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## CHECK LIST OF THE IBERIAN AND BALEARIC ORCHIDS. 2. *OPHRYS* L. – *SPIRANTHES* RICH.

by

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### Resumen

GALÁN CELA, P. & R. GAMARRA (2003). Catálogo de las orquídeas ibéricas y baleares. 2. *Ophrys* L. – *Spiranthes* Rich. *Anales Jard. Bot. Madrid* 60(2): 309-329 (en inglés).

Se presenta un catálogo, ordenado alfabéticamente, de los táxones de la familia Orchidaceae incluidos en los géneros *Ophrys* a *Spiranthes*, presentes en la Península Ibérica e Islas Baleares, excluidos híbridos. Se recogen todos los nombres, hasta el rango varietal, mencionados de dicho ámbito geográfico, con su correspondiente lugar de publicación; por supuesto, los considerados correctos, sus sinónimos e *indicatio locotypica*. Se incluyen, cuando se estiman oportunas, observaciones de índole nomenclatural y taxonómico. Se designan los lectotipos de *Orchis broteroana* Rivas Goday & Bellot, y *O. mascula* subsp. *laxifloraeformis* Rivas Goday & Bellot.

Palabras clave: Orchidaceae, nomenclatura, taxonomía, lectotipificación, Península Ibérica, Islas Baleares.

### Abstract

GALÁN CELA, P. & R. GAMARRA (2003). Check list of the Iberian and Balearic orchids. 2. *Ophrys* L. – *Spiranthes* Rich. *Anales Jard. Bot. Madrid* 60(2): 309-329.

A check list of the taxa of the family Orchidaceae found in the Iberian Peninsula and the Balearic Islands is presented in alphabetical order. This section includes the genera from *Ophrys* to *Spiranthes*, down to the rank of variety, but excluding hybrids. We have gathered together the correct names, with their corresponding place of publication, synonyms and *indicatio locotypica*. Also included are some observations in those genera and species that present nomenclatural and taxonomic problems. Lectotypes for *Orchis broteroana* Rivas Goday & Bellot, and *O. mascula* subsp. *laxifloraeformis* Rivas Goday & Bellot are designated here.

Key words: Orchidaceae, nomenclature, taxonomy, lectotypification, Iberian Peninsula, Balearic Islands.

### INTRODUCTION

This is the second instalment of a nomenclatural catalogue of the Iberian *Orchidaceae*, ranging from the genus *Ophrys* to *Spiranthes*. The methods used are those described in the previous instalment (GALÁN CELA & GA-

MARRA, 2002). Two species are included here whose presence in Iberian territory has yet to be confirmed, but whose existence on French Pyrenean slopes suggests they may also belong to the Iberian flora. Finally, a number of species are discussed, which, owing to confusion in their identification and perhaps typo-

graphical errors, have been reported present in the Iberian Peninsula but which are now excluded due to the lack of positive herbarium evidence and the geographical separation of their areas of distribution.

## CHECK LIST

**Ophrys** L., Sp. Pl. 2: 945 (1753)

This is one of the most complex genera of all Iberian and Mediterranean flora. Here, it is interpreted following the criteria of BAUMANN & KÜNKELE (1986), DEVILLERS & DEVILLERS-TERSCHUREN (1994), ARNOLD (1996) and DELFORGE (2001), grouping together the most similar taxa. Presented below are those taxa accepted by the majority of botanists as present in the Iberian and Balearic territories.

**Ophrys** gr. *apifera*

**Ophrys apifera** Huds., Fl. Angl.: 340 n.º 11 (1762)

≡ *Arachnitis apifera* (Huds.) Hoffm., Deutschl. Fl. ed. 2, 2: 180 n.º 5 (1804)

*Ind. loc.*: “Habitat in pratis et pascuis sicioribus” [England].

= *Ophrys chlorantha* Hegetschw., Fl. Schweiz 4: 876 n.º 2601 (1840); *Ophrys apifera* var. *chlorantha* (Hegetschw.) K. Richt., Pl. Eur. 1: 264 n.º 20b (1890)

*Ind. loc.*: “Hin und wieder mit den Vorigen, doch mehr an beschatteten Stellen”.

= *Ophrys trollii* Hegetschw., Fl. Schweiz 4: 874-875 (1840); *Ophrys apifera* var. *trollii* (Hegetschw.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 97, tab. 105 fig. II (1851); *Ophrys apifera* subsp. *trollii* (Hegetschw.) K. Richt., Pl. Eur. 1: 264 n.º 20e (1890)

*Ind. loc.*: “dieser Pflanze durch den trefflichen Maler Troll in Winterthur”.

= *Ophrys apifera* var. *inmaculata* Bréb., Fl. Normandie ed. 2: 261 (1849), n. v.

= \**Ophrys apifera* var. *almaracensis* Pérez Chisc., Durán Oliva & Gil Llano in Stud. Bot. 9: 114-115, fig. 1 (1991)

*Ind. loc.*: “ca. Almaraz (Cáceres), 16-maii-

1989, J.L. Pérez Chiscano, F. Durán & J.R. Gil Llano. Holotypus in herbario PCH [herbario personal Pérez Chiscano] sub num. 5033”.

**Ophrys** gr. *catalaunica*

\***Ophrys balearica** P. Delforge in Mém. Soc. Roy. Bot. Belg. 11: 15-16 (1990)

≡ *Ophrys bertolonii* subsp. *balearica* (P. Delforge) L. Sáez & Rosselló in Fl. Montiberica 7: 89 (1997)

*Ind. loc.*: “Hispania, Baleares, Majorica, inter Felanitx et Campos, apud Ca’s Porradeint, alt. 150 m. Holotypus: In herb. P. Delforge sub n.º 8501”.

– *Ophrys bertolonii* subsp. *bertoloniiformis* auct., non (O. Danesch & E. Danesch) H. Sund., Europ. Medit. Orchid. ed. 3: 39 (1980)

\***Ophrys catalaunica** O. Danesch & E. Danesch, Orchid. Eur. Ophrys-Hybr.: 230, 196, Abb. 80d, 218, 219 b-i, 220 (1972)

≡ *Ophrys bertolonii* var. *catalaunica* (O. Danesch & E. Danesch) D. & B. Tyteca in Bull. Soc. Roy. Bot. Belg. 117(1): 61 (1984); *Ophrys pseudobertolonii* subsp. *catalaunica* (O. Danesch & E. Danesch) H. Baumann & Künkele in Mitt. Arbeitskr. Beob. Heimischer Orchideen 18(3): 368 n.º 50.3 (1986)

*Ind. loc.*: “Spanien (Katalonien), bei Olost. Holotypus: leg. O. et E. Danesch, 23.5.1969 (IB)”.

– *Ophrys bertolonii* auct., non Moretti, De Quibusdam Plantis Italiae Decas 6: 9 (1823); in Giorn. Fis. 6: 2 (1823)

**Ophrys** gr. *fusca-lutea*

This group is probably one of the most complex of the Iberian flora, the labella showing great variation in both morphology and colour. The group requires detailed study and comparison with extra-Iberian specimens.

\***Ophrys arnoldii** P. Delforge in Naturalistes Belges 80 (Orchid. 12): 247 (1999)

*Ind. loc.*: “Holotypus: Hispania provincia Tarragona, Muntanyes de Prades, circa Capafons (UTM: 31TCF36), alt. s.m. 780 m, 9.VI.1989. In herb. Pierre DELFORGE sub n° 8921”.

**Ophrys atlantica** Munby in Bull. Soc. Bot. France 3: 108 (1856)

≡ *Ophrys fusca* subsp. *atlantica* (Munby) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 292 (1928)

*Ind. loc.*: “Dans la région atlantique, depuis Tlemcen, jusqu’aux frontières du Maroc”.

= *Ophrys fusca* var. *durieui* Rchb. f., Icon. Fl. Germ. Helv. 13/14: 73-74, tab. 110 fig. I (1851); *Ophrys fusca* subsp. *durieui* (Rchb. f.) Soó in Feddes Repert. 24: 26 (1928)

*Ind. loc.*: “Alg.: Constantine au pied du Djebbel el Orchech Durieu!”.

**Ophrys bilunulata** Risso, Fl. Nice: 463 (1844)

*Ind. loc.*: “Au bord des vallées” [Nice].

– \**Ophrys lucentina* P. Delforge in Naturalistes Belges 80 (Orchid. 12): 253 (1999), p.p.

*Ind. loc.*: “Holotypus: Hispania provincia Lucentina, Sierra del Fraile (UTM. 30S XH9574), alt. s.m. 680 m, 27.III.1999. In herb. Pierre DELFORGE sub n° 9951”.

\***Ophrys dianica** M.R. Lowe, Piera, M.B. Crespo & J.E. Arnold in J. Eur. Orch. 33(2): 552 (2001)

*Ind. loc.*: “Alicante: Llíber, Depòsit Municipal d’Aigües, 31SBC3990, ad 280 m.s.m. Holotypus: J. Piera, 26-2-2000. In herbario ABH No. 43139”.

– \**Ophrys lucentina* P. Delforge in Naturalistes Belges 80 (Orchid. 12): 253 (1999), p.p., typo excluso

*Ind. loc.*: “Holotypus: Hispania provincia Lucentina, Sierra del Fraile (UTM. 30S XH9574), alt. s.m. 680 m, 27.III.1999. In herb. Pierre DELFORGE sub n° 9951”.

– *Ophrys subfusca* auct., non (Rchb. f.) Hausskn. in Mitt. Thüring. Bot. Vereins 13-14: 25 (1899), pro hybr.

**Ophrys dyris** Maire in Bull. Soc. Hist. Nat.

Afrique N. 22: 65-66 n.° 908, fig. 2 (1931)

≡ *Ophrys fusca* subsp. *dyris* (Maire) Soó in G. Keller & Schltr., Monogr. Iconogr. Orchid. Eur. 2(8): 312 (1935); *Ophrys atlantica* subsp. *dyris* (Maire) G. Keller ex Soó in Acta Bot. Acad. Sci. Hung. 5(3/4): 440 (1959); *Ophrys omegaifera* var. *dyris* (Maire) Soó in Acta Bot. Acad. Sci. Hung. 25(3/4): 361 (1980); *Ophrys omegaifera* subsp. *dyris* (Maire) Del Prete in Webbia 38: 213 (1984)

*Ind. loc.*: “Grand Atlas: Ourika, Mont Agaiouar, pâturages vers 1800 m, en particulier près de la source voisine de la maison forestière”.

*Typus*: “Marocco, Grand Atlas: Ourika, Mont Agaiouar, pâturages vers 1800 m, 9.IV.1929, leg. Maire (Holotypus: MPU!)” –cf. DEL PRETE (1984: 213).

– *Ophrys omegaifera* auct., non Fleischm. in Österr. Bot. Z. 74: 184-185 n.° 4, tab. 2 fig. 1 (1925)

– *Ophrys fleischmannii* auct., non Hayek in Feddes Repert. 22: 388 (1926)

\***Ophrys fusca** Link in J. Bot. (Schrader) 2(4): 324 (1799)

≡ *Arachnitis fusca* (Link) Tod., Orchid. Sicul.: 98 n.° 11 (1842)

*Ind. loc.*: “Häufig um Lissabon”.

– *Ophrys myodes* sensu Lapeyr., Hist. Pl. Pyrénées 2: 551 n.° 4 (1818), non Jacq., Misc. Austriac. 2: 373-375 n.° LIX (1782)

**Ophrys lupercalis** J. & P. Devillers-Terschuren in Naturalistes Belges 75, Hors-Sér. (Orchid. 7, Suppl.): 373 n.° 2 (1994)

*Ind. loc.*: “Gallia, regio Languedoc-Roussillon, Armissans, montagne de la Clape, alt. s.m. 100 m. 22.II.1993. Holotypus: In herb. J. & P. Devillers-Terschuren sub n° 1993-1-2-1-7”.

\***Ophrys lutea** Cav., Icon. 2(2): 46, lam. 160 (1793)

≡ *Arachnites lutea* (Cav.) Tod., Orchid. Sicul.: 95 n.° 10 (1842)

*Ind. loc.*: “Habitat passim in humidis um-

brosis prope Albaydae oppidum, praesertim ad colli radicem iuxta fontis originem”.

*Observations.*—In several publications, cf. BONAFÉ (1978: 7), this taxon is indicated as “*Ophrys lutea* (Gouan) Cav.”. However, Cavanilles did not base his description on *Ophrys insectifera* var. *lutea* Gouan, Fl. monsp.: 299 (1764).

= \**Ophrys vespifera* Brot., Phytogr. Lusitan. Select.: 3 n.º 2 (1800); Fl. Lusit. 1: 24 (1804)

*Ind. loc.*: “Habitat in cretaceis circa Conimbriam, Olisiponem, et alibi”.

*Observations.*—Index Kewensis records only the second work of Brotero as the place where this binomial is described.

#### **Ophrys lutea** subsp. **lutea**

**Ophrys vasconica** (O. Danesch & E. Danesch) P. Delforge in Naturalistes Belges 72(3): 101 (1991)

≡ *Ophrys fusca* subsp. *vasconica* O. Danesch & E. Danesch in Orchidee (Hamburg) 20: 258, Abb. 1-4 (1969)

*Ind. loc.*: “Frankreich, Dep. Gers, Auch. Holotypus: Institut für botanische Systematik u. Geobotanik der Universität Innsbruck”.

*Observations.*—Certain doubts exist about this taxon since it might derive from hybridisation between *Ophrys dyris* and *O. fusca* (HERMOSILLA & SABANDO, 1996b: 174s).

#### **Ophrys** gr. **incubacea**

**Ophrys aveyronensis** (J.J. Wood) P. Delforge & D. Tyteca, Guide Orchid. Europe: 189 (1984); (J.J. Wood) P. Delforge & D. Tyteca in Eur. Wildorch. 2: 110 (1981), comb. inval.; (J.J. Wood) P. Delforge & D. Tyteca in Orchidophile 61: 582 (1984), comb. inval.  
≡ *Ophrys sphegodes* subsp. *aveyronensis* J.J. Wood in Orchidee (Hamburg) 34(3): 106 (1983)

*Ind. loc.*: “South Central France: Aveyron, near St. Affrique. Holotypus: 6.6.1982 J.J. Wood 556 (K!)”.

\***Ophrys castellana** J. Devillers-Terschuren & P. Devillers-Terschuren in Naturalistes Belges 69 (Orchid. 2): 108 (1988)

*Ind. loc.*: “Hispania, Provincia Cuenca: Valdemeca, 1250 m, in pratibus humidis. Holotypus: In Herb. J. et P. Devillers-Terschuren, sub n.º 1987-1-3”.

**Ophrys incubacea** Bianca ex Tod., Nov. Pl. Spec. Prope Hyblam: 8 (1842); Orch. sicul.: 75 (1842)

*Ind. loc.*: “Sic. Apatia”.

= \**Ophrys aranifera* var. *rubriflora* Rivas Goday in Bol. Real Soc. Esp. Hist. Nat. 27: 335 (1927)

*Ind. loc.*: “junto al muro de la charca de Ontígola”.

– *Ophrys atrata* Lindl., Bot. Reg. 13, tab. 1087 (1827), nom. illeg., non L., Mant. 1: 121 (1767); *Ophrys aranifera* var. *atrata* Lindl. ex Rchb. f., Icon. Fl. Germ. Helv. 13/14: 90, tab. 100 (1851); *Ophrys aranifera* subsp. *atrata* (Lindl. ex Rchb. f.) E.G. Camus, Monogr. Orchid.: 286 (1908); *Ophrys sphegodes* subsp. *atrata* (Lindl. ex Rchb. f.) A. Bolòs, Veg. Comarcas Barcelonenses: 265 (1950)

*Ind. loc.*: “This plant was sent from Rome to the Horticultural Society, in 1826, by Signor Mauri, under the name of *Ophrys araneifera*”.

*Observations.*—We here correct the Index Kewensis that records tab. 1807 as the place of publication of *Ophrys atrata* Lindl.

Recently, SOCA (2001: 448s) investigated the chronology of the binomials *Ophrys incubacea* and *O. atrata*, raising questions as to whether they really are similar taxa (although the author recognises having revised no sheet of Bianca’s to certify this).

\***Ophrys passionis** Sennen, Pl. Espagne, n.º 5881 (1926), in sched.; in Treb. Inst. Catalana Hist. Nat. 15, Ser. Bot. 1: 35 (1931), in obs., nom. nud.; Sennen ex J. Devillers-Terschuren & P. Devillers-Terschuren in Naturalistes Belges 75, Hors-Sér. (Orchid. 7, Suppl.): 379 n.º 13 (1994)

≡ *Ophrys sphegodes* subsp. *passionis* (Sennen) Sanz & Nuet, Guia Camp Orquíd. Catalunya: 176 (1995)

*Ind. loc.*: “Barcelone: S. Cugat, coteaux cailloteux incultes”.

*Lectotypus*: “1926 – Plantes d’Espagne – F. Sennen. N° 5881. 29-III (BC)” –cf. LEWIN & SOCA (2001: 49-51, fig. 2).

–\**Ophrys sphegodes* subsp. *garganica* E.C. Nelson, *Gestaltwandel* [...] *Ophrys*: 195-196 n.º 33, Taf. XXIX, XLVII, LVII (1962), p.p., nom. inval.; *Ophrys garganica* E.C. Nelson ex O. Danesch & E. Danesch in *Pl. Syst. Evol.* 124(2): 94 (1975)

*Ind. loc.*: “Apulien (am Mte Gargano! sehr verbreitet, weiter südwards bei Fasano!) [...] Spanien (u. a. Pineta von Can Molló bei Barcelona!; Rupiá (Empordá) 100 m, Nordost-Catalonien)”.

\****Ophrys riojana*** C. Hermosilla *J. Eur. Orch.* 31(4): 881 (1999)

*Ind. loc.*: “España (Hs), provincia de la Rioja, término de Nájera (cerro Paquillo) 30T WM2199, alt. 550 m. Holotypus: C.E. Hermosilla in Herbario VIT n° 55126”.

#### ***Ophrys* gr. *insectifera***

***Ophrys insectifera*** L., *Sp. Pl.* 2: 948 n.º 15 (1753)

*Ind. loc.*: “Habitat in Europa temperiori”.

*Lectotypus*: “LINN 1056.20, vermutlich 13.06.1741, leg. Carl Linnaeus” –cf. BAUMANN & al. (1989: 512).

= *Ophrys muscifera* Huds., *Fl. Angl.*: 340 n.º 10 (1762)

*Ind. loc.*: “Habitat in pratis et pascuis passim” [England].

\****Ophrys subinsectifera*** C. Hermosilla & Sabando in *Estud. Mus. Ci. Nat. Álava* 10/11: 133-136, figs. 14-15 (1996)

*Ind. loc.*: “(NAVARRA) Artazu, WN92, 500 m. Holotypus: legit C. E. Hermosilla & J. Sabando, in herbarium VIT 25922”.

*Observations.*—HERMOSILLA & SABANDO (1996a: 133s) described a new species of the group *insectifera* for Navarra, and compared it to other taxa in the same group –*Ophrys insectifera* L. and *O. aymoninii* (Breistr.)

Buttler (*O. insectifera* subsp. *aymoninii* Breistr.)–. The first of these is widely distributed throughout Europe, while the second is limited to the southeast of France. ARNOLD (1981: 6s) and DELFORGE (1994: 320) allow wide variability for *O. insectifera* throughout its distribution, including some of the characteristics proposed to differentiate the Navarra species. However, ARNOLD (1996: 87s), as well as citing the taxon in Catalonia, favours admitting it as a species. The present work records it as such, although provisionally.

#### ***Ophrys* gr. *scolopax***

\****Ophrys scolopax*** Cav., *Icon.* 2(2): 46-47, tab. 161 (1793)

≡ *Ophrys speculum* Link in *J. Bot. (Schrader)* 2(4): 324 (1799), nom. illeg.; *Arachnitis speculum* Link ex Tod., *Orchid. Sicul.*: 93 n.º 9 (1842), nom. illeg.; *Ophrys fuciflora* subsp. *scolopax* (Cav.) H. Sund., *Europ. Medit. Orchid. ed.* 3: 39 (1980)

*Ind. loc.*: “Habitat passim in humidis umbrosis prope Albaydae oppidum, praesertim ad collis radicem iuxta fontis originem”.

= \**Ophrys picta* Link in *J. Bot. (Schrader)* 2: 325-326 (1799); *Ophrys scolopax* var. *picta* (Link) Rehb. f., *Icon. Fl. Germ. Helv.* 13/14: 98-101, tab. 106 (1851)

*Ind. loc.*: “Wir fanden sie häufig an der Serra da Arrabida”.

= \**Ophrys aurita* Brot., *Phytogr. Lusit. Select.* 2: 34-35, tab. 91 f. 2 (1827)

*Ind. loc.*: “Habitat trans Tagum in Arrabida, circa Setubal et alibi”.

= \**Ophrys corniculata* Brot., *Phytogr. Lusit. Select.* 2: 38-39, tab. 93 f. 2 (1827)

*Ind. loc.*: “Habitat in Arrabida, circa Setubal, Olisiponem et alibi in Extremadura”.

= \**Ophrys scolopax* var. *granatensis* Amo, *Fl. Fan. Peníns. Ibérica* 1: 469-470 (1871)

*Ind. loc.*: “en los avellanares de Jesús del Valle, una lengua distantes de Granada, á la orilla del río Darro (Amo)”.

= \**Ophrys asilifera* Vayr. in *Anales Soc. Esp. Hist. Nat.* 9: 98-99 (1880)

*Ind. loc.*: “in ditone Olot (Bolòs hb., Bolòs R.); in montosis sylvaticis prope Olot, versus Santa Margarita de la Cot., r. (Vayr.). -Junio, 1871”.

– *Ophrys bombyliflora* sensu Rchb. f., Iconogr. Bot. Pl. Crit. 9: 24 n.º 1160, tab. DCC-CLXVII (1831), non Link in J. Bot. (Schrader) 1799(2): 325 (1800)

**Ophrys sphegifera** Willd., Sp. Pl. 4(1): 65 n.º 8 (1805)

*Ind. loc.*: “Habitat in Barbaria”.

= *Ophrys insectifera* var. *apiformis* Desf., Fl. Atlant. 2: 321 (1799); *Ophrys scolopax* subsp. *apiformis* (Desf.) Maire & Weiller, Fl. Afrique N. 6: 260 (1959)

*Ind. loc.*: [Atlas].

#### **Ophrys** gr. **sphogodes**

A very complex group in the context of Iberian flora, normally including the species of the group *incubacea*.

**Ophrys araneola** Rchb. f., Iconogr. Bot. Pl. Crit. 9: 22 n.º 1153, pl. DCCCLXI (1831)  
 ≡ *Ophrys aranifera* subsp. *araneola* (Rchb. f.) K. Richt., Pl. Eur. 1: 263 n.º 13c (1890);  
*Ophrys sphogodes* subsp. *araneola* (Rchb. f.) Laínz in Anales Jard. Bot. Madrid 40(1): 279 (1983)

*Ind. loc.*: “ad rupes calc. in Vallesia leg. cl. A. Charpentier”.

= *Ophrys litigiosa* E.G. Camus in Mém. Herb. Boissier 20: 49-50 (1900); *Ophrys sphogodes* subsp. *litigiosa* (E.G. Camus) Bech., Beitr. Pflanzengeogr. Nordschweiz: 46 (1925)

*Ind. loc.*: “M. l'abbé Grelet, curé des Fosses, par Chizé (Deux-Sevres)”.

**Ophrys sphogodes** Mill., Gard. Dict. ed. 8, Ophrys n.º 8 (1768)

*Ind. loc.*: [England].

*Observations.*—Numerous studies accept the term “sphogodes” as the specific epithet.

= *Ophrys aranifera* Huds., Fl. Angl. ed. 2, 2: 392 n.º 12 (1778)

*Ind. loc.*: “Habitat in pratis et pascuis creta-ceis” [England]

= \**Ophrys galeopsidea* Lag. ex Colmeiro, Enum. Pl. Penins. Hispano-Lusit. 5: 42 (1889)

*Ind. loc.*: “Hab. España en Castilla la Nueva cerca de Madrid en el Soto de Migas-calientes (Lag.)”.

*Observations.*—The name of Colmeiro is not registered in Index Kewensis.

#### **Ophrys** gr. **tenthredinifera**

\***Ophrys bombyliflora** Link in J. Bot. (Schrader) 1799(2): 325 (1800)

*Ind. loc.*: “Diese Art haben wir nur um Tavira in Algarvien gefunden”.

= \**Ophrys bombylifera* Willd., Sp. Pl. 4(1): 68 n.º 15 (1805)

*Ind. loc.*: “Habitat in Lusitania”.

= \**Ophrys labrofossa* Brot., Phytogr. Lusit. Select. 2: 29-31, tab. 88 (1827)

*Ind. loc.*: “Habitat in collibus calcareis de Monsanto, et alibi circa Olisiponem”.

**Ophrys tenthredinifera** Willd., Sp. Pl. 4(1): 67-68 n.º 13 (1805)

≡ *Arachnites tenthredinifera* (Willd.) Tod., Orchid. Sicul.: 85 n.º 6 (1842)

*Ind. loc.*: “Habitat in Barbaria”.

= \**Ophrys arachnites* Link in J. Bot. (Schrader) 1(2): 325 (1799), nom. illeg., non Mill., Gard. Dict. ed. 8, Ophrys n.º 7 (1768) [sub “O. arachnites”], nec (L.) Reichard, Fl. Moeno-Francof. 2: 89 n.º 655 (1778), nec Lam., Fl. Franç. 3: 515-516 n.º IX (1779)

*Ind. loc.*: “Häufig um Lissabon, auf dem höhern Hügeln”.

= *Ophrys insectifera* var. *rosea* Desf., Fl. Atlant. 2: 320 (1799); *Ophrys rosea* (Desf.) Samp., Lista Esp. Herb. Portug., Apêndice 3: 5 (1914), nom. illeg., non Léon Dufour in Bull. Soc. Bot. France 7: 170 (1866), nom. nud., nec Desf. ex Boiss., Fl. Orient. 5(1): 77 (1882)

*Ind. loc.*: [Atlas].

= *Ophrys neglecta* Parl., Fl. Ital. 3: 548-550 n.º 943 (1858)

*Ind. loc.*: “Nei prati e nei colli e nei luoghi incolti delle parti centrali e meridionali della penisola, dove si trova nella Maremma Toscana nei prati umidi della Rugginosa presso Grosseto, alla Badiola e altrove, a Roma sud Monte Testaccio!, nella villa Borghese e altrove, nella Terra di Otranto a Brindisi (Webb erb!), nella Puglia, nella Basilicata e nell’Isola di Capri dove è stata trovata del Prof. Tenore: però io l’ho del Regno di Napoli”.

= \**Ophrys tenthredinifera* var. *serotina* J.A. Guim. in Bol. Soc. Brot. 5: 38 (1887); *Ophrys tenthredinifera* subvar. *serotina* (J.A. Guim.) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 305 (1928)

*Ind. loc.*: “Beira littoral: Coimbra, Santa Clara (F. d’Azevedo! Moller! A. Guimarães!); moinho d’Almoxarife na margem do Mondego, Formoselha (A. de Carvalho!); Buarcos (E. Schmitz!). – Centro littoral: Ancião, Lagarteira (D. F. de Carvalho!); Lourinhã (J. Daveau!); Otta, Abrigada (W.!); Mafra (E. da Veiga); Lisboa (Brot.), S. Bento, Rato, Alcantara (Tourn.), Tapada da Ajuda (E. da Veiga, A. Guimarães!); Cintra (W.!); Cascaes (P. Coutinho! Soc. Brot. n° 458). – Alemtejo littoral: Serra da Arrabida (Holl.?!); Valle do Pixaleiro (W.!). – Algarve: Portimão no sitio do Poço secco, Guia, Ferreiras (A. Guimarães!).”

= \**Ophrys ficalhoana* J.A. Guim. in Bol. Soc. Brot. 5: 38-39 (1887); *Ophrys tenthredinifera* subsp. *ficalhoana* (J.A. Guim.) M.R. Lowe & D. Tyteca in J. Eur. Orch. 32(2): 297 (2000)

*Ind. loc.*: “Alemtejo littoral: S. Thiago de Cacem, Santo André (P. Choffat!). Centro littoral: Serra de Montejuncto (W.!); Charneca do Rio de Mouro no caminho de Cintra (W.!). – Alemtejo littoral: Serra da Arrabida, Azeitão (Moller!); Calhariz, Serra de Palmella (W.!); S. Thiago de Cacem (J. Daveau!); Santo André (Paulo Choffat!).”

= \**Ophrys ficalhoana* var. *choffati* J.A. Guim. in Bol. Soc. Brot. 5: 39 (1887); *Ophrys tenthredinifera* var. *ficalhoana* subvar. *choffati* (J.A. Guim.) E.G. Camus in

E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 305 (1928)

*Ind. loc.*: “Alemtejo littoral: S. Thiago de Cacem, Santo André (P. Choffat!).”

= \**Ophrys ficalhoana* var. *davei* J.A. Guim. in Bol. Soc. Brot. 5: 39 (1887); *Ophrys tenthredinifera* var. *ficalhoana* subvar. *davei* (J.A. Guim.) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Eur. 2: 305 (1928)

*Ind. loc.*: “Centro littoral: Serra de Montejuncto (W.!); Charneca do Rio de Mouro no caminho de Cintra (W.!). – Alemtejo littoral: Serra da Arrabida, Azeitão (Moller!); Calhariz, Serra de Palmella (W.!); S. Thiago de Cacem (J. Daveau!); Santo André (Paulo Choffat!).”

– \**Ophrys tenthredinifera* var. *marianica* Rivas Goday & Bellot in Anales Jard. Bot. Madrid 5: 420 (1946), nom. nud.

*Ind. loc.*: “Valle de la estación de Santa Elena”.

\**Ophrys tenthredinifera* subsp. **guimaraesii** D. Tyteca in J. Eur. Orchid. 32(2): 297, pl. 1c (2000)

≡ \**Ophrys tenthredinifera* subsp. *praecox* D. Tyteca in Orchidophile (Asnières) 65: 768, figs. 1-2 (1985), syn. subst.

*Ind. loc.*: “à l’ouest de Lisbonne (Serra de Monsanto, région de Cascais) et dans la Serra de Montejuncto. Holotypus: Cascais, Estremadura, Lusitania, 25/2/1984. Leg. D. Tyteca (BR) sub n.º 1984/2”.

***Ophrys tenthredinifera* subsp. *tenthredinifera***

***Ophrys* gr. *vernixia***

Following the most generalized criterion, two different taxa are accepted as present in the study area within what has been called *Ophrys speculum* s. l. The populations of the centre and south of Portugal are included in *O. vernixia* Brot., while those of the rest of the Peninsula and the Balearic Islands are included in *O. ciliata* Biv.

SUNDERMANN (1980: 87) considers *Ophrys*



*speculum* var. *regis-ferdinandii* (Acht. & Kellerer) Soó (1959) to inhabit the Iberian Peninsula, but DELFORGE (2001: 412) indicates this taxon belongs to certain islands of the Aegean. It is here considered that the Iberian specimens mentioned by Sundermann should be included in *O. vernixia*, to which it bears some resemblance.

**Ophrys ciliata** Biv., Sicul. Pl., Cent. 1: 60-61 n.º 69 (1806)

*Ind. loc.*: “In pascuis montosis. Panormi sopra S. Maria di Gesu”.

= *Ophrys speculum* var. *lutescens* J.J. Rodr., Fl. Menorca: 137 (1904)

*Ind. loc.*: “Torre-petxina de Ciudadela”.

– *Ophrys speculum* auct., non Link in J. Bot. (Schrad.) 2(4): 324 (1799), nom. illeg.

– *Ophrys vernixia* auct., non Brot., Fl. Lusit. 1: 24 n.º 6 (1804)

\***Ophrys vernixia** Brot., Fl. Lusit. 1: 24 n.º 6 (1804)

*Ind. loc.*: “Hab. in calcareis circa Conimbricam, et alibi”.

= \**Ophrys scolopax* Brot., Phytogr. Lusit. Select. 1: 8-10, tab. 3 (1816), non Cav., Icon. 2(2): 46-47, tab. 161 (1793)

*Ind. loc.*: “Hab. in collibus calcareis circa Conimbricam et alibi in Beira”.

*Observations.*—Brotero’s binomial is not found in Index Kewensis but rather Ten., Prodr. Fl. Napol.: LIII (1813). In the latter work, this name forms part of a list of species belonging to the genus *Ophrys*, but no description is given.

= \**Ophrys speculum* subsp. *lusitanica* O. Danesch & E. Danesch in Orchidee (Hamburg) 20: 21 (1969); *Ophrys vernixia* subsp. *lusitanica* (O. Danesch & E. Danesch) H. Baumann & Künkele in Mitt. Arbeitskr. Beob. Heimischer Orchideen 18(3): 391 (1986)

*Ind. loc.*: “Portugal, ca. 15 km südöstlich von Coimbra. Holotypus: Institut für Systematische Botanik, Universität Heidelberg (HEID)”.

– \**Ophrys speculum* Link in J. Bot. (Schrad.) 2(4): 324 (1799), sensu descr., non e typo

Taxa whose presence requires confirmation:

**Ophrys arachnitiformis** Gren. & Philippe in Mém. Soc. Emul. Doubs ser. 3, 4: 399 (1860), n. v.

≡ *Ophrys aranifera* subsp. *arachnitiformis* (Gren. & Philippe) E.G. Camus, Monogr. Orchid.: 287 (1908); *Ophrys sphenodes* subsp. *arachnitiformis* (Gren. & Philippe) Malag. in Acta Phytotax. Barcinon. 18: 9 (1977)

**Ophrys funerea** Viv., Fl. Cors.: 15 (1824)

≡ *Ophrys fusca* subsp. *funerea* (Viv.) Archang., Comp. Fl. Ital.: 662 (1882)

*Ind. loc.*: “H. in collibus Corsicae australis, et propè Genuam, secus Aquaeductus”.

*Observations.*—This name is found in the Index Kewensis with the species epithet “funerea”.

**Ophrys holosericea** (Burm. f.) Greuter in Boissiera 13: 185 n.º 538 (1967)

≡ *Orchis holosericea* Burm. f. in Nova Acta Acad. Caes. Leop.-Carol. German. Nat. Cur. 4, App.: 237 (1770)

*Ind. loc.*: [Corsica].

*Observations.*—The binomial *Orchis holosericea* is not found in the Index Kewensis.

= *Orchis fuciflora* Crantz, Stirp. Austr. ed. 2, 2, Fasc. VI: 483-484 n.º 4 (1769); *Ophrys fuciflora* (Crantz) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 85, tab. 109 (1851), nom. illeg., non (F.W. Schmidt) Moench, Suppl. Meth.: 311 (1802)

*Ind. loc.*: “In prato montoso Pötzleinsdorff, in depressiori Ottackling & aliis”.

= *Orchis arachnites* Scop., Fl. Carniol. ed. 2, 2: 194 n.º 1115 (1772); *Ophrys arachnites* (Scop.) Reichard, Fl. Moeno-Francof. 2: 89 n.º 655 (1778), comb. inval., non Mill., Gard. Dict. ed. 8, *Ophrys* n.º 7 (1768) [sub “O. adrachnites”]

*Ind. loc.*: “Habitat circa S. Marein. Habitat Tergesti in pratis. Habitat in montanis, herbidis Tergestinis”

= *Arachnites fuciflora* F.W. Schmidt, Fl. Boëm. 1: 76 n.º LXXXVIII, tab. 102 (1794); *Ophrys fuciflora* (F.W. Schmidt) Moench, Suppl. Meth.: 311 (1802)

*Ind. loc.*: “Habitat in pascuis herbidis depressis ad radices montium versus Palatinatum; in den Runigschen Seburg”.

*Observations.*—Index Kewensis gives a homonym to Curtis, Fl. Londin., Fasc. VI, tab. 67 (1793). However, this author describes “*Ophrys fucifera*”.

Different authors (MATEO, 1991: 468, amongst others) mention the combination “*Ophrys fuciflora* (Crantz) Haller”, although Haller never does. Neither is it not recorded in Index Kewensis. In HALLER (1795: tab. 24), the binomial *Orchis fuciflora* is found in a plate representing a species of the genus *Ophrys*, which, in the preceding pages, the author refers to as *Ophrys insectifera arachnites*.

***Ophrys leucadica*** Renz in Feddes Repert. 25: 265, 270 (1928), pro hybr.

*Ind. loc.*: “In West-Griechenland, stellenweise vorherrschend, so auf Korfu (Pantokrator), Leukas (Ostküste), Kephallenia (westlich von Samos und ganze Südwestküste), Zante”.

*Observations.*—This name is not found in the Index Kewensis. However, such a taxon is cited for several places in Portugal by TYTECA (1997: 333). Other authors (BAUMANN & KÜNKELE, 1986: 343) use *O. fusca* as a synonym. It is here believed that the Iberian citations require confirmation.

***Ophrys sulcata*** J. Devillers-Terschuren & P. Devillers-Terschuren in Naturalistes Belges 75, Hors-Sér. (Orchid. 7, Suppl.): 375 n.º 6 (1994)

*Ind. loc.*: “Gallia, regio Poitou-Charentes, Ularius (île d’Oléron), Dolus-d’Oléron, 21.V.1993. Holotypus: In herb. J. & P. Devillers-Terschuren sub nº 1993-4-3-1”.

*Observations.*—This species has been cited by DELFORGE (1995: 248) in the province of

Burgos. HERMOSILLA & SABANDO (1998: 149) point out that the material examined by this author was very withered, and consider the presence of this taxon in Spain to be very odd.

***Orchis* L.**, Sp. Pl. 2: 939 (1753)

### ***Orchis* gr. *conica***

For the treatment of this group, the criteria of SILVESTRE (1997: 159) were used. This author indicates that the Iberian material known as *Orchis lactea* Poir., *O. pusilla* Tyteca and *O. tridentata* Scop. and their infraspecific taxa should be referred to as *O. conica*.

\****Orchis conica*** Willd., Sp. Pl. 4(1): 14 n.º 17 (1805)

≡ *Neotinea tridentata* subsp. *conica* (Willd.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 122 (1997)

*Ind. loc.*: “Habitat in Lusitania”.

= \**Orchis broteroana* Rivas Goday & Bellot in Anales Jard. Bot. Madrid 6(2): 189 n.º 686 (1948); *Orchis lactea* subsp. *broteroana* (Rivas Goday & Bellot) Rivas Goday, Veg. Fl. Cuenca Extrem. Guadiana: 713 (1964), comb. inval.

*Ind. loc.*: “Despeñaperros y Valle de las Correderas, marzo 1928; Despeñaperros, abril 1935; Cejas del Barranco de Santa Elena, Marzo 1940; alrededores de Santa Elena y Valdeazores, mayo de 1941”.

*Lectotypus* (designated here): Top left specimen on sheet MAF 36686.

*Observations.*—In the MAF herbarium the above sheet has the following label: “Plantae Regionis Centralis Hispaniae ex S. Rivas Goday et F. Bellot, lectae. Cejas del Barranco de Santa Elena, Sierra Morena, 30-III-1940” —a locality mentioned in the *indicatio locotipica*. The top left specimen on this sheet would appear to be that which best matches the characteristics mentioned by the authors in the protologue.

= \**Orchis pusilla* D. Tyteca in Orchidophile (Asnières) 62: 628, figs. 1-6 (1984)

*Ind. loc.*: “Cascais, Estremadura, Lusita-

nia. Holotypus: 25/2/84. Leg. *D. Tyteca* (BR), sub n° 1984/1”.

- *Orchis lactea* auct., non Poir. in Lam., Encycl. 4(2): 594 n.° 33 (1798)
- *Orchis tridentata* auct., non Scop., Fl. Carniol. ed. 2, 2: 190 n.° 1109 (1772)
- *Orchis globosa* sensu Brot., Fl. Lusit. 1: 19 n.° 18.1 (1804), non L., Syst. Nat. ed. 10, 2: 1242 n.° 5 (1759)
- *Orchis lactea* var. *hanrici* sensu D. Rivera & López Vélez, Orquíid. Prov. Albacete: 116 (1987), non *O. hanrici* Hénon in Ann. Soc. Agr. Lyon 9: 721 (1846)
- *Orchis tridentata* subsp. *lactea* auct., non (Poir.) Rouy, Fl. France 13: 134 (1912)
- *Orchis tridentata* var. *acuminata* auct., non (Desf.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 25, tab. 155 fig. IV (1850)
- *Orchis tridentata* var. *lactea* auct., non (Poir.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 24, tab. 18 (1850)
- *Orchis lactea* var. *acuminata* auct., non (Desf.) E.G. Camus, Monogr. Orchid.: 116 (1908)
- *Orchis tridentata* subsp. *commutata* auct., non (Tod.) Nyman, Consp. Fl. Eur. 4: 691 (1882)

### **Orchis** gr. **coriophora**

For this group, which has recently been separated from the genus *Orchis*, we have preferred to maintain a single taxon encompassing the varieties and subspecies cited for Iberia since the specimens observed show great variability and it is very difficult to define diagnostic features that clearly identify infraspecific taxa. This has been confirmed by other orchidologists who have worked with this group.

**Orchis coriophora** L., Sp. Pl. 2: 940 n.° 6 (1753)

≡ *Anteriorchis coriophora* (L.) E. Klein & Strack in Phytochemistry 28(8): 2137 (1989); *Anacamptis coriophora* (L.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “Habitat in Europae australioris pascuis”.

*Lectotypus*: “Lobel, Pl. stirp. hist.: 90(a), fig. 2. 1576 sub nom. *Tragorchis minor* et verior *C. Gemmae*, sive *Coriosmites* vel *Coriophora florum* instar *Cimicium*, ca. 1570, leg. Cornelius Gemma” –cf. BAUMANN & al. (1989: 514).

= *Orchis fragrans* Pollini, Elem. Bot. Comp. 2: 157 (1811), n. v.; *Orchis coriophora* var. *fragrans* (Pollini) Boiss., Voy. Bot. Espagne 2(19): 593 n.° 1588 (1842); *Orchis coriophora* subsp. *fragrans* (Pollini) K. Richt., Pl. Eur. 1: 268 n.° 15b (1890); *Anacamptis coriophora* subsp. *fragrans* (Pollini) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

= *Orchis polliniana* Spreng., Pl. Min. Cogn. Pug. 2: 78-79 n.° 151 (1815); *Orchis coriophora* var. *polliniana* (Spreng.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 21, tab. 14 (1850)

*Ind. loc.*: “Habitat in pratis siccis prope a Verona”.

= \**Orchis coriophora* var. *symphyretala* Brot., Phytogr. Lusit. Select. 2: 19-20, tab. 89 (1827)

*Ind. loc.*: “in collibus calcareis, et locis interdum subhumidis, prope S. Pedro Dias circa Conimbricam, in montibus quoque de Cintra, Monsanto circa Olisiponem, et alibi in Beira et Extremadura”.

= *Orchis martrinii* Timb.-Lagr. in Bull. Soc. Bot. France 3: 92-93 (1856); *Orchis coriophora* subsp. *martrinii* (Timb.-Lagr.) Nyman, Consp. Fl. Eur. 4: 691 n.° 11 (1882)

*Ind. loc.*: “Il a été trouvé le 13 juillet 1854, dans une prairie alpine, près du village d’Urbanía (Pyrénées-Orientales), par M. de Marttrin-Donos”.

= \**Orchis coriophora* var. *carpetana* Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 166 n.° 726γ (1861); *Orchis carpetana* (Willk.) Pau in Bol. Soc. Esp. Hist. Nat. 21: 153 (1921); *Orchis coriophora* subsp. *carpetana* (Willk.) Malag. in Acta Phytotax. Barcinon. 1: 64 (1968)

*Ind. loc.*: “ad radices Sierrae de Guadarrama (c. Galapagar, Colm., Escorial, Cut.!, Lge., Chozas, Miraflores, Cut.!, Bourg.!)”.

= \**Orchis coriophora* var. *sennenii* A. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 182, pl. 126 f. 8-9 (1928)

*Ind. loc.*: “Pyrénées-Orient.: Estavar, Vileneuve-les-Escaldes, Llivia, entre 1250-1350 m. d’alt. (Sennen, juin et juillet 1926)”.

*Observations.*—In HERMOSILLA & SABANDO (1996b: 145; 1998: 124), chorological citations are found for the combination “*Anteriorchis fragrans* (Pollini) E. Klein & Strack” = *Orchis fragrans* Pollini. However, STRACK et al. (1989: 2137) consider *Orchis fragrans* a synonym of *Anteriorchis coriophora*, and mention no combination of Pollini’s binomial.

E.G. CAMUS & A. CAMUS (1928: 180) records “*Orchis coriophora* var. *albiflora* Macch., N. g. bot. Ital. XIII: 310 (1881)” in Spain. A review of this document, however, revealed no description of a variety by Macchiati.

#### **Orchis gr. laxiflora**

**Orchis laxiflora** Lam., Fl. Franç. 3: 504, n.° X (1779)

≡ *Orchis palustris* subsp. *laxiflora* (Lam.) Trab. in Batt. & Trab., Fl. Algérie (Monocot.): 30 (1895); *Anacamptis laxiflora* (Lam.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “On la trouve dans les prés montagneux” [France].

= *Orchis ensifolia* Vill., Hist. Pl. Dauph. 2: 29-30 n.° 7 (1787)

*Ind. loc.*: “Il vient dans les prés humides, les marais, aux environs de Grenoble”.

= \**Orchis laxiflora* var. *longibracteata* Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 168 n.° 738 (1861)

*Ind. loc.*: “In pratis pascuis graminosisque humidis v. paludosis regionis inferioris et submont. hinc inde, undique perraro: in Navarra (int. Pamplona et Monreal, Wk.), Cast. nova (pr. Escorial, Lge.), Catal. (c. Olot, Colm., Figueras, Bourg.), regno Granat. (c. Antequera, Grazalema, Bss., Algeciras, Wk.)”.

= \**Orchis laxiflora* var. *guadarramica* Rivas Goday in Revista Univ. Madrid (Farm.) 1(4): 244-245 (1941)

*Ind. loc.*: “in pratis pascuis humidis, vel paludosis siliceis, ex regionis submont. Montibus Guadarrama; loco in pratis: Cercedilla”.

#### **Orchis laxiflora** subsp. **laxiflora**

**Orchis laxiflora** subsp. **palustris** (Jacq.)

Bonnier & Layens, Tabl. Syn. Pl. Vasc. France: 311 (1894)

≡ *Orchis palustris* Jacq., Collectanea 1: 75-76 n.° CX (1786); *Orchis laxiflora* var. *palustris* (Jacq.) W.D.J. Koch, Syn. Fl. Germ. Helv. ed. 2, 2: 792 (1844); *Anacamptis palustris* (Jacq.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “in pratis Austriae palustribus, imprimis circa Himberg”.

= *Orchis mediterranea* Guss., Pl. Rar.: 365-366 (1826); *Orchis palustris* var. *mediterranea* (Guss.) Schltr. in G. Keller & Schltr., Monogr. Iconogr. Orchid. Eur. 1(5/6): 192 (1927); *Orchis palustris* subsp. *mediterranea* (Guss.) Malag. in Acta Phytotax. Barcinon. 1: 64 (1968); *Orchis laxiflora* var. *mediterranea* (Guss.) D. Rivera & López Vélez, Orquíd. Prov. Albacete: 140 (1987)

*Ind. loc.*: “In inundatis, cultis que maritimis Calabriae ac Lucaniae orientalis et occidentalis, nec non in Sicilia meridionali”.

**Orchis laxiflora** subsp. **robusta** (T. Stephenson) H. Sund., Europ. Medit. Orchid. ed. 3: 40 (1980)

≡ *Orchis palustris* var. *robusta* T. Stephenson in J. Bot. 69: 179 (1931); *Orchis robusta* (T. Stephenson) Gözl & H.R. Reinhard in Ber. Schweiz. Bot. Ges. 85(4): 288 (1976)

*Ind. loc.*: “Fort de l’Eau”.

#### **Orchis gr. mascula**

\***Orchis langei** K. Richt., Pl. Eur. 1: 273 n.° 59 (1890), pro hybr.

*Ind. loc.*: “In pratis ad Escorial” [ap. Lange in Vidensk. Meddel. Dansk Naturhist. Foren.

Kjøbenhavn 1860: 78 (1861), sub *O. masculo-laxiflora*].

= *Orchis mascula* var. *fallax* E.G. Camus in Bull. Soc. Bot. France 36: 341-342 (1889)

*Ind. loc.*: “aux Pâtis, commune de Rais-ménil, à 10 kilomètres de Doullens, par notre zélé confrère M. Copineau”.

= \**Orchis mascula* subsp. *laxifloraeformis* Rivas Goday & Bellot in Anales Jard. Bot. Madrid 6(2): 190 n.º 688 (1948)

*Ind. loc.*: “In sylvaticis nemorosisque montanis, per omnium Hispaniam; solo siliceo, vel calcareo, frequente. Legimus in Montibus Marianis. Marzo-junio 1935-41”.

*Lectotypus* (designated here): An example found in sheet MAF 36925, with the label “Plantae Regionis Centralis Hispaniae ex S. Rivas Goday et F. Bellot, lectae. Las Tinajuelas, in quercetis ilicis degradatis, Sierra Morena, 12-V-1941”.

= \**Orchis hispanica* A. Niesch. & C. Niesch. in Orchidee (Hamburg) 21: 303-304, Figs. 1-3, Abb. 1-2 (1970); *Orchis mascula* subsp. *hispanica* (A. Niesch. & C. Niesch.) Soó in Feddes Repert. 83(3): 186 (1972)

*Ind. loc.*: “Sierra de Albarracín, südöstlich des Ortes Albarracín, Prov. Teruël/Spainien. Holotypus: A. & Ch. Nieschalk, Korbach, im Herbarium des Instituts für Systematische Botanik der Universität Heidelberg (HEID)”.

***Orchis mascula* L.**, Fl. Suec. ed. 2: 310 n.º 795 (1755)

*Ind. loc.*: “Habitat in Gotlandiae lucis”.

*Lectotypus*: “LINN 1054.19, vermutlich 06.07.1741, leg. Carl Linnaeus” –cf. BAUMANN & al. (1989: 518).

***Orchis mascula* subsp. *ichnusae* Corrias** in Boll. Soc. Sarda Sci. Nat. 21: 403-404, 405 fig. 1 (1982)

*Ind. loc.*: “Typus - Holotypus in SS: «Sardegna. Monte di Oliena, tra le rocce del pianoro di Scala e Pradu. Calcare, m 1200». B. Corrias e S. Diana, 2.V.1982, n. 1. Isotypi in FI: n. 2, in SS: n. 3 e 4”.

***Orchis mascula* subsp. *mascula***

= *Orchis mascula* var. *obtusiflora* W.D.J. Koch, Syn. Fl. Germ. Helv. 2: 685 (1838)

*Ind. loc.*: [Germany, Switzerland].

= \**Orchis mascula* var. *marizii* J.A. Guim. in Bol. Soc. Brot. 5: 72-73 (1887)

*Ind. loc.*: “Alemdouro littoral: arredores do Porto: Gondarem (E. Schmitz!). – Alemdouro transmontano: Bragança, Cabeço de S. Bartholomeu (M. Ferreira!). – Beira littoral: Pinhal de Leiria (S. Pimentel!). – Beira meridional: Alcaide, Castello Branco (R. da Cunha!). – Alto Alemtejo: Portalegre (R. da Cunha!). – Centro littoral: Caneças (R. da Cunha!)”.

= \**Orchis mascula* var. *monsignatica* Font Quer in Cavanillesia 1: 19 n.º 5 (1928); *Orchis monsignatica* (Font Quer) Rivas Goday in Revista Univ. Madrid (Farm.) 1(4): 253 (1941), pro hybr.

*Ind. loc.*: “Hab in monte Signato (Catalaunia), l. Vall de Sta. Fe, dicto 1150 m. alt.”.

*Observations.*–The combination of Rivas Goday is not found in Index Kewensis.

– \**Orchis mascula* var. *nevadensis* Pallarés, Orquíid. Almería: 146 (1999), nom. nud., sine descr. lat.

*Ind. loc.*: “bajo pinares en laderas del Castillejo, WG0100 a 1900 m”.

***Orchis mascula* subsp. *olbiensis* (Reut. ex Gren.) Asch. & Graebn.**, Syn. Mitteleur. Fl. 3(5): 703 (1907)

≡ *Orchis olbiensis* Reut. ex Gren. in Mém. Soc. Emul. Doubs ser. 3, 3: 6 (1859), n. v.

– \**Orchis olbiensis* var. *balearica* L. Chodat in Bull. Soc. Bot. Genève 15: 179 (1924), nom. nud.

*Ind. loc.*: “Majorque”.

– \**Orchis cabrerensis* Pallarés, Orquídeas Almería: 140-142 (1999), nom. inval.

*Ind. loc.*: “supra oppidulum La Carrasca, Sierra Cabrera pratis montosis”.

*Observations.*–This is a recently described species for which no type has been designated. Therefore, following the criterion of the ICBN, the name is invalid.

**Orchis pallens** L., Mant. Pl. 2: 292-293 (1771)

*Ind. loc.*: “Habitat in Europae sylvis”.

*Lectotypus*: “Haller, Hist. stirp. Helv. 2: tab. 30. 1768 sub nom. *Orchis radicebus* subrotundis, petalis galeae lineatis, labello trifido integerrimo, 14.06.1759, leg. Albrecht von Haller” –cf. BAUMANN & *al.* (1989: 532).

**Orchis provincialis** Balb. ex DC. in Lam. & DC., Syn. Pl. Fl. Gall.: 169 (1806)

*Ind. loc.*: “In Galloprovincia ad sylvam de l’Esterelle”.

\***Orchis tenera** (Landwehr) Kreutz in Eurorchis 3: 98 (1991)

≡ *Orchis mascula* var. *tenera* Landwehr, Wilde Orch. Eur. 2: 557, 268, figs. 3-5 (1977)

*Ind. loc.*: “Luarca, Spanje. Typus: in collectie Landwehr, plaat 92, afb. 11. 28 mei 1962”.

#### **Orchis** gr. **militaris**

**Orchis italica** Poir. in Lam., Encycl. 4(2): 600-601 n.º 61 (1798)

*Ind. loc.*: “Cette plante a été observée en Italie par M. Vahl”.

= \**Orchis longicruris* Link in J. Bot. (Schrader) 1799(2): 323 (1800)

*Ind. loc.*: “Häufig auf der Hügeln um Bellas”.

= *Orchis undulatifolia* Biv., Sicul. Pl., Cent. 2: 44-45 n.º 61 (1807); *Orchis tephrosanthos* var. *undulatifolia* (Biv.) Webb, Iter Hisp.: 9 (1838)

*Ind. loc.*: “Habitat in collibus prope Catanam nella contrada di Pintulattila”.

= \**Orchis welwitschii* Rchb. f., Icon. Fl. Germ. Helv. 13/14: 183 n.º 16b (1851)

*Ind. loc.*: “Lus.: In decliviis de Serra de São Luiz rarissima. Aprili 1842 Welwitsch! (No. 27)”.

= \**Orchis longicruris* Link. subsp. *longipenis* Font Quer & P. Palau in Collect. Bot. (Barcelona) 4(2): 209 (1954)

*Ind. loc.*: “In nemore Xorrigó, circa Algaida, die 4 aprilis 1954 inveni”.

*Lectotypus*: “Bosque de Xorrigó (Algaida), 4-IV-1954, Palau Ferrer 683, MA 346651” –cf. ROSSELLÓ & SÁEZ (2001: 115).

– *Orchis simia* sensu Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 166 n.º 728 (1861)

**Orchis militaris** L., Sp. Pl. 2: 941 n.º 10 (1753)

*Ind. loc.*: “Habitat in Europae temperatae pratis”.

*Lectotypus*: “L. Fuchs, Hist. stirp.: 554. 1542 sub nom. *Orchis mas latifolia* (= *O. militaris*), ca. 1535-1538, leg. Leonhart Fuchs” –cf. BAUMANN & *al.* (1989: 521).

= *Orchis galeata* Poir. in Lam., Encycl. 4(2): 593-594 n.º 31 (1798)

*Ind. loc.*: “Cette plante croît aux environs de Paris dans les prés montueux”.

**Orchis purpurea** Huds., Fl. Angl.: 334-335 n.º 7 (1762)

*Ind. loc.*: “Habitat in collibus cretaceis. At Northfleet near Gravesend, Mr. J. Sherard”.

= *Orchis fusca* Jacq., Fl. Austriac. 4: 4, tab. 307 (1776)

*Ind. loc.*: “Crescit in pratensibus montanis” [Austria].

= *Orchis fusca* var. *stenoloba* Coss. & Germ., Fl. Descr. Anal. Paris 2: 550 (1845); *Orchis purpurea* var. *stenoloba* (Coss. & Germ.) Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 167 (1861)

*Ind. loc.*: “Meudon! Vincennes! Fontainebleau!”.

**Orchis simia** Lam., Fl. Franç. 3: 507 n.º XIX (1779)

*Ind. loc.*: “On trouve cette plante dans les prés” [France].

#### **Orchis** gr. **morio**

**Orchis champagneuxii** Barnéoud in Ann. Sci. Nat., Bot. 20: 380 n.º 2 (1843)

≡ *Orchis morio* var. *champagneuxii* (Barnéoud) J.A. Guim. in Bol. Soc. Brot. 5: 64 (1887); *Orchis morio* subsp. *champagneuxii*

*neuxii* (Barnéoud) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 154 (1928); *Anacamptis champagneuxii* (Barnéoud) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “Notre espèce a été trouvée sur les côtes schisteuses d’Hyères, où, d’après la remarque de M. Champagneux”.

= \**Orchis morio* var. *mesomelana* Rchb. f., Icon. Fl. Germ. Helv. 13/14: 182 n.º 2 (1851); *Orchis champagneuxii* var. *mesomelana* (Rchb. f.) D. Tyteca in Orchidophile (Asnières) 70: 997, fig. 3 (1986)

*Ind. loc.*: “Lus.: In Transtaganae pinetis prope Olden Galleza et Tamora. Aprili 1843 Welwitsch!”.

– *Orchis morio* var. *picta* sensu Pérez Lara in Anales Soc. Esp. Hist. Nat. 15: 450 n.º 265 (1886), non (Loisel.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 17 n.º 2, tab. 13 fig. I (1850)

***Orchis longicornu*** Poir., Voy. Barbarie 2: 247 (1789)

≡ *Anacamptis longicornu* (Poir.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “Cette plante croît sur les bords de la mer, dans les lieux un peu humides & ombragés” [Barbarie].

– *Orchis longicornu* var. *balearica* L. Chodat in Bull. Soc. Bot. Genève 15: 179 (1924), nom. nud.; *O. longicornu* race *balearica* L. Chodat in Bull. Soc. Bot. Genève 15: 199 (1924), nom. nud.; *O. longicornu* subsp. *balearica* L. Chodat ex Colom, Biogeogr. Baleares ed. 2, 1: 198 (1978), nom. nud.

*Ind. loc.*: “dans les bois humides, un peu éclairés de Quercus Ilex, d’Estallench à Aumalluch”.

***Orchis morio*** L., Sp. Pl. 2: 940 n.º 8 (1753)  
≡ *Anacamptis morio* (L.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “Habitat in Europae nemoribus”.

*Lectotypus*: “Fuchs, Hist. stirp.: 559. 1542 sub nom. *Triorchis serapias* mas, ca. 1535-1538, leg. Leonhart Fuchs” –cf. BAUMANN & al. (1989: 523).

***Orchis morio*** subsp. ***morio***

***Orchis morio*** subsp. ***picta*** (Loisel.) K. Richt., Pl. Eur. 1: 265 n.º 2b (1890)

≡ *Orchis picta* Loisel. in Mém. Soc. Linn. Paris 6(2): 431 (1827); Fl. Gall. ed. 2, 2: 263-264, tab. 26 (1828), non Raf. in Med. Repos. 5: 354 (1808), nom. nud.; *Orchis longicornu* var. *picta* (Loisel.) Lindl., Gen. Sp. Orch.: 269 (1835); *Orchis morio* var. *picta* (Loisel.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 17 n.º 2, tab. 13 (1850)

*Ind. loc.*: “M. Robert a recueilli cette plante aux environs de Toulon”.

= \**Orchis morio* var. *longecalcarata* Boiss., Voy. Bot. Espagne 2(19): 594 n.º 1590 (1842)

*Ind. loc.*: “In pratis regionis calidae, in regno Granatensi occidentali loco non notato legit am. Haenseler”.

***Orchis*** gr. ***papilionacea***

***Orchis collina*** Banks & Sol. in Russell, Nat. Hist. Aleppo ed. 2, 2: 264 (1794)

≡ *Anacamptis collina* (Banks & Sol.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: [Aleppo].

= *Orchis saccata* Ten., Prodr. Fl. Napol.: LIII (1813)

*Ind. loc.*: [Naples].

*Lectotypus*: “In collibus argillosis, Lucaniae. Tenore. Da Tenore in Marzo 1844, FI” –cf. HAUTZINGER (1978: 48).

\****Orchis papilionacea*** L., Syst. Nat. ed. 10, 2: 1242 (1759)

≡ *Vermeulenia papilionacea* (L.) Á. Löve & D. Löve in Acta Bot. Neerl. 21(5): 553 n.º 1 (1972); *Anacamptis papilionacea* (L.) R.M. Bateman, Pridgeon & M.W. Chase in Lindleyana 12(3): 120 (1997)

*Ind. loc.*: “Habitat in Hispania. Alströmer” [sec. L., Sp. Pl. ed. 2, 2: 1331 (1763)].

*Lectotypus*: “LINN 1054.30, pl. dextra, nähere Daten nicht bekannt” –cf. BAUMANN & al. (1989: 533).

= *Orchis rubra* Jacq., Icon. Pl. Rar. 1(5): 18, n.º et tab. 183 (1786); *Orchis papilionacea* subsp. *rubra* (Jacq.) Malag. in Acta Phytotax. Barcinon. 1: 64 (1968)

*Ind. loc.*: “In agro Romano sponte crescentem invenit reverendus Norbertus Boccus” [sec. Jacq., Collectanea 1: 60 (1786)].

***Orchis papilionacea* subsp. *grandiflora***

(Boiss.) Malag. in Acta Phytotax. Barcinon. 1: 64 (1968)

≡ \**Orchis papilionacea* var. *grandiflora* Boiss., Voy. Bot. Espagne 2(19): 592-593 n.º 1587 (1842)

*Ind. loc.*: “In regione montanâ, in montosis propè Estepa legit amic. Haenseler”.

= *Orchis expansa* Ten., Ind. Sem. Horti Neap. 1929: 9, 17 (1829); *Orchis rubra* var. *expansa* (Ten.) Lindl., Gen. Sp. Orch.: 266 n.º 22ß (1835); *Orchis papilionacea* subsp. *expansa* (Ten.) Raynaud, Orch. Maroc: 43 (1985)

*Ind. loc.*: “Habitat in monte Pollino”.

– *Orchis papilionacea* var. *rubra* sensu Brot., Phytogr. Lusit. Select. 2: 17-18, tab. 88 (1827)

***Orchis papilionacea* subsp. *papilionacea***

= \**Orchis papilionacea* var. *parviflora* Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 165 n.º 723α (1861)

*Ind. loc.*: not indicated expressly in the protologue for the variety. “In graminosis herbis solis calcarei in regione inferiore Hispan. austral. ad alt. 0-3000’: in regno Granat. [pr. Estepa, Bss., Yunquera, Wk., Malaga, Fk.!, Sierra Elvira, Lge.], Jiennensi (Fuendelapeña p. Jaen, Lge.!), raro in Hisp. boreali (la Liébana, Schaufuss!)”, sec. Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 165 n.º 723 (1861), for the species.

***Orchis* gr. *spitzelii***

\**Orchis cazorlensis* Lacaita in Cavanillesia 3: 35-36 n.º 39 (1930)

≡ *Orchis spitzelii* subsp. *cazorlensis* (Lacaita) D. Rivera & López Vélez, Orquid. Prov. Albacete: 129 (1987)

*Ind. loc.*: “In montibus Cazorlanis provinciae Giennensis die 31 Maio 1928 invenimus, ubi rarius in pinetis nascitur supra fontes fluminis Guadalquivir, alt. circa 1600 m, iterumque in iisdem montibus loco dicto “Paradiera del Corral” supra “Poyo Cerezo” in pinetis legimus die 15 Junio ejusdem anni”.

– *Orchis pinetorum* Lacaita in Bull. Soc. Bot. Genève 21: 134 (1929), nom. nud., non Boiss. & Kotschy ex Boiss., Fl. Orient. 5(1): 68 (1882)

*Ind. loc.*: “dans les bois de pins vers le Guadalquivir naissant et aussi à Poyo Cerezo”.

– \**Orchis mascula* var. *montisbaetica* Rivas Goday in Anales Real Acad. Farm. 7: 124 (1941), nom. inval., sine descr. lat.

*Ind. loc.*: “Sierra de Baza (loco), Cruz de la Chaparra, 1.080 metros, 17-IV-1935, y Llanos del Baúl, 1.100 m, 18-IV-1935; en quercetum ilicis (fructices)”.

*Observations.*—In the mentioned publication, Rivas Goday indicates the place of description of this variety as “Rev. Crit. Orch. Hisp. 1: 39”, but gives no year. This publication is not mentioned in Izco (1981), nor do we know of any publication with a similar name.

– *Orchis patens* auct., non Desf., Fl. Atlant. 2: 318, tab. 248 (1799)

– *Orchis patens* subsp. *spitzelii* sensu Á. Löve & Kjellq. in Lagasalia 3(2): 176 (1973)

***Orchis spitzelii* Saut. ex W.D.J. Koch, Syn. Fl. Germ. Helv. 2: 686 n.º 9 (1837)**

*Ind. loc.*: “In locis graminosis alpium Tyrolis, (a. d. Weissbachelalpe in Buchweissbach bei Saalfelden in Tyrol.)”.

*Lectotypus*: “Nr. 46. Weißbachelalpen bei saalfelden in Salzburgischen, Juli 1835-5600’, Spitzel. W!” –cf. HAUZINGER (1978: 52).



**Orchis** gr. **ustulata**

**Orchis ustulata** L., Sp. Pl. 2: 941 n.º 9 (1753)  
 ≡ *Neotinea ustulata* (L.) R.M. Bateman, Prid-  
 geon & M.W. Chase in Lindleyana 12(3):  
 122 (1997)

*Ind. loc.*: “Habitat in Europae temperatae  
 pratis”.

*Lectotypus*: “LINN 1054.21, planta sinis-  
 tra, vermutlich 09.07.1751, leg. Carl Lin-  
 naeus” –cf. BAUMANN & al. (1989: 537).

**Platanthera** Rich., Orchid. Eur. Annot.: 20,  
 26, 35 (1817); in Mém. Mus. Hist. Nat. 4:  
 42, 48 (1818)

**Platanthera algeriensis** Batt. & Trab. in  
 Bull. Soc. Bot. France 39: 75 (1892)

*Ind. loc.*: “Marais de la Rassauta, près de la  
 rade d’Alger”.

**Platanthera bifolia** (L.) Rich., Orchid. Eur.  
 Annot.: 35 (1817); in Mém. Mus. Hist. Nat.  
 4: 57 (1818)

≡ *Orchis bifolia* L., Sp. Pl. 2: 939 n.º 3 (1753)

*Ind. loc.*: “Habitat in Europae pascuis as-  
 peris”.

*Lectotypus*: “Mattioli (ed. J. Camerar.), De  
 pl. Epitome: 625, fig. media. 1586 sub nom.  
 Testiculi species V, ca. 1565, leg. Conrad  
 Gesner” –cf. BAUMANN & al. (1989: 540).

= *Orchis alba* Lam., Fl. Franç. ed. 2, 3: 502  
 n.º III (1795)

*Ind. loc.*: “On trouve cette plante dans les  
 prés couverts, les bois” [France].

= *Platanthera solstitialis* Boenn. ex Rchb., Fl.  
 Germ. Excurs. 1: 120 (1830), in syn. *Plat-  
 anthera bifolia*

*Ind. loc.*: “Auf Waldwiesen, Bergtriften”.

**Platanthera chlorantha** (Custer) Rchb. in  
 Mössler, Handb. Gewächsk. ed. 2, 2(2):  
 1565 n.º 2 (1829)

≡ *Orchis chlorantha* Custer in Neue Alpina 2:  
 400-401 (1827); *Habenaria chlorantha*  
 (Custer) Bab. in Trans. Linn. Soc. London  
 17: 462 n.º 15 (1834), non Spreng., Syst.  
 Veg. 3: 691 (1826)

*Ind. loc.*: “nicht selten in Tannengehölzen  
 des Unter-Rheinthals und der an dasselbe  
 stossenden Gemeinden Appenzell’s; auch um  
 St. Gallen”.

*Observations.*–The binomial of Custer is  
 not registered in Index Kewensis.

=? *Orchis montana* F.W. Schmidt, Fl. Bo-  
 hem. 1: 35-36 n.º XLIX, tab. 56 (1793);  
*Platanthera montana* (F.W. Schmidt)  
 Rchb. f., Icon. Fl. Germ. Helv. 13/14: 123  
 n.º 4, tab. 78 (1851)

*Ind. loc.*: “Habitat in summis montium  
 jugis, lapidosis apricis. In summo montis  
 Jaschsen prope Reichenberg; in summis mon-  
 tibus Ostrowitzensibus”.

**Pseudorchis** Ség., Pl. Veron. 3: 254 (1754)

**Pseudorchis albida** (L.) Á. Löve & D. Löve  
 in Taxon 18(3): 312 (1969)

≡ *Satyrium albidum* L., Sp. Pl. 2: 944-945 n.º 4  
 (1753); *Orchis albida* (L.) Scop., Fl. Carniol.  
 ed. 2, 2: 201 n.º 1124 (1772); *Habenaria al-  
 bida* (L.) R. Br. in W.T. Aiton, Hortus Kew.  
 ed. 2, 5: 193 n.º 4 (1813); *Gymnadenia albi-  
 da* (L.) Rich., Orchid. Eur. Annot.: 35  
 (1817); in Mém. Mus. Hist. Nat. 4: 57  
 (1818); *Coeloglossum albidum* (L.) Hartm.,  
 Handb. Skand. Fl.: 329 (1820); *Platanthera  
 albida* (L.) Lindl., Syn. Brit. Fl.: 261 n.º 2  
 (1829); *Leucorchis albida* (L.) E. Mey. in  
 Patze, E. Mey. & Elkan, Fl. Preuss. 1: 91  
 (1848), in observ., non E. Mey. ex Schur,  
 Sert. Fl. Transsilv. 7: 72 n.º 2703 (1853), nec  
 E. Mey. ex Schur, Enum. Pl. Transsilv.: 645  
 (1866); *Bicchia albida* (L.) Parl., Fl. Ital. 3:  
 397 n.º 885 (1858)

*Ind. loc.*: “Habitat in Scaniae, Germaniae,  
 Helvetiae, Averniae pratis sylvaticis”.

*Lectotypus*: “P. Mich. Nov. pl. gen.: tab.  
 26, fig. A-C. 1729 sub nom. Pseudo-orchis,  
 17.-23.7.1725, leg. Pier Antonio Micheli”  
 –cf. BAUMANN & al. (1989: 544).

**Serapias** L., Sp. Pl. 2: 949 (1753)

In COLMEIRO (1889: 21), *Serapias triloba*  
 Léon Dufour and *S. humilis* Cav. are men-  
 tioned. However, a review of the works of

these authors reveals no such names. Neither can they be found in the Index Kewensis. BAUMANN & KÜNKELE (1989: 856) consider them invalid. The lack of herbarium specimens prevents the inclusion of these species.

\**Serapias cordigera* L., Sp. Pl. ed. 2, 2: 1345 n.º 4 (1763)

*Ind. loc.*: “Habitat in Hispania, Italia, Oriente”.

*Lectotypus*: “LINN 1057.8, 1760, leg. Klas Alströmer” –cf. BAUMANN & al. (1989: 556).

= \**Serapias cordigera* var. *curvifolia* J.A. Guim. in Bol. Soc. Brot. 5: 49 (1887); *Serapias cordigera* subvar. *curvifolia* (J.A. Guim.) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 85 (1928)

*Ind. loc.*: “Beira littoral: pr. de Aveiro (J. Henriques!). – Baixo Alemtejo littoral: entre Grandola e Alcaccer do Sal, muito frequente (W.!). – Algarve: pr. a S. João da Venda (A. Guimarães) (v.v.)”.

= \**Serapias cordigera* var. *leucantha* J.A. Guim. in Bol. Soc. Brot. 5: 49 (1887); *Serapias cordigera* subvar. *leucantha* (J.A. Guim.) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 85 (1928)

*Ind. loc.*: “Beira littoral: arredores do Porto, Castello do Queijo (Felgueiras e E. Johnston). – Centro littoral: entre Otta e Serra de Montejunto (W.!). – Baixo Alemtejo littoral: entre Grandola e Alcaccer do Sal (W.!). – Baixas do Guadiana: Beja (R. da Cunha!) (v.s.)”.

= \**Serapias cordigera* var. *leucoglottis* Welw. ex Rchb. f., Icon. Fl. Germ. Helv. 13/14: 181 n.º 3 (1851); *Serapias cordigera* subvar. *leucoglottis* (Welw. ex Rchb. f.) E.G. Camus in E.G. Camus & A. Camus, Iconogr. Orchid. Europe 1: 85 (1928)

*Ind. loc.*: “Lus.: In Transtaganae pinetis arenosis prope Fornos d’El Rei rara. Martio 1843 Welwitsch!”.

\**Serapias lingua* L., Sp. Pl. 2: 950 n.º 2 (1753)

≡ *Helleborine lingua* (L.) Pers., Syn. Pl. 2(2): 512 n.º 2 (1807)

*Ind. loc.*: “Habitat in Italia, Lusitania”.

*Lectotypus*: “Colonna, Min. cogn. stirp.: 322, fig. sin. 1606 sub nom. Orchis macrophylla, ca. 1600, leg. Fabio Colonna” –cf. BAUMANN & al. (1989: 558).

= \**Serapias lingua* var. *hirtula* Boiss., Voy. Bot. Espagne 2(19): 598 n.º 1608 (1842)

*Ind. loc.*: “In humidis regionis calidae et montanae, Malaga en la Dehesilla cl. Haenseler, circa Antequera Prolongo et in tractu Serrania de Ronda en las Alvinas del Alcornoque Haenseler”.

= \**Serapias lingua* var. *leucantha* J.A. Guim. in Bol. Soc. Brot. 5: 53 (1887)

*Ind. loc.*: “Beira littoral: Granja (E. Johnston!) (v.v.)”.

= \**Serapias lingua* var. *leucoglottis* Welw. ex J.A. Guim. in Bol. Soc. Brot. 5: 53-54 (1887)

*Ind. loc.*: “Alemdouro littoral: arredores do Porto, estrada de Mattosinhos (E. Johnston e Felgueiras!). – Beira transmontana (E. Schmitz!). – Centro littoral: Torres Novas, Agrizel (R. da Cunha!). – Alto Alemtejo: Villa Fernando (R.L. Marçal!). – Algarve: arredores de Faro (W.) (v.v.)”.

= \**Serapias lingua* var. *longebracteata* J.A. Guim. in Bol. Soc. Brot. 5: 53 (1887)

*Ind. loc.*: “Alemdouro littoral: Pinhaes de Caminha, Lanhelas, insuas (R. da Cunha!); arredores do Porto (E. Johnston!). – Centro littoral: Cascaes (P. Coutinho!). – Baixo Alemtejo littoral: S. Thiago de Cacem (W.!, J. Daveau!) (v.v.)”

– *Serapias barbata* Rodr. ex Colmeiro, Enum. Pl. Peníns. Hispano-Lusit. 5: 20 (1889), pro syn.

*Observations.* – COLMEIRO (1889: 20) includes this plant among the synonyms of *Serapias lingua*. According to BAUMANN & KÜNKELE (1989: 854), the name is invalid.

– *Serapias basilei* Senn., in sched., nom. nud.

*Serapias nurrica* Corrias in Boll. Soc. Sarda Sci. Nat. 21: 397, 398 fig. 1 (1982)

*Ind. loc.*: “Typus - Holotypus in SS:

«Sardegna. Stintino (Sassari), Punta Negra. Scisti, m 20, nella macchia». B. Corrias, 4.V.1982, n. 1. Isotypi in FI: n. 2, in SS: n. 3 e 4”.

**Serapias parviflora** Parl. in Giorn. Sci. Sicilia 59: 66 (1837), n. v.; in Linnaea 12: 347-348 (1838)

≡ *Serapias laxiflora* var. *parviflora* (Parl.) Rchb. f., Icon. Fl. Germ. Helv. 13/14: 13 n.º 5, tab. 90 fig. II-III (1850)

*Ind. loc.*: “Legi in udis maritimis prope Panormum a Mondello” [sec. Parl. in Linnaea 12: 347-348 (1838)].

*Typus*: “ca. 1837, leg. F. Parlatore (FI)” –cf. BAUMANN & KÜNKELE (1989: 785).

= \**Serapias occultata* J. Gay ex Willk. in Willk. & Lange, Prodr. Fl. Hispan. 1: 163 n.º 716 (1861); J. Gay in Ann. Sci. Nat., Bot. 6: 119 (1836), nom. nud.

*Ind. loc.*: “In graminosis humidis regionis inferioris passim: in Astur. (pr. Gijon, Dur.), Cantabr. (int. Tolosa et Hernani, Wk.), Catal. (c. Barcinonem., Fk!)”.

– *Serapias laxiflora* sensu Rchb. f., Icon. Fl. Germ. Helv. 13/14: 13 n.º 5, tab. 90 (1850), non Chaub. in Bory & Chaub., Nouv. Fl. Pélop.: 62 (1838)

– *Serapias angustifolia* Cav. ex Colmeiro, Enum. Pl. Peníns. Hispano-Lusit. 5: 19 (1889), nom. inval., pro syn. *Serapias occultata*

– *Serapias stenoglossa* Durieu ex Colmeiro, Enum. Pl. Peníns. Hispano-Lusit. 5: 19 (1889), nom. inval., pro syn. *Serapias occultata*

\***Serapias perez-chiscanoi** Acedo in Anales Jard. Bot. Madrid 47(2): 510 (1990)

– \**Serapias viridis* Pérez Chisc. in Monogr. Inst. Piren. Ecol. 4: 305-306 (1988), syn. subst., non Vell., Fl. Flum. 9: ta. 49 (1827)

*Ind. loc.*: “ca. Santa Amalia (Badajoz), J.L. Pérez Chiscano. Holotypus: Hb. Pérez Chiscano, sub n.º 1147”.

\***Serapias strictiflora** Welw. ex Da Veiga, Orchid. Portugal: 18, tab. 6 fig. 11 (1886)

*Ind. loc.*: “Welw., in herb. Acad. Scienc. Olyssip. X. 964. [...] Esta especie [...] foi descoberta pelo dr. Welwitsch em maio e junio entre Bellas e Caneças”.

*Typus*: “05./06., ca. 1852, leg. F.M.J. Welwitsch, Herb. Welw. 10: 964 (LISU)” –cf. BAUMANN & KÜNKELE (1989: 787).

*Observations.*—This name is not registered in Index Kewensis.

= \**Serapias gracilis* Kreutz in Mitt. Arbeitskr. Beob. Heimischer Orchideen 21(1): 116-117, figs. 1-4, 9 (1989)

*Ind. loc.*: “Spanien, Cadiz, Los Barrios (Sierra del Niño). Holotypus: leg. C.A.J. Kreutz, sub 1071, in Herbarium priv. Kreutz, C.A.J. Isotypen: Herbarium priv. Kreutz, C.A.J. und Rijksherbarium Leiden (L)”.

**Serapias vomeracea** (Burm. f.) Briq., Prodr. Fl. Corse 1: 378 n.º 457 (1910)

≡ *Orchis vomeracea* Burm. f. in Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur. 4, App.: 237 (1770); *Serapias cordigera* subsp. *vomeracea* (Burm. f.) H. Sund., Europ. Medit. Orchid. ed. 3: 39 (1980)

*Ind. loc.*: [Corse].

*Lectotypus*: “Séguier, Pl. veron. 3: tab. 8, fig. 4. 1754, ca. 1750, leg. Jean Francois Séguier” –cf. BAUMANN & KÜNKELE (1989: 793).

= *Serapias hirsuta* Lapeyr., Hist. Pl. Pyrénées: 551-552 n.º 1 (1813)

*Ind. loc.*: “Prairies sèches. Melles, Cau d’Espade, Toulouse”.

**Serapias vomeracea** subsp. *vomeracea*

Taxa whose presence requires confirmation:

**Serapias olbia** Verg. in Bull. Soc. Bot. France 54: 599, pl. XIII (1907)

*Ind. loc.*: “Prairies maritimes de l’extrémité sud de l’isthme de Giens, près d’Hyères, 24 avril 1904, 1er mai 1905, 13 mai 1906; prairies salées du Lavandou, 24 mai 1905; presqu’île du Cap Cépet, près du Creux Saint-Georges, 3 mai 1906, sur sol siliceux”.

**Serapias stenopetala** Maire & T. Stephenson, Bull. Soc. Hist. Nat. Afrique N. 21: 48-49 (1930)

*Ind. loc.*: “Hab. in calvitiis Querceti suberi, in dumetis humidiusculis Numidiae litoralis: inter La Calle et lacum Oubiera, leg. *Maire et Stephenson*”.

**Spiranthes** Rich., Orchid. Eur. Annot.: 20, 28, 36 (1817); Mém. Mus. Hist. Nat. 4: 42, 50 (1818)

**Spiranthes aestivalis** (Poir.) Rich., Orchid. Eur. Annot.: 36 (1817); in Mém. Mus. Hist. Nat. 4: 58 (1818)

≡ *Ophrys aestivalis* Poir. in Lam., Encycl. 4(2): 567 n.º 4 (1798); *Neottia aestivalis* (Poir.) Lam. & DC., Fl. Franç. ed. 3, 3: 258 n.º 2036 (1805)

*Ind. loc.*: “Elle croît in Europe, aux environs de Paris, en Suisse, &c. dans les lieux humides, dans les prés & les pâturages montagneux”.

*Observations.*—According to Index Kewensis, *Neottia aestivalis* also appears in Lam., Encycl. 4(2): 567 (1798). However, while *Ophrys aestivalis* is found, no reference is found to *Neottia*.

**Spiranthes spiralis** (L.) Chevall., Fl. Gén. Env. Paris 2(1): 330 (1827)

≡ *Ophrys spiralis* L., Sp. Pl. 2: 945-946 n.º 3 (1753); *Neottia spiralis* (L.) Sw. in Neues J. Bot. 1(1): 51 (1806)

*Ind. loc.*: “Habitat in Italiae, Galliae, Angliae graminosis”.

*Lectotypus*: “Brunfels, Herb. viv. eic. 1: 105, fig. dextra. 1530 sub nom. Satyrion odoriferum, 1529, leg. Otto Brunfels” —cf. BAUMANN & al. (1989: 562).

= *Ophrys autumnalis* Balb., Elenco: 96 (1801); *Spiranthes autumnalis* (Balb.) Rich., Orchid. Eur. Annot.: 37 (1817); in Mém. Mus. Hist. Nat. 4: 59 (1818)

*Ind. loc.*: “Locis saxosis, siccis, calidisque Condove et Caselette”.

*Species recorded of adjacent territories*

**Herminium monorchis** (L.) R. Br. in W.T. Aiton, Hortus Kew. ed. 2, 5: 191 (1813)

≡ *Ophrys monorchis* L., Sp. Pl. 2: 947-948 n.º 11 (1753); *Arachnites monorchis* (L.) Hoffm., Deutschl. Fl. ed. 2, 2: 179 (1804); *Satyrium monorchis* (L.) Pers., Syn. Pl. 2(2): 507 (1807)

*Ind. loc.*: “Habitat in Europae pratis uliginosis”.

*Lectotypus*: “LINN 1056.22, planta media, 30.06. (19.06. alte Zeitrechnung) 1749, leg. Carl Linnaeus” —cf. BAUMANN & al. (1989: 489).

= *Herminium clandestinum* Gren. & Godr., Fl. France 3(1): 299-300 (1855)

*Ind. loc.*: “Coteaux arides, pelouses des montagnes, Lorraine; Alsace; Jura; environs de Paris; l’ouest de la France; Côte d’Or; Alpes; Pyrénées”.

**Traunsteinera globosa** (L.) Rchb., Fl. Saxon.: 87 n.º 398 (1842)

≡ *Orchis globosa* L., Syst. Nat. ed. 10, 2: 1242 n.º 5 (1759); *Nigritella globosa* (L.) Rchb., Fl. Germ. Excurs. 1: 121 n.º 826 (1830)

*Ind. loc.*: “Habitat in Helvetia” [sec. L., Sp. Pl. ed. 2, 2: 1332 (1763)].

*Lectotypus*: “LINN 1054.16” —cf. BAUMANN & al. (1989: 564).

*Observations.*—These two species have been included among the Spanish flora in several old works on the basis of citations for the Pyrenees and the mountain systems of the interior. This was probably due to confusion with other taxa of the family *Orchidaceae*, but the proximity of specimens on the French slopes of the Pyrenees means their presence in Iberian territory cannot be ruled out.

*Species excluded*

**Dactylorhiza cruenta** (O.F. Müll.) Soó, Nom. Nov. Gen. Dactylorhiza: 7 (1962)

≡ *Orchis cruenta* O.F. Müll., Fl. Dan. 5(15): 4, tab. DCCCLXXXVI (1782)

*Ind. loc.*: “In pratis alpinis cuprisodinarum Röraas”.

*Observations.*—VAN DER SLUYS & GONZÁLEZ ARTABE (1982) record a locality from Navarrese Pyrenees citing this species. However, DELFORGE (2001: 175) does not consider it an Iberian plant since it is distributed in central and northern Europe.

**Dactylorhiza ochroleuca** (Wüstnei ex Boll.)

Holub in Folia Geobot. Phytotax. 9(3): 272 (1974)

≡ *Orchis incarnata* var. *ochroleuca* Wüstnei ex Boll. in Arch. Vereins Freunde Naturgesch. Mecklenburg 14: 307 (1860), n. v.

*Observations.*—DELFORGE (2001: 169) includes the initials “Hs”, meaning Spain, in the list of countries where this species is found. This may be an error since its distribution is northern Europe and Scandinavia.

**Liparis loeselii** (L.) Rich., Orchid. Eur. Annot.: 38 (1817); in Mém. Mus. Hist. Nat. 4: 60 (1818)

≡ *Ophrys loeselii* L., Sp. Pl. 2: 947 n.º 8 (1753)

*Ind. loc.*: “Habitat in Sueciae, Borussiae paludibus”.

*Observations.*—DELFORGE (2001: 121) includes this species as growing in Spain. However, as for *Dactylorhiza ochroleuca*, this might be an error since the taxon has a circumboreal distribution and has nowhere else been cited as a member of the Iberian flora.

**Neottianthe cucullata** (L.) Schlechter in Feddes Repert. 16: 292 (1919)

≡ *Orchis cucullata* L., Sp. Pl. 2: 939 n.º 4 (1753)

*Ind. loc.*: “Habitat in Sibiria”.

*Observations.*—COLMEIRO (1889: 38) mentions *Orchis cucullata* L., based on citations for Burgos and Cantabria by Bernabé Salcedo, but precedes it with a question mark. This it is not an Iberian plant, its distribution is a belt from the Baltic to Japan (DELFORGE, 2001: 137).

**Ophrys attaviria** U. Rückbr. & Wenker in Ber. Arbeitskr. Heimische Orchid. 7(2): 10 (1990)

*Ind. loc.*: “Type: Graecia, Rhodos ad vicum Embonas, alt. 400-450 m, 16.04.1990, D. & U. Rückbrodt 48/35-90, Holotypus - (B), Abb. 1, S. 12 & Abb. I, S. 17; 48/34-90, Isotypus - (FR), Abb. 2, S. 13 & Abb. II, S. 17”.

*Observations.*—DELFORGE (1994: 302) indicates that this species has a circummediterranean biogeographical distribution in Spain and Portugal, but the same author (2001: 374) and PAULUS (2001) place it exclusively in the eastern Mediterranean.

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