 (1977) subsp. *gervaisii*

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 709; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 109.

Ballota hirsuta Bentham, Lab. Gen. Sp. 595 (1834) subsp. *hirsuta*. [= *B. mollisima* Bentham, l. c. 518, 1834]

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 163; **Granada:** between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1138; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 92.

Ballota nigra L., Sp. Pl. 582 (1753) subsp. *foetida* (Vis.) Hayek, Repert. Spec. Nov. Regni Veg. (Beih.) 30(2): 278 (1929)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2610.

Barbarea verna (Müller) Ascherson, Fl. Brandenb. 1: 36 (1860)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 461.

Barbarea vulgaris R. Br. in W. T. Aon, Hort. Kew., ed. 2, 4: 109 (1812)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2088.

Bellardia trixago (L.) All., Fl. Pedem. 1: 61 (1785). [= *Trixago apula* Stev., Mem. Soc. Nat. Mosc. 6: 4, 1823]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 703; **Granada:** Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 244; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1098; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1193; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1612; **Jaén:** Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1100 m, 29.06.1988, 2981.

Bellis annua L., Sp. Pl. 887 (1753)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1047.

***Bellis perennis* L., Sp. Pl. 886 (1753)**

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1842; **Jaén:** Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2927.

***Berberis hispanica* Boiss. & Reuter, Pugillus 3 (1852)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1458; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1743.

***Berberis vulgaris* L., Sp. Pl. 330 (1753) subsp. *australis* (Boiss.) Heywood, Feddes Repert. Spec. Nov. Regni Veg. 64: 49 (1961)**

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 435.

***Beta vulgaris* L., Sp. Pl. 222 (1753) subsp. *marima* (L.) Arcangeli, Comp. Fl. al. 593 (1882)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1557; idem, salt marsh, WG3865, 22.06.1988, 1559.

***Biscutella auriculata* L., Sp. Pl. 652 (1753)**

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 505; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1221.

***Biscutella glacialis* (Boiss. & Reuter) Jordan, Diagn. 1(1): 310 (1864)**

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 901; **Granada:** Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1957; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2684.

Biscutella laevigata* L., Mantissa Alt. 255 (1771) subsp. *laevigata

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils,

WF1489, 1450-1600 m, 18.06.1988, 808; **Granada**: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2474; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1362; idem, Santa Barbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1421; **Jaén**: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2784; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2898.

Biscutella megacarpea Boiss. & Reuter in Boiss., Diagn. Pl. Or. Nov. ser. 2, 1: 44 (1854) subsp. *variegata* (Boiss. & Reuter) Hernández Bermejo & Clemente Muñoz, Lagascalia 14: 200 (1986)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 660; **Málaga**: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 7; **Granada**: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 314.

Biscutella sempervirens L., Mantissa Alt. 255 (1771)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 464.

Biscutella valentina (L.) Heywood, Feddes Repert. 66: 155 (1962)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1656; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1731; **Jaén**: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2243.

Buminaria bituminosa (L.) Stirton, Bothalia 13: 318 (1981). [= *Psoralea bituminosa* L., Sp. Pl. 763, 1753]

Granada: between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 500.

Blackstonia perfoliata (L.) Hudson, Fl. Angl. 146 (1762) subsp. *perfoliata*

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2135; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2838.

***Bombycilaena erecta* (L.) Smolj., Not. Syst. (Leningrad) 17: 450 (1955)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2573; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1185; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1292; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2432; idem, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2444; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2787b; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2902.

***Brachypodium distachyon* (L.) Beauv., Agrost. 101, 155 (1812)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1170; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1264b; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2107; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2883; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 117.

***Brachypodium phoenicoides* (L.) Roemer & Schultes, Syst. Veg. 2: 740 (1817)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1521; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2129; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2242.

***Brachypodium retusum* (Pers.) Beauv., Agrost. 101, 155 (1812). [= *B. ramosus* L., Mantissa 34, 1767, non Hudson, Fl. Angl. 1: 40, 1762]**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 710; Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2497; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1582; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1630; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1171; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2178; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 116.

***Brachypodium sylvaticum* (Hudson) Beauv., Agrost. 101, 155 (1812)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2119;

Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2863.

Brassica repanda (Willd.) DC., Syst. Nat. 2: 598 (1821) subsp. *confusa* (Emberger & Maire) Heywood, Feddes Repert. 66: 153 (1962)

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2619.

Briza media L., Sp. Pl. 70 (1753)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2430.

Briza minor L., Sp. Pl. 70 (1753)

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2868.

Bromus diandrus Roth, Bot. Abh. 44 (1787)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 298b; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 49.

Bromus erectus Hudson, Fl. Angl. 39 (1762)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 800b; idem, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 858; Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2425; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2281; Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2293.

Bromus hordeaceus L., Sp. Pl. 77 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1497.

Bromus hordeaceus subsp. *molliformis* (Lloyd) Maire & Weiller in Maire, Fl. Afr. Nord 3: 255 (1955)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 387.

Bromus intermedius Guss., Fl. Sic. Prodr. 1: 114 (1827)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 763; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2343.

Bromus japonicus Thunb., Fl. Jap. 52 (1784)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 845.

Bromus lanceolatus Roth, Catalecta Bot. 1: 18 (1797)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1173; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 114.

Bromus madrensis L., Cent. Pl. 1: 5 (1755)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1323; Jaén: Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2851; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 78; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 107.

Bromus racemosus L., Sp. Pl. ed. 2, 114 (1762)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2694.

Bromus rigidus Roth, Bot. Mag. (Zürich) 4(10): 21 (1790)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 79.

***Bromus rubens* L., Cent. Pl. 1: 5 (1755)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2557; **Almería:** between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 202; idem, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 204; idem, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 206; **Granada:** Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 257; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1164.

***Bromus squarrosus* L., Sp. Pl. 76 (1753)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 263; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1884; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2687; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2690.

***Bromus sterilis* L., Sp. Pl. 77 (1753)**

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 516; Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 827; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 298; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1323b; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1796.

***Bromus tectorum* L., Sp. Pl. 77 (1753)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 715b; idem, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 841b; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 403; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1466; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2663.

***Bryonia cretica* L., Sp. Pl. 1013 (1753) subsp. *dioica* (Jacq.) Tutin, Feddes Repert. 79: 61 (1968)**

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1786; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2328.

***Bufonia tenuifolia* L., Sp. Pl. 123 (1753)**

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2633; **Almería:** Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523e; **Granada:** La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1064; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1131; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1231; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2477; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 268; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 370; **Murcia:** between Don Fadrique and Caravaca, crossroads to Lorca, basic soil, WH9612, 800 m, 27.06.1988, 2507.

Buglossoides arvensis* (L.) I. M. Johnston, Journ. Arnold Arb. 35: 42 (1954) subsp. *arvensis

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1961b.

***Buglossoides arvensis* subsp. *gasparrinii* (Heldr. ex Guss.) R. Fernandes, Bot. Journ. Linn. Soc. 64: 379 (1971)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1432; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1961.

***Buglossoides arvensis* subsp. *permixta* (Jordan) R. Fernandes, Bot. Journ. Linn. Soc. 64: 379 (1971)**

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1961c.

***Bunium alpinum* Waldst. & K., Pl. Rar. Hung. 2: 199 (1804) subsp. *macuca* (Boiss.) P. W. Ball, Feddes Repert. 79: 62 (1968)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 765; **Granada:** Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 473; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1987.

Bunium bourgaei Cosson, Not. Pl. Cr. 110 (1851)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2920.

Bupleurum sp.

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2631; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1175; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1230.

Bupleurum baldense Turra, Giorn. al. Sci. Nat. Agric. Arti Commerc. 1: 120 (1764)
subsp. *baldense*

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2267; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2327; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2910.

Bupleurum fruticosens L., Cent. Pl. 1: 9 (1755)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 805; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1063; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2189.

Bupleurum fruticosum L., Sp. Pl. 238 (1753)

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2232; river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2638.

Bupleurum gerardi All., Mélang. Philos. Math. Soc. Roy. Turin (Misc. Taur.) 5: 81 (1774)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 754.

***Bupleurum praealtum* L., Fl. Monsp. 12 (1756)**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2185.

***Bupleurum rigidum* L., Sp. Pl. 238 (1753) subsp. *paniculatum* (Brot.) U. Wolff in Engler, Pflanzenreich 43 (IV. 228): 154 (1910)**

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2296; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2841.

***Bupleurum semicomposum* L., Demonstr. Pl. 7 (1753)**

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1058; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1520; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2948.

***Bupleurum spinosum* Gouan, Obs. Bot. 8 (1773)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1348; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1575; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2020; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2532; idem, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2539.

***Buxus sempervirens* L., Sp. Pl. 983 (1753)**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2198.

***Cachrys libanotis* L., Sp. Pl. 246 (1753)**

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 462.

***Callipeltis cucullaria* (L.) Steven, Mém. Soc. Nat. Mosc. 7: 275 (1829)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 745; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist

soils, VG9515, 1250-1350 m, 20.06.1988, 1062; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128e; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988,

Callitriche stagnalis Scop., Fl. Carn., ed. 2, 2: 251 (1772)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 964b.

Camelina microcarpa Andrz. ex DC., Reg. Veg. Syst. Nat. 2: 517 (1821)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2574; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1855; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2463.

Campanula decumbens A. DC., Monogr. Camp. 334 (1830)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1807; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1896; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1982; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2155; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2835.

Campanula dichotoma L., Cent. Pl. 2: 10 (1756)

Albacete: Sierra de Taibilla, near Nerpio, calcareous soils, WH6122, c. 1000 m, 28.06.1988, 2617.

Campanula erinus L., Sp. Pl. 169 (1753)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2269; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2933; Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1100 m, 29.06.1988, 2980.

Campanula herminii Hoffmanns. & Link, Fl. Port. 2: 9 (1820)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 892; idem, north slopes, dry areas in shale soils, WG0005, c. 2000 m, 19.06.1988, 911.

Campanula hispanica Willk. in Willk. & Lange, Prodr. Fl. Hisp. 2: 291 (1868)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1395.

Campanula lusitanica L. in Loefl., er Hisp. 111 (1758) subsp. *lusitanica*. [= *C. loeflingii* Brot., Fl. Lus. 1: 287, 1804]

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 518; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 363c; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 991; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1295; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2741.

Campanula patula L., Sp. Pl. 163 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 535.

Campanula rapunculus L., Sp. Pl. 164 (1753)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1001; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 248; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 363; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 363b; Jaén: Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2842; idem, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2872.

Campanula velutina Desf., Fl. Atl. 1: 180 (1798)

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2626; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2184.

Campanula willkommii Wasek, Abh. Zool.-Bot. Ges. Wien 1(3): 75 (1902)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1324.

Capparis ovata Desf., Fl. Atl. 1: 404 (1798) var. *sicula* (Duham.) Zoh., Bull. Res. Counc. Israel D, 8: 54 (1960)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 813; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1135b.

Zohary (1960, Bull. Res. Counc. Israel 8 (D): 49-64), considers this variety the most common in the Mediterranean Region. The specimens from Sierra de Gador may be well placed in var. *sicula* because of their oblong-elliptical leaves, pubescence of stems, strong curved stipular spines and purple staminal filaments, while the base of the gynophore is hairy, resembling var. *ovata*.
S. FICI

Capsella rubella Reuter, Compt. Rend. Soc. Hallér. 18 (1854)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1933.

Cardamine flexuosa Wh., Arr. Br. Pl. ed. 3, 3: 578 (1796)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 555; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 288; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 391.

Cardamine resedifolia L., Sp. Pl. 656 (1753)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 937.

Cardaria draba (L.) Desv., Journ. Bot. Agric. 3: 163 (1815)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 552; Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1522.

Carduncellus araneosus Boiss. & Reuter, Diagn. Pl. Nov. Hisp. 18 (1842)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1573; *idem*, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1584.

Carduncellus cuatrecasasii G. López, Anales Jardín Bot. Madrid 38: 531 (1982)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 683; **Granada:** Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1830; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2447; **Jaén:** Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2783.

Carduncellus hispanicus Boiss. ex DC., Prodr. 7: 304 (1838) subsp. *araneosus* (Boiss. & Reuter) G. López, Anales Jardín Bot. Madrid 38: 531 (1981)

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1041c; *idem*, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1053.

Carduncellus monspelliensium All., Fl. Pedem. 1: 154 (1785)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 848; **Granada:** Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1377.

Carduus bourgeanus Boiss. & Reuter, Pugillus 62 (1852) subsp. *bourgeanus*

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1149.

Carduus carlinoides Gouan, Obs. Bot. 62 (1773) subsp. *hispanicus* (Kazmi) Franco Bot. Journ. Linn. Soc. 71: 50 (1975)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 959.

Carduus myriacanthus Salzm. & DC., Prodr. 6: 624 (1838)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 166.

Carduus platypus Lange, Index Sem. Horto Haun. 1857: 26 (1857) subsp. *granatensis* (Willk.) Nyman, Consp. 411 (1879)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 368; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1244; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1676; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2440.

Carduus pycnocephalus L., Sp. Pl. ed. 2: 1151 (1763)

Jaén: Sierra del Pozo, Loma de La Sagra, calcareous soils, WG0795, 1100 m, 30.06.1988, 2884.

Carduus tenuifolius Curtis, Fl. Lond. 2(6), tab. 55 (1789). [= *C. malacanus* Boiss. & Reuter, Pugillus 62, 1852]

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 84.

Carex sp.

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 304; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 478.

Carex distachya Desf., Fl. Atl. 2: 336 (1799)

Granada: Huéscar: Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1648.

Carex distans L., Syst. Nat. ed. 10, 2: 1263 (1759)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2654.

Carex divisa Hudson, Fl. Angl. 348 (1762)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2956.

Carex divulsa Stokes in Wh., Arr. Br. Pl. ed. 2, 2: 1035 (1787)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 612.

Carex flacca Schreber, Spicil. Fl. Lips., App. 178 (1771)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2434; idem, pinewoods and fields calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2452; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2946.

Carex hallerana Asso, Syn. Stirp. Arag. 133 (1779)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1009; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1293; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1841; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1974; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2020b.

Carex laevigata Sm., Trans. Linn. Soc. London 5: 272 (1800)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 611; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 885; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 963.

Carex lepidocarpa Tausch, Flora (Regensb.) 17: 179 (1834)

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2300.

Carex mairii Cosson & Germ., Obs. Pl. Cr. 18 (1840)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 568; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1366; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2256; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2876; Sierra

de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2877.

Carex muricata L., Sp. Pl. 974 (1753) cf. subsp. *pairaei* (F. W. Schultz) Celak,

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 302; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1774; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2342.

Carex ovalis Good., Trans. Linn. Soc. London 2: 148 (1794)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 883; Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 561; idem, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 572; idem, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 586.

Carex paniculata L., Cent. Pl. 1: 32 (1755)

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 963b.

Carlina lanata L., Sp. Pl. 828 (1753)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1148.

Carrichtera annua (L.) DC., Mém. Mus. Hist. Nat. (Paris) 7: 250 (1821). [= *Vella annua* L., Sp. Pl. 641, 1753]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 207.

Carthamus lanatus L., Sp. Pl. 830 (1753) subsp. *lanatus*

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1158; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1205.

Catananche caerulea L., Sp. Pl. 812 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1683; Sierra de la Sagra, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2021; **Jaén:** Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2771.

Caucalis platycarpus L., Sp. Pl. 241 (1753)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1203; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2061; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2495; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 31.

Celtis australis L., Sp. Pl. 1043 (1753)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2181.

Centaurea aspera L., Sp. Pl. 916 (1753) subsp. *aspera*

Granada: Guadix, VG8829, c. 1000 m, 20.06.1988, 1119; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1196; Cullar Baza, salt marsh, WG3865, m, 22.06.1988, 1511; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1569.

Centaurea boissieri DC., Prodr. 7: 303 (1838) subsp. *boissieri*

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2470; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1441; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1568; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1697; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2285.

Centaurea boissieri subsp. *willkommii* (Schultz Bip. ex Willk.) Dostál, Bot. Journ. Linn. Soc. 71: 201 (1976)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2560; river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2589; **Granada:** Sierra de Baza, on the

ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1378; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1658; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1882; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1964.

Centaurea calcitrapa L., Sp. Pl. 917 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1103.

Centaurea dracunculifolia Dufour, Ann. Sci. Nat. 23: 157 (1831)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1546.

Centaurea granatensis Boiss. ex DC., Prodr. 7: 303 (1838)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1275; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1694; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1888; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010b; idem, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2048; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2314.

Centaurea intybacea Lam., Encycl. Méth. Bot. 1: 671 (1785). [= *Cheirolophus intybaceus* (Lam.) Dostál, Bot. Journ. Linn. Soc. 71: 274, 1976]

Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2545.

Centaurea jaennensis Degen & Debeaux in Degen, Magyar Bot. Lapok 5(1): 7 (1906)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2907; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2199; Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2228; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2742.

Centaurea melensis L., Sp. Pl. 917 (1753)

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 512; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 17; **Granada:** Cullar Baza, salt marsh, WG3865, 22.06.1988, 1550; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 233.

Centaurea nicaeensis All., Fl. Pedem. 1: 162 (1785)

Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2508.

Centaurea ornata Willd., Sp. Pl. 3: 2320 (1803) subsp. *ornata*

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 729; **Granada:** between Baza and Cullar Baza, basic soils, WG3660, 22.06.1988, 1508; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2481; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 252.

Centaurea ornata var. *crocea* Cosson, Notes Pl. Cr. 117 (1851)

Albacete: Sierra de Lagos, Yetas de Abajo, calcareous soils in roadside weedy community, WH5933, 1200 m, 28.06.1988, 2624.

Centaurea pullata L., Sp. Pl. 911 (1753) subsp. *pullata*

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 72.

Centaurea sagredo G. Blanca, Anales Jardín Bot. Madrid 36: 145 (1980) subsp. *pulvinata* G. Blanca, l. c. 145 (1980)

Almería: Fiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 631; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 335.

Centaurea sagredoii subsp. *tenuiloba* (Boiss.) G. Blanca, Lagascalia 10: 200 (1981)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 664.

Centaurea sphaerocephala L., Sp. Pl. 916 (1753) subsp. *malacana* (Boiss.) Dostál Bot. Journ. Linn. Soc. 71: 203 (1976)

Almería: Gergal, roadside marls, WG3908, 15.06.1988, 128.

Centaurea sulfurea Willd., Enum. Pl. Horti Berol. 930 (1809)

Granada: on the way out of Granada on the road to Murcia, basic soil, 15.06.1988, 127; near Baza, limestone and marls, WG1650, c. 1000 m, 22.06.1988, 1506.

Centaurea triumfetti All., Auct. Syn. Stirp. Horti Taur. 16 (1773) subsp. *lingulata* (Lag.) Dostál, Bot. Journ. Linn. Soc. 71: 209 (1976)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 606; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1339b; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1449; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1834; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2419; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2721.

Centaureum erythraea Rafn, Danm. Holst. Fl. 2: 75 (1800) subsp. *major* (Hoffmanns. & Link) Melderis, Bot. Journ. Linn. Soc. 65: 235 (1972)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2126.

Centaureum pulchellum (Swartz) Druce, Fl. Berks. 342 (1898)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1530; idem, salt marsh, WG3865, 22.06.1988, 1539b; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2261.

Centranthus calcrapae* (L.) Dufresne, Hist. Nat. Méd. Fam. Valér. 39 (1811) var. *calcrapae

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 785; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1232; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1790; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1914b; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2191; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2740.

***Centranthus calcrapae* var. *trichocarpus* (I. B. K. Richardson) O. Bolós & Vigo, Collect. Bot. (Barcelona) 14: 101 (1983)**

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1092.

***Centranthus nevadensis* Boiss., Diagn. Pl. Or. Nov., ser. 2, 2: 120 (1856)**

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 974.

Cerastium arvense* L., Sp. Pl. 438 (1753) subsp. *arvense

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 342.

Cerastium brachypetalum* Pers., Syn. Pl. 1: 520 (1805) subsp. *brachypetalum

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1756.

***Cerastium brachypetalum* subsp. *tauricum* (Sprengel) Murb., Lunds Univ. Arsskr. 27(5): 159 (1892)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 739b; Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 962; idem, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1037b; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 322; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 322b.

Cerastium fontanum Baumg., Enum. Stirp. Transs. 1: 425 (1816) subsp. *hispanicum* H. Gaertner, Feddes Repert. (Beih.) 113: 77 (1939)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 550.

Cerastium fontanum subsp. *vulgare* (Hartman) Greuter & Burdet, Willdenowia 12: 37 (1982)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2266.

Cerastium gibraltarium Boiss., Elenchus 24 (1838) var. *lanuginosum* (Gren.) F. N. Williams, Journ. Bot. 59: 325 (1921). [= *C. boissieri* Gren., Mém. Compt. Rend. Soc. Emul. Doubs. 1: 67, 1841]

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1030; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1380; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1739; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2658; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 27.

Cerastium glomeratum Thuill., Fl. Paris, ed. 2, 226 (1799)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1022b.

Cerastium gracile Dufour, Ann. Gén. Sci. Phys. (Bruxelles) 7: 304 (1821)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 867; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1227; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2016; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2020c.

Cerastium pumilum Curtis, Fl. Lond. 2(6), tab. 30 (1794)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2724.

Cerastium ramosissimum Boiss., Elenchus 23 (1838)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 897; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1500.

Ceratocephala testiculata (Crantz) Roth, Enum. 1: 1014 (1827). [= *Ranunculus testiculatus* Crantz, Stirp. Austr. 2: 97, 1763; = *Ceratocephalus orthoceras* DC., Syst. 1: 231, 1818]

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1486.

This is, presumably, the first record of this species for Spain, where it has not been indicated by Amich (1986, Fl. Iber. 1: 371-373) or by Greuter & al. (1989, Med-Checklist 4: 441, subsp. *Ranunculus*). However, the range of variability given by the former author for *C. falcata* (L.) Pers. includes that of *C. testiculata*, which should be considered as a distinct species as proposed by Chrtek & Chrtkova (1976, Preslia 48: 113-123) and accepted by several authors (e.g. Greuter & al., l.c.; Davis & al. 1965, Fl. Turkey 1: 198).
B. VALDÉS

Ceterach officinarum Willd., Anle. Sebstdstud. Bot. 578 (1804). [= *Asplenium ceterach* L., Sp. Pl. 1080, 1753]

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1406.

Chaenopodium virgatum L., Sp. Pl. 4 (1753). [= *C. foliosum* Ascherson, Fl. Brandenb. 1: 572, 1864]

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1617.

Chaenorrhinum grandiflorum (Cosson) Willk., Suppl. Prodr. Fl. Hisp. 178 (1893)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 141; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1996.

Chaenorrhinum macropodium (Boiss. & Reuter) Lange in Willk. & Lange, Prodr. Fl. Hisp. 2: 579 (1870) subsp. *degenii* (Hervier) R. Fernandes, Bot. Journ. Linn. Soc. 64: 222 (1971)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 599; Sierra de Gador, above the Lote de Bardagí, calcareous soils, WF1784, 1700-1900 m, 18.06.1988, 851; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1393; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1680; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2212; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2263; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2716; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2880; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2918.

Chaenorrhinum minus (L.) Lange in Willk. & Lange, Prodr. Fl. Hisp. 2: 577 (1870) subsp. *minus*

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523c; Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 582; Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 967; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1312; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1438; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1708; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1977; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2153.

Chaenorrhinum origanifolium (L.) Kosteletzky, Index Horti Bot. Pragensis 34 (1844) subsp. *crassifolium* (Cav.) Rivas Goday & Borja, Anales Inst. Bot. Cavanilles 19: 451 (1961)

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2235; Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2577; Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 732; idem, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 791; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1310; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1696; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010d; Jaén: Ves, gorge of the river Zumeta WH4827, 950 m, 25.06.1988, 2218.

Chaenorrhinum serpyllifolium (Lange) Lange in Willk. & Lange, Prodr. Fl. Hisp. 2: 578 (1870) subsp. *serpyllifolium*

Jaén: Between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2151b.

Chaenorrhinum villosum (L.) Lange in Willk. & Lange, Prodr. Fl. Hisp. 2: 580 (1870) subsp. *villosum*. [= *Linaria pusilla* Boiss., Voy. Bot. Midi Esp. 2: 540, 1841]

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1073; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 11.

Chaenorrhinum villosum subsp. *granatense* (Willk.) Valdés, Lagasalia 14: 94 (1986)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 546; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1608; Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 120.

Chaerophyllum hirsutum L., Sp. Pl. 258 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 530.

Chamaerops humilis L., Sp. Pl. 1187 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 172. Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 85.

Cheilanthes acrosticha (Balbis) Tod., Giorn. Sci. Nat. Econ. Palermo 1: 215 (1866)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG951. 1350 m, 20.06.1988, 1044.

***Chelidonium majus* L., Sp. Pl. 505 (1753)**

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2393.

***Chenopodium botrys* L., Sp. Pl. 219 (1753)**

Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2526.

***Chenopodium vulvaria* L., Sp. Pl. 220 (1753)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2581; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1213.

***Chiliadenus glutinosus* (L.) Fourr., Ann. Soc. Linn. Lyon 16: 93 (1869). [= *Jasione glutinosa* (L.) DC., Prodr. 5: 476, 1831]**

Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2413.

***Cichorium intybus* L., Sp. Pl. 813 (1753)**

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2993.

***Cichorium pumilum* Jacq., Obs. Bot. 4: 3 (1771)**

Jaén: Villanueva del Arzobispo, in roadside ditches, WH0026, 01.07.1988, 2987.

***Cirsium acaule* (L.) Scop., Ann. Hist. Nat. 2: 62 (1769) subsp. *gregarium* [(Boiss. ex DC.) Talavera, Lagasalia 4: 291 (1974)]**

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 831b.

***Cirsium arvense* (L.) Scop., Fl. Carn., ed. 2, 2: 126 (1772)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m,

21.06.1988, 1239; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1564; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2173.

Cirsium echinatum (Desf.) DC. in Lam. & DC., Fl. Fr. ed. 3, 5: 465 (1815)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 59.

Cirsium monspessulanum (L.) Hill., Hort. Kew. 63 (1768) subsp. *ferox* (Cosson) Talavera, Lagasalia 4: 290 (1974)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2639.

Cirsium pyrenaicum (Jacq.) All., Fl. Pedem. 1: 151 (1785) var. *pyrenaicum*

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1533.

Cirsium pyrenaicum var. *micranthum* Talavera & Valdés Lagasalia 5: 180 (1975)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1150.

Cirsium rusulatum Talavera & Valdés, Lagasalia 5: 154 (1976)

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2867.

Cistus albidus L., Sp. Pl. 524 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 698; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1172.

Cistus clusii Dunal in DC., Prodr. 1: 266 (1824)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1169; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1263.

Cistus laurifolius L., Sp. Pl. 523 (1753)

Granada: between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 496; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2323.

Cistus monspeliensis L., Sp. Pl. 524 (1753)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2642.

Citrullus colocynthis (L.) Schrader, Linnaea 12: 414 (1838)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 184.

Clematis vitalba L., Sp. Pl. 555 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2111.

Cleonia lusitanica (L.) L., Sp. Pl. ed. 2, 837 (1763)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2830.

Clinopodium vulgare L., Sp. Pl. 587 (1753) subsp. *arundanum* (Boiss.) Nyman, Consp. 587 (1881). [= *Melissa arundana* Boiss., Voy. Bot. Midi Esp. 2: 498, 1841]

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 526; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2943; idem, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2943b.

Clypeola jonthlaspi L., Sp. Pl. 652 (1753)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2219.

Clypeola jonthlaspi subsp. *macrocarpa* Fiori, Nouvo Giorn. Bot. al. 17 (1910)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523f.

Clypeola jonthlaspi subsp. *microcarpa* (Moris) Arcangeli, Comp. Fl. al. 63 (1882)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 472.

Coincya sp.

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 291b.

Coincya cheiranthos (Vill.) Greuter & Burdet, Willdenowia 13: 86 (1983). [= *Rhynchosinapis cheiranthos* (Vill.) Dandy, Watsonia 4: 41 (1957) subsp. *nevadensis* (Wilk.) Heywood, Feddes Repert. 66: 154, 1962]

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 601; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 930; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 398; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 454.

Colutea atlantica Browicz, Monogr. Bot. (Watszawa) 14: 127 (1963)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 666.

Conyza albida (Willd.) Sprengel, Syst. Veg. 3: 512 (1826)

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2997.

Conopodium bourgaei Cosson, Not. Pl. Cr. 110 (1851)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2754.

Conopodium bunioides (Boiss.) Calestani, Webbia 1: 279 (1905)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1341; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2369; idem, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2381.

***Conopodium thalictrifolium* (Boiss.) Calestani, Webbia 1: 279 (1905)**

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 587; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1820.

***Consolida pubescens* (DC.) Soó, Österr. Bot. Zeschr. 2, 71: 241 (1922)**

Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2796.

***Convolvulus* sp.**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 793b.

Convolvulus althaeoides* L., Sp. Pl. 156 (1753) subsp. *althaeoides

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 157; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2542.

***Convolvulus arvensis* L., Sp. Pl. 153 (1753)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1184.

***Convolvulus boissieri* Steudel, Nomencl. Bot. ed. 2, 1:407 (1840)**

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1962.

***Convolvulus lanuginosus* Desr. in Lam., Encycl. Méth., Bot. 3: 551 (1792)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 663; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 893b.

Convolvulus lineatus L., Syst. Nat. ed. 10, 2: 923 (1759) var. *lineatus*

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1146; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1182; Huéscar: Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1599; **Jaén:** Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2944.

Convolvulus lineatus var. *minutus* Maire & Weiller in Maire, Bull. Soc. Hist. Nat. Agr. Nord 31: 28 (1940)

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1483, 1780 m, 18.06.1988, 857.

Coriaria myrtifolia L., Sp. Pl. 1037 (1753)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2640.

Coris hispanica Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1863: 53 (1863)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 130.

Ferguson (1972, in Tutin & al., Fl. Eur. 3: 29) indicated as distributional area for this species "S of Vera, prov. Almería". It is, however, not rare in other localities of Almería province (Rufino 1987 Fl. Alm.) and occurs also in Granada. B. VALDÉS

Coris monspeliensis L., Sp. Pl. 177 (1753)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2561; **Almería:** Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 690; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1606; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1805.

Coronilla juncea L., Sp. Pl. 742 (1753)

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2230; **Almería:** Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 843.

Coronilla minima L., Cent. Pl. 2: 28 (1756)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1730; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1853.

Coronilla scorpioides (L.) Koch, Syn. Fl. Germ. 188 (1835)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 781b; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1252; La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2068; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2264.

Corrigiola telephiifolia Pourret, Mém. Acad. Sci. Toulouse 3: 316 (1788)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523b.

Corynephorus canescens (L.) Beauv., Agrost. 90, 159 (1812)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1004; **Jaén:** Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2806.

Corynephorus fasciculatus Boiss. & Reuter, Pugillus 123 (1853)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2554; **Granada:** Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1032; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1143.

Cosentinia vellea (Aon) Tod., Giorn. Sci. Nat. Econ. Palermo 1: 220 (1866)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1046.

Cotoneaster granatensis Boiss., Elenchus 41 (1838)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 488.

Crambe filiformis Jacq., Icon. Pl. Rar. 3: 8 (1795)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 997; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 33.

Crataegus monogyna Jacq., Fl. Austr. 3: 50 (1775) subsp. *brevispina* (G. Kunze) Franco, Collect. Bot. (Barcelona) 7: 463 (1968)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 345; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 354; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 973; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1492; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1727.

Crepis sp.

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 969.

Crepis albida Vill., Prosp. Pl. Dauph. 37 (1779)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 343; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2176; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2736.

Crepis albida subsp. *albida*

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 543; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 636; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1326; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1682; idem, on the ascent

of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1844.

Crepis albida subsp. *grosii* (Pau) Babcock, Univ. Calif. Publ. Bot. 19: 399 (1941)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1433.

Crepis albida subsp. *longicaulis* Babcock, Univ. Calif. Publ. Bot. 19: 399 (1941)

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 503; Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 864.

Crepis capillaris (L.) Wallr., Linnaea 14: 657 (1841)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed sandy soils, VG8938, 20.06.1988, 1127b; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1540.

Crepis foetida L., Sp. Pl. 807 (1753) subsp. *foetida*

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 402; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120b; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1859; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, m, 19.06.1988, 981; idem, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1010; Sevilla: between Ecija and La Luisiana, cultivated fields of *Helianthus annuus*, 01.07.1988, 3003.

Crepis oporinoides Boiss. ex Froelich in DC., Prodr. 7: 165 (1838)

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 861; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 916; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 485.

Crepis pulchra L., Sp. Pl. 806 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 761; Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1116; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1340; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1440; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1446; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2148; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2943b.

Crepis pygmaea L., Sp. Pl. 805 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 104.

Crepis pygmaea subsp. *anachoretica* Babcock, Univ. Calif. Publ. Bot. 22: 245 (1947)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1968.

Crepis vesicaria L., Sp. Pl. 805 (1753) subsp. *congena* Babcock, Univ. Calif. Publ. Bot. 22: 860 (1947)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 736; idem, on shale, WF1089, 1250-1350 m, 18.06.1988, 740; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1071; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1672; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1885; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 241; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 366; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2371; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2523.

Crucianella angustifolia L., Sp. Pl. 108 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 155; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 644; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 311; Sierra de Guillimona, gorge of Torilla, calcareous

soils, WH3812, 1400-1500 m, 23.06.1988, 1822; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2059b; Jaén: Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2844.

Crucianella latifolia L., Sp. Pl. 109 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 645.

Crucianella patula L., Demonstr. Pl. 4 (1753)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128h; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1174; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2469.

Cruciata pedemontana (Bellardi) Ehrend., Notes Roy. Bot. Garden Edinb. 22: 396 (1958)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2717.

Crupina crupinastrum (Moris) Vis., Fl. Dalm. 2: 42 (1847)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 646; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 232; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1180; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2773.

Crupina vulgaris Pers. ex Cass., Dict. Sci. Nat. 12: 68 (1819)

Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2776.

Cuscuta sp.

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 838.

Cuscuta aproximata Bab., Ann. Nat. Hist. 13: 253 (1844)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 76; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 93b.

Cuscuta aproximata subsp. *episonchus* (Webb & Berth.) Feinbrum, Israel Journ. Bot. 19: 28 (1970)

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2473.

Cuscuta epithymum (L.) L., Syst. Veg. ed. 13: 140 (1774)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 246.

Cuscuta epithymum subsp. *kotschyi* (Desmoulins) Arcangeli, Comp. Fl. al. 480 (1882)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 678; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1061.

Cuscuta planiflora Ten., Fl. Nap. 3: 250 (1824-1829)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 684; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1352; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 431; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1078; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1642; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 1.

Cynara humilis L., Sp. Pl. 828 (1753)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2821.

Cynodon dactylon (L.) Pers., Syn. Pl. 1: 85 (1805)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1526.

Cynodon dactylon subsp. *affinis* (Caro & Sánchez) Romero Zarco, Lagascalía 14: 171 (1986). [= *C. affinis* Caro & Sánchez, Kurtziana 5: 223, 1969]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 215.

Cynoglossum cheirifolium L., Sp. Pl. 134 (1753)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1843e; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2406.

Cynoglossum creticum Miller, Gard. Dict. ed. 8, n. 3 (1768). [= *C. pictum* Aon, Hort. Kew. 1: 179, 1789]

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1112; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2361.

Cynoglossum dioscoridis Vill., Prosp. Pl. Dauph. 21 (1779)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2384.

Cynoglossum nebrodense Guss., Fl. Sic. Prodr. 1: 216 (1827)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 721; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1332; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1468.

Cynosurus echinatus L., Sp. Pl. 72 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1093; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1792; Jaén: between Tobos and Ves, bed of river Zumeta,

WH4523, 950 m, 25.06.1988, 2101; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2335.

Cynosurus effusus Link, Journ. Bot. (Schrader) 2: 315 (1800). [= *C. elegans* auct., non Desf., Fl. Atl. 1: 82, 1798]

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 592; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 393; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1088; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1487; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2680.

Cyperus longus L., Sp. Pl. 45 (1753) subsp. *badius* (Desf.) Murb., Contr. Fl. Nord-Ouest Afr. 3: 27 (1899)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2134.

Cystopteris dickieana R. Sim., Gard. Farm. Journ. 2(20): 308 (1848)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 596; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 447; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1035; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1403; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2740.

Cystopteris fragilis (L.) Bernh., Neues Journ. Bot. 1(2): 27 (1805) subsp. *fragilis*

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2359; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2764; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2923.

Cytinus hypocistis (L.) L., Syst. Nat. ed. 12, 2: 602 (1767) subsp. *hypocistis*

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1303.

Cytisus balansae (Boiss.) Ball, Journ. Bot. 11: 303 (1873) subsp. *europaeus* (G. López & Jarvis) Muñoz Garmendia, Anales Jardín Bot. Madrid 41: 477 (1985)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 621; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 896; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 951.

Cytisus grandiflorus (Brot.) DC., Prodr. 2: 154 (1825)

Almería: Fifiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 630.

Cytisus patens L., Syst. Veg. ed. 13: 555 (1774)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2815.

Cytisus reverchonii (Degen & Hervier) Bean, Kew Bull. 1934: 224 (1934)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1732.

Cytisus scoparius (L.) Link, Enum. Pl. Horti Berol. Alt. 2: 24 (1822). [= *Sarothamnus scoparius* (L.) Wimmer ex Koch, Syn. Fl. Germ. 154, 1853]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 413.

Dactylis glomerata L., Sp. Pl. 71 (1753) subsp. *hispanica* (Roth) Nyman, Consp. 819 (1882)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 700; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1166; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 269; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 379; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 45; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 103.

Dactylis glomerata cf. subsp. *juncinella* (Bory) Stebbins & Zohary, Univ. Calif. Publ. Bot. 31(1): 13 (1959)

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 428; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1321.

Dactylorrhiza elata (Poiret) Soó, Nom. Nov. Gen. Dactylorrhiza 7 (1962)

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2234; **Granada:** Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1363.

Dactylorrhiza maculata (L.) Soó, Nom. Nov. Gen. Dactylorrhiza 7 (1962)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 562; idem, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 563; **Jaén:** Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2875.

Daphne gnidium L., Sp. Pl. 357 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 661; **Jaén:** between Tobos and Ves, bed of river Zumeta WH4523, 950 m, 25.06.1988, 2150.

Daphne laureola L., Sp. Pl. 357 (1753) subsp. *latifolia* (Cosson) Rivas Martínez, Publ. Inst. Biol. Apl. (Barcelona) 42: 112 (1967)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1793; **Jaén:** Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2420; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2733.

Daphne oleoides Schreber, Icon. Descr. Pl. 13 (1766)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1379; **Jaén:** Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2973.

Daucus carota L., Sp. Pl. 242 (1753) subsp. *carota*

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 251; **Jaén:** Bailén, in roadside ditches, basic soils, 01.07.1988, 2996.

Daucus durieua Lange in Willk. & Lange, Prodr. Fl. Hisp. 3: 23 (1874)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 256.

Delphinium emarginatum K. Presl. in J. Presl. & C. Presl., Del. Prag. 6 (1822) subsp. *nevadense* (G. Kunze) C. Blanché & Molero, Anales Jardín Bot. Madrid 41: 469 (1985)

Jaén: Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2834.

Delphinium gracile DC., Syst. Nat. 1: 347 (1817)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 159; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1604d; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2531.

Deschampsia caesposa (L.) Beauv., Agrost. 91, 160 (1812) subsp. *caesposa*

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2911.

Deschampsia flexuosa (L.) Trin., Bull. Sci. Acad. Imp. Sci. Saint-Pétersbourg 1: 66 (1836)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 610; **Sierra Nevada,** El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 891; **idem,** Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 945.

Deschampsia hispanica (J. Vivant) Cervi & Romo, Collect. Bot (Barcelona) 12: 82 (1981) subsp. *hispanica*

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1833.

Descurainia sophia (L.) Webb ex Prantl in Engler & Prantl, Natürl. Pflanzenfam. 3(2): 192 (1891). [= *Sisymbrium sophia* L., Sp. Pl. 659. 1753]

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1089.

Desmazeria rigida (L.) Tutin in Clapham, Tutin & E. F. Warburg, Fl. Br. Is. 1434 (1952) subsp. *rigida*. [= *Catapodium rigidum* (L.) C. E. Hubbard in Dony, Fl. Bedfordshire 437, 1953]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 764; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 378; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1136; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1769; Jaén: between Tobos and Ves, bed of river Zumeta WH4523, 950 m, 25.06.1988, 2084; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2871; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 118.

Dianthus anticarius Boiss. & Reuter, Pugillus 19 (1852)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 34.

Dianthus broteri Boiss. & Reuter, Pugillus 22 (1852). [= *D. malacitanus* Boiss. Voy. Bot. Midi Esp. 2: 85 (1839), nom. inval., pro syn]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 704; between Ocaña and Doña María, on schists, WG2400, 700 m, 15.06.1988, 229; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1620; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2519.

Dianthus charidemi Pau, Bull. Acad. Int. Géogr. Bot. (Le Mans) 16(206): 74 (1906).
[= *D. cintranus* subsp. *charidemi* (Pau) Tutin, Feddes Repert. Spec. Nov. Regni Veg. 68: 190, 1963]

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 149.

Dianthus lusanus Brot., Fl. Lus. 2: 177 (1805)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 993.

Dianthus pungens L., Mantissa Alt. 240 (1771) subsp. *brachyanthus* (Boiss.) Bernal, Fernández-Casas, G. López, Laínz & Muñoz Garmendia, Anales Jardín Bot. Madrid 44: 186 (1987). [= *D. brachyanthus* Boiss., Voy. Bot. Midi Esp. 2: 85, tab. 24, 1839]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 734; idem, Llanos de Boliches, calcareous soils, *gynodioecious* population, WF1786, 1650 m, 18.06.1988, 830; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 446; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 284; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 289; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1457; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1881; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1952; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2418; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 270; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2860.

Dianthus pungens L., Mantissa Alt. 240 (1771) subsp. *hispanicus* (Asso) O. Bolós & Vigo, Butll. Inst. Catalana Hist. Nat. 38: 88 (1974). [= *D. hispanicus* Asso, Synop. Stirp. Aragon. 53, 1779]

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2231; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2521.

Digitalis obscura L., Sp. Pl. ed. 2, 867 (1763) subsp. *obscura*

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils,

WH4618, c. 1400 m, 28.06.1988, 2570; Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 502; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 648; Sierra de Gador, Fondón, Fuente de la Parra, on shale, WF1389, c. 1400 m, 18.06.1988, 773; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1067; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1327; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1691; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1856; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2450; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2154; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2866.

Digitalis purpurea L., Sp. Pl. 621 (1753) subsp. *purpurea*

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 540b; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 919; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 326.

Dipcadi serotinum (L.) Medicus, Acta Acad. Theod.-Palat. 6: 431 (1790)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1074; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1279; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1886; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2350; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2888.

Diploxys lagascana DC., Syst. Nat. 2: 629 (1821). [= *Pendulina lagascana* (DC.) Willk., Linnaea 25: 2, 1852]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 209.

Distichoselinum tenuifolium (Lag.) García Martín & Silvestre, Lagasalia 12: 100 (1983)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 144.

Doronicum plantagineum L., Sp. Pl. 885 (1753)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2894.

Dorycnium pentaphyllum Scop., Fl. Carn., ed. 2, 2: 87 (1772) subsp. *pentaphyllum*. [= *D. suffruticosum* Vill., Hist. Pl. Dauph. 3: 417, 1788]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 688; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1297; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1664; between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 501.

Draba hispanica Boiss., Elenchus 13 [1838]

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 803b; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1460; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1866; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1942; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2699.

Draba lutescens Cosson, Not. Pl. Cr. 147 (1852)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 893; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1475.

This is the first record of this species for Almería province, where its occurrence was considered as "probable" by Rufino (1987, Fl. Alm.: 171). Before now this species was known only from three localities (see Soriano, 1984, Fontqueria 6: 33), to which the two new localities have to be added.

B. VALDÉS

Dryopteris filix-mas (L.) Schott, Gen. Fil., tab. 9 (1834)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 451; Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 961.

Echinaria capitata (L.) Desf., Fl. Atl. 2: 385 (1799)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 866; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 364; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 443; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1159; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2437; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2288; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2777.

Echinops strigosus L., Sp. Pl. 815 (1753)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2827.

Echinopartum boissieri (Spach) Rothm., Bot. Jahrb. 72: 80 (1941)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 665.

Echium sp.

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 321b.

Echium asperrimum Lam., Tabl. Encycl. Méth., Bot. 1: 412 (1792)

Murcia: between Almaciles and Casablanca, basic soil, WH7405, c. 100 m, 27.06.1988, 2500.

Echium boissieri Steudel, Nomencl. Bot. ed. 2, 1: 540 (1840)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2803.

Echium creticum L., Sp. Pl. 139 (1753) subsp. *coincyanum* (Lacaa) R. Fernandes Bol. Soc. Brot., ser. 2, 43: 153 (1969)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 164; between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 192.

Echium flavum Desf., Fl. Atl. 1: 165 (1798)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 971; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1316; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2743.

Echium vulgare L., Sp. Pl. 139 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2169.

Elaeagnus angustifolia L., Sp. Pl. 121 (1753)

Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1097; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1524.

Eleocharis palustris (L.) Roemer & Schultes, Syst. Veg. 2: 151 (1817)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2952.

Eleocharis cf. *multicaulis* (Sm.) Desv., Obs. Pl. Angers 74 (1818)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2952b.

Elymus caninus (L.) L., Fl. Suec. ed. 2: 39 (1755)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2122.

Elymus hispanicus (Boiss.) Talavera, Lagasalia 14: 170 (1986)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 823; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m,

26.06.1988, 2340; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2837; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 111.

Elymus hispidus (Opiz) Melderis, Bot. Journ. Linn. Soc. 76: 379 (1978)

Granada: Huéscar: Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1639.

Elymus hispidus subsp. *hispidus*

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1542.

Elymus pungens (Pers.) Melderis, Bot. Journ. Linn. Soc. 76: 380 (1978)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1534.

Ephedra nebrodensis Tineo ex Guss., Fl. Sic. Syn. 2: 638 (1844)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2608.

Ephedra nebrodensis subsp. *nebrodensis*

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1473; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1603.

Epilobium parviflorum Schreber, Spicil. Fl. Lips. 146, 155 (1771)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2158; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2197.

Epilobium tetragonum L., Sp. Pl. 348 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 539; idem, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 548; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 979.

***Epipactis atrorubens* (Hoffm.) Besser, Prim. Fl. Galic. 2: 220 (1809)**

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2623; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1654.

***Epipactis helleborine* (L.) Crantz, Stirp. Austr., ed. 2, 2: 467 (1769)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 671.

***Epipactis cf. atrorubens* (Hoffm.) Besser, Prim. Fl. Galic. 2: 220 (1809)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1370.

***Equisetum ramosissimum* Desf., Fl. Atl. 2: 398 (1799)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1307; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2116; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2183.

***Equisetum telmateja* Ehrh., Hannover Mag. 21: 287 (1783)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2114.

***Eragrostis papposa* (Dufour) Steudel, Syn. Pl. Glum. 1: 263 (1854)**

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 186.

Erigeron acer* L., Sp. Pl. 863 (1753) subsp. *acer

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2813.

Erinacea anthyllis Link, Handb. 2: 156 (1831). [= *E. pungens* Boiss., Voy. Bot. Midi Esp. 2: 145, 1840]

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 949; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1747; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 14.

Erinus alpinus L., Sp. Pl. 630 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1695; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1963; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010e; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2356.

Erodium sp.

Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2410b.

Erodium cazorlanum Heywood, Bull. Br. Mus. (Bot.) 1: 116 (1954)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2723.

Erodium cheilanthifolium Boiss. Elenchus 27 (1838)

Granada: La Puebla de Don Fadrique, rocky area, calcareous soils, WH4902, 1200 m, 27.06.1988, 2456.

Erodium chium (L.) Willd., Phytogr. 1: 10 (1794)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 174.

Erodium cicutarium (L.) L'Hér. in Aon, Hort. Kew. 2: 414 (1789)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 327; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1177; Sierra de Guillimona, gorge of Torilla, calcareous

soils, WH3812, 1400-1500 m, 23.06.1988, 1794; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2376.

Erodium cicutarium* subsp. *cutarium

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 908.

***Erodium daucooides* Boiss., Elenchus 28 (1838)**

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1925; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2412.

***Erodium malacoides* (L.) L'Hér. in Aon, Hort. Kew. 2: 415 (1789)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2564.

***Erodium petraeum* (Gouan) Willd., Sp. Pl. 3: 626 (1800)**

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1645.

Erophila verna* (L.) Besser, Enum. Pl. Vohlyn. 71: 82 (1822) subsp. *verna

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 938; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 467; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1415.

***Eruca sativa* Miller, Gard. Dict. ed. 8, n. 1 (1768). [= *E. vesicaria* (L.) Cav. subsp. *sativa* (Miller) Thell. in Hegi, Ill. Fl. Mt.-Eur. 4: 201, 1918]**

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1118; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1547.

Eruca vesicaria (L.) Cav., Descr. Pl. 426 (1802) subsp. *vesicaria*

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2463b.

Eryngium bourgatii Gouan, Obs. bot. 7 (1773)

Granada: Sierra de la Sagra, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2005.

Eryngium campestre L., Sp. Pl. 233 (1753)

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2472.

Eryngium dilatatum Lam., Encycl. Méth. Bot. 4: 755 (1798)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1663; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2442.

Eryngium ilicifolium Lam., Encycl. Méth. Bot. 4: 757 (1798)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 213.

Erysimum grandiflorum Desf., Fl. Atl. 2: 85 (1798)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 869; idem, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 715; idem, Fuente de la Parra, on shale, WF1389, c. 1400 m, 18.06.1988, 772; **Granada:** Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 985; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1733; **Jaén:** Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2307.

Erysimum incanum G. Kunze, Flora (Regensb.) 29: 753 (1846)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2578; **Almería:** Sierra de Gador, Fuente Victoria,

Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 658; idem, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 834b.

Erysimum linifolium (Pers.) Gay, Erysim. Nov. 3 (1842) subsp. *baeticum* Heywood, Bull. Br. Mus. (Bot.) 1: 100 (1954)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 604; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 481; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1485.

Erysimum linifolium subsp. *cazorlense* Heywood, Bull. Br. Mus. (Bot.) 1: 102 (1954)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2689; Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2971.

Euphorbia characias L., Sp. Pl. 463 (1753) subsp. *characias*

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 786.

Euphorbia exigua L., Sp. Pl. 456 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 168.

Euphorbia falcata L., Sp. Pl. 456 (1753)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 220; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 255; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1070; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2060.

Euphorbia falcata subsp. *falcata*

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2942.

***Euphorbia flavicoma* DC., Cat. Pl. Horti Monsp. 110 (1813)**

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 880.

***Euphorbia hirsuta* L., Amoen. Acad. 4: 483 (1759). [= *E. pubescens* Vahl Symb. Bot. 2: 55, 1791]**

Jaén: Santiago de la Espada, cultivated ground, basic soil, WH3816, 1200 m, 23.06.1988, 1911.

***Euphorbia nicaeensis* All., Fl. Pedem. 1: 285 (1785)**

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 860; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1643; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1986; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1256; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1302; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1429.

Euphorbia peplus* L., Sp. Pl. 456 (1753) var. *peplus

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 124.

Euphorbia segetalis* L., Sp. Pl. 458 (1753) var. *segetalis

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 167.

***Euphorbia segetalis* var. *pineae* (L.) Lange in Willk. & Lange Prodr. Fl. Hisp. 3: 499 (1877). [= *E. pineae* L., Syst. Nat. ed. 2: 233, 1767]**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 48.

***Euphorbia serrata* L., Sp. Pl. 459 (1753)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-

1100 m, 18.06.1988, 695; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1223; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1531.

Euphorbia squamigera Loisel., Fl. Gall. 729 (1807)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 779.

Euphorbia* cf. *nevadensis Boiss. & Reuter, Pugillus 110 (1852)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 597.

Euphrasia willkommii Freyn, Flora (Regensb.) 67: 681 (1884)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1489.

Euzomodendron bourgaeum Cosson, Not. Pl. Cr. 144 (1852)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 201.

Evax pygmaea (L.) Brot., Fl. Lus. 1: 363 (1804) subsp. *pygmaea*

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2436.

Fagonia cretica L., Sp. Pl. 386 (1753)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 211.

Fallopia convolvulus (L.) A. Löve, Taxon 19: 300 (1970)

Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2795.

Festuca arundinacea Schreber, Spicil. Fl. Lips. 57 (1771) subsp. *atlantigena* (St.-Yves) Auquier, Soc. Ech. Pl. Eur. Occ. Med. 16: 142 (1976)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 407.

Festuca arundinacea subsp. *fenas* (Lag.) Arcangeli, Comp. Fl. al. ed. 2: 61 (1894)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2893.

Festuca capillifolia Dufour in Roemer & Schultes, Syst. Veg. 2: 735 (1817)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 723; idem, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 810b; idem, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 819; idem, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 821; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 460; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1286; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1632.

Festuca gautieri (Hackel) K. Richter, Pl. Eur. 1: 105 (1890) subsp. *scoparia* (A. Kerner & Hackel) Kerguélen, Lejeunia, nov. ser. 110: 58 (1983)

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2026.

Festuca gautieri (Hackel) K. Richter was known as *F. varia* Haenke subsp. *scoparia* A. Kerner & Hackel in Hackel's Monograph (Hackel, 1988, Monogr. Festuc. Eur.), and within it three varieties were recognized. Two of these, var. *genuina* Hackel and var. *gautieri* Hackel, occur in Spain, while the third, var. *lutea* Hackel, occurs in Romania.

Recently, Kerguélen (1983, Lejeunia s. 2, 110) and Kerguélen & Plonka (1989, Bull. Soc. Bot. Centre-Ouest, n° spécial 10) have considered the former two as subspecies of one species, *F. gautieri* subsp. *gautieri* and subsp. *scoparia* (A. Kerner & Hackel) Kerguélen.

The characters separating these two subspecies seem rather clear: shorter and more rigid and curved leaves with a continuous band of sclerenchyma and 7 veins as well as longer leaves with discrete strands of sclerenchyma and 5 veins as well as shorter spikelets in

leaves with discrete strands of sclerenchyma and 5 veins as well as shorter spikelets in subsp. *scoparia*. However, these characters are not always constant, and intermediate between the two subspecies occur in northern Spain. This variability also led Pau (1895, Not. Bot. Fl. Esp.: 6) to describe a new species from Teruel, said to be intermediate between *F. varia* (incl. *F. gautieri*) and *F. elegans* Boiss., which he called *F. jabalambrensis* Pau; this was later considered by Litardière (1943, Candollea 9: 477-480) to fall within "*F. scoparia* (Kerner) Hackel", non Hooker f. (= *F. gautieri*). Subsp. *scoparia* is widespread throughout the eastern half of the Iberian Peninsula, and in the north extends west to the eastern range of the Picos de Europa; it has also been recorded from northern Morocco. Subsp. *gautieri*, on the other hand, is confined to the eastern Pyrenees so far as it is known.

The plants of specimen n° 2026 differ slightly from the normal range of *F. gautieri* in their laxer panicles and longer leaves, features bringing them nearer to *F. xanthina* Roemer & Schultes from Romania and Yugoslavia. This at first led us to believe that n° 2026 is intermediate between *F. gautieri* subsp. *scoparia* and *F. xanthina*, but these characters are variable within the former taxon, as may be seen by examining material from a range of Pyrenean populations. It seems to us likely that the laxer leaves and panicle might be the result of growth in shadier habitats. Similar specimens to n° 2026 from the same area, as well as from other mountain ranges of eastern and southern Spain, were distributed by Elisée Reverchon in his *Plantes d'Espagne* 1899, n° 662, as "*F. scoparia* Kern".

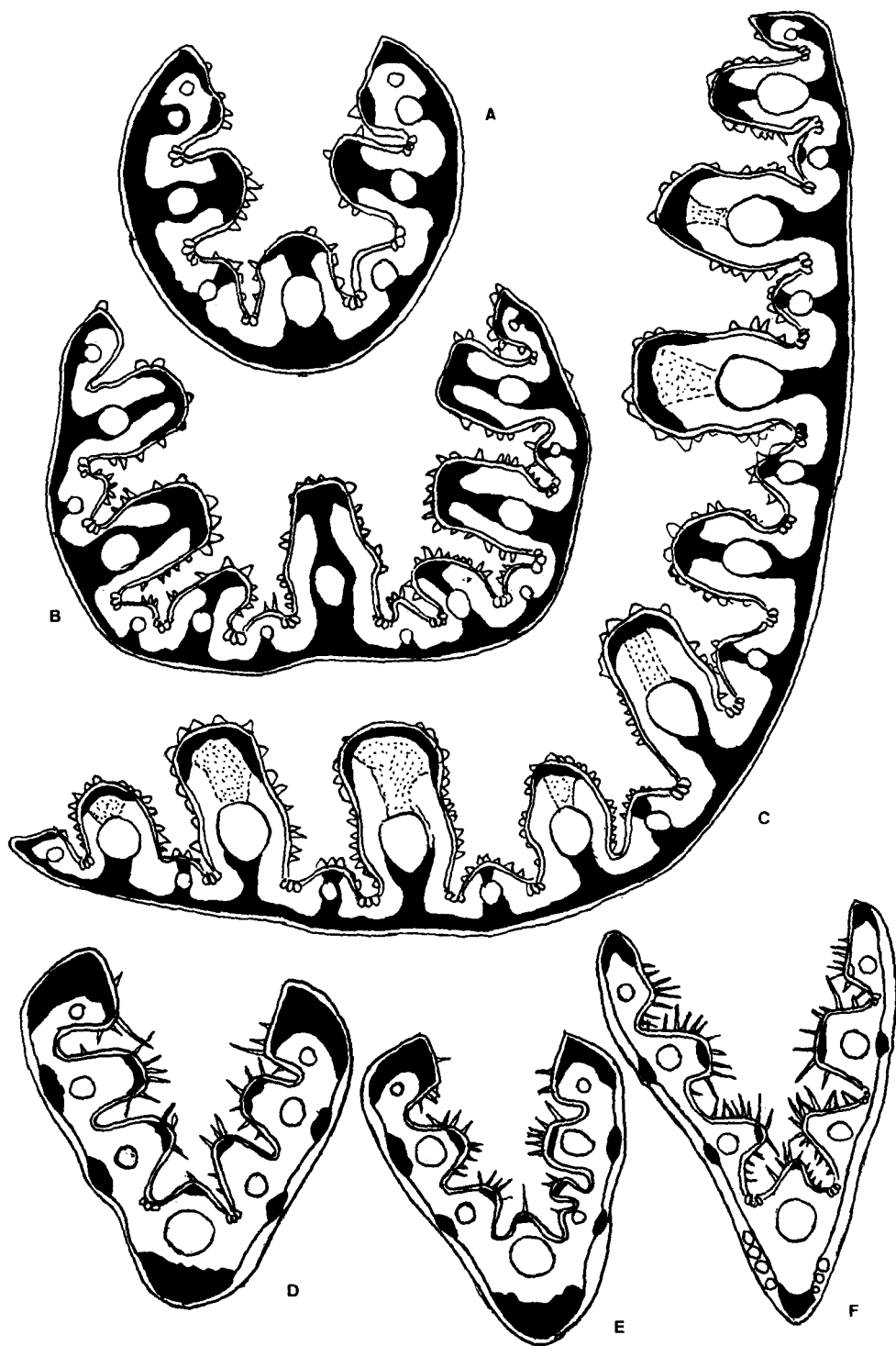
As a result of the above considerations we consider that n° 2026 should be referred to *Festuca gautieri* subsp. *scoparia* until further more detailed studies on living plants show exactly how many taxa should be recognized within *F. gautieri*. cultivations and hybridization experiments as well as cytological investigations should prove of value. K pfer (1974, Boissiera 23) has shown that both diploids and tetraploids occur within the species, but his results are not sufficient to indicate whether there is any correlations with other characters as has been suggested by Kergu len (1983, l.c.).

P. CATALAN & C.A. STACE

Festuca hervieri Patzke, Decheniana 114: 213 (1962)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 455.

Fig. 1. Cross sections of leaves of some *Festuca* species collected during the first OPTIMA expedition (by M. Kergu len). a-c, *F. scariosa* (Lag.) Ascherson & Graebner (a, n° 287; b, n° 296; c, n° 711); d-f, *F. nevadensis* (Hackel) Markgraf-Dannenb. (d, n° 1417; e, f, n° 2363.).



***Festuca hystrix* Boiss., Elenchus 89 (1838)**

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 862; idem, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 874; Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 441; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1413; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1878; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1967; idem, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1970; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2682; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2683.

Festuca indigesta* Boiss., Elenchus 91 (1838) subsp. *indigesta

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1751; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1893.

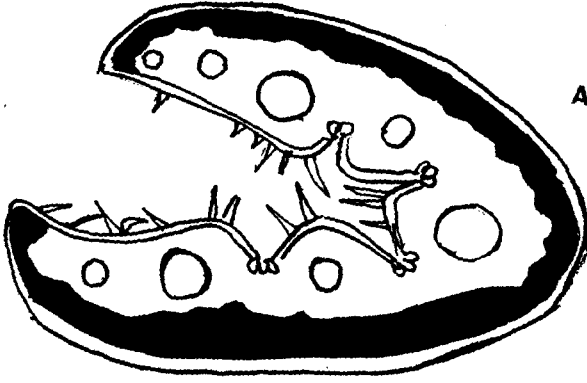
***Festuca indigesta* subsp. *hackeliana* (St.-Yves) Markgr.-Dannenb., Bot. Journ. Linn. Soc. 76: 328 (1978)**

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2659.

***Festuca indigesta* subsp. cf. *aragonensis* (Willk.) Kerguélen, Lejeunia, nov. ser., 75: 158 (1975)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 376; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 438.

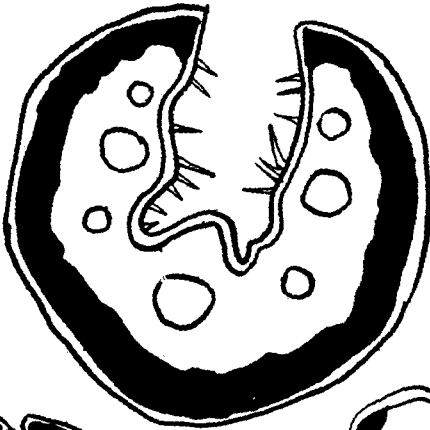
Fig. 2. Cross sections of leaves of some *Festuca* species collected during the first OPTIMA expedition (by M. Kerguélen). a, *Festuca indigesta* Boiss. subsp. *indigesta* (n° 1893); b, *F. indigesta* subsp. *hackeliana* (St. - Yves) Markgraf-Dannenb. (n° 2659); c, *F. indigesta* subsp. *aragonensis* (Willk.) Kerguélen (n° 376); d, *F. capillifolia* Dufour (n° 819); e, *F. plicata* Hackel (n° 1765); f, *F. cf. plicata* Hackel (n° 2708); g-h, *F. hystrix* Boiss. (g, n° 862; h, n° 1967).



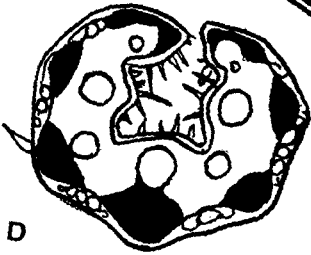
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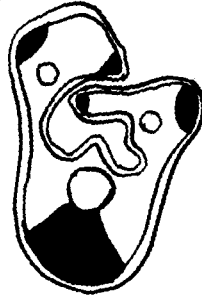
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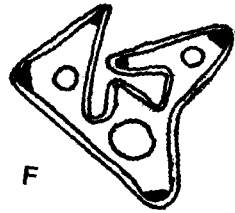
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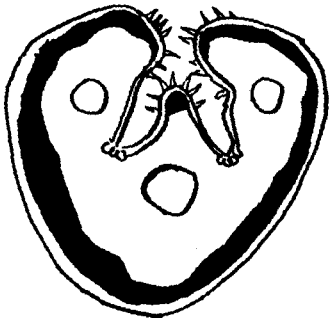
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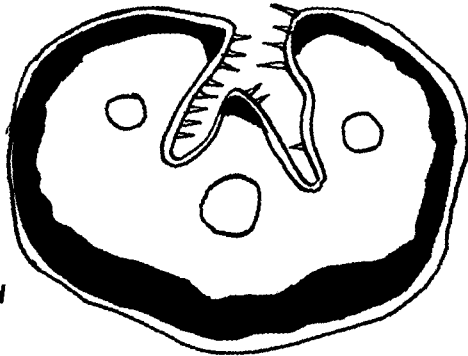
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H

Festuca nevadensis (Hackel) Markgr.-Danenb., Bot. Journ. Linn. Soc. 76: 325 (1978)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 870; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1973; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2035; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2366; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2363.

Festuca plicata Hackel, Österr. Bot. Zeschr. 27: 48 (1877)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1765; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1869; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2028; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2731; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2682b; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2706; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2729.

Festuca rothmaleri (Lard.) Makgr.-Dannenb., Bot. Journ. Linn. Soc. 76: 326 (1978)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 569.

Festuca scariosa (Lag.) Ascherson & Graebner, Syn. Mteleur. Fl. 2(1): 502 (1900). [= *F. granatensis* Boiss., Elenchus 93, 1838]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 670; idem, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 711; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 294; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 296; idem, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 16.06.1988, 286; idem, under *Pinus pinaster*, on shales, VG8415, 1300 m, 16.06.1988, 287; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 452b; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1305.

Festuca triflora Desf., Fl. Atl. 1: 87 (1798)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2357.

Festuca cf. ampla Hackel, Cat. Rais. Gram. Port. 26 (1880)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1331.

Festuca cf. ovina L., Sp. Pl. 73 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1417.

Festuca cf. plicata Hackel, Österr. Bot. Zeschr. 27: 48 (1877)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1417b; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2708.

Filago lutescens Jordan, Obs. Pl. Cr. 3: 201 (1846)

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2632; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1199.

Filago pyramidata L., Sp. Pl. 1199 (1753). [= *F. spathulata* C. Presl, Del. Prag. 99, 1822]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 744; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 362; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 337; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1019; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1065.

Filago vulgaris Lam., Fl. Fr. 2: 61 (1779)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1153.

Filipendula vulgaris Moench, Méth. 663 (1794)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2446; **Jaén:** river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2646.

Frankenia corymbosa Desf., Fl. Atl. 1: 315 (1798)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 148; between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 196.

Frankenia pulverulenta L., Sp. Pl. 232 (1753)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 197; **Granada:** Cullar Baza, Salt marsh, WG3865, 22.06.1988, 1536.

Frankenia thymifolia Desf., Fl. Atl. 1: 316 (1798)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 142.

Fritillaria hispanica Boiss. & Reuter in Boiss., Diagn. Pl. Or. Nov. ser. 2, 4: 101 (1859)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 64.

Fumana sp.

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1237b; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1578.

Fumana baetica Guernez

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2964.

Fumana ericoides (Cav.) Gand. in Magnier, Fl. Select. Exsicc. n. 201 (1883)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 713; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1288; Sierra de la Sagra, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2023; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils 550 m, 27.06.1988, 2537.

Fumana procumbens (Dunal) Gren. & Godron, Fl. Fr. 1: 173 (1847)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1596.

Fumana scoparia Pomel, Mat. Fl. Atl. 10 (1860)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1237; idem, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1369.

Fumana thymifolia (L.) Spach ex Webb, ex Hisp. 69 (1838) subsp. *thymifolia*

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1060.

Fumaria bastardii Boreau in Duchartre, Rev. Bot. 2: 359 (1847)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 955.

Fumaria calcarata Cadevall, Fl. Catalunya 2: 75 (1915). [= *F. petteri* Reichenb., Icon. Fl. Germ. Helv. 3: 1 (1838) subsp. *calcarata* (Cadevall) Lidén & Soler, Anales Jardín Bot. Madrid 41:222,1984]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 392.

Fumaria parviflora Lam., Encycl. Méth. Bot. 2: 567 (1788)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1091.

Fumaria reuteri Boiss., Diagn. Pl. Or. Nov., ser. 1, 8: 13 (1849)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1008.

Fumaria schrammii (Ascherson) Velen., Fl. Bulg. 22 (1891)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1364.

Fumaria vaillantii Loisel., Journ. Bot. (Desvaux) 2: 358 (1809)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1224; **Jaén:** Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2409.

Gagea foliosa (J. & C. Presl) Schultes & Schultes fil., Syst. Veg. 7: 1703 (1829)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almiraz, shale soils, WG1006, 1900-1980 m, 17.06.1988, 616.

Gagea iberica A. Terrac., Bol. Soc. Ort. Palermo 3: 34 (1004)

Almería: Sierra Nevada, El Chullo, north slopes, dry areas in shale soils, WG0005, c. 2000 m, 19.06.1988, 912.

Galeopsis ladanum L., Sp. Pl. 579 (1753)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1950.

Galium sp.

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 414; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1238b; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1810b; **Jaén:** Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2786; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2325; Sierra Seca, El Chaparral, calcareous

soils, WH2800, 1800 m, 29.06.1988, 2752; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2755.

Galium album Miller, Gard. Dict. ed. 8, n. 7 (1768)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 642; idem, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 672; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2367; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 110.

Galium album Miller x *G. valentinum* Lange ?

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1894; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1357.

Galium aparine L., Sp. Pl. 108 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1808; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2163.

Galium boissierianum Ehrend. & Krendl, Bot. Journ. Linn. Soc. 68: 270 (1974)

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2629; idem, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2629b; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2201; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2251.

Galium divaricatum Pourret ex Lam., Encycl. Méth. Bot. 2: 580 (1788)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1803; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2945.

Galium lucidum All., Auct. Syn. Stirp. Horti Taur. 5 (1773)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2737; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100

m, 30.06.1988, 2870; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2899.

Galium murale (L.) All., Fl. Pedem. 1: 8 (1785)

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 121.

Galium parisiense L., Sp. Pl. 108 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 317; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 321; Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 770; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1226; idem, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1325b; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1799; idem, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1810; idem, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1818; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2941; Murcia: between Almaciles and Casablanca, basic soil, WH7405, c. 100 m, 27.06.1988, 2502.

Galium pruinatum Boiss., Elenchus 57 (1838)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 650.

Galium pyrenaicum Gouan, Obs. Bot. 5 (1773)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1472; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1980.

Galium spurium L., Sp. Pl. 106 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 769.

Galium valentinum Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1881: 95 (1882)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 777; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1394; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1397; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2259.

Galium verrucosum Hudson, Philos. Trans. Roy. Soc. London 56: 251 (1767). [= *G. saccharatum* All., Fl. Pedem. 1: 39, 1785]

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 2.

Galium verticillatum Danth. in Lam., Encycl. Méth., Bot. 2: 585 (1788)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1339d; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1394b; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1462b; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 23.

Galium verum L., Sp. Pl. 107 (1753) subsp. *verum*

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2600; Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1115.

Galium cf. tunetanum Lam., Encycl. Méth. Bot. 2: 583 (1788)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 828.

Gastroidium ventricosum (Gouan) Schinz & Thell., Viert. Naturf. Ges. Zürich 58: 39 (1913)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 259; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2810.

Genista cinerea (Vill.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 494 (1805)

Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1908; idem, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2301.

Genista cinerea subsp. *cinerea*

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2044.

Genista florida L., Syst. Nat. ed. 10: 1157 (1759)

Granada: between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 495.

Genista lobelii DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 499 (1805) subsp. *longipes* (Pau) Heywood, Collect. Bot. (Barcelona) 5: 519 (1957). [= *G. tejedensis* (Porta & Rigo) C. Vicioso, Bol. Inst. For. Invest. Exper. Madrid 67: 42, 1953]

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1990.

Genista pseudopilosa Cosson, Not. Pl. Cr. 102 (1851)

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1875; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2427; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2308.

Genista scorpius (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 498 (1805)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 231; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1242; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1877.

Genista umbellata (L'Hér.) Poiret in Lam., Encycl. Méth., Bot., Suppl. 2: 715 (1812)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415,

1300 m, 15.06.1988, 270; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 996.

Genista versicolor Boiss., Notice *Abies pinsapo* 10 (1838). [= *G. baetica* Spach, Ann. Sci. Nat. Bot. ser. 3, 3: 113, 1845]

Almería: Abrucena, Cerro de Pinates, on shales, WG1208, 1720 m, 17.06.1988, 574; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 356; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 449; idem, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 483.

Gentiana verna L., Sp. Pl. 228 (1753) subsp. *penetii* Lard. & Maire, Mém. Soc. Sci. Nat. Maroc 4: 14 (1924). [= *G. sierrae* Briq., Candollea 4: 323, 1931; *G. nevadensis* Solok., Österr. Bot. Ze. 51: 170, 1901]

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 570; idem, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 600.

Geranium cataractarum Cosson, Not. Pl. Cr. 99 (1851)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2372; Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2410.

Geranium columbinum L., Sp. Pl. 682 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 410.

Geranium lucidum L., Sp. Pl. 682 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 312; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 489; Puerto de la Ragua, near the crossroads to Canjayar VG9803, 19.06.1988, 970; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1811; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2758.

***Geranium molle* L., Sp. Pl. 682 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 308; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1812; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1838; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2757.

***Geranium purpureum* Vill. in L., Syst. Pl. Eur. 1, Fl. Delph. 72 (1786)**

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1804; Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 972; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1339; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2728.

***Geranium pyrenaicum* Burm. fil., Spec. Bot. Geran. 27 (1759)**

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 903.

***Geranium robertianum* L., Sp. Pl. 681 (1753)**

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 527.

***Geranium rotundifolium* L., Sp. Pl. 683 (1753)**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 804.

***Geum heterocarpum* Boiss., Biblioth. Univ. Genève ser. 2, 13: 408 (1838)**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 817; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1995.

Geum sylvaticum Pourret, Mém. Acad. Sci. Toulouse 3: 319 (1788)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2931.

Geum urbanum L., Sp. Pl. 501 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1745; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2400.

Gladiolus illyricus Koch, Syn. Fl. Germ. 699 (1837)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2940; Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2309.

Glaucium corniculatum (L.) J. H. Rudolph, Fl. Jen. Pl. 13 (1781)

Albacete: Sierra de Taibilla, near Nerpio, calcareous soils, WH6122, c. 1000 m, 28.06.1988, 2614.

Globularia alypum L., Sp. Pl. 95 (1753)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2651.

Globularia spinosa L., Sp. Pl. 96 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1698; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1872; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1966; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2011; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2735.

Glyceria notata Chevall., Fl. Env. Paris 2(1): 174 (1827)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2074;

Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2797.

Glyceria spicata Guss., Fl. Sic. Syn. 2: 784 (1844)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2136.

Gnaphalium luteo-album L., Sp. Pl. 851 (1753)

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 983; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2253.

Gypsophila tomentosa L., Cent. Pl. 1: 11 (1755)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1552.

Halimium atriplicifolium (Lam.) Spach, Ann. Sci. Nat., Bot., ser. 2, 6: 366 (1836)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2825.

Halimium umbellatum (L.) Spach, Ann. Sci. Nat., Bot., ser. 2, 6: 366 (1836) subsp. *viscosum* (Willk.) Pinto da Silva, Agron. Lus. 24: 165 (1864)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 466.

Haloxylon articulatum (Moq.) Bunge, Mém. Sav. Etr. Pétersb. 7: 469 (1854)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 216; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128b.

Hedera helix L., Sp. Pl. 202 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1767.

Hedypnois cretica (L.) Dum.-Courset, Bot. Cult. 2: 339 (1802)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 151; **Granada:** between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1139; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 32.

Helianthemum sp.

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 982; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1042.

Helianthemum almeriense Pau, Mém. Mus. Ci. Nat. Barcelona (Bot.) 1(3): 11 (1925)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 135; between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 221; **Granada:** Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1117; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2518; idem, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2535.

Helianthemum apenninum (L.) Miller, Gard. Dict. ed. 8, n. 4 (1768)

Almería: Abrucena, Cerro de Pinates, on shales, WG1208, 1720 m, 17.06.1988, 573; Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 839; idem, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 809; Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 790; **Granada:** Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 253; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 374.

Helianthemum asperum Lag. ex Dunal in DC., Prodr. 1: 283 (1824)

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2290.

***Helianthemum cinereum* (Cav.) Pers., Syn. Pl. 2: 76 (1806)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2567; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1391; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1689; **Murcia:** between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2536.

***Helianthemum cinereum* subsp. *rotundifolium* (Dunal) Greuter & Burdet
Willdenowia 11: 275 (1981)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 651; **Granada:** Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 254; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 437; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1217; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2725.

***Helianthemum croceum* (Desf.) Pers., Syn. Pl. 2: 79 (1806)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2565; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1673; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1381; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1976; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2451; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2714.

***Helianthemum croceum* (Desf.) Pers. x *H. apenninum* (L.) Miller**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1411.

***Helianthemum hirtum* (L.) Miller, Gard. Dict. ed. 8, n. 14 (1768)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1294; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1201; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1243; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988,

2467; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2515.

Helianthemum ledifolium (L.) Miller, Gard. Dict. ed. 8, n. 20 (1768)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 2122.

Helianthemum leptophyllum Dunal in DC., Prod. 1: 279 (1824)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 652; idem, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 793; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 56.

Helianthemum oelandicum (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 817 (1805)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1384.

Helianthemum papillare Boiss., Voy. Bot. Midi Esp. 2: 63 (1839)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2566.

Helianthemum pilosum (L.) Pers., Syn. Pl. 2: 79 (1806)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1566.

Helianthemum rossmaessleri Willk., Linnaea 30: 87 (1859)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1979.

Helianthemum salicifolium (L.) Miller, Gard. Dict. ed. 8, n. 21 (1768)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1678.

***Helianthemum squamatum* (L.) Pers., Syn. Pl. 2: 78 (1806)**

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 137; Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1583; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2514.

***Helianthemum syriacum* (Jacq.) Dum.-Courset, Bot. Cult. 3: 129 (1802) subsp. *thibaudii* (Pers.) Meikle Israel Journ. Bot. 19: 253 (1970). [= *H. lavandulifolium* sensu Willk. in Willk. & Lange, Prodr. Fl. Hisp. 3: 736, 1878, non Miller, 1768]**

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 139; Granada: near Baza, limestone and marls, WG1650, c. 1000 m, 22.06.1988, 1507; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1571; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2548.

***Helianthemum viscidulum* Boiss., Elenchus 15 (1838) subsp. *guadicianum* Font Quer & Rothm., Cavanillesia 6: 169 (1934)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1239b.

Helichrysum alicum* (Roth) G. Don fil. in Loundon, Hort. Br. 342 (1830) subsp. *alicum

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2468.

Helichrysum stoechas* (L.) Moench, Meth. 575 (1794) subsp. *stoechas

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 778; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1274; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils 550 m, 27.06.1988, 2547.

***Helictotrichon filifolium* (Lag.) Henrard, Blumea 3: 430 (1940)**

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1483, 1780 m, 18.06.1988, 855; Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1892.

Helictotrichon filifolium* subsp. *filifolium

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2032.

Helictotrichon filifolium* var. *filifolium

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 798b; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2668.

***Helictotrichon filifolium* subsp. *velutinum* (Boiss.) Romero Zarco, Anales Jardín Bot. Madrid 41(1): 118 (1984)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1319; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1422.

***Heliotropium europaeum* L., Sp. Pl. 130 (1753)**

Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1094; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1135; Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 3001.

***Helleborus foetidus* L., Sp. Pl. 558 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 371; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1754.

***Hepatica nobilis* Schreber, Spicil. Fl. Lips. 39 (1771)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2585; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2378.

Heracleum sphondylium L., Sp. Pl. 249 (1753) subsp. *montanum* (Schleicher ex Gaudin) Briq. in Schinz & R. Keller, Fl. Schweiz ed. 2, 1: 372 (1905)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2573b.

Herniaria baetica Boiss. & Reuter in Boiss., Diagn. Pl. Or. Nov. 3(1): 95 (1853)

Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2405.

Herniaria cinerea DC. in Lam. & DC., Fl. Fr. ed. 3, 5: 375 (1815). [= *H. hirsuta* var. *cinerea* (DC.) Loret & Barrandon, Fl. Montp. 243, 1876]

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 195; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 357; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1122; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1216b.

Herniaria fontanesii Gay in Duchartre, Rev. Bot. 2: 371 (1847) subsp. *almeriana* Brummt & Heywood, Feddes Repert. 69: 31 (1964)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 212; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2679.

Herniaria fruticosa L., Cent. Pl. 1: 8 (1755)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1570; idem, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1588.

Herniaria fruticosa subsp. *erecta* (Willk.) Batt. in Batt. & Trabut, Fl. Alger. (Dicot.) 168 (1888)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 145.

Herniaria glabra L., Sp. Pl. 218 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1387; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1827; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2085.

Herniaria hirsuta L., Sp. Pl. 218 (1753)

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 126; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1216.

Herniaria latifolia Lapeyr., Hist. Abr. Pyr. 127 (1813)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 758.

Herniaria scabrida Boiss., Elenchus 42 (1838)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 345b.

Hesperis laciniata All., Fl. Pedem. 1: 271 (1785)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2601.

Hibiscus trionum L., Sp. Pl. 697 (1753)

Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2800.

This weed, widespread in the tropical regions of Asia and Africa and fairly common in the E Mediterranean, was indicated for Spain as naturalized by Webb (1968, in Tutin & al. Fl. Eur. 2: 256) and Greuter & al. (1989 Med-Checklist 4: 235). It was not included in the checklist of Malvaceae of the Jaén province by García Hernández and Fernández López (1986, Blancoana 4: 153-158), or was it recorded previously for Andalucía. It was collected at this same locality by Talavera and Valdés in September, 1987.

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Hieracium sp.

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 430; **Jaén:** Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2905.

Hieracium amplexicaule L., Sp. Pl. 803 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 584; **Granada:** Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1306; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2374.

Hieracium baeticum Arvet-Touret & Reverchon in Hervier, Rev. Gén. Bot. 4: 154 (1892)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2587; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1684; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2727b; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2759.

Hieracium glaucinum Jordan, Cat. Jard. Dijon 22 (1848). [= *H. lawsonii* sensus Sagredo, Fl. Alm. 507, 1987, non Vill.]

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1309.

Hieracium loscosianum Scheele, Linnaea 32: 668 (1863)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1322; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1681; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2022; **Jaén:** Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2422; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2935; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2727; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2748.

Hieracium pilosella L., Sp. Pl. 800 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 590; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 895; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1353.

Hieracium tardans Peter, Bot. Jahrb. 5: 256 (1884)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2592; Granada: Huésca, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1616; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1668; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2924.

Himantoglossum hircinum (L.) Sprengel, Syst. Veg. 3: 694 (1826) subsp. *hircinum*

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1846; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2333.

Hippocrepis bourgaei (Nyman) Hervier, Bull. Acad. Int. Géogr. Bot. (Le Mans) 17: 37 (1907)

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2620.

Hippocrepis ciliata Willd., Ges. Naturf. Freunde Berlin Mag. 2: 173 (1808)

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2622; Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 677; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1049; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1254; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2494; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120f; idem, sandy soils, VG8938, 20.06.1988, 1128c.

Hippocrepis glauca Ten., Fl. Nap. 1, Prodr. 43 (1811)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1240.

Hippocrepis scabra DC., Prodr. 2: 312 (1825)

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1041b; idem, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1045; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1565; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1653; Sierra de Guillimona; Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1862; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2459; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2812.

Hirschfeldia incana (L.) Lagrèze-Fossat, Fl. Tarn. Gar. 19 (1847)

Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2778.

Hohenackeria exscapa (Steven) Kos.-Pol., Trudy Bot. Sada Jur'ev. 15(2-3): 120 (1914)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1420.

Holcus lanatus L., Sp. Pl. 1048 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 571; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2086; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2879.

Holosteum umbellatum L., Sp. Pl. 88 (1753) subsp. *umbellatum*

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 871; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 944; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1474; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 320.

Hordeum geniculatum All., Fl. Pedem. 2:259, tab. 91 (1785). [= *H. hystrix* Roth, Catalecta Bot. 1: 23, 1797]

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2953.

Hordeum leporinum Link, Linnæa 9: 133 (1835). [= *H. murinum* subsp. *leporinum* (Link) Arcangeli, Comp. Fl. al. 805, 1882]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 399; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 71.

Hordeum murinum L., Sp. Pl. 85 (1753) subsp. *murinum*

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2665.

Hordeum murinum subsp. *glaucum* (Steudel) Tvelev, Nov. Syst. Pl. Vasc. (Leningrad) 8: 67 (1971)

Almería: Sierra de Gador, Fondón, Fuente de la Parra, on shale, WF1389, c. 1400 m, 18.06.1988, 774; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1168.

Hormatophylla longicaule (Boiss.) Cullen & Dudley, Feddes Repert. 71: 220 (1965). [= *Ptilotrichon longicaule* (Boiss.) Boiss., Elenchus 13, 1838]

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1448.

Hornungia petraea (L.) Reichenb., Deutschl. Fl. 1: 33 (1837)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 619; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1385; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1939.

Hornungia petraea (L.) Reichenb., *Deutschl. Fl.* 1: 33 (1837). [= *Hutchinsia petraea* (L.) R. Br., in W. T. Aon, *Hort. Kew.*, ed. 2, 4: 82, 1812]

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523d.

Hymenolobus pauciflorus (Koch) Schinz & Thell., *Viert. Naturf. Ges. Zürich* 66: 285 (1921)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2389.

Hyoscyamus niger L., *Sp. Pl.* 179 (1753)

Jaén: Santiago de la Espada, cultivated ground, basic soil, WH3816, 1200 m, 23.06.1988, 1912; between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2159.

Hyoseris radiata L., *Sp. Pl.* 808 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 20.

Hyparrhenia hirta (L.) Stapf, in Oliver, *Fl. Trop. Afr.* 9: 315 (1919)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 171.

Hypocoum imberbe Sm., *Fl. Graec. Prodr.* 1: 107 (1806)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120d; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2512.

Hypocoum procumbens L., *Sp. Pl.* 124 (1753)

Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1108.

Hypericum ericoides L., *Sp. Pl.* 785 (1753)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils,

WH4618, c. 1400 m, 28.06.1988, 2562; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1816.

Hypericum hyssopifolium Chaix in Vill., Hist. Pl. Dauph. 1: 329 (1786) subsp. *callhyrsum* (Cosson) Fernández Casas, Trab. Depart. Bot. Granada 1: 37(III) (1972). [= *H. callhyrsum* Cosson, Not. Pl. Cr. 152, 1852]

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1484.

Hypericum perforatum L., Syst. Nat. ed. 12, 2: 510 (1767)

Albacete: Nerpio, reservoir of Taibilla, calcareous soils, WH6526, 1150 m, 28.06.1988, 2621.

Hypericum perforatum L., Sp. Pl. 785 (1753)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1011; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1101; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2165; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2265.

Hypericum pubescens Boiss., Elenchus 62 (1838)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2641; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2202.

Hypochoeris achyrophorus L., Sp. Pl. 810 (1753)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1006; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 247; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 346.

Hypochoeris radicata L., Sp. Pl. 811 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 528; Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes,

north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1858; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2075; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2286.

Iberis carnosa Willd., Sp. Pl. 3: 445 (1800) subsp. *granatensis* (Boiss. & Reuter) Moreno, Anales Jardín Bot. Madrid 41: 57 (1984). [= *I. granatensis* Boiss. & Reuter, Pugillus 11, 1852]

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2580; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1476; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1746; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1929; idem, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2019.

Iberis nazara Moreno, Trab. Dep. Bot. Fisiolog. Veg. (Madrid) 12: 95 (1983)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2644.

Iberis saxatilis L., Cent. Pl. 2: 23 (1756) subsp. *saxatilis*

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1594.

Inula montana L., Sp. Pl. 884 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1266; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1610; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1845.

Ionopsidium prolongoi (Boiss.) Batt., Bull. Soc. Bot. Fr. 43: 259 (1896)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1724; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1861; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1926; idem, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2056; idem, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2411; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2676.

Iris foetidissima L., Sp. Pl. 39 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 97.

Iris xiphium L., Sp. Pl. 40 (1753)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2273; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2859.

Isatis tinctoria L., Sp. Pl. 670 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 790b.

Jasione foliosa Cav., Icon. Descr. 2: 38 (1793) subsp. *minuta* (Agardh ex Roemer & Schultes) Font Quer, Cavanillesia 7: 78 (1935)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2283; Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep scree, calcareous soils, WH3222, 1250 m, 26.06.1988, 2403; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2740b; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2934.

Jasione montana L., Sp. Pl. 928 (1753) subsp. *montana*

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2448.

Jasione montana subsp. *blepharodon* (Boiss. & Reuter) Rivas Martínez, Candollea 31: 113 (1976)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1134; Jaén: Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2840.

Jasione montana subsp. *echinata* (Boiss. & Reuter) Nyman, Consp. 486 (1879). [= *J. echinata* Boiss. & Reuter, Pugillus 73, 1852]

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 243; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 382; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 994.

Jasminum fruticans L., Sp. Pl. 7 (1753)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1598.

Jasonia tuberosa (L.) DC., Prodr. 5: 476 (1836)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2433.

Juncus ambiguus Guss., Fl. Sic. Prodr. 1: 437 (1827)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2955c.

Juncus articulatus L., Sp. Pl. 327 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 559; **Granada:** Puerto de la Ragua, near the crossroads to Canjajar, VG9803, m, 19.06.1988, 968; **Jaén:** Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2957; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2854; idem, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2865.

Juncus bufonius L., Sp. Pl. 328 (1753)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1843d; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2275; Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2291; Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2950; idem, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2955b.

Juncus fontanesii Gay in Laharpe, Mém. Soc. Hist. Nat. Paris 3: 130 (1827)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2133; idem, WH4523, 950 m, 25.06.1988, 2143.

Juncus inflexus L., Sp. Pl. 326 (1753)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2591; Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 564.

Juncus inflexus var. *inflexus*

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2139.

Juncus tenageia L. fil., Suppl. 208 (1781)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2955.

Juniperus communis L., Sp. Pl. 1040 (1753) subsp. *hemisphaerica* (C. Presl) Nyman, Consp. 676 (1881)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 899; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1452; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1776.

Juniperus oxycedrus L., Sp. Pl. 1038 (1753) subsp. *oxycedrus*

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1236.

Juniperus phoenicea L., Sp. Pl. 1040 (1753) subsp. *phoenicea*

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1772.

Juniperus sabina L., Sp. Pl. 1039 (1753)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 932; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1450; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1936.

Jurinea humilis (Desf.) DC., Prodr. 6: 677 (1838)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 837; Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 429; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1389; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1840; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1898; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1984.

Jurinea humilis var. *scaposa* Lev. ex Willk., Prodr. Fl. Hisp., Suppl. 99 (1893)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2726.

Jurinea pinnata (Lag.) DC., Prodr. 6: 676 (1838)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1277; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1562.

Kernera boissieri Reuter in Boiss. & Reuter, Pugillus 9 (1852)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1932.

Klasea flavescens (L.) J. Holub, Folia Geobot. Phytotax. (Praha) 12: 305 (1977)
 subsp. *leucantha* (Cav.) Cantó & Rivas Martínez, Lazaroa 5: 319 (1984) var.
leucantha

Murcia: between Almaciles and Casablanca, basic soil, WH7405, c. 100 m, 27.06.1988, 2503.

Klasea pinnatifida (Cav.) Cass., Dict. Sci. Nat. 35: 173 (1825). [= *Serratula pinnatifida* (Cav.) Poiret in Lam., Encycl. Méth., Bot. 6: 561, 1805]

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1879; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1190; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1268; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 6.

Knautia subscaposa Boiss. & Reuter, Pugillus 53 (1852)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2571; **Granada:** Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 494; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1666; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1802; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2457; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 400; **Jaén:** Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2785.

Koeleria crassipes Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1860: 43 (1861)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 275, Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 992.

Koeleria crassipes subsp. *crassipes*

Almería: Sierra de Gador, Lotede Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 872; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 375.

Koeleria crassipes subsp. *nevadensis* (Hackel) Romero Zarco in Valdés & al., Herb. Univ. Hisp. 1: 44 (1982)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2673; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2677.

Koeleria vallesiana (Honckeny) Gaudin, *Alpina* (Winterthur) 3: 47 (1808)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 818; idem, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 826; Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2499; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1090; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1408; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1162; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1167; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1621; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1789; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2239; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2354.

Lactuca perennis L., *Sp. Pl.* 796 (1753) subsp. ***granatensis*** Charpin & Fernández Casas, *Candollea* 36: 237 (1981)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1940; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2004.

Lactuca tenerima Pourret, *Mém. Acad. Sci. Toulouse* 3: 321 (1788)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 759; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1066; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1613; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2052; Jaén: Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2843; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 35.

Lactuca viminea (L.) F. W. Schmidt, *Samml. Phys. Aufs.* 1: 270 (1791) subsp. ***ramosissima*** (All.) Bonnier, *Fl. Compl. Fr.* 6: 79 (1923)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 637; idem, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 800.

***Lagoecia cuminoides* L., Sp. Pl. 203 (1753)**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 18.

***Lamelosia stellata* (L.) Rafin., Fl. Tellur. 4: 95 (1838). [= *Scabiosa stellata* L., Sp. Pl. 100, 1753; *S. monspeliensis* Jacq., Misc. Austr. Bot. 2: 320, 1781]**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1219.

***Lamium amplexicaule* L., Sp. Pl. 579 (1753)**

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 942; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1503; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1989.

***Lapsana communis* L., Sp. Pl. 811 (1753)**

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 475; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2151.

***Laserpium gallicum* L., Sp. Pl. 248 (1753) var. *angustissimum* (Willd.) Lange in Willk. & Lange, Prodr. Fl. Hisp. 3: 30 (1874)**

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2008.

***Lathyrus angulatus* L., Sp. Pl. 731 (1753)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 748b.

***Lathyrus aphaca* L., Sp. Pl. 729 (1753)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2098.

***Lathyrus cicera* L., Sp. Pl. 730 (1753)**

Granada: La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2067.

***Lathyrus hirsutus* L., Sp. Pl. 732 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 348; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2192; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2339.

***Lathyrus pratensis* L., Sp. Pl. 733 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 420; Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2800b.

***Lathyrus setifolius* L., Sp. Pl. 731 (1753)**

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2298; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 15.

***Lathyrus sphaericus* Retz, Obs. Bot. 3: 39 (1783)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 747b.

***Launaea fragilis* (Asso) Pau, Bol. Soc. Aragon. Ci. Nat. 16: 68 (1917). [= *L. resedifolia* auct. non (L.) O. Kuntze]**

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1577.

***Launaea nudicaulis* (L.) Hooker fil., Fl. Br. India 3: 416 (1881)**

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 147.

Launaea pumila (Cav.) O. Kuntze, Revis. Gen. 1: 351 (1891)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1077.

Launaea resedifolia (L.) O. Kuntze, Revis. Gen. 1: 351 (1891)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1572.

Lavandula lanata Boiss., Elenchus 72 (1838)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 702.

Lavandula multifida L., Sp. Pl. 572 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 177.

Lavandula stoechas L., Sp. Pl. 573 (1753) subsp. *sampaiana* Rozeira Broteria, ser. Ci. Nat. 18 (1949)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 236.

Lavatera maritima Gouan, Obs. Bot. 46 (1773). [= *L. africana* Cav., Monad. Class. Diss. Dec. 282, 1788; non Miller, 1768]

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 160.

Legousia castellana (Lange) Samp., Lista Esp. Herb. Port. 127 (1913). [= *Specularia castellana* Lange, Index Sem. Horto Haun. 25, 1855]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 359; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 978; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 89.

Legousia falcata (Ten.) Janchen, Mt. Naturwiss. Ver. Univ. Wien ser. 2,5: 100 (1907)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2936.

Legousia scabra (Lowe) Gamisans. [= *L. castellana* (Lange) Samp., Lista Esp. Herb. Port. 127, 1913]

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2584; Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1895.

Lens nigricans (Bieb.) Godron, Fl. Lorr. 1: 173 (1843)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 748; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1023.

***Leontodon* sp.**

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 886b.

Leontodon boryi Boiss. ex DC., Prodr. 7: 103 (1838)

Almería: Sierra Nevada, El Chullo, north slopes, dry areas in shale soils, WG0005, c. 2000 m, 19.06.1988, 909.

Leontodon carpetanus Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1861: 96 (1861) subsp. *nevadensis* (Lange) Finch & P. D. Sell, Bot. Journ. Linn. Soc. 71: 243 (1976)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 533.

Leontodon longirostris (Finch & P. D. Sell) Talavera in Valdés & al., Herb. Univ. Hispal. 1: 37 (1982). [= *L. taraxacoides* subsp. *longirostris* Finch & P. D. Sell, Bot. Journ. Linn. Soc. 71: 247, 1976]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310,

1600 m, 16.06.1988, 344; La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1068; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1197; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1670; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2145; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2284; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2914; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 25; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 26; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2525.

Leontodon salzmannii (Schultz Bip.) Ball., Journ. Linn. Soc. London (Bot.) 16: 545 (1878)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 136.

Leontodon taraxacoides (Vill.) Merat, Ann. Sci. Nat. 22: 108 (1831)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 151c.

Lepidium campestris (L.) R. Br. in Aon, Hort. Kew. ed. 2, 4: 88 (1812)

Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2798.

Lepidium hirtum (L.) Sm., Comp. Fl. Fr., ed. 2: 98 (1816) subsp. *atlanticum* (Ball) Maire in Jahandiez & Maire, Cat. Pl. Maroc 268 (1932)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 829b.

Lepidium hirtum subsp. *calycotrichum* (G. Kunze) Thell., Viert. Naturf. Ges. Zürich 51: 154 (1906)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 339; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 468; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1755; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 13.

Lepidium hirtum subsp. *petrophillum* (Cosson) Thell., Viert. Naturf. Ges. Zürich 51: 153 (1906)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1407.

Leucanthemopsis pallida (Miller) Heywood, Anales Inst. Bot. Cavanilles 32(2): 182 (1975)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2761.

Leucanthemopsis pallida subsp. *spathulifolia* (Gay) Heywood, l. c. 183 (1975)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1847; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2282.

Leucanthemopsis pectinata (L.) G. López & Ch. E. Jarvis, Anales Jardín Bot. Madrid 40: 343 (1984). [= *L. radicans* (Cav.) Heywood, Anales Inst. Bot. Cavanilles 32(2): 185, 1975]

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 602; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 898b.

Leuzea conifera (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 109 (1805). [= *Centaurea conifera* L., Sp. Pl. 915, 1753]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 647; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1239c; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1273; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2040; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 82.

Leysera leyseroides (Desf.) Maire, Bull. Soc. Hist. Nat. Afr. Nord 20: 186 (1929)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 161; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128.

Ligusticum lucidum Miller, Gard. Dict. ed. 8, n. 4 (1768)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2401.

Limodorum abortivum (L.) Swartz, Nova Acta Bot. Soc. Sci. Upsala 6: 80 (1799)

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2007.

Limonium sp.

Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2541.

Limonium cymuliferum (Boiss.) Sauvage & Vindt, Fl. Maroc. 1: 68 (1952)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1535; idem, salt marsh, WG3865, 22.06.1988, 1539.

Limonium echioides (L.) Miller, Gard. Dict. ed. 8, n. 11 (1768)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 223; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1072; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1130; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2527.

Limonium insigne (Cosson) O. Kuntze, Rev. Gen. Pl. 2: 395 (1891) subsp. *insigne*

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 148b; between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 189.

Limonium sinuatum (L.) Miller, Gard. Dict. ed. 8, n. 6 (1768)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 164b.

Limonium thouinii (Viv.) O. Kuntze, Rev. Gen. Pl. 2: 296 (1891)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 182.

Linaria aeruginea (Gouan) Cav., Elenchus Pl. Horti Matr. 21 (1803) subsp. *aeruginea* var. *aeruginea*. [= *L. melanantha* Boiss. & Reuter, Pugillus 85, 1852]

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2579; Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 831; idem, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 868; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 924; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120e; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1478; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1956b; idem, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2029; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 234; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 338; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 442; Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1956; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2272; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2753.

Linaria aeruginea (Gouan) Cav., Elenchus Pl. Horti Matr. 21 (1803) subsp. *aeruginea* var. *nevadensis* (Boiss.) Valdés Rev. Esp. Eur. Linaria: 156 (1970). [= *L. nevadensis* (Boiss.) Boiss. & Reuter, Pugillus 37, 1852]

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 595.

Linaria anticaria Boiss. & Reuter, Pugillus 86 (1852) var. *anticaria*

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 102; Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2970.

Linaria anticaria var. *cuartonensis* (Degen & Hervier) Degen & Hervier in Hervier, Bull. Acad. Int. Géogr. Bot. 16: 207 (1906)

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988,

2231b; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1671; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1917; idem, Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2031; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1904b; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2216; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2326; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2836.

Linaria arvensis (L.) Desf., Fl. Atl. 2: 45 (1798)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1014.

Linaria benitoi Fernández Casas, Fontqueria 2: 29 (1982)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 156.

This species was known so far only from the type locality "Barranco de Carboneras", E of Cabo de Gata. In this new locality, the capsules and seeds are larger than in the type, and the plants are more branched.

B. VALDÉS

Linaria hirta var. *semiglabra* (Salzm.) Rouy, Naturaliste (Paris) 4: 284 (1882)

Granada: Gor, Venta de Castún, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1105; Jaén: Santiago de la Espada, La Matea, cultivated land, basic soils, WH3505, 1350 m, 29.06.1988, 2793.

Linaria lilacina Lange, Index Sem. Horto Haun. 1854: 24 (1854)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1479.

Linaria micrantha (Cav.) Hoffmanns. & Link, Fl. Port. 1: 258 (1811)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 323.

Linaria oblongifolia (Boiss.) Boiss. & Reuter, Pugillus 86 (1852) subsp. *oblongifolia*. [= *L. supina* var. *oblongifolia* Boiss., Voy. Bot. Midi Esp. 2: 461, 1841]

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 69.

Linaria salzmanii Boiss., Voy. Bot. Midi Esp. 2: 456 (1841) var. *flava* Boiss., l. c.

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 984.

Linaria simplex (Willd.) DC. in Lam. & DC., Fl. Fr. ed. 3, 3: 588 (1805)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 643; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1202; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2054; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2146; Murcia: between Almaciles and Casablanca, basic soil, WH7405, c. 100 m, 27.06.1988, 2504.

Linaria spartea (L.) Willd., Enum. Pl. Horti Berol. 640 (1809)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2819.

Linaria supina (L.) Chaz., Dict. Jard., Suppl. 2: 39 (1790)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1604e; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1706.

Linaria tristis (L.) Miller, Gard. Dict. ed. 8, n. 8 (1768)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2594.

Linaria verticillata Boiss., Voy. Bot. Midi Esp. 2: 462 (1841)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 799; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 491.

Linum bienne Miller, Gard. Dict. ed. 8, n. 8 (1768)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2930.

Linum catharticum L., Sp. Pl. 281 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2094; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2881.

Linum narbonense L., Sp. Pl. 278 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 654; Granada: between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 499; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1211; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1299; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1890; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2464.

Linum strictum L., Sp. Pl. 279 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 693; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1054; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128d; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1618.

Linum strictum var. *strictum*

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 999; Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils,

WG0034, 1160 m, 20.06.1988, 1099; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1238.

Linum suffruticosum L., Sp. Pl. 279 (1753)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1176.

Linum suffruticosum subsp. *suffruticosum*

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1282; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1614.

Linum suffruticosum var. *suffruticosum*

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1109.

Linum suffruticosum var. *angustifolium* Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1865: 135 (1865). [= *L. jimenezii* Pau, Monor Farm. 8: 289, 1902]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 712.

Linum tenue Desf., Fl. Atl. 1: 280 (1798)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1100 m, 29.06.1988, 2982.

Lithodora fruticosa (L.) Griseb., Spicil. Fl. Rumel. 2: 531 (1846)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 733; idem, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 835; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1401; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1638.

Lobularia maritima (L.) Desv., Journ. Bot. Appl. 3: 162 (1814)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 149b.

Loeflingia hispanica L., Sp. Pl. 35 (1753)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1121.

Logfia arvensis (L.) J. Holub, Notes Roy. Bot. Garden Edinb. 33: 432 (1975). [= *Filago arvensis* L., Sp. Pl., Add. 1230, 1753]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 361; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1018.

Lolium perenne L., Sp. Pl. 83 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1778; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2078; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 106.

Lolium rigidum Gaudin, Agrost. Helv. 1: 334 (1811)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1165; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1525.

Lomelosia divaricata (Jacq.) Greuter & Burdet, Willdenowia 15: 74 (1985). (= *Scabiosa sicula* L., Mantissa 196, 1771)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2047; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2299.

Lomelosia simplex (Desf.) Rafin., Fl. Tellur. 4: 95 (1838) subsp. *dendata* (Jordan & Fourr.) Greuter & Burdet, Willdenowia 15: 76 (1985). [= *Scabiosa simplex* Desf., Fl. Atl. 1: 125, 1798 subsp. *dendata* (Jordan & Fourr.) Devesa, Lagascalia 12: 204, 1984]

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2829; Bailén, in roadside ditches, basic soils, 01.07.1988, 2995.

Lomelosia stellata (L.) Rafin., Fl. Tellur. 4: 95 (1838). [= *Scabiosa stellata* L., Sp. Pl. 100, 1753; *S. monspeliensis* Jacq., Misc. Austr. Bot. 2: 230, 1782]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 680; Almería: idem, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 742; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 242; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128g; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 4; idem, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 87.

Lonicera arborea Boiss., Biblioth. Univ. Genève ser. 2, 13: 409 (1838)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 603; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1375; Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2967.

Lonicera etrusca G. Santi, Viaggio Montam. 113 (1795)

Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2792; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 115.

Lonicera implexa Aon, Hort. Kew. 1: 231 (1789)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2647.

Lonicera periclymenum L., Sp. Pl. 173 (1753) subsp. *hispanica* (Boiss. & Reuter)
Nyman, Consp. 322 (1879)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1100; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2160.

Lonicera splendida Boiss., Elenchus 54 (1838)

Almería: Fifiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 633; **Sierra de Gador, Fondón, Cortijo de Chapina,** on shale, WF1089, 1250-1350 m, 18.06.1988, 714.

Lotus alpinus (DC.) Schleicher ex Ramond., Mém. Mus. Hist. Nat. (Paris) 13: 275 (1825)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 2002.

Lotus corniculatus L., Sp. Pl. 775 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 577; **Sierra de Gador, Fuente Victoria, Cerro Alto,** calcareous soil, WF0990, 900-1100 m, 18.06.1988, 641; **idem, Fondón, Cortijo de Boliches, Peña Horadada,** calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 810; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 415.

Lotus corniculatus L., Sp. Pl. 775 (1753) var. *villosus* Willkomm in Willk. & Lange, Prodr. Fl. Hisp. 3: 344 (1877)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1368.

Lotus glareosus Boiss. & Reuter, Pugillus 36 (1852)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2959.

Lotus uliginosus Schkuhr, Handb. 2: 412 (1796)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1513.

Luzula campestris (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 3: 161 (1805) subsp.
nevadensis Montserrat Anales Inst. Bot. Cavanilles 21(1): 492 (1963)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 617.

Luzula forsteri (Sm.) DC. in Lam. & DC., Syn. Pl. Fl. Gall. 150 (1806)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 560.

Luzula nutans (Vill.) Duval-Jouve, Bull. Soc. Bot. Fr. 10: 80 (1863)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2670.

Luzula spicata (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 3: 161 (1805)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 557.

Lygeum spartum L., Gen. Pl., ed. 5: 522 (1754)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 138.

Lysimachia ephemerum L., Sp. Pl. 146 (1753)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2637.

Lythrum sp.

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2214.

Lythrum junceum Banks & Solander in A. Russell, Nat. Hist. Aleppo, ed. 2, 2: 253 (1794)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2095; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2862.

Malva neglecta Wallr., Syll. Pl. Nov. Ratisbon. (Köenigl. Bayer Bot. Ges.) 1: 140 (1824)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 966.

Malva nicaeensis All., Fl. Pedem. 2: 40 (1785)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 390.

Malva sylvestris L., Sp. Pl. 689 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2157.

Malva tournefortiana L., Cent. Pl. 1: 21 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 377; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 377b.

Mantisalca salmantica (L.) Briq. & Cavillier, Arch. Sci. Phys. Nat. (Genève), ser. 5, 12: 111 (1930). [= *Microlonchus salmanticus* (L.) DC., Prodr. 6: 563, 1838]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 330; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1604b; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1905; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2277; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 66.

Marrubium supinum L., Sp. Pl. 583 (1753)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m,

19.06.1988, 950; Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 784; idem, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 803; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 347; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1372; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1600; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1675.

Marrubium x willkommii Magnus ex Pau, Bol. Soc. Ibér. Ci. Nat. 25: 76 (1926)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1200.

Matricaria chamomilla L., Sp. Pl. 891 (1753). [= *Chamomilla recuta* (L.) Rauschert, Folia Geobot. Phytotax. (Praha) 9: 255, 1974]

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 134.

Matthiola fruticulosa (L.) Maire in Jahandiez & Maire, Cat. Pl. Maroc 2: 311 (1932)
subsp. *fruticulosa*

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 513; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1140.

Matthiola lunata DC., Reg. Veg. Syst. Nat. 2: 176 (1821)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 188.

Matthiola parviflora (Schousboe) R. Br. in Aon, Hort. Kew. ed. 2, 4: 121 (1812)

Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2544.

Medicago arabica (L.) Hudson, Fl. Angl. 288 (1762)

Sevilla: between Ecija and La Luisiana, cultivated fields of *Helianthus annuus*, 01.07.1988, 3002b.

***Medicago litoralis* Rohde ex Loisel., Not. Pl. Fr. 118 (1810)**

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2492.

Medicago litoralis* var. *litoralis

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1129b; idem, sandy soils, VG8938, 20.06.1988, 1129b.

***Medicago lupulina* L., Sp. Pl. 779 (1753)**

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1712; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1899.

Medicago lupulina* var. *lupulina

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 123.

***Medicago minima* (L.) Bartal., Cat. Pianta Siena 61 (1776)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 750; **Granada:** between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1127; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1251; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1710.

***Medicago monspeliaca* (L.) Trautv., Bull. Sci. Acad. Imp. Sci. Saint-Petersbourg 8: 272 (1841). [= *Trigonella monspeliaca* L., Sp. Pl. 777, 1753]**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 751b; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1260.

***Medicago orbicularis* (L.) Bartal, Cat. Pianta Siena 60 (1776)**

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500

m, 23.06.1988, 1705; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 98.

Medicago polyceratia (L.) Trautv., Bull. Sci. Acad. Imp. Sci. Saint-Pétersbourg 8: 272 (1841). [= *Trigonella polyceratia* L., Sp. Pl. 777, 1753]

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1720; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2780.

Medicago rigidula (L.) All., Fl. Pedem. 1: 316 (1785)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 747; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 282e.

Medicago sativa L., Sp. Pl. 778 (1753) subsp. *sativa*

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1532; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1707.

Melica bocquetii Talavera, Lagasalia 14: 118 (1986)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 456; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1333.

Melica humilis Boiss., Voy. Bot. Midi Esp. 2: 662 (1844)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 842; idem, low part of El Morrón, Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 863; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1783; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1901b.

Melica humilis x *M. ciliata* L.

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2368.

Melica magnolii Gren. & Godron, Fl. Fr. 3: 550 (1855). [= *M. ciliata* L. subsp. *magnolii* (Gren. & Godron) Husnot, Gram. 56, tab. 20, 1898]

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 811; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1059; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1901; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2669; Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2850; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 90.

Melica minuta L., Mantissa 32 (1767)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2612; Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 669; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 383; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1607; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1781; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2200; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2856; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 47.

Melilotus albus Medicus, Vorl. Chrupf. Phys.-Ökon. Ges. 2:382 (1787)

Jaén: Sierra de la Sagra, Hornos, in roadside ditches, calcareous soils, WH2429, 01.07.1988, 2984.

Melilotus indica (L.) All., Fl. Pedem. 1: 308 (1785)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1529; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2256d.

Melilotus neapolitana Ten., Fl. Neap. 1, Prodr.: 62 (1811)

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2882.

***Melilotus sulcata* Desf., Fl. Atl. 2: 193 (1799)**

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1083; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2043.

***Mentha longifolia* (L.) Hudson, Fl. Angl. 221 (1762)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2164.

Mercurialis annua* L., Sp. Pl. 1035 (1753) subsp. *annua

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1048.

***Mercurialis huetii* Hanry, Billotia 1: 21 (1864)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2595; idem, stony areas and cultivated ground, WH5522, 28.06.1988, 2596.

***Mercurialis tomentosa* L., Sp. Pl. 1035 (1753)**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 791b.

***Micromeria graeca* (L.) Bentham ex Reichenb., Fl. Germ. Excurs. 859 (1832)**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 8.

***Micropus supinus* L., Sp. Pl. 927 (1753)**

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1153b; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2441.

Micropyrum tenellum* (L.) Link, Linnaea 17: 398 (1843) var. *tenellum

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 301; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2257.

***Micropyrum tenellum* var. *aristatum* (Tausch) Pilger, Bot. Jahrb. 74: 567 (1949)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 291.

***Minuartia campestris* L., Sp. Pl. 89 (1753)**

Albacete: Sierra de Taibilla, near Nerpio, calcareous soils, WH6122, c. 1000 m, 28.06.1988, 2616; **Granada:** between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1120c; **Almaciles,** Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2476.

***Minuartia dichotoma* L., Sp. Pl. 89 (1753)**

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 523.

***Minuartia funkii* (Jordan) Graebner in Ascherson & Graebner, Syn. Mteleur. Fl. 5(1): 714 (1818)**

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1874; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1934; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1383; *idem*, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1439; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2681.

***Minuartia geniculata* (Poiret) Thell., Fl. Adv. Montpellier 232 (1912)**

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 151b.

***Minuartia hamata* (Hausskn. & Bornm.) Mattf., Bot. Jahrb. 57, Beibl. 126: 29 (1921).
[= *Queria hispanica* L., Sp. Pl. 90 (1753)]**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310,

1600 m, 16.06.1988, 295; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 433; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1850; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2678.

Minuartia hybrida (Vill.) Schischkin in Komarov, Fl. URSS 6: 488 (1936) subsp. *hybrida*

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 739; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 324; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1029; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1339c; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1495; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1223c; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1229b; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1633; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1764; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2221b; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2276; Sierra de Cazorla, Burunchel, basic soils, WH0400, 800 m, 30.06.1988, 2847.

Minuartia montana L., Sp. Pl. 90 (1753)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1604c.

Minuartia rubra (Scop.) McNeill, Feddes Repert. 68: 173 (1963)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1941.

Misopates orontium (L.) Rafin., Autikon Bot. 158 (1840)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128f.

Moehringia fontqueri Pau, Cavanillesia 2: 163 (1930)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 615; Sierra Nevada, Cerro del Almirez, shale soils,

WG0804, 2240-2280 m, 19.06.1988, 926; Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2013.

Moehringia intricata Willk., Linnaea 25: 14 (1852)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2599; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1928; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2182; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2323; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2932.

Moehringia pentandra Gay, Ann. Sci. Nat., ser. 1, 26: 230 (1832)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 453; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1766; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2036.

Moenchia erecta (L.) P. Gaertner, B. Meyer & Scherb., Fl. Wett. 1: 219 (1799)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1034.

Monotropa hypopys L., Sp. Pl. 387 (1753) var. *glabra* Roth, Tent. Fl. Germ. 2: 46 (1789). [= *M. hypophegea* Wallr., Sched. Cr. 191, 1822]

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2917.

This species, very rare in S Spain where it reaches the southern limit of its distribution, was recorded previously for Andalucía by Valle & al. (1988, Anales Jard. Bot. Madrid 45: 249) who found it in *Quercus pyrenaica* communities in the neighbourhoods of the Sierra de Segura.
S. TALAVERA

Montia fontana L., Sp. Pl. 87 (1753) subsp. *amporana* Sennen, Bull. Geogr. Bot. (Le Mans) 21: 110 (1911)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m,

19.06.1988, 890; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 419.

Montia fontana subsp. *chondrosperma* (Fenzl) Walters, *Watsonia* 3: 4 (1953)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1017.

Montia fontana subsp. *variabilis* Walters, *Watsonia* 3: 5 (1953)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 297b; Puerto de la Ragua, near the crossroads to Canjajar, VG 9803, 19.06.1988, 956b.

Moricandia arvensis (L.) DC., *Reg. Veg. Syst. Nat.* 2: 626 (1821)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 194; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2528.

Moricandia foetida Bourgeau ex Cosson, *Not. Pl. Cr.* 143 (1852)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1157.

Moricandia moricandioides (Boiss.) Heywood, *Feddes Repert.* 66: 154 (1962)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 725.

Mucizonia hispida (Lam.) A. Berger in Engler & Prantl, *Natürl. Pflanzenfam.*, ed. 2. 18a: 420 (1930)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1027; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2208; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1629; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 44.

Muscari comosum (L.) Miller, Gard. Dict. ed. 8, n. 2 (1768)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 752; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 452; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1337; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1849; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2769.

Myosotis decumbens Host., Fl. Austr. 1: 228 (1827) subsp. *teresiana* (Sennen) Grau, Öesterr. Bot. Zeschr. 111: 578 (1964)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 547; Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 964.

Myosotis minutiflora Boiss. & Reuter, Pugillus 80 (1852)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 925; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1426; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1965; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2756.

Myosotis ramosissima Rochel in Schultes, Öesterr. Fl., ed. 2, 1: 366 (1814) subsp. *ramosissima*

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 768; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 490.

Myosotis stricta Link ex Roemer & Schultes, Syst. Veg. 4: 104 (1819)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 624; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 935; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1914.

Narduroides salzmannii (Boiss.) Rouy, Fl. Fr. 14: 301 (1913)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 676; idem, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 722.

Nardus stricta L., Sp. Pl. 53 (1753)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 882.

Nasturtium officinale R. Br. in Aon fil., Hort. Kew. ed. 2, 4: 111 (1812)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 556; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2127.

Neatostema apulum (L.) I. M. Johnston, Journ. Arnold Arb. 34: 6 (1953)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1192.

Nepeta amethystina Poiret in Lam. & Poiret, Encycl. Méth. Bot., Suppl. 2: 202 (1811) subsp. *amethystina*

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2590; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 806; idem, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 824b; Jaén: Santiago de la Espada, cultivated ground, basic soil, WH3816, 1200 m, 23.06.1988, 1910.

Nepeta amethystina subsp. *laciniata* (Willk.) Uberta & Valdés Lagasalia 12: 40 (1983)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 614; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1425..

Nepeta amethystina subsp. *mallophora* (Webb & Heldr.) Uberta & Valdés Lagasalia 12: 35 (1983) var. *anticaria* Ladero & Rivas Goday ex Uberta & Valdés, Lagasalia 12: 40 (1983)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 52.

Nepeta amethystina subsp. *mallophora* (Webb & Heldr.) Uberta & Valdés Lagasalia 12: 35 (1983) var. *bourgaei* (Briq.) Uberta & Valdés, Lagasalia 13: 38 (1983)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 176.

Nepeta tuberosa L., Sp. Pl. 571 (1753) subsp. *gienensis* (Degen & Hervier) Heywood, Bot. Journ. Linn. Soc. 65: 262 (1972)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2375; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2864.

Notobasis syriaca (L.) Cass., Dict. Sci. Nat. 35: 171 (1825)

Jaén: Sierra del Pozo, Loma de La Sagra, calcareous soils, WG0795, 1100 m, 30.06.1988, 2885.

Notoceras bicornis (Aon) Amo, Fl. Iber. 6: 536 (1873)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 225.

Odontes longiflora (Vahl) Webb, er Hisp. 24 (1838)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1280.

Odontes verna (Bellardi) Dumort., Fl. Belg. 32 (1827)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2083.

Onobrychis argentea Boiss., Voy. Bot. Midi Esp. 2: 188 (1839)

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2458.

Onobrychis argentea* subsp. *hispanica (Sirj.) P. W. Ball Feddes Repert. 79: 42 (1968)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 814; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1655; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1873.

Onobrychis stenorrhiza DC., Prodr. 2: 346 (1825)

Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2546.

Onobrychis vicifolia Scop., Fl. Carn., ed. 2, 2: 76 (1772)

Jaén: Santiago de la Espada, cultivated fields and ditches, basic soils, WH3816, 1350 m, 29.06.1988, 2799.

***Ononis* sp.**

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2495d.

Ononis aragonensis Asso, Syn. Stirp. Arag. 96 (1779)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 824; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1455; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1723; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2017; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2695.

Ononis cephalotes Boiss., Elenchus 33 (1838)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2817.

Ononis fruticosa L., Sp. Pl. 718 (1753)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1660.

Ononis minutissima L., Sp. Pl. 717 (1753)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1631.

Ononis mitissima L., Sp. Pl. 717 (1753)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2804.

Ononis mollis Savi, Mem. Soc. al. Mod. 9: 351, tab. 8 (1802)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1057.

Ononis natrix L., Sp. Pl. 717 (1753) subsp. *natrix*

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 687; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1276; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2709.

Ononis natrix subsp. *hispanica* (L. fil.) Coutinho, Fl. Port. 331 (1913)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 175.

Ononis pubescens L., Mantissa Alt. 267 (1771)

Jaén: Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2832; Bailén, in roadside ditches, basic soils, 01.07.1988, 3000.

Ononis pusilla L., Syst. Nat. ed. 10, 2: 1159 (1759). [= *O. columnae* All., Auct. Syn. Met. Horti Taur. 77, 1773]

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2576; Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 674; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1241; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1444, Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 86.

Ononis reclinata L., Sp. Pl., ed. 2: 1011 (1763)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1247.

Ononis repens L., Sp. Pl. 717 (1753) subsp. *australis* (Sirj.) Devesa, Lagascalía 14: 145 (1986) var. *hispanica* (Lange) Devesa, l.c.: 145 (1986)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1512; Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1848.

Ononis rotundifolia L., Sp. Pl. 719 (1753)

Almería: Sierra de Gador, Fondón, Fuente de la Parra, on shale, WF1389, c. 1400 m, 18.06.1988, 771; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1308.

Ononis saxicola Boiss. & Reuter, Pugillus 32 (1852)

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1867.

Ononis speciosa Lag., Gen. Sp. Nov. 22 (1816)

Almería: Fifiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 633b; Granada: Gor, Venta de Castán, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1102.

Ononis spinosa L., Sp. Pl. 716 (1753) subsp. *australis* (Sirj.) Greuter & Burdet, Willdenowia 19: 33 (1989)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2552; river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2596

Ononis tridentata L., Sp. Pl. 718 (1753)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1567; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2520.

Ononis viscosa L., Sp. Pl. 718 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1095.

Onopordon acaulon L., Sp. Pl. ed. 2: 1159 (1763)

Almería: Abrucena, Cerro de Pinates, on shales, WG1208, 1720 m, 17.06.1988, 575.

Onopordon macracanthum Schousboe, Vextr. Marokko 198 (1800)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 146.

Onopordon nervosum Boiss., Voy. Bot. Midi Esp. 2: 357 (1841)

Murcia: between Don Fadrique and Caravaca, cross-roads to Lorca, basic soil, WH9612, 800 m, 27.06.1988, 2506.

Onosma tricerosperma Lag., Gen. Sp. Nov. 10 (1816) subsp. *hispanica* (Degen & Hervier) P. W. Ball, Bot. Journ. Linn. Soc. 65: 354 (1972)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1852; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2493; Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2968.

***Ophrys scolopax* Cav., Icon. Descr. 2: 46 (1793)**

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2311b; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2351.

***Ophrys cf. sphegodes* Miller, Gard. Dict. ed. 8, n. 8 (1768)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1289.

? *Opopanax* sp.

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2373.

***Opopanax chironium* (L.) Koch, Nova Acta Acad. Leop.-Carol. 12(1): 96 (1824)**

Granada: La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2065.

***Orchis coriophora* L., Sp. Pl. 940 (1753) subsp. *fragans* (Pollini) Sudre, Fl. Toulous. 187 (1907)**

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2256b; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2330.

***Origanum virens* Hoffmanns. & Link, Fl. Port. 1: 119 (1809)**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2205.

***Orlaya daucooides* (L.) Greuter, Boissiera 13: 92 (1967). [= *O. kochii* Heywood, Agron. Lus. 22: 13, 1961]**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2224; Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2302.

***Ornithogalum narbonense* L., Cent. Pl. 2: 15 (1756)**

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2289; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2768.

***Ornithogalum pyrenaicum* L., Sp. Pl. 306 (1753)**

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1829.

***Orobanché alba* Stephan ex Willd., Sp. Pl. 3: 350 (1800)**

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1880; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1946.

***Orobanché amethystea* Thuill., Fl. Paris, ed. 2: 317 (1800)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 667; idem, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 833.

***Orobanché amethystea* subsp. *castellana* (Reuter) Rouy, Fl. Fr. 11: 185 (1909)**

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2853.

***Orobanché caryophyllacea* Sm., Trans. Linn. Soc. London 4: 169 (1798)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2606; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1334; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2365.

***Orobanché cernua* Loefl., er Hisp. 152 (1758)**

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 444; between Benalúa de Guadix and Fonellar, c.

river Fardas, tributary river bed, sandy soils, on *Artemisia glutinosa*, VG8938, 20.06.1988, 1129.

Orobanche gracilis Sm., Trans. Linn. Soc. London 4: 172 (1798)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1785; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2009.

Orobanche loricata Reichenb., Pl. Cr. 7: 41 (1829)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 65.

Orobanche lutea Baumg., Enum. Pl. Stirp. Transs. 2:215 (1816)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2912.

Orobanche minor Sm. in Sowerby, Engl. Bot. 6, tab. 422 (1797)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1650; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1687.

Orobanche purpurea Jacq., Enum. Stirp. Vindob. 108, 252 (1762)

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2461; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2206.

Orobanche ramosa L., Sp. Pl. 633 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 105.

Orobanche ramosa L., Sp. Pl. 633 (1753) subsp. *mutelii* (F. W. Schultz) Coutinho, Fl. Port. 566 (1913)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 2001; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2720.

Orobanche rapum-genistae Thuill., Fl. Paris, ed. 2, 317 (1800).

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2715.

Orobanche reticulata Wallr., Orob. Gen. 42 (1825)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1843.

Orobanche cf. *arenaria* Borkh., Neues Mag. Bot. (Roemer) 1: 6 (1794).

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1646.

Orobanche cf. *lutea* Baumg., Enum. Stirp. Transs. 2: 215 (1816).

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1667.

Paeonia broteroi Boiss. & Reuter, Diagn. Pl. Nov. Hisp. 4 (1842)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1593; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2038; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2404; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2767.

Paeonia officinalis L., Sp. Pl. 530 (1753) subsp. *pumilla* (Retz.) Cullen & Heywood, Feddes Repert. 69: 34 (1964)

Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2670.

***Pallenis spinosa* (L.) Cass., Dict. Sci. Nat. 37: 276 (1825)**

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2999.

Pallenis spinosa* var. *spinosa

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 73.

***Palygala boissieri* Cosson, Not. Pl. Cr. 100 (1851)**

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 840.

***Papaver argemone* L., Sp. Pl. 506 (1753)**

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 519;
Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1779; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2730.

***Papaver dubium* L., Sp. Pl. 1196 (1753)**

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 520.

***Papaver hybridum* L., Sp. Pl. 506 (1753)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1212.

Papaver rhoeas* L., Sp. Pl. 507 (1753) var. *rhoeas

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 522;
Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1206; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1782.

Papaver rhoeas var. *strigosum* Boenn., Prodr. Fl. Monast. 157 (1824)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2732.

Parapholis incurva (L.) C. E. Hubbard, Blumea, Suppl. 3: 14 (1946)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1523.

Parietaria judaica L., Fl. Palaest. 32 (1756). [= *P. officinalis* auct., non L.]

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2635; Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 125; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2209.

Parietaria mauritanica Durieu in Duchartre, Rev. Bot. 2: 427 (1847)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2594b.

Paronychia aretioides DC., Prodr. 3: 371 (1828)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1349; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1935b; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2489.

Paronychia argentea Lam., Fl. Fr. 3: 230 (1778)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1084; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2080.

Paronychia capata (L.) Lam., Fl. Fr. 3: 229 (1778)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 278; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 30.

Paronychia kapela (Jacq.) Kerner, Österr. Bot. Zeschr. 19: 367 (1869)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1935; Jaén: Sierra Seca: El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2688.

Paronychia kapela subsp. *serpyllifolia* (Chaix) Graebner in Ascherson & Graebner, Syn. Mteleur. Fl. 5(1): 892 (1919)

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2728b.

Paronychia polygonifolia (Vill.) DC. in Lam. & DC., Fl. Fr. ed. 3, 3: 403 (1805)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 936.

Paronychia suffruticosa (L.) Lam., Encycl. Meth. Bot. 5: 25 (1804)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 162; between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 222; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 807; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 276; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1287; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2460.

Peganum harmala L., Sp. Pl. 444 (1753)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 129; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2530.

Petrorhagia nanteuillii (Burnat) P. W. Ball & Heywood, Bull. Br. Mus. (Bot.) 3: 164 (1964)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 735; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 261; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 352; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1002; Sierra de

Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1740; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2076; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2839; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 24.

Phagnalon rupestre (L.) DC., Prodr. 5: 396 (1836)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1076.

Phagnalon saxatile (L.) Cass., Bull. Soc. Philom. Paris 1819: 174 (1819)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 235; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1013.

Phagnalon sordidum (L.) Reichenb., Fl. Germ. Excurs. 224 (1831)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1079; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2297.

Phalaris arundinacea L., Sp. Pl. 55 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2125.

Phalaris coerulescens Desf., Fl. Atl. 1: 56 (1798)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2809.

Phalaris minor Retz., Obs. Bot. 3: 8 (1783)

Sevilla: between Ecija and La Luisiana, cultivated fields of *Helianthus annuus*, 01.07.1988, 3002.

***Phillyrea angustifolia* L., Sp. Pl. 7 (1753)**

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2648.

***Phleum bertolonii* DC., Cat. Pl. Horti Monsp. 132 (1813). [= *P. pratense* L., Sp. Pl. 59, 1753 subsp. *bertolonii* (DC.) Bornm., Bot. Jahrb. 61, Beibl. 140: 158, 1982]**

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2906.

***Phleum pratense* L., Sp. Pl. 59 (1753) subsp. *bertolonii* (DC.) Bornm., Bot. Jahrb. 61, Beibl. 140: 157 (1928)**

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1835; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2104.

***Phlomis composita* Pau, Bol. Soc. Aragon. Ci. Nat. 17: 132 (1918)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 668; Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 426; between Aldeira and the gorge of the Pasillos, on shales, VG9407, c. 1650 m, 16.06.1988, 498.

***Phlomis crina* Cav., Icon. Descr. 3: 25 (1795)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 634.

***Phlomis herba-venti* L., Sp. Pl. 586 (1753)**

Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1900.

***Phlomis lychnis* L., Sp. Pl. 585 (1753)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 250; Sierra de Baza, near Cortijo del Bardín, calcareous soils,

WG1044, 1120 m, 21.06.1988, 1194; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 88.

Phlomis purpurea L., Sp. Pl. 585 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 635.

Phyteuma orbiculare L., Sp. Pl. 170 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1821.

Picris comosa (Boiss.) B.D. Jackson., Index Kew. 2:521 (1894) subsp. *comosa*

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2816.

Picris echioides L., Sp. Pl. 792 (1753)

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2991.

Picris hispanica (Willd.) P. D. Sell, Bot. Journ. Linn. Soc. 71: 248 (1976)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1075; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1187; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2041; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2462.

Pimpinella saxifraga L., Sp. Pl. 263 (1753)

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2926.

Pimpinella tragi Vill., Prosp. Pl. Dauph. 24 (1779) subsp. *lhophila* (Schishkin) Tutin, Feddes Repert. 79: 62 (1968)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2194.

Cynodon dactylon (L.) Pers., Syn. Pl. 1: 85 (1805)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1526.

Cynodon dactylon subsp. *affinis* (Caro & Sánchez) Romero Zarco, Lagascalía 14: 171 (1986). [= *C. affinis* Caro & Sánchez, Kurtziana 5: 223, 1969]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 215.

Cynoglossum cheirifolium L., Sp. Pl. 134 (1753)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1843e; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2406.

Cynoglossum creticum Miller, Gard. Dict. ed. 8, n. 3 (1768). [= *C. pictum* Aon, Hort. Kew. 1: 179, 1789]

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1112; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2361.

Cynoglossum dioscoridis Vill., Prosp. Pl. Dauph. 21 (1779)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2384.

Cynoglossum nebrodense Guss., Fl. Sic. Prodr. 1: 216 (1827)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 721; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1332; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1468.

Cynosurus echinatus L., Sp. Pl. 72 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1093; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1792; Jaén: between Tobos and Ves, bed of river Zumeta,

Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1801; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2106; Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2306; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2889.

Pistacia lentiscus L., Sp. Pl. 1026 (1753)

Albacete: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4937, c. 700 m, 28.06.1988, 2636.

Pistacia terebinthus L., Sp. Pl. 1025 (1753)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2187.

Pistorinia hispanica (L.) DC., Prodr. 3: 399 (1838)

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 507.

Pistorinia hispanica (L.) DC., Prodr. 3: 399 (1828)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1050; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1245; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1700; Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2975.

Plantago afra L., Sp. Pl., ed. 2: 168 (1762)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 154.

Plantago albicans L., Sp. Pl. 114 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 178; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1198; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1579.

***Plantago amplexicaulis* Cav., Icon. Descr. 2: 22 (1793)**

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 178b.

***Plantago coronopus* L., Sp. Pl. 115 (1753)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1519.

***Plantago holosteum* Scop., Fl. Carn., ed. 2, 1: 107 (1771)**

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 825; idem, calcareous soils, WF1786, 1650 m, 18.06.1988, 825b; Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 423; idem, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 423b; idem, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 436; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2916.

***Plantago lagopus* L., Sp. Pl. 114 (1753)**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 63.

***Plantago major* L., Sp. Pl. 112 (1753) subsp. *intermedia* (DC.) Arcangeli, Comp. Fl. al. 501 (1882)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2140.

***Plantago sempervirens* Crantz, Inst. Rei Herb. 2: 331 (1766)**

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1181; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1410; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2141.

***Plantago subulata* L., Sp. Pl. 115 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 328.

Platycarpus saxicola Willk., Bot. Ze. 6: 367 (1848)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1972.

Plumbago europaea L., Sp. Pl. 151 (1753)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2588; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1623.

Poa bulbosa L., Sp. Pl. 70 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 385; between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 439b; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 952; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1477; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2661.

Poa compressa L., Sp. Pl. 69 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1801b; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2117.

Poa flaccidula Boiss. & Reuter, Pugillus 128 (1852)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1798; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2338; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2672; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2685.

Poa ligulata Boiss., Voy. Bot. Midi Esp., tab. 178 (1842), 2: 659 (1844) var. *ligulata*

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 598; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 915; **Granada:** Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1971; Sierra

de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1405; idem, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1496; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2666.

Poa nemoralis L., Sp. Pl. 69 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 565; idem, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 589b; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 450; idem, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 492;

Poa pratensis L., Sp. Pl. 67 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 305b; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1338.

Poa trivialis L., Sp. Pl. 67 (1753) subsp. *trivialis*

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 958; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 303b; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 305; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2360.

Polynemum arvense L., Sp. Pl. 35 (1753)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 524.

This finding confirms the old collection by Clemente (Colmeiro 1988, Enum. Rev. Pl. Pen. Hisp. Lusit. 4: 553) for Sierra Nevada, registered for the area by Molero Mesa & Pérez Raya (1987, Fl. Sierra Nevada: 66).

B. VALDÉS

Polygala boissieri Cosson, Not. Pl. Cr. 100 (1851)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1817; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1296; idem, limestone, WG1340, 1400-1600 m, 21.06.1988, 1318.

***Polygala monspeliaca* L., Sp. Pl. 702 (1753)**

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1604f;
Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m,
 25.06.1988, 2315.

***Polygala rupestris* Pourret, Mém. Acad. Sci. Toulouse 3: 325 (1788)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 674b; idem, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 794; **Granada:** La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1043; **Huéscar,** Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1615; **Jaén:** Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2217; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2262; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 12.

***Polygonatum odoratum* (Miller) Druce, Ann. Scott. Nat. Hist. 1906: 226 (1906)**

Almería: Sierra Nevada, Cerro del Almiraz, shale soils, WG0804, 2240-2280 m, 19.06.1988, 914; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1672b; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2353; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2895.

***Polygonum bellardii* All., Fl. Pedem. 1: 207 (1785)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1556.

***Polygonum hydropiper* L., Sp. Pl. 361 (1753)**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2186.

***Polygonum rurivagum* Jordan & Boreau, Fl. Centre Fr. ed. 3, 2: 560 (1857)**

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2196.

Polypogon viridis (Gouan) Breistr., Bull. Soc. Bot. Fr. 110 (Sess. Extr.): 56 (1966)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2093; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2858.

Polystichum aculeatum (L.) Roth, Tent. Fl. Germ. 3: 79 (1799)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 537.

Polystichum setiferum (Forsskål) Woymar, Mt. Naturwiss. Vereins Steiermark 49: 181 (1913)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 594.

Potamogeton densus L., Sp. Pl. 126 (1753)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2177.

Potentilla caulescens L., Cent. Pl. 2: 19 (1756)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1744.

Potentilla hirta L., Sp. Pl. 497 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 579; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 355; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1311; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1431.

Potentilla reptans L., Sp. Pl. 499 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1365; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2113.

Primula veris L., Sp. Pl. 142 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 613.

Primula vulgaris Hudson, Fl. Angl. 70 (1762) subsp. *vulgaris*

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1815; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2324.

Prolongoa hispanica G. López & Ch. E. Jarvis, Anales Jardín Bot. Madrid 40: 343 (1984)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1142.

Prunella hyssopifolia L., Sp. Pl. 600 (1753)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2808.

Prunella hyssopifolia L. x *P. laciniata* (L.) L.

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2808b.

Prunella laciniata (L.) L., Sp. Pl. ed. 2, 837 (1763)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1837; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2385.

Prunella vulgaris L., Sp. Pl. 600 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 545; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1355; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2162; Poyotello, Sierra de Segura, gorge of river

Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2387.

Prunus mahaleb L., Sp. Pl. 474 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1734; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2318.

Prunus prostrata Labill., Icon. Pl. Syr. 1: 15 (1791)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almiraz, shale soils, WG1006, 1900-1980 m, 17.06.1988, 609; Sierra de Gador, above the Lote de Bardagí, calcareous soils, WF1784, 1700-1900 m, 18.06.1988, 849; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1467; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1622; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1988.

Prunus ramburii Boiss., Elenchus 39 (1838)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almiraz, shale soils, WG1006, 1900-1980 m, 17.06.1988, 620.

Psilurus incurvus (Gouan) Schinz & Thell., Viert. Naturf. Ges. Zürich 58: 40 (1913)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 266.

Pterocephalus spathulatus (Lag.) Coulter, Mém. Dipsac. 32 (1823)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1399; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1949.

Ptilostemon hispanicum (Lam.) Greuter, Boissiera 13: 146 (1967). [= *Chamaepeuce hispanica* (Lam.) DC., Prodrômus 6: 658, 1838]

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 53.

***Ptilotrichum longicaule* (Boiss.) Boiss., Elenchus 13 (1838)**

Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2407.

***Ptilotrichum spinosum* (L.) Boiss., Voy. Bot. Midi Esp. 2: 46 (1839). [= *Alyssum spinosum* L., Sp. Pl. 650, 1753]**

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 448; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1954; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2655.

***Ptychotis saxifraga* (L.) Loret & Barrandon, Fl. Montpell. 283 (1876)**

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2628.

***Pulicaria paludosa* Link, Neues Journ. Bot. 1(3):142 (1806)**

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2992.

***Quercus coccifera* L., Sp. Pl. 995 (1753)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 686; Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2649.

Quercus faginea* Lam., Encycl. Méth. Bot. 1: 725 (1785) subsp. *faginea

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2643.

***Quercus rotundifolia* Lam., Encycl. Méth. Bot. 1: 723 (1785)**

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 459; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1749.

***Ranunculus* sp.**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1515.

***Ranunculus arvensis* L., Sp. Pl. 555 (1753)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2605; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2256c; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2355; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2782.

***Ranunculus bulbosus* L., Sp. Pl. 554 (1753) subsp. *aleae* (Willk.) Rouy & Fouc., Fl. Fr. 1: 106 (1893)**

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 906.

***Ranunculus bulbosus* subsp. *aleae* (Willk.) Rouy & Fouc., Fl. Fr. 1: 106 (1893) var. *adscendens* (Brot.) Pinto da Silva, Agron. Lus. 14:14 (1952)**

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2929.

***Ranunculus demisus* DC., Syst. Nat. 1: 275 (1817)**

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 939.

***Ranunculus gramineus* L., Sp. Pl. 549 (1753)**

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2750.

Ranunculus gramineus* var. *gramineus

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1498; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2431; Jaén:

Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2377.

Ranunculus granatensis Boiss., Diagn. Pl. Or. Nov., ser. 2, 1: 8 (1854)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 408; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 479; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2077; Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2395.

Ranunculus hederaceus L., Sp. Pl. 556 (1753)

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 956; idem, VG9803, 19.06.1988, 964c.

Ranunculus malessanus Degen & Hervier, Bull. Acad. Int. Géogr. Bot. (Le Mans) 16(202-204): 222 (1906)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2383.

Ranunculus ollissiponensis Pers., Syn. Pl. 2: 106 (1806) subsp. *ollissiponensis*

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 976.

Ranunculus paludosus Poiret, Voy. Barb. 2: 184 (1789)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2958.

Ranunculus parviflorus L. in Loebl., er Hisp. 303, 57 (1758)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 493; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1033.

Ranunculus peltatus Schrank, Baier. Fl. 2: 103 (1789) subsp. *peltatus*

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1483, 1780 m, 18.06.1988, 854.

Ranunculus pseudomillefoliatus Grau, Mt. Bot. Staatssamml. München 20: 55 (1984)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2382.

Ranunculus repens L., Sp. Pl. 554 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 534; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2100.

Ranunculus trichophyllus Chaix, Pl. Vap. 31 (1785)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2210; Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2963.

Reichardia intermedia (Schultz Bip.) Sampaio, Bol. Soc. Brot. 24: 68 (1909)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 21.

Reichardia tingana (L.) Roth, Bot. Abh. 35 (1787)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1124; idem, sandy soils, VG8938, 20.06.1988, 1144; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2549.

Reseda alba L., Sp. Pl. 449 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2118.

Reseda barrelieri Bertal. ex Müller Arg., in DC., Prodr. 16(2): 557 (1868). [= *R. undata* Boiss., Voy. Bot. Midi Esp. 2: 75, 1839, non L., 1759; *R. baetica* (Müller Arg.) Gay ex Lange in Willk. & Lange]

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 781; idem, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 717; Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1585; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1915.

As *R. undulata* L., to which it is closely related, this species has pentamerous flowers, but the base of the petals is well marked and the capsules are almost twice as long as in *R. undulata*.
B. VALDÉS

Reseda complicata Bory, Ann. Gén. Sci. Phys. (Bruxelles) 3: 13 (1820)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1015.

Reseda decursiva Forsskål, Fl. Aegypt. LXVI (1775)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 228.

This species had been indicated for Spain only in Cádiz province, near Gibraltar (Yeo 1964, in Tutin & al., Fl. Eur. 1: 348; Ramos 1987, in Valdés & al., Fl. Vasc. Andal. Occ. 1: 451). This constitutes a new record for Almería province, and the second for Spain.
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Reseda lanceolata Lag., Gen. Sp. Nov. 17 (1816)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 191; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 657.

Reseda lutea L., Sp. Pl. 449 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 706; Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1052; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1314; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1589.

***Reseda luteola* L., Sp. Pl. 448 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 388; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2120.

***Reseda phyteuma* L., Sp. Pl. 449 (1753)**

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 705; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1611; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1897; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 83.

***Reseda stricta* Pers., Syn. Pl. 2: 10 (1806)**

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1591.

***Reseda undata* L., Syst. Nat. ed. 10, 2: 1046 (1759)**

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2490; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1729; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1876; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2511; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2656; Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2818.

***Retama sphaerocarpa* (L.) Boiss., Voy. Bot. Midi Esp. 2: 144 (1840). [= *Lygos sphaerocarpa* (L.) Heywood, Feddes Repert. 79: 53, 1968]**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 277.

***Rhagadiolus edulis* Gaertner, Fruct. Sem. Pl. 2: 354 (1791)**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 29b; **Jaén:** Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2892.

***Rhagadiolus stellatus* (L.) Gaertner, Fruct. Sem. Pl. 2: 354 (1791)**

Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2311.

Rhamnus lycioides* L., Sp. Pl., ed. 2, 279 (1762) subsp. *lycioides

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 217; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 685.

***Rhamnus myrtifolia* Willk., Linnaea 25: 18 (1852)**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 782; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1902.

***Rhamnus pumila* Turra, Giorn. al. Sci. Nat. Agric. Arti Commerc. 1: 120 (1764)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1456; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1750; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1993; Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2408.

***Rhamnus saxatilis* Jacq., Enum. Stirp. Vindob. 39: 212 (1762)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1346; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1983.

***Rhamnus saxatilis* var. *infectoria* (L.) Molero Mesa & Pérez Raya Fl. Sierra Nevada: 179 (1987)**

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 605.

***Rhoemeria hybrida* (L.) DC., Reg. Veg. Syst. Nat. 2: 92 (1821)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground,

WH5522, 28.06.1988, 2597; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1208.

Rosa sp.

Granada: La Losa, basic soil, of hybrid origin, WH3502, c. 1400 m, 24.06.1988, 2069.

Rosa canina L., Sp. Pl. 491 (1753)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2604; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 349; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 349b; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 351.; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2789.

Rosa corymbifera Borkh., Vers. Forstbot. Beschr. Holzart. 319 (1790)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2123.

Rosa micrantha Borrer ex Sm. in Sowerby, Engl. Bot. 35, tab. 2490 (1812)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2050 idem, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2058; La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2071; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2295.

Rosa nidula Besser, Cat. Pl. Jard. Krzemien, Suppl. 4: 20 (1815)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 517; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1356; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2336; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2904.

Rosa pouzinii Tratt., Rosac. Monogr. 2: 112 (1823)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 639; idem, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 718; idem, on shale, WF1089, 1250-1350 m, 18.06.1988, 746;

Granada: Huéscar: Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1662;
Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m,
30.06.1988, 2909.

Rosa sicula Tratt., Rosac. Monogr. 2: 86 (1823)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils,
WG1006, 1900-1980 m, 17.06.1988, 622; Sierra de Gador, above the Lote de Bardagí,
calcareous soils, WF1784, 1700-1900 m, 18.06.1988, 852; **Granada:** Sierra de
Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988,
1737.

Rosa tomentosa Sm., Fl. Br. 2: 539 (1800)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2109.

Rosa cf. agrestis Savi, Fl. Pis. 1: 475 (1898)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350
m, 18.06.1988, 720.

Rosa cf. deseglisei Boreau, Fl. Centre Fr. ed. 3, 2: 224 (1857)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998,
1400 m, 19.06.1988, 995.

Rosa cf. nidula Besser, Cat. Pl. Jard. Krzemien. Suppl. 4: 20 (1815)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1659.

Rosa cf. pouzinii Tratt, Rosac. Monogr. 2: 112 (1823)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310,
1600 m, 16.06.1988, 332.

Rosmarinus officinalis L., Sp. Pl. 23 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-
1350 m, 21.06.1988, 1285.

Rostraria cristata (L.) Tzvelev, Not. Syst. Pl. Vasc. (Leningrad) 7: 47 (1971)

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 119; **Jaén:** Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2873.

Rubia peregrina L., Sp. Pl. 109 (1753) subsp. *peregrina*

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 554; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 655; **Granada:** Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 471; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2167.

Rubus* cf. *candicans Weiber ex Reichenb., Fl. Germ. Excurs. 601 (1932)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2121.

Rumex angiocarpus Murb., Lunds Univ. Arsskr. 27(5): 46 (1891)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 293; Puerto de la Ragua, near the crossroads to Canjayar VG9803, 19.06.1988, 987.

Rumex bucephalophorus L., Sp. Pl. 336 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1715; **Jaén:** Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2248.

Rumex bucephalophorus* var. *hispanicus Steinhel, Ann. Sci. Nat. 9: 20: 201 (1838)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 16.

Rumex crispus L., Sp. Pl. 335 (1753)

Granada: Gor, Venta de Castfín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1114; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2124.

Rumex intermedius DC. in Lam. & DC., Fl. Fr. ed. 3, 5: 369 (1815)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1828; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2788.

Rumex scutatus L., Sp. Pl. 337 (1753) subsp. *scutatus*

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1725.

Rumex scutatus subsp. *induratus* (Boiss. & Reuter) Maire & Weiller in Maire, Fl. Afr. Nord 7: 315 (1961). (= *R. induratus* Boiss. & Reuter, Pugillus 107, 1852)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2320; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2667; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 50.

Ruscus aculeatus L., Sp. Pl. 1041 (1753)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2426.

Ruta angustifolia Pers., Syn. Pl. 1: 464 (1805)

Granada: Huéscar: Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1602; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2513.

Ruta montana (L.) L., Amoen. Acad. 3: 52 (1756)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-

1100 m, 18.06.1988, 694; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 249.

Sagina procumbens L., Sp. Pl. 128 (1753) subsp. *procumbens*

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 307.

Salix atrocinerea Brot., Fl. Lus. 1: 31 (1804)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 380; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2144.

Salix eleagnos Scop., Fl. Carn., ed. 2, 2: 257 (1772) subsp. *angustifolia* (Cariot) Rech. fil., Österr. Bot. Zeschr. 104: 314 (1857)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2072.

Salix neotricha Goerz, Bol. Real Soc. Esp. Hist. Nat. 1926: 385 (1926)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 381.

Salsola genistoides Juss. ex Poiret in Lam., Encycl. Méth., Bot. 7: 294 (1806)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 218; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2509.

Salsola opposifolia Desf., Fl. Atl. 1: 219 (1798)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 181b; between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 199.

Salsola soda L., Sp. Pl. 223 (1753)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 200.

Salvia argentea L., Sp. Pl. ed. 2: 31 (1762)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1854; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2445; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2766.

Salvia lavandulifolia Vahl, Enum. Pl. 1: 222 (1804)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2569; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 797; Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1113; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1278; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1597; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1686.

The plants from Sierra de Gador and from other localities seem to belong to var. *lagascana* (Webb) Rosúa & Blanca (1986, Acta Bot. Malacitana 11: 264). However, the calyx is not glabrous, since it has glandular hairs at least at the base, on the lower nerves. The status of these plants is doubtful.

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Salvia phlomoides Asso, Intr. Oryctogr. Arag. 158 (1784)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2059; Sierra de Segura, Pontones, calcareous soils, WH2819, 26.06.1988, 2455.

Salvia verbenaca L., Sp. Pl. 25 (1753)

Granada: La Calahorra, Cerro Juan Canal, calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1051; La Losa, basic soil, WH3502, c. 1400 m, 24.06.1988, 2066.

***Samolus valerandi* L., Sp. Pl. 171 (1753)**

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2097; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2857.

Sanguisorba minor* Scop., Fl. Carn., ed. 2, 1: 110 (1772) subsp. *minor

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2024.

***Sanguisorba minor* subsp. *lateriflora* (Cosson) M. C. F. Proctor, Feddes Repert. 79: 35 (1968)**

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2814; river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2653; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2787; idem, calcareous soils, WH3107, 1600 m, 29.06.1988, 2787b.

***Sanguisorba minor* subsp. *magnolii* (Spach) Briq., Prodr. Fl. Corse 2(1): 209 (1913)**

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 801; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1024; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1257; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 282; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1442; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2344.

***Sanguisorba minor* subsp. *muricata* Briq., Prodr. Fl. Corse 2(1): 210 (1913)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1436; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2115.

Sanguisorba minor subsp. *rupicola* (Boiss. & Reuter) Nordborg, Op. Bot. (Lund) 11(2): 66 (1966)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1704.

Santolina africana Jordan & Fourr., Icon. Fl. Eur. 2: 8 (1869)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1609.

Santolina canescens Lag., Gen. Sp. Nov. 25 (1816)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2345.

Santolina canescens subsp. *pectinata* (Lag.)

Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1906; between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2166.

Santolina chamaecyparissus L., Sp. Pl. 842 (1753) subsp. *chamaecyparissus*

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 796b; Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1080; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2485.

Santolina chamaecyparissus subsp. *squarrosa* (DC.) Nyman, Consp. 368 (1879)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 708; idem, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 796.

Santolina rosmarinifolia L., Sp. Pl. 842 (1753)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 240; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1028.

Santolina rosmarinifolia* subsp. *rosmarinifolia

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1186.

***Santolina viscosa* Lag., Gen. Sp. Nov. 25 (1816)**

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 131.

***Saponaria glutinosa* Bieb., Fl. Taur.-Cauc. 1: 322 (1808)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1320.

***Saponaria ocymoides* L., Sp. Pl. 409 (1753)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1361; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1768; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2453; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2079; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2922.

Sarcocapnos baetica* (Boiss. & Reuter) Nyman, Consp. 26 (1878) subsp. *baetica

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2233; river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2602; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1738; **Jaén:** Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2222; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2332.

***Sarcocapnos baetica* subsp. *integrifolia* (Boiss.) Nyman, Consp., Suppl. 2(1): 17 (1889)**

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1930; idem, calcareous scree, WG3699, 1700-1850 m, 24.06.1988, 2034.

Sarcocapnos crassifolia (Desf.) DC., Syst. Nat. 2: 130 (1821) subsp. *speciosa* (Boiss.) Rouy, Bull. Soc. Bot. Fr. 31: 53 (1884). [= *S. speciosa* Boiss., Diagn. Pl. Or., ser. 2, 1: 14, 1884]

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 477; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1021.

Sarcocapnos enneaphylla (L.) DC., Reg. Veg. Syst. Nat. 2: 129 (1821)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1634.

Sarcocornia fruticosa (L.) A. J. Scott, Bot. Journ. Linn. Soc. 75: 367 (1977)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1548.

Sarcocornia perennis (Miller) A. J. Scott, Bot. Journ. Linn. Soc. 75: 367 (1977)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1549.

Satureja cuneifolia Ten., Fl. Nap. 1, Prodr. 33 (1811) subsp. *gracilis* (Willk.) G. López Anales Jardín. Bot. Madrid 38: 396 (1982) var. *gracilis* subvar. *cazorlana* G. López, l. c.: 400 (1982)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2563.

Saxifraga biternata Boiss., Voy. Bot. Midi Esp. 2: 231 (1839)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 38.

Saxifraga camposii Boiss. & Reuter, Pugillus 47 (1852)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1722.

Saxifraga camposii* subsp. *camposii

Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2969.

***Saxifraga camposii* subsp. *leptophylla* (Willk.) D. A. Webb, Feddes Repert. 68: 204 (1963)**

Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2701.

***Saxifraga dichotoma* Sternb., Revis. Saxifr. 51 (1810)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1494.

***Saxifraga erioblasta* Boiss. & Reuter, Diagn. Pl. Or. Nov. 3(2): 67 (1856)**

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1428.

***Saxifraga gemmulosa* Boiss., Biblioth. Univ. Genève ser. 2, 13: 409 (1838)**

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 929.

***Saxifraga globulifera* Desf., Fl. Atl. 1: 342 (1798)**

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 618; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 934; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2370.

***Saxifraga granulata* L., Sp. Pl. 403 (1753)**

Granada: Puerto de la Ragua, near the crossroads to Canjayar, VG9803, 19.06.1988, 988; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1481; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 445; idem, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 484.

Saxifraga haenseleri Boiss. & Reuter, Diagn. Pl. Nov. Hisp. 13 (1842)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 2000; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2749.

Saxifraga nevadensis Boiss., Diagn. Pl. Or. Nov. 3(2): 67 (1856)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 788.

Saxifraga reuterana Boiss., Voy. Bot. Midi Esp. 2: 730 (1845)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 3.

Saxifraga rigoi Porta, Atti Accad. Agiati 9: 26 (1891)

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1860; idem, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1891; **Jaén:** Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2966; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2698; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2765.

Scabiosa andryalifolia (Pau) Devesa, Lagasalia 12: 172 (1984)

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2238.

Scabiosa columbaria L., Sp. Pl. 99 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 39.

Scabiosa sicula L., Mantissa Alt. 196 (1771). [= *Lomelosia divaricata* (Jacq.) Greuter & Burdet]

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1209.

Scabiosa turolensis Pau, Not. Bot. Fl. Españ. 1: 20 (1887)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 39b.

Scabiosa turolensis subsp. *turolensis*

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1328; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2487.

Scandix australis L., Sp. Pl. 257 (1753) subsp. *microcarpa* (Lange) Thell. in Hegi III. Fl. Mteleur 5(2): 1934 (1926)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 29.

Scandix pecten-veneris L., Sp. Pl. 256 (1753) subsp. *pecten-veneris*

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1787.

Scandix stellata Banks & Solander in A. Russell, Nat. Hist. Aleppo, ed. 2, 2: 249 (1794)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 877; **Granada:** Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1985; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2747.

Schismus barbatus (L.) Thell., Bull. Herb. Boiss., ser. 2, 7: 391 (1907)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2611; **Almería:** between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 205; **Murcia:** between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2517.

***Schoenus nigricans* L., Sp. Pl. 43 (1753)**

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2869.

***Scirpus holoschoenus* L., Sp. Pl. 49 (1753)**

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1636;
Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2108.

***Scirpus maritimus* L., Sp. Pl. 51 (1753)**

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1537.

Scirpus setaceus L., Sp. Pl. 49 (1753). [= *Isolepis setacea* (L.) R. Br., Prodr. Fl. Nov. Holl. 222, 1810]

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 889; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 954.

***Scleranthus annuus* L., Sp. Pl. 406 (1753) subsp. *polycarpus* (L.) Thell. in Schinz & R. Keller, Fl. Schweiz ed. 3, 2: 109 (1914)**

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 894; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1028c.

***Scleranthus delortii* Gren., in F. W. Schultz, Arch. Fl. Fr. Allem. 206 (1852). [= *S. annuus* subsp. *ruscinonensis* (Guillot & Coste) P. D. Sell, Feddes Repert. Spec. Nov. Regni Veg. 68: 169, 1963]**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 309.

***Scolymus hispanicus* L., Sp. Pl. 813 (1753)**

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 190;
Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2147;

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 51.

Scorpiurus muricatus L., Sp. Pl. 745 (1753)

Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2823.

Scorzonera sp.

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2495c.

Scorzonera albicans Cosson, Not. Pl. Cr. 119 (1851)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1975; **Jaén:** Sierra Seca: El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2738.

Scorzonera albicans var. *albicans*

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2006.

Scorzonera angustifolia L., Sp. Pl. 791 (1753). [= *S. graminifolia* auct., non L., 1753]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 649; idem, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 865b; **Granada:** Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1104; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1301; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1563; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, m, 22.06.1988, 1641; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 237.

Scorzonera crispatula (Boiss.) Boiss., Voy. Bot. Midi Esp. 2: 741 (1845)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 847.

Scorzonera laciniata L., Sp. Pl. 791 (1753) var. *laciniata*

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1699.

Scrophularia auriculata L., Sp. Pl. 620 (1753)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2391.

Scrophularia canina L., Sp. Pl. 621 (1753)

Almería: Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1483, 1780 m, 18.06.1988, 857b.

Scrophularia canina subsp. *canina*

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1851; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2172.

Scrophularia lyrata Willd., Hort. Berol. tab. 55 (1805)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2174.

Scrophularia sciophila Willk., Bot. Ze. 8: 77 (1850)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 536.

Scutellaria orientalis L., Sp. Pl. 598 (1753) subsp. *hispanica* (Boiss.) Greuter & Burdet, Willdenowia 14: 307 (1985)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-

2200 m, 21.06.1988, 1504; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1991.

As Edmondson (1980, Notes Roy. Bot. Gard. Edinburgh 38: 53) stated, *S. orientalis* is very polymorphic species which extends from Spain and NW Africa to Central Asia and W China. This wide area of distribution is, however, discontinuous, and there are several rather well characterized subspecies. As far as southern continental Europe is concerned, this species occurs only in the Balkans, specially in Yugoslavia, and in the south of the Iberian Peninsula. The plants from the Balkans were separated by Edmondson (l.c.: 54) as subsp. *pinnatifida* (sensu Boiss., non Reichenb., nom. inval.), while those from the Iberian Peninsula were described by Boissière (1841, Voy. Bot. Midi Esp. 2: 500) as var. *hispanica*, and raised to subspecific level by Greuter & Burdet (1985, Willdenowia 14: 307).

The decision to consider both groups of plants as different subspecies seems to be quite correct, since the plants from the Iberian Peninsula differ from those from the Balkans in a number of quantitative as well as qualitative characters, especially in general habit, size and shape of leaves, bracts and flowers, and indumentum. The clearest difference concerns the indumentum of the corolla, which is formed by eglandular hairs in the plants from the Iberian Peninsula (Fig. 1A) and by glandular hairs in those from the Balkans (Fig. 1 B-H).

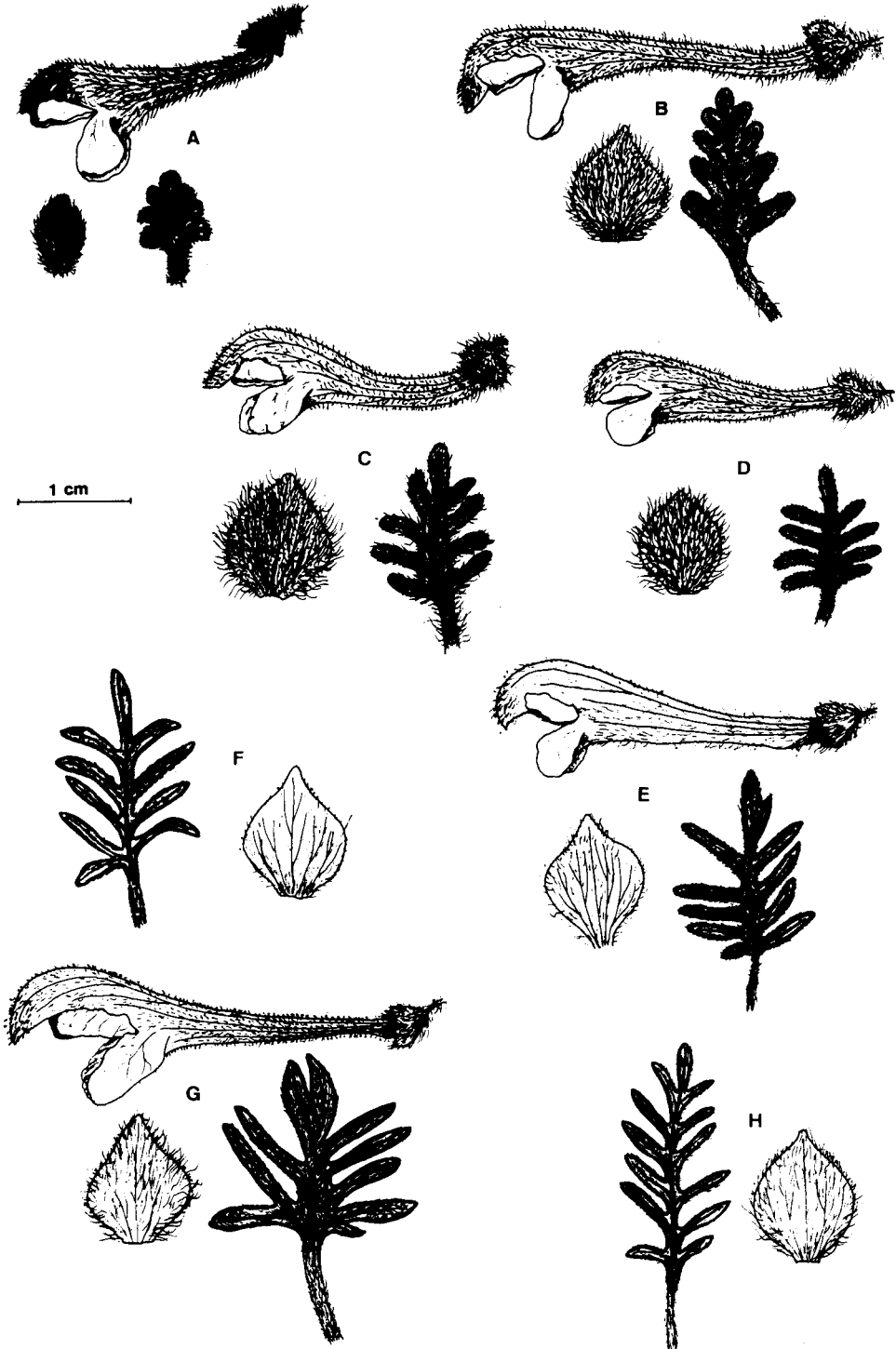
In my opinion, the presence of *S. orientalis* in the Iberian Peninsula and N Morocco could be related to the spread of the steppic oriental flora towards the western Mediterranean, its furthest spreading point during the glacial age and in the boreal interglacial period. Certain species of, for instance, *Adonis* sect. *Consilago*, *Paeonia*, *Astragalus*, etc., most directly indicated the existence of a "steppic oriental" pathway. *S. orientalis* habitats in Yugoslavia could in a broader sense be described as steppic submediterranean, and they differ in many a respect from the habitats in Spain, which are mostly oromediterranean; this could be explained by postglacial adaptation of *S. orientalis* to habitat conditions in the Iberian Peninsula.

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Secale cereale L., Sp. Pl. 84 (1753)

Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2977.

Fig. 3. Flowers, leaves and bracts of *Scutellaria orientalis* subsp. *hispanica* (Boiss.) Greuter & Burdet (A), and *S. orientalis* subsp. *pinnatifida* Edmondson (B-H). A, Sierra de la Sagra (Granada, n° 1991. B, Mount Vodno, Skopje (Macedonia), 30.05.1956, V. Lindtner. C, Mount Krivolak near river Vardar (Macedonia), 25.06.1940, P. Cernjavski. D, Kocane, gorge of river Bela (Macedonia), 27.05.1927, P. Cernjavski. E, Stolac, near Mostar (Hercegovina), 24.06.1903, K. Maly. F, Zadar (Dalmatia), 4.05.1886, J. Bornmüller. G, near monastery Sv. Zaum (Macedonia), 10.07.1921, T. Soska. H, Sliven Mount Sinite Kamen (Bulgaria), 19.07.1883, J. Wágner (by V. Stevanovic).



Sedum sp.

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1499.

Sedum acre L., Sp. Pl. 432 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1490; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1716.

Sedum album L., Sp. Pl. 432 (1753)

Almería: Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 875; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1012; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2482; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1907; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2874; Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2207.

Sedum brevifolium DC., Rapp. Voy. Bot. 2: 79 (1808)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2213.

Sedum dasyphyllum L., Sp. Pl. 431 (1753)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 173.

Sedum forsteranum Sm. in Sowerby, Engl. Bot. 26: tab. 1802 (1808)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 529; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2322.

Sedum hirsutum All., Fl. Pedem. 2: 122 (1785)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 146b; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1037.

Sedum rubens L., Sp. Pl. 432 (1753)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 46.

Sedum sediforme (Jacq.) Pau, Actas Mem. Prim. Congr. Nat. Esp. Zaragoza 246 (1909). [= *S. nicaeense* All., Fl. Pedem. 2: 122, 1785]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 210; Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 640; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2540.

Sedum tenuifolium (Sm.) Strobl, Österr. Bot. Zeschr. 34: 295 (1884). [= *S. amplexicaule* DC. subsp. *tenuifolium* (Sm.) Greuter, Willdenowia 11: 277, 1981]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 730; Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1026; Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 280; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2341.

Senecio boissieri DC., Prodr. 7: 300 (1838)

Almería: Sierra Nevada, El Chullo, north slopes, dry areas in shale soils, WG0005, c. 2000 m, 19.06.1988, 913; idem, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 917; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1943.

Senecio doria L., Syst. Nat. ed. 10, 2: 1215 (1759) subsp. *doria*

Jaén: Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2855.

Senecio malacanus Huter, Österr. Bot. Zeschr. 55: 402 (1905). [= *S. linifolius* (L.) L., Sp. Pl. ed. 2: 1220 (1763), non L. (1759); *S. linifoliaster* G. López, Anales Jardín Bot. Madrid 42: 323, 1986]

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils,

WF1489, 1450-1600 m, 18.06.1988, 776; Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2625.

Senecio minutus (Cav.) DC., Prodr. 6: 346 (1838)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1679; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2713; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 28.

Senecio nebrodensis L., Sp. Pl. ed. 2, 1217 (1763)

Almería: Sierra Nevada, Cerro del Almiraz, shale soils, WG0804, 2240-2280 m, 19.06.1988, 920.

Serratula flavescens (L.) Poir. in Lam., Encycl. Méth., Bot. 6: 562 (1805) subsp. *flavescens*

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 696b.

Serratula nudicaulis (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 86 (1805)

Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1839; Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2439; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2740d; idem, calcareous soils, WH2800, 1800 m, 29.06.1988, 2760.

Serratula pinnatifida (Cav.) Poir. in Lam., Encycl. Méth., Bot. 6: 561 (1805)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 832b.

Sesamoides canescens (L.) O. Kuntze, Revis. Gen. 39 (1891)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 340b.

Sesamoides canescens subsp. *suffruticosa* (Lange) Heywood, Feddes Repert. 69: 43 (1964)

Almería: Fifiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 629; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 957.

Sesleria argentea (Savi) Savi, Bot. Etrusc. 1: 66 (1808)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2334.

Sherardia arvensis L., Sp. Pl. 102 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1813.

Sideritis sp.

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1041; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2491.

Sideritis angustifolia Lag., Gen. Sp. Nov. 18 (1816)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1561.

Sideritis hirsuta L., Sp. Pl. 575 (1753)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2582; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 815; Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 421; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1183; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2042; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2274.

Sideritis incana* L., Sp. Pl., ed. 2: 802 (1763) subsp. *incana

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2553.

***Sideritis incana* subsp. *virgata* (Desf.) Málagaarriga, Collect. Bot. (Barcelona) 7: 681 (1968)**

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2424.

***Sideritis leucantha* Cav., Icon. Descr. 4: 2 (1717)**

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 179.

***Sideritis montana* L., Sp. Pl. 575 (1753) subsp. *ebracteata* (Asso) Murb., Lunds Univ. Arsskr. 34(7): 35 (1898)**

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2583; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1195; **Almaciles,** Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2465.

***Silene andryalifolia* Pomel, Nouv. Mat. Fl. Atl. 331 (1875). [= *S. pseudovellutina* Rothm., Feddes Repert. Spec. Nov. Regni Veg. 52: 282, 1943]**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 94.

***Silene boryi* Boiss., Elenchus 19 (1838)**

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 947; **Granada:** Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1931; **Jaén:** Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2972.

***Silene colorata* Poiret, Voy. Barb. 2: 163 (1789)**

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 19; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of

stream, VG8310, 1600 m, 16.06.1988, 336; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1128i; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 174; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1857; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2245; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2697.

***Silene conica* L., Sp. Pl. 418 (1753)**

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1752; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1863; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2700.

Silene conica* subsp. *conica

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1220.

***Silene conoidea* L., Sp. Pl. 418 (1753)**

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2607; Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1106; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2358; Santiago de la Espada, La Matea, cultivated land, basic soils, WH3505, 1350 m, 29.06.1988, 2794.

***Silene germana* Gay in Cosson, Notes Pl. Cr. 31 (1849)**

Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1281; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1430.

Silene inaperta* L., Sp. Pl. 419 (1753) subsp. *inaperta

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 147b; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 279; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2073; Bailén, in roadside ditches, basic soils, 01.07.1988, 2988.

Silene latifolia* Poiret, Voy. Barb. 2: 165 (1789) subsp. *latifolia

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1773.

***Silene legionensis* Lag., Gen. Sp. Nov. 14 (1816)**

Granada: Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1887; **Jaén:** Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2820.

Silene littorea* Brot., Fl. Lus. 2: 186 (1804) subsp. *littorea

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 150b.

***Silene mellifera* Boiss. & Reuter, Biblioth. Univ. Genève ser. 2, 38: 200 (1842)**

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2226; **Almería:** Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 656; idem, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 716; **Granada:** Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 331; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1269; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1661; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1735; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2319; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2692; **Málaga:** Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 54.

***Silene muscipula* L., Sp. Pl. 420 (1753)**

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1087; Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1155; **Jaén:** Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2316.

***Silene nocturna* L., Sp. Pl. 416 (1753)**

Albacete: Sierra de Taibilla, near Nerpio, calcareous soils, WH6122, c. 1000 m, 28.06.1988, 2615; **Jaén:** between Tobos and Ves, bed of river Zumeta, WH4523, 950 m,

25.06.1988, 2128; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 5.

Silene nocturna subsp. *nocturna*

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1233; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1761.

Silene portensis L., Sp. Pl. 420 (1753)

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 510; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2824.

Silene psammis Link ex Sprengel, Novi Provent. 39 (1819)

Granada: Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010.

Silene psammis subsp. *lasiostyla* (Boiss.) Rivas Goday, Anales Real Acad. Farm. 38: 461 (1972)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1748; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1883; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2092; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2252; Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2379; Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2976.

Silene rubella L., Sp. Pl. 419 (1753)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1518.

Silene rupestris L., Sp. Pl. 421 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almiraz, shale soils,

WG1006, 1900-1980 m, 17.06.1988, 627; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 948.

Silene saxifraga L., Sp. Pl. 421 (1753)

Albacete, gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2227; Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2568; Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1640; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1758; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1948; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2014; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2211; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2660.

Silene secundiflora Oth in DC., Prodr. 1: 375 (1824)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 152b.

Silene stricta L., Cent. Pl. 2: 17 (1756)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 40.

Silene tridentata Desf., Fl. Atl. 1: 349 (1798)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 264; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1235; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2475; Murcia: between Almaciles and Casablanca, basic soil, WH7405, c. 100 m, 27.06.1988, 2501.

Silene vulgaris (Moench) Garcke, Fl. Nord. Mittel-Deutschl. ed. 9: 64 (1869) subsp. *vulgaris*. [= *S. inflata* Sm., Fl. Br.: 467, 1800]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 731; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 42.

Silene vulgaris subsp. *commutata* (Guss.) Heyek, Repert. Spec. Nov. Regni Veg. (Beih.) 30(1): 258 (1924)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 341; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1736; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2313.

Silene vulgaris subsp. *glareosa* (Jordan) Marsden-Jones & Turrill, Bladder Champions 20: 135 (1957)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1454; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1938.

Silybum marianum (L.) Gaertner, Fruct. Sem. Pl. 2: 378 (1791)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 57.

Sisymbrella aspera (L.) Spach, Hist. Nat. Vég. (Phan.) 6: 426 (1838) subsp. *aspera*

Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2925.

Sisymbrella aspera subsp. *boissieri* (Cosson) Heywood, Bull. Br. Mus. (Bot.) 1: 107 (1954)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2960.

Sisymbrium austriacum Jacq., Fl. Austr. 3: 35 (1775)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2578b.

Sisymbrium crassifolium Cav., Descr. Pl. 437 (1802)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1728; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2025.

Sisymbrium irio L., Sp. Pl. 659 (1753)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1510.

Sisymbrium laxiflorum Boiss., Elenchus 9 (1838)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1937.

Sisymbrium orientale L., Cent. Pl. 2: 24 (1756)

Almería: Fifiñana, Cerro de la Cruz, on shale, WG0810, 1500-1600 m, 17.06.1988, 632; Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 719; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 310; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2396.

Sisymbrium runcinatum Lag. ex DC., Reg. Veg. Syst. Nat. 2: 478 (1821)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 767; Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1123.

Sixalis atropurpurea (L.) Greuter & Burdet, Willdenowia 15: 76 (1985) subsp. *marima* (L.) Greuter & Burdet, l. c. 76 (1985). [= *Scabiosa marima* L., Cent. Pl. 2: 8, 1756]

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2466.

Smyrniurn perfoliatum L., Sp. Pl. 262 (1753)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2388.

Sonchus marimus L., Syst. Nat. ed. 10, 2: 1192 (1759) subsp. *aquatilis* (Pourret) Nyman, Consp. 434 (1879)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2087;

Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2852.

Sonchus tenerrimus L., Sp. Pl. 794 (1753)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 183;
Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2534.

Sonchus x novocastellanus Cirujano, Anales Jardín Bot. Madrid 40: 279 (1983)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1509.

Sorbus aria (L.) Crantz, Stirp. Austr. 2: 45 (1763)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1488; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2348.

Sorghum halepense (L.) Pers., Syn. Pl. 1: 101 (1805)

Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2994.

Spergula murisonii Boreau in Duchartre, Rev. Bot. 2: 424 (1847)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 898.

Spergularia diandra (Guss.) Boiss., Fl. Or. 1: 733 (1867)

Granada: between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1126b.

Spergularia media (L.) C. Presl., Fl. Sic. 161 (1826)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1541.

Spergularia nicaeensis Sarato ex Burnat, Fl. Alp. Mar. 1: 269 (1892)

Granada: Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1020; Cullar Baza, salt marsh, WG3865, 22.06.1988, 1517.

Spergularia rubra (L.) J. & C. Presl, Fl. Cechica 94 (1819) subsp. *longipes* (Lange) Briq., Prodr. Fl. Corse 1: 490 (1910). [= *S. purpurea* (Pers.) G. Don fil., Gen. Syst. 1: 425, 1831]

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 367.

Sphenopus divaricatus (Gouan) Reichenb., Fl. Germ. Excurs. 45 (1830)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1538.

Stachys circinata L'Hér., Stirp. Nov. 51 (1786)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 99.

Stachelina dubia L., Sp. Pl. 840 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 707; **Granada:** Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1665; **Jaén:** river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2645.

Stellaria alsine Grimm., Nova Acta Acad. Leop.-Carol. 3, app.: 313 (1767)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 956c; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 297; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 418.

Stipa bromoides (L.) Dörfler, Herb. Norm. 34: 129 (1897)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2112; Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2802.

Stipa celakovskyi Martinovsky, Preslia 48: 187 (1976)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 271b.

Stipa gigantea Link, Journ. Bot. (Schrader) 1799(2): 313 (1800)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 75.

Stipa iberica Martinovsky, Feddes Repert. 73: 150 (1966) subsp. *austro-iberica* H. Scholz, Willdenowia 19: 129 (1989)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1644; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2657.

Stipa iberica subsp. *pauneroana* Martinovsky, Anales Inst. Bot. Cavanilles 27: 74 (1970)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 816.

Stipa lagascae Roemer & Schultes, Syst. Veg. 2: 333 (1817)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 292; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1137; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1161; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1580; Sierra de Guillimona, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1864; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2484.

Stipa parviflora Desf., Fl. Atl. 1: 98 (1798)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 675; between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 203; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 16.06.1988, 262b; idem, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 271; La Calahorra, Cerro Juan Canal,

calcareous and schist soils, VG9515, 1250-1350 m, 20.06.1988, 1056; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2471.

Stipa tenacissima L., Cent. Pl. 1: 6 (1755). [= *Macrochloa tenacissima* (L.) Kunth, Revis. Gram. 1: 59, 1829]

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 208; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1163; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1645b; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 101.

Suaeda maritima (L.) Dumort., Fl. Belg. 22 (1827) subsp. *maritima*

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1543.

Suaeda vera J. F. Gmelin in L., Syst. Nat. ed. 13, 2(1): 503 (1791)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 198; Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1551; idem, salt marsh, WG3865, 22.06.1988, 1553; idem, salt marsh, WG3865, 22.06.1988, 1555.

Taeniatherum caput-medusae (L.) Nevski, Acta Univ. As. Méd., ser. 8b (Bot.) 17: 38 (1934)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 272.

Taeniatherum caput-medusae subsp. *asper* (Simonkai) Melderis, Notes Royal Bot. Garden Edinb. 42: 81 (1984)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 841.

Tamarix gallica L., Sp. Pl. 270 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1086.

Taraxacum sp.

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 886.

Taraxacum erythrospermum Andr. ex Besser, Enum. Pl. Volhyn. 75 (1822)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1505; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2728.

Taraxacum obovatum (Willd.) DC., Mém. Soc. Agric. Paris 11: 83 (1809)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 583; Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 832c; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1360.

Telephium imperati L., Sp. Pl. 271 (1753) subsp. *imperati*

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 844; Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1945; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1374; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1775; idem, Cuerda de los Mirabetes, calcareous soils, WH3707, c. 1800 m, 23.06.1988, 1889.

Tetragonolobus maritimus (L.) Roth, Tent. Fl. Germ. 1: 323 (1788)

Granada: Cullar Baza, salt marsh, WG3865, 22.06.1988, 1528; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2138.

Teucrium sp.

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2599; idem, stony areas and cultivated ground, WH5522, 28.06.1988, 2598; Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2627; Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2495b; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1627.

Teucrium aureum Schreber, Pl. Verticill. Unilab. 43 (1773) subsp. *angustifolium* (Willk.) Puech, Rech. Teucrium Bassin Méd. Occid. 94 (1976)

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 427.

Teucrium buxifolium Schreber, Pl. Verticill. Unilab. 42 (1773)

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2236.

Teucrium capatum L., Sp. Pl. 566 (1753) subsp. *capatum*

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1039; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1590; Murcia: between Caravaca and Lorca, 23Km from Colonia de Sta. Teresa, gypsum soils, WG9897, 800 m, 27.06.1988, 2524; idem, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2550; idem, gypsum soils, 550 m, 27.06.1988, 2551.

Teucrium compactum Clemente ex Lag., Gen. Sp. Nov. 17 (1816)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 230; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1022.

Teucrium eriocephalum Willk., Linnaea 25: 58 (1852)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 227.

Teucrium gnaphalodes L'Hér., Stirp. Nov. 84 (1788)

Granada: Huelgo, Cerros de Monca, gypsum soils, 20.06.1988, 1154.

Teucrium lusitanicum Schreber, Pl. Verticill. Unilab. 47 (1773). [= *T. mairei* Sennen, Pl. Esp. 1933, n. 8873 (1934), non Léveillé, Bull. Acad. Int. Géogr. Bot. 22: 236, 1912]

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 689; idem, Fondón, Cortijo de Boliches, Peña Horadada, calcareous

soils, WF1489, 1450-1600 m, 18.06.1988, 795; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2294.

Teucrium luteum (Miller) Degen, Fl. Veleb. 2: 587 (1937)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1342.

Teucrium polium L., Sp. Pl. 566 (1753)

Granada: Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2480; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 1284.

Teucrium polium subsp. *aguilarense* Puech, Rech. *Teucrium* Bassin Méd. Occid. 95 (1976)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 227b.

Teucrium pseudochamaepys L., Sp. Pl. 562 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 681b; Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1179; Almaciles, Campos de Bugejar, gypsophilous soils, WH6104, 1100 m, 27.06.1988, 2483; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2826.

Teucrium rotundifolium Schreber, Pl. Verticill. Unilab. 42 (1773)

Albacete: Sierra de las Huebras, around El Pozo, rocks and stony areas, calcareous soils, WH4618, c. 1400 m, 28.06.1988, 2575; Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 792; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1343; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1702; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2027; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2221; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2745.

Teucrium trifoliatum (Vahl) Willd., Sp. Pl. 36 (1800)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1592; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1693; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2149; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 80.

Teucrium webbianum Boiss., Elenchus 78 (1838)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1107; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1604; Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2062; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1272; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1188; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1234; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2292; Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2831.

Thalictrum minus L., Sp. Pl. 546 (1753) subsp. *pubescens* Schleicher ex Arcangeli, Comp. Fl. al. 3 (1882)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1920.

Thalictrum speciosissimum L. in Loefl., er Hisp. 303 (1758)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2096; Sierra de Cazorla, crossroads towards Nacimiento, damp area, basic soils, WH0497, 1100 m, 30.06.1988, 2856b; Santiago de la Espada, cultivated ground, basic soil, WH3816, 1200 m, 23.06.1988, 1909; Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2394.

Thapsia villosa L., Sp. Pl. 261 (1753)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 691; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 386.

Thesium divaricatum Jan ex Mert. & Koch in Röhling, *Deutschl. Fl.*, ed. 3, 2: 285 (1826)

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 834; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1283; idem, Santa Bárbara dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1390; idem, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1214; idem, calcareous soils, WG1044, 1120 m, 21.06.1988, 1248; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1809.

Thesium humifusum DC., in Lam. & DC., *Fl. Fr.* ed. 3, 5: 366 (1815)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1601.

Thesium humile Vahl, *Symb. Bot.* 3: 43 (1794)

Almería: between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 214.

Thlaspi granatense Boiss. & Reuter in Boiss., *Diagn. Pl. Or. Nov. ser. 2*, 1: 40 (1854)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1412.

Thlaspi perfoliatum L., *Sp. Pl.* 646 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 757; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 318; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1461; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1753; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1959; idem, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010c.

Thymelaea pubescens (L.) Meissner in DC., *Prodr.* 14: 558 (1857) subsp. *pubescens*

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1628;

Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2055.

Thymelaea pubescens subsp. *elliptica* (Boiss.) K. Tan, Notes Royal Bot. Garden Edinb. 38: 231 (1980)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 787; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1265; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1351; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1628b.

Thymelaea salsa Murb., Lunds Univ. Arsskr. nov. ser., 19(1): 11 (1923)

Granada: Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1576.

Thymelaea sanamunda All., Fl. Pedem. 1: 132 (1785)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 787b; Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2435; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2801; Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2947.

Thymus sp.

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1315.

Thymus baeticus Boiss. ex Laca, Cavanillesia 3: 42 (1930)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 696; idem, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 697; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 60.

Thymus funkii Cosson, Not. Pl. Cr. 125 (1851)

Jaén: river Segura valley, near Parolis, calcareous and dolomitic soils, WH4935, c. 700 m, 28.06.1988, 2652.

Thymus hyemalis Lange, Vid. Meddel. Dansk Naturh. Foren. Kjobenhavn 1863: 173 (1864)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 181.

Thymus mastichina (L.) L., Sp. Pl. ed. 2: 827 (1763)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 55; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 245.

Thymus mastichina subsp. *mastichina*

Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2280.

Thymus membranaceus Boiss., Elenchus 75 (1838)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 653; Murcia: between Casablanca and Barranda, basic soil, WH8206, c. 1000 m, 27.06.1988, 2505.

In the population sampled, many specimens have purplish bracts, which indicates the possibility of hybridization of this species with *T. longiflorus* Boiss. However, this hybrid has not been reported by Morales (1986, Ruizia 3). G. ALZIAR & B. VALDÉS

Thymus orospedanus Huguet del Villar, Cavanillesia 6: 118 (1934)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1951; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2744.

Thymus serpylloides Bory, Ann. Gén. Sci. Phys. (Bruxelles) 3: 16 (1820) subsp. *gadorensis* (Pau) Jalas, Bot. Journ. Linn. Soc. 64: 251 (1971)

Jaén: Sierra de Segura, Covacha de la Cañada, calcareous soils, WH3118, 1530 m, 26.06.1988, 2414; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2719; Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2974.

Thymus zygis Loefl. ex L., Sp. Pl. 591 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1674; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1191; idem, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1371.

Thymus zygis subsp. *gracilis* (Boiss.) R. Morales, Anales Jardín Bot. Madrid 41: 93 (1984)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 238; Galera, above the village, on hillside of gypsum soil, WG3976, 1100 m, 22.06.1988, 1574; Murcia: between Caravaca and Lorca, Cerros de Lorca, gypsum soils, 550 m, 27.06.1988, 2538.

Tolpis umbellata Bertol., Rar. Lig. Pl. 1: 133 (1803). [= *T. barbata* subsp. *umbellata* (Bertol.) Maire, in Jahandiez & Maire, Cat. Pl. Maroc 3: 828, 1934]

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 504; Jaén: Bailén, in roadside ditches, basic soils, 01.07.1988, 2989.

Tolpis x grosii Talavera, Lagascalia 9: 231 (1980). [= *T. barbata* (L.) Gaertner x *T. umbellata* Bertol.]

Almería: between Abrucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 506.

Tordilium maximum L., Sp. Pl. 240 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 313.

Torilis elongata (Hoffmanns. & Link) Samp., Ann. Acad. Polyt. Porto 14: 154 (1921). [= *T. arvensis* (Hudson) Link, subsp. *elongata* (Hoffmanns. & Link) Cannon, Feddes Repert. 79: 62, 1968]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 727; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1388; Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 306; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1784.

Torilis leptophylla (L.) Reichenb. fil. in Reichenb. & Reichenb. fil., Icon. Fl. Germ. 21: 83, tab. 169 (1866)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 315; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1207.

Torilis purpurea (Ten.) Guss., Fl. Sic. Prodr. 1: 325 (1827). [= *T. arvensis* (Hudson) Link, Enum. Hort. Berol. Alt. 1: 265 subsp. *purpurea* (Ten.) Hayek, Prodr. Fl. Penins. Balcan 1: 1057, 1927]

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2063.

Trachellium caeruleum L., Sp. Pl. 171 (1753) subsp. *caeruleum*

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2190.

Tragopogon crocifolius L., Syst. Nat. ed. 10, 2: 1191 (1759)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 541; Sierra de Gador, low part of El Morrón Llanos del Sabinar, calcareous soils, WF1783, 1700-1900 m, 18.06.1988, 865; Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1373.

Tragopogon porrifolius L., Sp. Pl. 789 (1753)

Granada: Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1111.

***Trifolium angustifolium* L., Sp. Pl. 769 (1753)**

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 741; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 281; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2254.

***Trifolium arvense* L., Sp. Pl. 769 (1753)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 283.

***Trifolium campestre* Schreber in Sturm, Deutschl. Fl. 1(4): 16 (1804)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 16.06.1988, 285; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 416; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1714.

***Trifolium cherleri* L., Demonstr. Pl. 21 (1753)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 282b.

***Trifolium fragiferum* L., Sp. Pl. 772 (1753) subsp. *bonanii* (C. Presl) Soják, Nov. Bot. Horti Bot. Univ. Carol. Prag. 1963: 50 (1963)**

Jaén: Villanueva del Arzobispo, in roadside ditches, WH0026, 01.07.1988, 2986.

***Trifolium glomeratum* L., Sp. Pl. 770 (1753)**

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 409; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, m, 19.06.1988, 965.

***Trifolium hirtum* All., Auct. Fl. Pedem. 20 (1789)**

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 282c.

Trifolium ochroleucum Hudson, Fl. Angl. 283 (1762)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2449.

Trifolium phleoides Pourret ex Willd., Sp. Pl. 3: 1377 (1802) fo. *pedunculatum* C. Vicioso, Anales Inst. Bot. Cavanilles 11(2): 304 (1953)

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 946; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, m, 19.06.1988, 986; idem, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1028b.

Trifolium pratense L., Sp. Pl. 768 (1753)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 542; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 907; Granada: Sierra de Guillimona, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1836; Jaén: Sierra de Segura, descending to Hornos, pine woodland, basic soils, WH2629, 1000 m, 30.06.1988, 2805.

Trifolium repens L., Sp. Pl. 767 (1753) subsp. *repens*

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 406.

Trifolium repens subsp. *nevadense* (Boiss.) D. E. Coombe, Feddes Repert. 79: 54 (1968)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 905; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1480.

Trifolium resupinatum L., Sp. Pl. 771 (1753)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2961.

Trifolium scabrum L., Sp. Pl. 770 (1753)

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 16.06.1988, 285b; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1711; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 100.

Trifolium stellatum L., Sp. Pl. 769 (1753)

Jaén: Sierra del Pozo, Loma de La Sagra, calcareous soils, WG0795, 1100 m, 30.06.1988, 2886.

Trifolium striatum L., Sp. Pl. 770 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 401; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 405; Jaén: Sierra del Pozo, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2937.

Trifolium suffocatum L., Mantissa Alt. 276 (1771)

Granada: Granada, gardens of the Alhambra, on walls of calcareous stone, 14.06.1988, 122.

Trifolium sylvaticum Gerard ex Lois., Journ. Bot. (Desvaux) 2: 367 (1809). [= *T. smyrnaeum* Boiss., Diagn. Pl. Or. Nov., ser. 1, 2: 25, 1843]

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 282d.

Trifolium tomentosum L., Sp. Pl. 771 (1753)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1717; Jaén: Sierra del Pozo, Loma de La Sagra, calcareous soils, WG0795, 1100 m, 30.06.1988, 2887.

Trigonella polyceratia L., Sp. Pl. 777 (1753)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 525; Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 751;

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1258.

Trisetaria cavanillesii (Trin.) Maire, Bull. Soc. Hist. Nat. Afr. Nord 33: 92 (1942)

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1759.

Trisetaria scabriuscula (Lag.) Paunero, Anales Jardin Bot. Madrid 9: 519 (1950). [= *Trisetum scabriusculum* (Lag.) Cosson ex Willk. in Willk. & Lange, Prodr. Fl. Hisp. 1: 73 (1861)]

Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 258; Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1903; between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2103.

Tulipa sylvestris L., Sp. Pl. 305 (1753) subsp. *australis* (Link) Pamp. Bul. Soc. al. 1914: 114 (1914)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1402.

Turgenia latifolia (L.) Hoffm., Gen. Umb. 59 (1814)

Granada: Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1651; Jaén: Sierra de Segura, Altos del Infierno, calcareous soils, WH2100, 1600 m, 30.06.1988, 2978.

Ulex canescens Lange, Pugillus 4: 159 (1861)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 158.

Ulex parviflorus Pourret, Mém. Acad. Sci. Toulouse 3: 334 (1788)

Almería: Sierra de Gador, Fuente Victoria, Cerro Alto, calcareous soil, WF0990, 900-1100 m, 18.06.1988, 679.

Ulex parviflorus subsp. *parviflorus*. [= *U. willkommii* Webb, Anal. Sci. Nat., ser. 3, 17: 280, 1852]

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 81.

Ulmus glabra Hudson, Fl. Angl. 95 (1762)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2168.

Umbilicus rupestris (Salisb.) Dandy in Riddelsd., Hedley & Price, Fl. Gloucestershire 611 (1948). [= *U. pendulinus* DC., Pl. Hist. Succ. 162 (1832)]

Almería: Sierra Nevada, Cerrío del Almiraz, shale soils, WG0804, 2240-2280 m, 19.06.1988, 923.

Urospermum picroides (L.) Scop. ex F. W. Schmidt, Samml. Phys. Aufs. Naturk. 275 (1795)

Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 36.

Urtica dioica L., Sp. Pl. 984 (1753)

Almería: between Abucena and Las Rozas, on shales, WG1708, 1100-1350 m, 17.06.1988, 508; **Granada:** Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1824; **Jaén:** Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2321.

Urtica pilulifera L., Sp. Pl. 983 (1753)

Albacete: Sierra de Lagos, Graya, rocky area, calcareous soils, WH5737, 1150 m, 28.06.1988, 2634.

Vaccaria hispanica (Miller) Rauscher, Wiss. Zeschr. Univ. Halle 14: 496 (1965)

Albacete: river Taibilla valley, Pedro Andrés, stony areas and cultivated ground, WH5522, 28.06.1988, 2609; **Granada:** Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2010.

Valantia hispida L., Syst. Nat. ed. 10, 2: 1307 (1759)

Almería: Cabo de Gata, volcanic soils, WF7265, 50 m, 15.06.1988, 153.

Valeriana tuberosa L., Sp. Pl. 33 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1427.

Valerianella carinata Loisel., Not. Pl. Fr. 149 (1810)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 476; Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1330.

Valerianella coronata (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4: 241 (1805)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 753; Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1806; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1843c; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2787.

Valerianella muricata (Steven ex Bieb.) J. W. Loudon in Loudon, Hort. Br., ed. 4, Suppl. 654 (1850)

Jaén: Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2954; idem, Nava de San Pablo, calcareous soils, WG0997, c. 1450 m, 30.06.1988, 2943.

Valerianella tuberosa L., Sp. Pl. 33 (1753)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1914.

Velezia rigida L., Sp. Pl. 332 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 755; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 267; Jerez del Marquesado, Arroyo de Alcázar,

hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 358; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 1003; between Benalúa de Guadix and Fonellar, c. river Fardas, tributary river bed, sandy soils, VG8938, 20.06.1988, 1132; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1215; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 58.

Vella spinosa Boiss., Biblioth. Univ. Genève ser. 2, 13: 407 (1838)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 820; Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1382; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1955.

Verbascum giganteum Willk., Linnaea 25: 51 (1852) subsp. *giganteum*. [= *V. thapsus* L. subsp. *giganteum* (Willk.) Nyman, Consp. 527, 1881]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 760; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2152.

Verbascum hervieri Degen, Magyar Bot. Lapok 5: 5 (1906)

Granada: between Santiago de la Espada and Tobos, calcareous soils, WH4720, 26.06.1988, 2317.

Verbascum lychnis L., Sp. Pl. 177 (1753)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2402.

Verbascum nevadense Boiss., Voy. Bot. Midi Esp. 2: 443 (1841)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 775; Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 482.

Verbascum rotundifolium Ten., Fl. Nap. 1, Prodr. 66 (1811) subsp. *haenseleri* (Boiss.) Murb., Lunds Univ. Arsskr. nov. ser. 29(2): 401 (1933)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1424; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2746.

Verbascum sinuatum L., Sp. Pl. 178 (1753)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2156; Bailén, in roadside ditches, basic soils, 01.07.1988, 2998.

Veronica sp.

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1919.

Veronica anagallis-aquatica L., Sp. Pl. 12 (1753)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 396.

Veronica anagalloides Guss., Pl. Rar. 5 (1826)

Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2091; idem, WH4523, 950 m, 25.06.1988, 2161; Sierra del Pozo, damp areas in basic soils, WG1498, 1580 m, 30.06.1988, 2951.

Veronica arvensis L., Sp. Pl. 13 (1753)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 902.

Veronica austriaca L., Syst. Nat. ed. 10, 2: 849 (1759) subsp. *austriaca*

Almería: Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 828b.

Veronica austriaca subsp. *vahli* (Gaudin) D. A. Webb, Bot. Journ. Linn. Soc. 65: 267 (1972)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1453.

Veronica becabunga L., Sp. Pl. 12 (1753)

Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocks and steep screes, calcareous soils, WH3222, 1250 m, 26.06.1988, 2399.

Veronica hederifolia L., Sp. Pl. 13 (1753) subsp. *hederifolia*

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 888; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1471.

Veronica hederifolia subsp. *triloba* (Opiz) Celak, Prodr. Fl. Boehm. 333 (1871)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1981.

Veronica langei Laca, Cavanillesia 1: 14 (1928)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 417.

Veronica praecox All., Auct. Fl. Pedem. 5 (1789)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 593; Sierra de Gador, Lote de Bardagí, calcareous soils, WF1784, 2050 m, 18.06.1988, 876; Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 931; **Granada:** Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1223b; idem, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1502; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1947; idem, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1947b.

Veronica repens Clarion ex DC. in Lam. & DC., Fl. Fr. ed. 3, 3: 727 (1805)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 588.

Veronica verna L., Sp. Pl. 14 (1753)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 625.

Vicia cracca L., Sp. Pl. 735 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1376.

Vicia hirsuta (L.) S. F. Gray, Nat. Arr. Br. Pl. 2: 614 (1821)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 397.

Vicia lathyroides L., Sp. Pl. 736 (1753)

Almería: Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 881.

Vicia laxiflora Brot., Phyt. Lus. Select., ed. 3, 1: 125, tab. 52 (1816)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 549.

Vicia lutea L., Sp. Pl. 736 (1753) subsp. *lutea*

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 749; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 365; Jaén: Santiago de la Espada, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2287.

Vicia lutea subsp. *vesta* (Boiss.) Rouy, Fl. Fr. 5: 219 (1899)

Granada: Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 465.

Vicia monantha Retz, Obs. Bot. 3: 39 (1783). [= *V. calcarata* Desf., Fl. Atl. 2: 166, 1799]

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 544; Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 549.

Vicia onobrychioides L., Sp. Pl. 735 (1753)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 724; idem, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 832; **Granada:** Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 469; Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1447; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1713; idem, on the ascent of Cuerda de Miravetes, north-facing slopes, calcareous soils, WH3709, 1000-1700 m, 23.06.1988, 1825; **Jaén:** Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2712.

Vicia peregrina L., Sp. Pl. 737 (1753)

Jaén: Santiago de la Espada, above the river Zumeta, plateau with calcareous soil, WH3815, 23.06.1988, 1904; idem, Sierra de la Grana, calcareous soils, WH3819, 1480 m, 25.06.1988, 2304; Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2791.

Vicia pyrenaica Pourret, Mém. Acad. Sci. Toulouse 3: 333 (1788)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 576; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1482.

Vicia sativa L., Sp. Pl. 736 (1753) subsp. *nigra* (L.) Ehrb., Hannover Mag. 1780(15): 229 (1780)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310,

1600 m, 16.06.1988, 350; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 394; Jaén: Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2241.

Vicia tenuissima (Bieb.) Schinz & Thell., Viert. Naturf. Ges. Zürich 58: 70 (1913)

Granada: Sierra de Segura, between Pontones and El Campillo, pinewoods and fields, calcareous soils, WH2826, c. 1500 m, 26.06.1988, 2454.

Vicia villosa Roth, Tent. Fl. Germ. 2(2): 182 (1793) subsp. *varia* (Host) Corb., Nouv. Fl. Normand. 181 (1893)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 353; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 395.

Vincetoxicum nigrum (L.) Moench, Méth. Suppl. 313 (1802)

Granada: Sierra de la Sagra, amongst rocks and stones, calcareous soil and scree, WG3699, 1850-2300 m, 24.06.1988, 1913; Jaén: Poyotello, Sierra de Segura, gorge of river Segura, rocky and stony ground, calcareous soils, WH3222, 1400-1450 m, 26.06.1988, 2380; Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2707; Sierra de Cazorla, reservoir of El Tranco, calcareous soils, WH1920, 600-700 m, 30.06.1988, 2833.

Viola sp.

Granada: Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1823; Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2223.

Viola alba Besser, Prim. Fl. Galic. 1: 171 (1809) subsp. *dehnhardtii* (Ten.) W. Becker, Ber. Bayer. Bot. Ges. 8(2): 257 (1902)

Almería: Sierra de Gador, Fondón, Cortijo de Boliches, Peña Horadada, calcareous soils, WF1489, 1450-1600 m, 18.06.1988, 798.

Viola arvensis Murray, Prodr. Stirp. Götting 73 (1770)

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 953.

Viola canina L., Sp. Pl. 935 (1753)

Granada: Sierra de Baza, on the ascent to Santa Bárbara, limestone, WG1340, 1400-1600 m, 21.06.1988, 1367.

Viola cazortensis Gand., Bull. Assoc. Fr. Bot. 5: 226 (1902)

Albacete: gorge of river Zumeta, calcareous soils, WH4926, 1000-1100 m, 25.06.1988, 2229.

This species was known from several Sierras of Jaén province (Cazorla, Pozo, Castril, Cabrilla and Màgina) and from one locality in Murcia province (Sierra de Mojantes, near Caravanca: Blanca & Valle, 1986, Monogr. Fl. Veg. Bètica 1: 21). This is the first record for Albacete province and the northernmost locality of this taxon.

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Viola crassiuscula Bory, Ann. Gén. Sci. Phys. (Bruxelles) 3: 16 (1820). [= *V. nevadensis* Boiss., Elenchus 26, 1838]

Almería: Sierra Nevada, Cerro del Almirez, shale soils, WG0804, 2240-2280 m, 19.06.1988, 922.

Viola kaibelliana Schultes in Roemer & Schultes, Syst. Veg. 5: 383 (1819)

Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 384; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1814; Sierra de la Sagra, calcareous screes, WG3699, 1700-1850 m, 24.06.1988, 2012.

Viola parvula Tineo, Pl. Rar. Sic. Pug. 5 (1817)

Almería: Abrucena, gorge of La Campana, to the N of Cerro del Almirez, shale soils, WG1006, 1900-1980 m, 17.06.1988, 626; Sierra Nevada, El Chullo, damp area in shale soils, VG9905, 2150 m, 19.06.1988, 904; **Granada:** Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1416; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1973b.

Viola reichenbachiana Jordan ex Boreau, Fl. Centre Fr. ed. 3, 2: 78 (1857)

Almería: Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m,

17.06.1988, 531; idem, gorge of La Campana, to the N of Cerro del Almiraz, shale soils, WG1006, 1900-1980 m, 17.06.1988, 578.

Viola riviniana Reichenb., Pl. Cr. 1: 81 (1823)

Almería: Sierra Nevada, El Chullo, north slopes, dry areas in shale soils, WG0005, c. 2000 m, 19.06.1988, 910; Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 975.

Viola tricolor L., Sp. Pl. 935 (1753) subsp. *tricolor*

Granada: Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 980.

Viola cf. *viviniana* Reichenb., Pl. Cr. 1: 81 (1823)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2225.

Viscum album L., Sp. Pl. 1023 (1753) subsp. *austriacum* (Wiesb.) Vollman, Fl. Bayern 212 (1914)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2039.

Volutaria lippii (L.) Maire in Jahandiez & Maire, Cat. Pl. Maroc 3: 817 (1934)

Almería: between Tabernas and Venta de los Yesos, hillside, gypsum soil, WG6104, 500 m, 15.06.1988, 133.

Vulpia ciliata Dumort., Obs. Gram. Belg. 100 (1824)

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 515c; between Gergal and Venta de Cañicas, roadside escarpment of shale, WG4102, 420 m, 15.06.1988, 205b; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 265; Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1264; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2131; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2247; Málaga: Antequera, Torcal, amongst calcareous rocks and stones, 1150-1300 m, 14.06.1988, 108.

Vulpia hispanica (Reichard) Kerguélen in Jovet & Vilmorin (eds.), Coste Fl. Fr., Suppl. 5: 545 (1979) subsp. *hispanica*. [= *V. unilateralis* (L.) Stace, Bot. Jour. Linn. Soc. 76: 350, 1978; *Triticum unilaterale* L., Mantissa 35, 1767, nom. illeg.]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 764b; Granada: Sierra de Baza, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1267; Aldeira, gorge of Gallego, banks and sides of gorge, VG9009, 1650-1700 m, 16.06.1988, 458; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 3.06.1988, 1795; Sierra de la Sagra, amongst rocks and stones, calcareous soil and screes, WG3699, 1850-2300 m, 24.06.1988, 1944; Jaén: Sierra Seca, El Chaparral, calcareous soils, WH2800, 1800 m, 29.06.1988, 2675.

Vulpia muralis (Kunth) Nees, Linnaea 16: 694 (1847). [= *V. myuros* C. C. Gmelin subsp. *sciuroides* (Roth) Rouy var. *tenella* (Boiss.) Maire & Weiller in Maire, Fl. Afr. Nord 3: 179, 1955]

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 756; Abrucena, gorge of the Mina, damp area, on shale, WG1506, 1540-1560 m, 17.06.1988, 566; idem, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 515b; Granada: Jerez del Marquesado, La Dehesa, under *Pinus pinaster*, on shales, VG8415, 1300 m, 15.06.1988, 265b; idem, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 300; idem, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 389.

Vulpia myuros (L.) C. C. Gmelin, Fl. Bad. 1: 8 (1805) subsp. *sciuroides* (Roth) Rouy, Fl. Fr. 14: 256 (1913) var. *sciuroides*. [= *V. bromoides* L., Sp. Pl. 75, 1753]

Almería: Abrucena, Las Rozas, on shales, WG1607, 1400 m, 17.06.1988, 515; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1757; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 404; Puerto de la Ragua, near the crossroads to Canjajar, VG9803, 19.06.1988, 990.

Wangenheimia lima (L.) Trin., Fund. Agrost. 132 (1820)

Granada: La Calahorra, VG9415, 900 m, 19.06.1988, 1040; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1225; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1652; Almaciles, Campos de Bugejar, gypsumophilous soils, WH6104, 1100 m, 27.06.1988, 2478.

Xeranthemum inapertum (L.) Miller, Gard. Dict. ed. 8, n. 2 (1768)

Almería: Sierra de Gador, Fondón, Cortijo de Chapina, on shale, WF1089, 1250-1350 m, 18.06.1988, 728; Sierra de Gador, Fondón, Llanos de Boliches, calcareous soils, WF1786, 1650 m, 18.06.1988, 831c; Granada: Jerez del Marquesado, Arroyo de Alcázar, hillside and banks of stream, VG8310, 1600 m, 16.06.1988, 334; Puerto de la Ragua, crossroad with the road to Alpujarra, schist soils, VG9998, 1400 m, 19.06.1988, 998; Gor, Venta de Castín, Arroyo de Gor, hillsides and schist soils, WG0034, 1160 m, 20.06.1988, 1082; Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1189; idem, on the ascent to Santa Bárbara, dolomitic soils, WG1143, 1330-1350 m, 21.06.1988, 1290; Jaén: Caserío de D. Domingo, above the river bed of Los Cuartos, calcareous soils, WH3107, 1600 m, 29.06.1988, 2774.

Zannichellia contorta (Desf.) Chamisso & Schlescht., Linnaea 2: 131 (1827)

Granada: Sierra de la Sagra, calcareous soils, WG3597, 1400-1700 m, 24.06.1988, 2053; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2142.

Zannichellia palustris L., Sp. Pl. 969 (1753)

Jaén: Ves, gorge of the river Zumeta, WH4827, 950 m, 25.06.1988, 2179.

Ziziphora acinoides L., Sp. Pl. 22 (1753)

Granada: Sierra de Baza, Santa Bárbara, dolomitic and calcareous soils, WG1437, 2000-2200 m, 21.06.1988, 1414.

Ziziphora hispanica L., Cent. Pl. 1: 3 (1755)

Granada: Sierra de Baza, near Cortijo del Bardín, calcareous soils, WG1044, 1120 m, 21.06.1988, 1249.

Zygophyllum fabago L., Sp. Pl. 385 (1753)

Almería: between Benahadux and Rioja, roadsides, marls, WF8847, 15.06.1988, 187.

Undetermined species.

Granada: between El Marquesado and Alque, Cerro de los Pinos, hillsides with pines, on shales, VG9011, 1700 m, 16.06.1988, 440; Puerto de la Ragua, near the crossroads to

Canjajar, VG9803, 19.06.1988, 957*b*; Huéscar, Sierra de Moncayo, calcareous soils, WG3395, 22.06.1988, 1625; Sierra de Guillimona, gorge of Torilla, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1677; idem, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1721; idem, calcareous soils, WH3812, 1400-1500 m, 23.06.1988, 1780; Jaén: between Tobos and Ves, bed of river Zumeta, WH4523, 950 m, 25.06.1988, 2206; Marchena, Sierra de la Grana, calcareous soils, WH4327, c. 1350 m, 25.06.1988, 2271.

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