

PART I: Taxonomic Checklist and Life History, Ecological, and Geographical Data

Part I, Section I of the guide to the wild germplasm of *Brassica* and allied crops provides a complete checklist of genera, species, subsp./var. in the tribe Brassiceae. It is based on a comprehensive examination of all major floras of the world [see references] and recent taxonomic treatments. Extensive synonymy exists for almost all species in this tribe, with different taxonomists over the last 240 years referring to the same species under different names. A complete list of all Latin binomials and cross references for each species in the tribe would number in the thousands. The list below is therefore selective and only includes synonyms which are most likely to cause confusion to the reader. The following information is provided for each taxon:

ACC Y or N whether taxon name is currently accepted
SYNONYM OF For ACC=N, the current Latin binomial with which this species name is synonymous
TAXON Latin binomial for each taxon (species, subsp. and var.) followed by the name of the taxonomic authority and the reference in which the name was first published. **[ACCEPTED NAMES IN BOLD]**

Part I, Section II of the guide summarizes information on life cycle, growth form, ecology, geography and phytogeographical status for each of the species under its accepted name and is not given separately for subspecies and varieties.

Part I, Section I: Checklist

ACC	SYNONYM OF	TAXON
Y		<i>Ammosperma cinerea</i> (Desf.) Hook. f.; Benth. & Hook. f., Gen. Pl. 1: 82. (1862).
Y		<i>Ammosperma variable</i> Nègre & Le Houér.; Bull. Soc. Bot. France 106: 149. (1959).
N	<i>Vella aspera</i>	<i>Boleum asperum</i> (Pers.) Desv.; J. Bot. Agric. 3: 163. (1815).
N	<i>Hirschfeldia incana</i>	<i>Brassica adpressa</i> Boiss.; Voy. Bot. Midi Espagne 2: 38. (1839).
N	<i>Sinapis alba</i>	<i>Brassica alba</i> Boiss.; Voy. Bot. Midi Espagne 2: 39. (1839).
N	<i>Brassica oleracea</i> var. <i>alboglabra</i>	<i>Brassica alboglabra</i> L.H. Bailey; Gentes Herb. 1(2): 79. (1922).
N	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i>	<i>Brassica amplexicaulis</i> (Desf.) Pomel; Mat. Fl. Atlant.: 15. (1860).
N	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i>	subsp. <i>amplexicaulis</i> (Desf.) Pomel
N	<i>Brassica souliei</i> subsp. <i>souliei</i>	subsp. <i>souliei</i> (Batt.) Maire & Weiller
N	<i>Brassica elongata</i> subsp. <i>integrifolia</i>	<i>Brassica armoracioides</i> Czern. ex Turcz.; Bull. Soc. Nat. Moscou 27(2): 311. (1854).
N	<i>Moricandia arvensis</i>	<i>Brassica arvensis</i> L.; Mantissa Pl.: 95. (1767).
N	<i>Sinapis arvensis</i>	<i>Brassica arvensis</i> (L.) Rabenh.; Fl. Lusat. 1: 184. (1839).
Y		<i>Brassica assyriaca</i> Mouterde; Nouv. Fl. Liban Syrie 2: 113. (1970).
N	<i>Brassica insularis</i>	<i>Brassica atlantica</i> (Coss.) O.E. Schulz; Engler, Pflanzenreich IV-105 (Heft 70): 36. (1919).
Y		<i>Brassica aucheri</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 88. (1842).
N	<i>Conringia austriaca</i>	<i>Brassica austriaca</i> Jacq.; Fl. Austriac. 3: 45, tab. 283. (1775).
Y		<i>Brassica balearica</i> Pers.; Syn. Pl. 2: 206. (1806).
Y		<i>Brassica barrelieri</i> (L.) Janka; Természetrázi, Füz. 6: 179. (1882).
N	<i>Brassica barrelieri</i>	subsp. <i>barrelieri</i> (L.) Janka
N	<i>Brassica oxyrrhina</i>	subsp. <i>oxyrrhina</i> (Coss.) Regel
Y		<i>Brassica bivoniana</i> Mazzola & Raimondo; Lagasalia 15 (extra): 250. (1988).
N	<i>Brassica repanda</i> subsp. <i>blancoana</i>	<i>Brassica blancoana</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 2, 3(1): 29. (1854).
N	<i>Brassica oleracea</i> var. <i>botrytis</i>	<i>Brassica botrytis</i> (L.) Mill.; Gard. Dict., ed. 8. (1768).
N	<i>Brassica incana</i>	<i>Brassica botterii</i> Vis.; Fl. Dalmat. 3(1): 135. (1850).
Y		<i>Brassica bourgeauii</i> (Webb ex H. Christ) Kuntze; Revis. Gen. Pl. 1: 20. (1891).
N	<i>Brassica gravinae</i>	<i>Brassica brachyloma</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(1): 30. (1854).
Y		<i>Brassica cadmea</i> Heldr. ex O.E. Schulz; Engler, Pflanzenreich IV-105 (Heft 70): 63. (1919).
N	<i>Brassica rapa</i>	<i>Brassica campestris</i> L.; Sp. Pl. 2: 666. (1753).
N	<i>Brassica oleracea</i> var. <i>capitata</i>	<i>Brassica capitata</i> (L.) Hort. ex Pers.; Syn. Pl. 2: 206, in syn. (1806).
Y		<i>Brassica carinata</i> A. Braun; Flora (Regensburg) 24: 267. (1842).
N	<i>Brassica oleracea</i> var. <i>gongylodes</i>	<i>Brassica caulorapa</i> (DC.) Pasquale; Monde Plantes 12: 24. (1910).

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N	<i>Brassica incana</i>	<i>Brassica cazzae</i> Ginzb. & Teyber; Österr. Bot. Zeitschr. 70: 238. (1921).
N	<i>Brassica juncea</i> subsp. <i>integrifolia</i>	<i>Brassica celerifolia</i> (Tsen & Lee) Y.C. Lan & T.Y. Cheo; Acta Phytotax. Sin. 29: 74. (1991).
N	<i>Brassica juncea</i> subsp. <i>juncea</i>	<i>Brassica cernua</i> (Thunb.) F.B. Forbes & Hemsl.; J. Linn. Soc. Bot. 23: 47. (1886).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassica cheiranthos</i> Vill.; Prosp. Hist. Pl. Dauphiné: 40. (1779).
N	<i>Brassica rapa</i> subsp. <i>chinensis</i>	<i>Brassica chinensis</i> L.; Cent. Pl. 1: 19. (1755).
N	<i>Brassica fruticulosa</i> subsp. <i>cossoniana</i>	<i>Brassica cossoniana</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(1): 31. (1854).
N	<i>Erucaria crassifolia</i>	<i>Brassica crassifolia</i> Forssk.; Fl. Aegypt.-Arab.: 118. (1775).
Y		<i>Brassica cretica</i> Lam.; Encycl. Méth. Bot. 1: 747. (1785).
Y		subsp. aegaea (Heldr. & Halácsy) Snogerup, M.A. Gust. & Bothmer; Willdenowia 19: 291. (1990).
N	<i>Brassica insularis</i>	subsp. <i>atlantica</i> (Coss.) Onno
Y		subsp. cretica Lam.
Y		subsp. laconica M.A. Gust. & Snogerup; Bot. Chronika 3: 8. (1983).
N	<i>Brassica cretica</i> subsp. <i>cretica</i>	subsp. <i>nivea</i> (Boiss. & Spruner) M.A. Gust. & Snogerup
N	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i>	<i>Brassica cyrenaica</i> Spreng.; Syst. Veg., ed. 16, 2: 911. (1825).
Y		<i>Brassica deflexa</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 87. (1842).
Y		subsp. deflexa Boiss.
Y		subsp. leptocarpa (Boiss.) Hedge; Rech. f., Fl. Iranica 57: 35. (1968).
Y		<i>Brassica deserti</i> Danin & Hedge; Notes Royal Bot. Gard. Edinburgh 32: 259. (1973).
Y		<i>Brassica desnottesii</i> Emb. & Maire; Pl. Marocc. Nov. 2: 1. (1929).
N	<i>Brassica souliei</i> subsp. <i>dimorpha</i>	<i>Brassica dimorpha</i> Coss. & Durieu; Bull. Soc. Bot. France 2: 306. (1855).
Y		<i>Brassica drepanensis</i> (Caruel) Damanti; Nat. Sicil. 10(4): 91. (1891).
N	<i>Brassica rapa</i>	<i>Brassica dubiosa</i> L.H. Bailey; Gentes Herb. 1(2): 102. (1922).
N	<i>Erucastrum elatum</i>	<i>Brassica elata</i> Ball; J. Bot. 11: 298. (1873).
Y		<i>Brassica elongata</i> Ehrh.; Beitr. Naturk. 7: 159. (1792).
Y		subsp. elongata Ehrh.
Y		subsp. imdrhasiana Quézel; Bull. Soc. Sci. Nat. Maroc 34: 304. (1955).
Y		subsp. integrifolia (Boiss.) Breistr.; Not. Syst. Bot.: 13. (1942).
Y		subsp. pinnatifida (Schmalh.) Greuter & Burdet; Willdenowia 15: 64. (1985).
Y		subsp. subscaposa (Maire & Weiller) Maire; Maire, Fl. Afrique N. 12: 168. (1965).
N	<i>Erucastrum nasturtiifolium</i> subsp. <i>nasturtiifolium</i>	<i>Brassica erucastrum</i> L.; Sp. Pl. 2: 667. (1753).
Y		<i>Brassica fruticulosa</i> Cirillo; Pl. Rar. Neapol. 2: 7. (1792).
Y		subsp. cossoniana (Boiss. & Reut.) Maire; Emberger & Maire, Mém. Soc. Sci. Nat. Maroc 17: 26. (1928).

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N	<i>Brassica fruticulosa</i> subsp. <i>rifana</i>	subsp. <i>dolichocarpa</i> Emb. & Maire
Y		subsp. <i>fruticulosa</i> Cirillo
Y		subsp. <i>glaberrima</i> (Pomel) Batt.; Batt. & Trabut, Fl. Algérie (Dicot.) 1: 59. (1888).
Y		subsp. <i>mauritanica</i> (Coss.) Maire; Jahandiez & Maire, Cat. Pl. Maroc 2: 288. (1932).
Y		subsp. <i>numidica</i> (Coss.) Maire; Maire, Fl. Afrique N. 12: 175. (1965).
Y		subsp. <i>pomeliana</i> Maire; Willdenowia 15: 64. (1985).
Y		subsp. <i>radicata</i> (Desf.) Batt.; Batt. & Trabut, Fl. Algérie (Dicot.) 1: 59. (1888).
Y		subsp. <i>rifana</i> (Emb. & Maire) Maire; Jahandiez & Maire, Cat. Pl. Maroc 2: 288. (1932)
N	<i>Hirschfeldia incana</i>	<i>Brassica geniculata</i> (Desf.) Ball; J. Linn. Soc. Bot. 16: 327. (1878).
N	<i>Brassica repanda</i> subsp. <i>glabrescens</i>	<i>Brassica glabrescens</i> Poldini; Giorn. Bot. Ital. 107: 181. (1973).
N	<i>Brassica rapa</i> subsp. <i>rapa</i>	<i>Brassica glauca</i> Kuntze; Revis. Gen. Pl. 1: 20. (1891).
N	<i>Brassica oleracea</i> var. <i>gongylodes</i>	<i>Brassica gongylodes</i> (L.) Mill.; Gard. Dict., ed. 8. (1768).
Y		<i>Brassica gravinae</i> Ten.; Fl. Napol. 1, Prodr.: 39. (1811-1815).
N	<i>Diplotaxis griffithii</i>	<i>Brassica griffithii</i> Hook. f. & Thomson; J. Linn. Soc. Bot. 5: 171. (1861).
N	<i>Erucastrum griquense</i>	<i>Brassica griquensis</i> N.E. Br.; Kew Bull. 1894: 353. (1894).
Y		<i>Brassica hilarionis</i> Post; Mém. Herb. Boissier 18: 90. (1900).
N	<i>Sinapis alba</i>	<i>Brassica hirta</i> Moench; Suppl. Meth.: 84. (1802)
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	<i>Brassica humilis</i> DC.; Reg. Veg. Syst. Nat. 2: 598. (1821).
Y		<i>Brassica incana</i> Ten.; Fl. Napol. 1, Prodr.: 39. (1811-1815).
Y		<i>Brassica insularis</i> Moris; Fl. Sardoia 1: 168. (1837).
N	<i>Brassica juncea</i> subsp. <i>integrifolia</i>	<i>Brassica integrifolia</i> (H. West) O.E. Schulz; Urban, Symb. Antill. 3: 509. (1903).
N	<i>Brassica deflexa</i> subsp. <i>leptocarpa</i>	<i>Brassica iranica</i> Rech. f., Aellen & Esfand.; Phytion (Austria) 3: 44. (1951).
N	<i>Brassica rapa</i> subsp. <i>japonica</i>	<i>Brassica japonica</i> (Thunb.) Siebold ex Miq.; Ann. Mus. Bot. Lugd.-Bat. 2 (Prol. Fl. Iap.): 74. (1865-1866).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassica johnstonii</i> Samp.; Nobre, Ann. Sci. Nat. (Porto) 10: 8. (1906); Feddes Repert. 4: 382. (1907).
N	<i>Brassica nivalis</i> subsp. <i>jordanoffii</i>	<i>Brassica jordanoffii</i> O.E. Schulz; Notizbl. Bot. Gart. Berlin 10: 111. (1927).
Y		<i>Brassica juncea</i> (L.) Czern.; Kensp. Rast. Harkova: 8. (1859).
N	<i>Sinapis arvensis</i>	<i>Brassica kaber</i> (DC.) L.C. Wheeler; Rhodora 40: 306. (1938).
N	<i>Brassica repanda</i> subsp. <i>latisiliqua</i>	<i>Brassica latisiliqua</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(1): 30. (1854).
N	<i>Brassica deflexa</i> subsp. <i>leptocarpa</i>	<i>Brassica leptocarpa</i> Boiss.; Fl. Orient. 1: 392. (1867).
N	<i>Eruca loncholoma</i>	<i>Brassica loncholoma</i> Pomel; Nouv. Mat. Fl. Atlant.: 360. (1875).
N	<i>Coincya longirostra</i>	<i>Brassica longirostra</i> Boiss.; Voy. Bot. Midi Espagne 2: 40, tab. 9A. (1839).
Y		<i>Brassica macrocarpa</i> Guss.; Index Sem. Horto Boccad. 1824/5: 3. (1825).

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Y		<i>Brassica maurorum</i> Durieu; Duchartre, Rev. Bot. Recueil Mens. 2: 433. (1847).
N	<i>Brassica incana</i>	<i>Brassica mollis</i> Vis.; Fl. Dalmat. 3(2): 359. (1851).
N	<i>Coincya monensis</i> subsp. <i>monensis</i>	<i>Brassica monensis</i> (L.) Huds.; Fl. Angl., ed. 2: 291. (1778).
Y		<i>Brassica montana</i> Pourr.; Hist. Mém. Acad. Roy. Sci. Toulouse 3: 308. (1788).
N	<i>Moricandia moricandioides</i>	<i>Brassica moricandioides</i> Boiss.; Elenchus Pl. Nov.: 10. (1838).
N	<i>Brassica rapa</i>	<i>Brassica napella</i> Chaix; Vill., Hist. Pl. Dauph. (Pl. Vap.) 1: 350. (1786).
N	<i>Brassica juncea</i> subsp. <i>napiformis</i>	<i>Brassica napiformis</i> (Pailleux & Bois) L.H. Bailey; Cornell Univ. Agr. Exp. Sta. Bull. 67: 189. (1894).
N	<i>Brassica napus</i> subsp. <i>rapifera</i>	<i>Brassica napobrassica</i> (L.) Mill.; Gard. Dict., ed. 8. (1768).
Y		<i>Brassica napus</i> L.; Sp. Pl. 2: 666. (1753).
N	<i>Brassica napus</i> subsp. <i>rapifera</i>	subsp. <i>napobrassica</i> (L.) Jafri
Y		subsp. <i>napus</i> L.
N	<i>Brassica rapa</i> subsp. <i>rapa</i>	subsp. <i>napus</i> var. <i>quadriovalvis</i> (Hook. f. & Thomson) O.E. Schulz
N	<i>Brassica rapa</i> subsp. <i>trilocularis</i>	subsp. <i>napus</i> var. <i>trilocularis</i> (Roxb.) O.E. Schulz
N	<i>Brassica napus</i> subsp. <i>napus</i>	subsp. <i>oleifera</i> (Moench) Metzg.
Y		subsp. <i>rapifera</i> Metzg. ex Sinskaya; Bull. Appl. Bot. Genet. Selecke. 19,3: 262. (1928).
N	<i>Brassica rapa</i> subsp. <i>narinosa</i>	<i>Brassica narinosa</i> L.H. Bailey; Gentes Herb. 1(2): 99. (1922).
Y		<i>Brassica nigra</i> (L.) W.D.J. Koch; Röbling, Deutschl. Fl., ed. 3, 4: 713. (1833).
N	<i>Brassica rapa</i> subsp. <i>nipposinica</i>	<i>Brassica nipposinica</i> L.H. Bailey; Gentes Herb. 1(2): 86. (1922).
Y		<i>Brassica nivalis</i> Boiss. & Heldr.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(1): 32. (1854).
Y		subsp. <i>jordanoffii</i> (O.E. Schulz) Akeroyd & Leadlay; Bot. J. Linn. Soc. 106: 102. (1991).
Y		subsp. <i>nivalis</i> Boiss. & Heldr.
N	<i>Brassica cretica</i> subsp. <i>cretica</i>	<i>Brassica nivea</i> Boiss. & Spruner; Boiss., Diagn. Pl. Orient. Nov., ser. 1, 1: 72. (1843).
N	<i>Brassica repanda</i> subsp. <i>africana</i>	<i>Brassica nudicaulis</i> (Lag.) Pomel; Nouv. Mat. Fl. Atlant.: 361. (1875).
Y		<i>Brassica oleracea</i> L.; Sp. Pl. 2: 667. (1753).
N	<i>Brassica oleracea</i> var. <i>botrytis</i>	subsp. <i>botrytis</i> (L.) Duchesne
N	<i>Brassica oleracea</i> var. <i>capitata</i>	subsp. <i>capitata</i> (L.) Schübl. & G. Martens
N	<i>Brassica oleracea</i> var. <i>caulorapa</i>	subsp. <i>caulorapa</i> (DC.) Metzg.
N	<i>Brassica oleracea</i> var. <i>fruticosa</i>	subsp. <i>fruticosa</i> Metzg.
N	<i>Brassica insularis</i>	subsp. <i>insularis</i> (Moris) Rouy & Foucaud
N	<i>Brassica oleracea</i> var. <i>oleracea</i>	subsp. <i>oleracea</i> L.
N	<i>Brassica montana</i>	subsp. <i>robertiana</i> (J. Gay) Bonnier & Layens
N	<i>Brassica oleracea</i> var. <i>oleracea</i>	subsp. <i>sylvestris</i> (L.) DC.
N	<i>Brassica oleracea</i> var. <i>viridis</i>	var. <i>acephala</i> DC.
Y		var. <i>alboglabra</i> Sun; Bull. Torrey Bot. Club 73: 247, 265. (1946).

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Y		var. botrytis L.; Sp. Pl. 2: 667. (1753).
N	<i>Brassica oleracea</i> var. <i>capitata</i>	var. <i>bullata</i> DC.
Y		var. capitata L.; Sp. Pl. 2: 667. (1753).
N	<i>Brassica oleracea</i> var. <i>gongylodes</i>	var. <i>caulorapa</i> DC.
N	<i>Brassica oleracea</i> var. <i>sabellica</i>	var. <i>fimbriata</i> Mill.
N	<i>Brassica oleracea</i> var. <i>ramosa</i>	var. <i>fruticosa</i> Metzg.
Y		var. gemmifera DC.; Reg. Veg. Syst. Nat. 2: 585. (1821).
Y		var. gongylodes L.; Sp. Pl. 2: 667. (1753).
Y		var. italica Plenck; Icon. Pl. Medic 6: 29, tab. 534. (1794).
Y		var. oleracea L.
Y		var. ramosa DC.; Reg. Veg. Syst. Nat. 2: 583. (1821).
Y		var. sabauda L.; Sp. Pl. 2: 667. (1753).
Y		var. sabellica L.; Sp. Pl. 2: 667. (1753).
N	<i>Brassica oleracea</i> var. <i>costata</i>	var. <i>tranchuda</i> L.H. Bailey
Y		var. viridis L.; Sp. Pl. 2: 667. (1753).
N	<i>Conringia orientalis</i>	<i>Brassica orientalis</i> L.; Sp. Pl. 2: 666. (1753).
Y		Brassica oxorrhina (Coss.) Willk.; Willk. & Lange, Prodr. Fl. Hispan. 3: 854. (1880).
N	<i>Sinapis pubescens</i>	<i>Brassica palmensis</i> Kuntze; Revis. Gen. Pl. 1: 20. (1891).
N	<i>Erucastrum palustre</i>	<i>Brassica palustris</i> Pirona; Fl. Forojul. Syll.: 18. (1855).
N	<i>Brassica rapa</i> subsp. <i>chinensis</i>	<i>Brassica parachinensis</i> L.H. Bailey; Gentes Herb. 1(2): 104. (1922).
N	<i>Brassica rapa</i> subsp. <i>pekinensis</i>	<i>Brassica pekinensis</i> (Lour.) Rupr.; Fl. Ingrica 1: 96. (1860).
N	<i>Eruca pinnatifida</i>	<i>Brassica pinnatifida</i> Desf.; Fl. Atlant. 2: 95, tab. 165. (1798).
Y		Brassica procumbens (Poir.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 55. (1916).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassica pseudoerucastrum</i> Brot.; Fl. Lusit. 1: 581. (1804).
N	<i>Coincya monensis</i> subsp. <i>puberula</i>	<i>Brassica puberula</i> Pau; Bol. Soc. Aragon. Ci. Nat. 1: 50. (1902).
N	<i>Brassica rapa</i> subsp. <i>rapa</i>	<i>Brassica quadrivalis</i> Hook. f. & Thomson; J. Linn. Soc. Bot. 5: 170. (1861).
Y		Brassica rapa L.; Sp. Pl. 2: 666. (1753).
N	<i>Brassica rapa</i> subsp. <i>oleifera</i>	subsp. <i>campestris</i> (L.) A.R. Clapham
Y		subsp. chinensis (L.) Hanelt; Mansfeld, R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf. 2, ed. 2 (Schultz-Motel(ed) 1: 304. (1986).
Y		subsp. dichotoma (Roxb.) Hanelt; Mansfeld, R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf. 2, ed. 2 (Schultz-Motel(ed) 1: 302. (1986).
Y		subsp. japonica (Thunb.) M.A. Shebalina; Kulturnaya Fl. SSSR 18: 33. (1985).
Y		subsp. narinosa (L.H. Bailey) Hanelt; Mansfeld, R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf.

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Y		2, ed. 2 (Schultz-Motel(ed) 1: 305. (1986). subsp. nipposinica (L.H. Bailey) Hanelt; Mansfeld,R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf. 2, ed. 2 (Schultz-Motel(ed) 1: 305. (1986).
Y		subsp. oleifera (DC.) Metzg.; Syst. Beschr. Kult. Kohlart.: 49. (1833).
Y		subsp. pekinensis (Lour.) Hanelt; Mansfeld,R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf. 2, ed. 2(Schultz-Motel(ed) 1: 304. (1986).
Y		subsp. rapa L.
Y		subsp. rapifera Metzg.; Syst. Beschr. Kult. Kohlart.: 52. (1833).
N	<i>Brassica rapa</i> subsp. <i>rapa</i>	subsp. <i>sylvestris</i> (Lam.) Janch.
Y		subsp. trilocularis (Roxb.) Hanelt; Mansfeld,R., Verz. Landwirtschaft. U. Gartn. Kulturpfl. Auf. 2, ed. 2 (Schultz-Motel(ed) 1: 302. (1986).
Y		Brassica repanda (Willd.) DC.; Reg. Veg. Syst. Nat. 2: 598. (1821)
Y		subsp. africana (Maire) Greuter & Burdet; Willdenowia 13: 86. (1983).
Y		subsp. almeriensis Gómez-Campo; Anal. Inst. Bot. Cavanilles 33: 154. (1976).
Y		subsp. blancoana (Boiss.) Heywood; Feddes Repert. 66: 153. (1962).
Y		subsp. cadevallii (Font Quer) Heywood; Feddes Repert. 66: 154. (1962).
Y		subsp. cantabrica (Font Quer) Heywood; Feddes Repert. 69: 151. (1964).
Y		subsp. confusa (Emb. & Maire) Heywood; Feddes Repert. 66: 153. (1962).
Y		subsp. dertosensis Molero & Rovira; Collect. Bot. (Barcelona) 17: 99. (1988).
Y		subsp. galissieri (Giraud.) Heywood; Feddes Repert. 69: 150. (1964).
Y		subsp. glabrescens (Poldini) Gómez-Campo; Anal. Jard. Bot. Madrid 56: 379. (1998).
Y		subsp. gypsicola Gómez-Campo; Anal. Jard. Bot. Madrid 50: 145. (1992).
Y		subsp. latisiliqua (Boiss. & Reut.) Heywood; Feddes Repert. 66: 153. (1962).
Y		subsp. maritima (Rouy) Heywood; Feddes Repert. 66: 153. (1962).
N	<i>Brassica repanda</i> subsp. <i>africana</i>	subsp. <i>nudicaulis</i> (Lag.) Heywood
Y		subsp. repanda (Willd.) DC.
Y		subsp. saxatilis (DC.) Heywood; Feddes Repert. 69: 151. (1964).
Y		subsp. silenifolia (Emb.) Greuter & Burdet; Willdenowia 13: 86. (1983).
Y		subsp. turbonis (P. Monts.) Gruber ex J. Monts & Romo; Willdenowia 15: 64. (1985).
N	<i>Coincya richeri</i>	<i>Brassica richeri</i> Vill.; Prosp. Hist. Pl. Dauphiné: 40. (1779).
N	<i>Brassica fruticulosa</i> subsp. <i>rifana</i>	<i>Brassica rifana</i> Emb. & Maire; Mém. Soc. Sci. Nat. Maroc 17: 26. (1928).
N	<i>Brassica montana</i>	<i>Brassica robertiana</i> J. Gay; Monnard, Ann. Sci. Nat. Bot. 7: 416. (1826).
N	<i>Erucastrum rostratum</i>	<i>Brassica rostrata</i> Balf. f.; Proc. Royal Soc. Edinburgh 11: 500. (1882).
N	<i>Brassica napus</i>	<i>Brassica rugosa</i> (Roxb.) L.H. Bailey; Bull. Cornell Univ. Agric. Exp. Sta. 67: 191. (1894).

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Y		<i>Brassica rupestris</i> Raf.; Caratt. Nuovi Gen.: 77. (1810).
N	<i>Brassica cretica</i> subsp. <i>cretica</i>	<i>Brassica rupicola</i> Boul.; Fl. Liban Syrie: 27. (1930).
N	<i>Brassica oleracea</i> var. <i>sabauda</i>	<i>Brassica sabauda</i> (L.) Litzg.; not located
N	<i>Brassica barrelieri</i>	<i>Brassica sabularia</i> Brot.; Fl. Lusit. 1: 582. (1804).
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	<i>Brassica saxatilis</i> (DC.) Amo; Mém. Real. Acad. Ci. Exact. Madrid 5: 233. (1861).
N	<i>Brassica repanda</i> subsp. <i>africana</i>	subsp. <i>africana</i> Maire
N	<i>Brassica repanda</i> subsp. <i>blancoana</i>	subsp. <i>blancoana</i> (Boiss.) Maire
N	<i>Moricandia sinaica</i>	<i>Brassica sinaica</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 85. (1842).
N	<i>Sinapis arvensis</i>	<i>Brassica sinapistrum</i> Boiss.; Voy. Bot. Midi Espagne 2: 39. (1839).
N	<i>Brassica tournefortii</i>	<i>Brassica sisymbrioides</i> (Fisch. ex DC.) Grossh.; Fl. Kavkaza 4: 168. (1950).
Y		<i>Brassica somalensis</i> Hedge & A.G. Mill.; Notes Royal Bot. Gard. Edinburgh 35: 179. (1977).
Y		<i>Brassica souliei</i> (Batt.) Batt.; Bull. Soc. Bot. France 40: 262. (1893).
Y		subsp. <i>amplexicaulis</i> (Desf.) Greuter & Burdet; Willdenowia 13: 86. (1983).
Y		subsp. <i>souliei</i> (Batt.) Batt.
Y		<i>Brassica spinescens</i> Pomel; Nouv. Mat. Fl. Atlant.: 364. (1875).
N	<i>Sisymbrium orientale</i>	<i>Brassica subhastata</i> Willd.; Sp. Pl., ed. 4, 3(1): 550. (1800).
N	<i>Moricandia suffruticosa</i>	<i>Brassica suffruticosa</i> Desf.; Fl. Atlant. 2: 94. (1798).
N	<i>Brassica oleracea</i> var. <i>oleracea</i>	<i>Brassica sylvestris</i> (Lam.) Mill.; Gard. Dict., ed. 8. (1768).
N	<i>Brassica incana</i>	subsp. <i>incana</i> (Ten.) Onno
N	<i>Brassica oleracea</i> var. <i>oleracea</i>	subsp. <i>sylvestris</i> (Lam.) Mill.
N	<i>Brassica incana</i>	subsp. <i>taurica</i> Tzvelev
N	<i>Brassica incana</i>	<i>Brassica taurica</i> (Tzvelev) Tzvelev; not in IK
N	<i>Pseuderucaria teretifolia</i>	<i>Brassica teretifolia</i> Desf.; Fl. Atlant. 2: 94. (1798).
Y		<i>Brassica tinei</i> Lojac.; Fl. Sicula 1: 113. (1889).
Y		<i>Brassica tournefortii</i> Gouan; Ill. Observ. Bot.: 44, tab. 20A. (1773).
N	<i>Brassica rapa</i> subsp. <i>trilocularis</i>	<i>Brassica trilocularis</i> Hook. f. & Thomson; J. Linn. Soc. Bot. 5: 170. (1861).
Y		<i>Brassica tyrrhena</i> Giotta, Piccitto & Arrigoni; Webbia 57: 1. (2002).
N	<i>Coincya monensis</i> subsp. <i>orophila</i>	<i>Brassica valentina</i> DC.; Reg. Veg. Syst. Nat. 2: 603. (1821).
N	<i>Erucastrum varium</i>	<i>Brassica varia</i> Durieu; Duchartre, Rev. Bot. Recueil Mens. 2: 434. (1847).
N	<i>Eruca vesicaria</i>	<i>Brassica vesicaria</i> L.; Sp. Pl. 2: 668. (1753).
Y		<i>Brassica villosa</i> Biv.; Stirp. Rar. Sicilia Descr. 4: 20. (1818).
N	<i>Orychophragmus violaceus</i>	<i>Brassica violacea</i> L.; Sp. Pl. 2: 667. (1753).
N	<i>Coincya wrightii</i>	<i>Brassica wrightii</i> (O.E. Schulz) Sikka; J. Genet. 40: 478. (1940).
N	<i>Sinapis arvensis</i>	<i>Brassica xinjiangensis</i> Y.C. Lan & T.Y. Cheo; Acta Phytotax. Sin. 29: 72. (1991).

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N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassicella coincyoides</i> Humbert & Maire; Maire, Contr. Fl. Afr. Nord, Add. to Mém. Soc. Sci. Nat. Maroc 15(11). (1930).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassicella erucastrum</i> (L.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 53. (1916).
N	<i>Coincya monensis</i> subsp. <i>monensis</i>	<i>Brassicella monensis</i> (L.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 53. (1916).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Brassicella pseudoerucastrum</i> (Brot.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 53. (1916).
N	<i>Coincya wrightii</i>	<i>Brassicella wrightii</i> O.E. Schulz; Elliston Wright, J. Bot. (London) 74, suppl. 1: 25. (1936).
N	<i>Cakile maritima</i> subsp. <i>maritima</i>	<i>Cakile aegyptiaca</i> Willd.; Sp. Pl., ed. 4, 3(1): 417. (1800).
N	<i>Cakile maritima</i> subsp. <i>maritima</i>	<i>Cakile aegyptica</i> (L.) Pignatti; Atti Inst. Bot. Univ. Pav., ser. 5(12): 149. (1956).
Y		<i>Cakile arabica</i> Velen. & Bornm.; Feddes Repert. 9: 114. (1911).
N	<i>Cakile maritima</i> subsp. <i>islandica</i>	<i>Cakile arctica</i> Pobed.; Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS 15: 64. (1953).
N	<i>Cakile maritima</i> subsp. <i>baltica</i>	<i>Cakile baltica</i> Jord. ex Pobed.; Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS 15: 66. (1953).
Y		<i>Cakile constricta</i> Rodman; Contr. Gray Herb. 205: 131. (1974).
Y		<i>Cakile edentula</i> (Bigelow) Hook.; Fl. Bor.-Amer. 1: 59. (1830).
N	<i>Cakile edentula</i> subsp. <i>edentula</i> var. <i>edentula</i>	subsp. <i>edentula</i> (Bigelow) Hook.
Y		subsp. <i>edentula</i> var. <i>edentula</i> (Bigelow) Hook.
Y		subsp. <i>edentula</i> var. <i>lacustris</i> Fernald; Rhodora 24: 23. (1922).
Y		subsp. <i>harperi</i> (Small) Rodman; Contr. Gray Herb. 205: 125. (1974).
N	<i>Cakile maritima</i> subsp. <i>islandica</i>	subsp. <i>islandica</i> (Gand.) A. Löve & D. Löve
N	<i>Cakile maritima</i> subsp. <i>euxina</i>	<i>Cakile euxina</i> Pobed. ex Grossh.; Oped. Kavk.: 386. (1949).
N	<i>Cakile lanceolata</i> subsp. <i>fusiformis</i>	<i>Cakile fusiformis</i> Greene; Pittonia 3: 346. (1900).
Y		<i>Cakile geniculata</i> (B.L. Rob.) Millsp.; Publ. Field Mus. Nat. Hist., Bot. Ser. 2: 126. (1900).
N	<i>Cakile edentula</i> subsp. <i>harperi</i>	<i>Cakile harperi</i> Small; Fl. S.E. United States: 478. (1903).
Y		<i>Cakile lanceolata</i> (Willd.) O.E. Schulz; Urban, Symb. Antill. 3: 504. (1903).
Y		subsp. <i>alacranensis</i> (Millsp.) Rodman; Contr. Gray Herb. 205: 116. (1974).
Y		subsp. <i>fusiformis</i> (Greene) Rodman; Contr. Gray Herb. 205: 114. (1974).
Y		subsp. <i>lanceolata</i> (Willd.) O.E. Schulz
Y		subsp. <i>pseudoconstricta</i> Rodman; Contr. Gray Herb. 205: 116. (1974).
N	<i>Cakile maritima</i> subsp. <i>islandica</i>	<i>Cakile lapponica</i> Pobed.; Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS 19: 44. (1959).
Y		<i>Cakile maritima</i> Scop.; Fl. Carniol., ed. 2, 2: 35. (1772).
N	<i>Cakile maritima</i> subsp. <i>maritima</i>	subsp. <i>aegyptiaca</i> (Willd.) Nyman
Y		subsp. <i>baltica</i> (Jord. ex Rouy & Fouc.) Hyl. ex P.W. Ball; Feddes Repert. 69: 37. (1964).
Y		subsp. <i>euxina</i> (Pobed.) Nyár.; Savul., Fl. Rep. Pop. Române 3: 480. (1955).
N	<i>Cakile maritima</i> subsp. <i>maritima</i>	subsp. <i>integrifolia</i> (Hornem.) Greuter & Burdet
Y		subsp. <i>islandica</i> (Gand.) Hyl. ex Elven; Nordic J. Bot. 16: 8. (1996).

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Y		subsp. <i>maritima</i> Scop.
N	<i>Cakile maritima</i> subsp. <i>maritima</i>	<i>Cakile monosperma</i> Lange; Descr. Icon. III., fasc. 1: 5, tab. 7. (1864).
Y		<i>Carrichtera annua</i> (L.) DC.; Mém. Mus. Hist. Nat. (Paris) 7: 244. (1821).
N	<i>Carrichtera annua</i>	<i>Carrichtera vellae</i> DC.; Reg. Veg. Syst. Nat. 2: 642. (1821). [nom. illeg.]
Y		<i>Ceratocnemum rapistroides</i> Coss. & Balansa; Bull. Soc. Bot. France 20: 239. (1873).
Y		<i>Chalcanthus renifolius</i> (Boiss. & Hohen.) Boiss.; Fl. Orient. 1: 212. (1867).
N	<i>Chalcanthus renifolius</i>	<i>Chalcanthus tuberosus</i> Kom.; Acta Horti Petropol. 26: 613. (1910).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Coincya cheiranthos</i> (Vill.) Greuter & Burdet; Willdenowia 13: 86. (1983).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Coincya coincyoides</i> (Humbert & Maire) Greuter & Burdet; Willdenowia 13: 87. (1983).
N	<i>Coincya monensis</i> subsp. <i>orophila</i>	<i>Coincya hispida</i> (Cav.) Greuter & Burdet; Willdenowia 13: 87. (1983).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Coincya johnstonii</i> (Samp.) Greuter & Burdet; Willdenowia 13: 87. (1983).
N	<i>Coincya rupestris</i> subsp. <i>leptocarpa</i>	<i>Coincya leptocarpa</i> (Gonz.-Albo) Greuter & Burdet; Willdenowia 13: 87. (1983).
Y		<i>Coincya longirostra</i> (Boiss.) Greuter & Burdet; Willdenowia 13: 87. (1983).
Y		<i>Coincya monensis</i> (L.) Greuter & Burdet; Willdenowia 13: 87. (1983).
Y		subsp. <i>cheiranthos</i> (Vill.) Aedo, Leadlay & Muñoz Garm.; Castroviejo & al. (eds.), Fl. Iberica 4: 411. (1993).
N	<i>Coincya monensis</i> subsp. <i>orophila</i>	subsp. <i>hispida</i> (Cav.) Leadlay
Y		subsp. <i>monensis</i> (L.) Greuter & Burdet
Y		subsp. <i>nevadensis</i> (Willk.) Leadlay; Bot. J. Linn. Soc. 102: 384. (1990).
Y		subsp. <i>orophila</i> (Franco) Aedo, Leadlay & Muñoz Garm.; Castroviejo & al. (eds.), Fl. Iberica 4: 409. (1993).
Y		subsp. <i>puberula</i> (Pau) Leadlay; Bot. J. Linn. Soc. 102: 383. (1990).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>recurvata</i> (All.) Leadlay
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>recurvata</i> var. <i>granatensis</i> (O.E. Schulz) Leadlay
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>recurvata</i> var. <i>johnstonii</i> (Samp.) Leadlay
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>recurvata</i> var. <i>recurvata</i> (All.) Leadlay
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>recurvata</i> var. <i>setigera</i> (Lange) Leadlay
N	<i>Brassica nivalis</i>	<i>Coincya nivalis</i> (Boiss. & Heldr.) Greuter & Burdet; Willdenowia 13: 87. (1983).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Coincya pseudoerucastrum</i> (Brot.) Greuter & Burdet; Willdenowia 13: 87. (1983).
N	<i>Coincya monensis</i> subsp. <i>puberula</i>	<i>Coincya puberula</i> (Pau) Greuter & Burdet; Willdenowia 13: 88. (1983).
Y		<i>Coincya richeri</i> (Vill.) Greuter & Burdet; Willdenowia 13: 88. (1983).
Y		<i>Coincya rupestris</i> Porta & Rigo ex Rouy; Deyrolle, Naturaliste (Paris) 13: 248. (1891).
Y		subsp. <i>leptocarpa</i> (Gonz.-Albo) Leadlay; Bot. J. Linn. Soc. 102: 364. (1990).
Y		subsp. <i>rupestris</i> Porta & Rigo ex Rouy

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Y		<i>Coincya transtagana</i> (Cout.) Clem.-Muñoz & Hern.-Berm.; Lagascalia 14: 138. (1986).
Y		<i>Coincya wrightii</i> (O.E. Schulz) Stace; Watsonia 17: 443. (1989).
Y		<i>Conringia austriaca</i> (Jacq.) Sweet; Hort. Brit., ed. 1, 1: 25. (1826).
N	<i>Conringia perfoliata</i>	<i>Conringia clavata</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 84. (1842).
Y		<i>Conringia grandiflora</i> Boiss. & Heldr.; Boiss., Diagn. Pl. Orient. Nov., ser. 1, 2(8): 25. (1849).
Y		<i>Conringia orientalis</i> (L.) Dumort.; Fl. Belg.: 123. (1827).
Y		<i>Conringia perfoliata</i> (C.A. Mey.) N. Busch; Komarov, Fl. URSS 8: 497. (1939).
Y		<i>Conringia persica</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 1(6): 12. (1846).
Y		<i>Conringia planisiliqua</i> Fisch. & C.A. Mey.; Index Sem. Horti Petropol. 3: 32. (1837).
Y		<i>Cordylocarpus muricatus</i> Desf.; Fl. Atlant. 2: 79. (1798).
N	<i>Raffenaldia primuloides</i>	<i>Cossonia africana</i> Durieu; Ann. Sci. Nat. Bot., ser. 3, 20: 83. (1853).
N	<i>Raffenaldia platycarpa</i>	<i>Cossonia platycarpa</i> Coss.; Coss. & Barratte, Ill. Fl. Atlant. 1: 54. (1884).
N	<i>Crambe hispanica</i> subsp. <i>abyssinica</i>	<i>Crambe abyssinica</i> Hochst. ex R.E. Fr.; Wiss. Ergebn. Schwed. Rhod.-Kongo-Exped. 1911-1912 1/1: 54-55 (1914).
Y		<i>Crambe aculeolata</i> (N. Busch) Czerniak.; Komarov, Fl. URSS 8: 488, Add. 651. (1939).
N	<i>Crambe persica</i>	<i>Crambe alutacea</i> Hand.-Mazz.; Ann. Naturhist. Hofmus. (Wien) 27: 53. (1913).
Y		<i>Crambe amabilis</i> Butkov & Majlun; Bot. Mater. Gerb. Inst. Bot. Zool. Akad. Nauk Uzbeksk. SSR 17: 3. (1962)
Y		<i>Crambe arborea</i> Webb ex H. Christ; Bot. Jahrb. 9: 94. (1888).
N	<i>Crambe arborea</i>	<i>Crambe arborea</i> var. <i>arborea</i> Webb ex H. Christ
N	<i>Crambe arborea</i>	<i>Crambe arborea</i> var. <i>indivisa</i> Svent.
Y		<i>Crambe armena</i> N. Busch; Monit. Jard. Bot. Tiflis, 1926-27, nov. ser. Pt. 3-4: 7. (1927).
Y		<i>Crambe aspera</i> M.Bieb.; Fl. Taur.-Cauc. 2: 90. (1808).
N	<i>Crambe orientalis</i>	<i>Crambe aucheri</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 388. (1842)
Y		<i>Crambe cordifolia</i> Steven; Mém. Soc. Nat. Moscou 3: 267. (1812).
N	<i>Crambe kotschyana</i>	subsp. <i>kotschyana</i> (Boiss.) Jafri
Y		<i>Crambe cretacea</i> Czerniak.; Izv. Glavn. Bot. Sada SSSR 28: 398. (1929).
Y		<i>Crambe edentula</i> Fisch. & C.A. Mey.; Bull. Soc. Nat. Moscou 12: 145. (1839).
Y		<i>Crambe feuilleei</i> A. Santos; Prina and Martínez-Laborde, Bot. J. Linn. Soc. 156 : 294. (2008).
Y		<i>Crambe filiformis</i> Jacq.; Icon. Pl. Rar. 3: 8. (1793); Collect. Suppl.: 120. (1796).
Y		<i>Crambe fruticosa</i> L.f.; Suppl.: 299. (1781).
Y		subsp. <i>fruticosa</i> L.f.
Y		subsp. <i>pinnatifida</i> (Lowe) A. Prina & Mart.-Laborde; Bot. J. Linn. Soc. 156 : 295 (2008).
N	<i>Crambe aspera</i>	<i>Crambe gibberosa</i> Rupr.; Mém. Acad. Imp. Sci. St. Pétersb., sér. 7, 15(2): 136. (1869).

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N	<i>Crambe santosii</i>	<i>Crambe gigantea</i> (Ceballos & Ortuño) Bramwell; Cuad. Bot. Canar. 7: 7. (1969).
Y		<i>Crambe glaberrima</i> (Bornm.) Greuter & Burdet; Willdenowia 15: 417. (1986).
N	<i>Crambe hispanica</i> subsp. <i>glabrata</i>	<i>Crambe glabrata</i> DC.; Prodr. Syst. Nat. Reg. Veg. 1: 226. (1824).
Y		<i>Crambe gomeraea</i> Webb ex H. Christ; Bot. Jahrb. 9: 94. (1888).
Y		subsp. gomerae Webb ex H. Christ
Y		subsp. hirsuta A. Prina; Prina & Mart.-Laborde.; Bot. J. Linn. Soc. 156 : 297 (2008).
Y		<i>Crambe gordjaginii</i> Sprygin & Popov; Korovin & al., Descr. Pl. Nov. Turkestan: 87. (1916).
Y		<i>Crambe grandiflora</i> DC.; Reg. Veg. Syst. Nat. 2: 652. (1821).
Y		<i>Crambe grossheimii</i> I. Khalilov; Bot. Zhurn. 75: 1572. (1990).
Y		<i>Crambe hedgei</i> I. Khalilov; Bot. Zhurn. 75: 1169. (1990).
Y		<i>Crambe hispanica</i> L.; Sp. Pl. 2: 671. (1753).
Y		subsp. <i>abyssinica</i> (Hochst. ex R.E. Fr.) A. Prina
Y		subsp. <i>glabrata</i> (DC.) Cout.
Y		subsp. <i>hispanica</i>
N	<i>Crambe hispanica</i> subsp. <i>glabrata</i>	var. <i>glabrata</i> (DC.) Coss.
Y		<i>Crambe juncea</i> M.Bieb.; Fl. Taur.-Cauc. 3: 421. (1819).
N	<i>Crambe aculeolata</i>	var. <i>aculeolata</i> N. Busch
N	<i>Crambe koktebelica</i>	var. <i>koktebelica</i> Junge
Y		<i>Crambe kilimandscharica</i> O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 54. (1916).
Y		<i>Crambe koktebelica</i> (Junge) N. Busch; Kuzn. & al., Fl. Cauc. Crit. 3(4): 296. (1908).
Y		<i>Crambe kotschyana</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 1(6): 19. (1846).
Y		<i>Crambe kralikii</i> Coss.; Compt. Fl. Atlant. 2: 307. (1887).
Y		subsp. garamas (Maire) Podl.; Mitt. Bot. Staatssamml. München 17: 475. (1981).
Y		subsp. kralikii Coss.
Y		<i>Crambe laevigata</i> DC. ex H. Christ; Bot. Jahrb. 9: 94. (1888).
N	<i>Crambe tataria</i>	<i>Crambe litwinowii</i> K. Gross; Feddes Repert. 23: 397. (1927).
Y		<i>Crambe maritima</i> L.; Sp. Pl. 2: 671. (1753).
Y		<i>Crambe microcarpa</i> A. Santos; Veg. Fl. La Palma: 167. (1983).
N	<i>Crambe koktebelica</i>	<i>Crambe mitridatis</i> Juz.; Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 14: 9. (1951).
Y		<i>Crambe orientalis</i> L.; Sp. Pl. 2: 671. (1753).
N	<i>Crambe persica</i>	var. <i>alutacea</i> (Hand.-Mazz.) Hedge & Hub.-Mor.
N	<i>Crambe glaberrima</i>	var. <i>glaberrima</i> (Bornm.) O.E. Schulz ex Bornm.
N	<i>Crambe juncea</i>	var. <i>juncea</i> (M.Bieb.) O.E. Schulz
N	<i>Crambe koktebelica</i>	var. <i>koktebelica</i> (Junge) O.E. Schulz

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N	<i>Crambe orientalis</i>	var. <i>orientalis</i> L.
N	<i>Crambe tataria</i>	<i>Crambe parviflora</i> Hub.-Mor. & Reese; Feddes Repert. 48: 276. (1940).
Y		<i>Crambe persica</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 389. (1842).
N	<i>Crambe glaberrima</i>	var. <i>glaberrima</i> Bornm.; Bull. Herb. Boissier, ser. 2, 5: 56. (1904).
N	<i>Crambe tataria</i>	<i>Crambe pinnatifida</i> R. Br.; Aiton, W.T., Hortus Kew., ed. 2, 4: 72. (1812).
N	<i>Crambe maritima</i>	<i>Crambe pontica</i> Steven ex Rupr.; Fl. Cauc.: 293. (1869).
Y		<i>Crambe pritzelii</i> Bolle; Index Sem. Hort. Berol.: 10. (1861).
Y		<i>Crambe santosii</i> Bramwell; Bot. Macaronés. IV Cl. 22 : 111. (1995).
Y		<i>Crambe scaberrima</i> Webb ex Bramwell; Cuad. Bot. Canar. 17: 22. (1973).
Y		<i>Crambe schugnana</i> Korsh.; Bull. Sci. Acad. Imp. St.-Pétersb. 5, ser. 9, 5: 422. (1898).
Y		<i>Crambe scoparia</i> Svent.; Bol. Inst. Nac. Invest. Agron. (Madrid) 13(28): 65. (1953).
Y		<i>Crambe sinuato-dentata</i> Hochst. ex F. Petri; Schweinfurth, Beitr. Fl. Aethiop. 1: 238. (1867).
Y		<i>Crambe steveniana</i> Rupr.; Mém. Acad. Imp. Sci. St. Pétersb., sér. 7, 15(2): 136. (1869).
Y		<i>Crambe strigosa</i> L'Hér.; Stirp. Nov.: 151. (1785).
N	<i>Crambe santosii</i>	var. <i>gigantea</i> Ceballos & Ortuño; Not. Fl. Canar.: 11. (1947).
Y		<i>Crambe sventenii</i> B. Pett. ex Bramwell & Sundell; Cuad. Bot. Canar. 17: 21. (1973).
Y		<i>Crambe tamadabensis</i> A. Prina & A. Marrero; Anal. Jard. Bot. Madrid 58: 246. (2001).
Y		<i>Crambe tataria</i> Sebeók; Medico-Bot. Tataria Hung.: 7. (1779).
N	<i>Crambe aspera</i>	var. <i>aspera</i> M.Bieb.
N	<i>Crambe tataria</i>	var. <i>parviflora</i> (Hub.-Mor. & Reese) Hedge & Hub.-Mor.
N	<i>Crambe tataria</i>	var. <i>pinnatifida</i> (R. Br.) O.E. Schulz
N	<i>Crambe tataria</i>	var. <i>tataria</i> Sebeók
N	<i>Crambella teretifolia</i>	<i>Crambe teretifolia</i> Batt. & Trab.; Bull. Soc. Hist. Nat. Afrique Nord 9: 14. (1918).
Y		<i>Crambe wildpretii</i> A. Prina & Bramwell; Ann. Bot. Fenn. 37: 301. (2000).
Y		<i>Crambella teretifolia</i> (Batt. & Trab.) Maire; Bull. Soc. Hist. Nat. Afrique Nord 15: 74. (1924).
Y		<i>Didesmus aegyptius</i> (L.) Desv.; J. Bot. Agric. 3: 160. (1815).
Y		<i>Didesmus bipinnatus</i> (Desf.) DC.; Reg. Veg. Syst. Nat. 2: 659. (1821).
N	<i>Erucaria rostrata</i>	<i>Didesmus rostratus</i> Boiss.; Fl. Orient. 1: 405. (1867).
Y		<i>Diplotaxis acris</i> (Forssk.) Boiss.; Fl. Orient. 1: 389. (1867).
Y		<i>Diplotaxis antoniensis</i> Rustan; Nordic J. Bot. 16: 35. (1996).
Y		<i>Diplotaxis assurgens</i> (Delile) Gren.; Fl. Massil. Adv.: 14. (1857).
N	<i>Diplotaxis assurgens</i>	subsp. <i>pachypoda</i> (Godr.) Maire & Weiller
N	<i>Diplotaxis assurgens</i>	subsp. <i>tetragona</i> (Maire) Nègre
Y		<i>Diplotaxis berthautii</i> Braun-Blanq. & Maire; Bull. Soc. Hist. Nat. Afrique Nord 13: 180. (1922).

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Y		<i>Diplotaxis brachycarpa</i> Godr.; Mem. Acad. Stanislas, Ser. 3, 17: 374. (1854).
Y		<i>Diplotaxis brevisiliqua</i> (Coss.) Mart.-Laborde; Willdenowia 21: 66. (1991).
Y		<i>Diplotaxis catholica</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 632. (1821).
N	<i>Diplotaxis catholica</i>	subsp. <i>catholica</i> (L.) DC.
N	<i>Diplotaxis ibicensis</i>	subsp. <i>ibicensis</i> (Pau) Font Quer
N	<i>Diplotaxis siettiana</i>	subsp. <i>siettiana</i> (Maire) Maire
N	<i>Diplotaxis siifolia</i> subsp. <i>siifolia</i>	subsp. <i>siifolia</i> (Kunze) Maire
N	<i>Diplotaxis ibicensis</i>	var. <i>ibicensis</i> Pau
Y		<i>Diplotaxis cossoniana</i> (Reut. ex Boiss.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 55. (1916).
N	<i>Diplotaxis harra</i> subsp. <i>crassifolia</i>	<i>Diplotaxis crassifolia</i> (Raf.) DC.; Reg. Veg. Syst. Nat. 2: 629. (1821)
N	<i>Diplotaxis harra</i> subsp. <i>lagascana</i>	var. <i>lagascana</i> (DC.) O.E. Schulz
N	<i>Diplotaxis tenuifolia</i> subsp. <i>cretacea</i>	<i>Diplotaxis cretacea</i> Kotov; Ukr. Bot. Zhurn. 3: 17. (1926).
Y		<i>Diplotaxis decumbens</i> (A. Chev.) Rustan & L. Borgen; Bocagiana 47: 4. (1979).
N	<i>Diplotaxis acris</i>	<i>Diplotaxis duveyrieriana</i> Coss.; Bull. Soc. Bot. France, ser. 3, 11: 164. (1864).
Y		<i>Diplotaxis eruroides</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 631. (1821).
N	<i>Diplotaxis cossoniana</i>	subsp. <i>cossoniana</i> (Reut. ex Boiss.) Mart.-Laborde
N	<i>Diplotaxis cossoniana</i>	subsp. <i>longisiliqua</i> (Coss.) Gómez-Campo
N	<i>Diplotaxis cossoniana</i>	var. <i>dasycarpa</i> O.E. Schulz
N	<i>Diplotaxis eruroides</i>	var. <i>valentina</i> (Pau) O.E. Schulz
N	<i>Diplotaxis harra</i> subsp. <i>glauca</i>	<i>Diplotaxis glauca</i> (J.A. Schmidt) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 55. (1916).
N	<i>Diplotaxis ilorcitana</i>	<i>Diplotaxis gomez-campo</i> Mart.-Laborde; Willdenowia 21: 66. (1991). [comb. illeg.]
Y		<i>Diplotaxis gorgadensis</i> Rustan; Nordic J. Bot. 16: 38. (1996).
Y		subsp. <i>brochmanni</i> Rustan; Nordic J. Bot. 16: 41. (1996).
Y		subsp. <i>gorgadensis</i> Rustan
Y		<i>Diplotaxis gracilis</i> (Webb) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Diplotaxis griffithii</i> (Hook. f. & Thomson) Boiss.; Fl. Orient. 1: 388. (1867).
Y		<i>Diplotaxis harra</i> (Forssk.) Boiss.; Fl. Orient. 1: 388. (1867).
Y		subsp. <i>crassifolia</i> (Raf.) Maire; Bull. Soc. Hist. Nat. Afrique Nord 24: 198. (1933).
Y		subsp. <i>glauca</i> (J.A. Schmidt) Sobrino Vesperinas; Candollea 48: 143. (1993).
Y		subsp. <i>harra</i> (Forssk.) Boiss.
Y		subsp. <i>hirta</i> (A. Chev.) Sobrino Vesperinas; Candollea 48: 143. (1993).
Y		subsp. <i>lagascana</i> (DC.) O. Bolòs & Vigo; Fl. Països Catalans 2: 57. (1990).
N	<i>Diplotaxis harra</i> subsp. <i>hirta</i>	<i>Diplotaxis hirta</i> (A. Chev.) Rustan & L. Borgen; Bocagiana 47: 4. (1979).
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	<i>Diplotaxis humilis</i> (DC.) Godr.; Gren. & Godron, Fl. France 1(1): 78. (1847).

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Y		<i>Diplotaxis ibicensis</i> (Pau) Gómez-Campo; Anal. Jard. Bot. Madrid 38: 32. (1981).
Y		<i>Diplotaxis ilorcitana</i> (Sennen) Aedo, Mart.-Laborde & Muñoz Garm.; Castroviejo & al. (eds.), Fl. Iberica 4: 356. (1993).
N	<i>Diplotaxis harra</i> subsp. <i>harra</i>	<i>Diplotaxis kerakensis</i> Kasapligil; J. Arnold Arbor. 47: 166. (1966).
Y		<i>Diplotaxis kohlaanensis</i> A.G. Mill. & J. Nyberg; Edinburgh J. Bot. 51(1): 36. (1994).
N	<i>Diplotaxis harra</i> subsp. <i>lagascana</i>	<i>Diplotaxis lagascana</i> DC.; Reg. Veg. Syst. Nat. 2: 629. (1821).
Y		<i>Diplotaxis muralis</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 634. (1821).
Y		subsp. ceratophylla (Batt.) Mart.-Laborde; Bot. J. Linn. Soc. 106: 69. (1991).
Y		subsp. muralis (L.) DC.
N	<i>Diplotaxis simplex</i>	subsp. <i>simplex</i> (Viv.) Jafri
Y		<i>Diplotaxis nepalensis</i> H. Hara; J. Jap. Bot. 49: 129. (1974).
Y		<i>Diplotaxis ollivieri</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 28: 335. (1937).
Y		<i>Diplotaxis pitardiana</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 9: 175. (1918).
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	<i>Diplotaxis saxatilis</i> DC.; Reg. Veg. Syst. Nat. 2: 636. (1821).
Y		<i>Diplotaxis scaposa</i> DC.; Reg. Veg. Syst. Nat. 2: 635. (1821).
Y		<i>Diplotaxis siettiana</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 24: 198. (1933).
Y		<i>Diplotaxis siifolia</i> Kunze; Flora (Regensburg) 29: 685. (1846).
Y		subsp. bipinnatifida (Coss.) Mart.-Laborde; Anal. Jard. Bot. Madrid 49: 241. (1991, publ. 1992).
Y		subsp. siifolia Kunze
Y		subsp. vicentina (Welw. ex Samp.) Mart.-Laborde; Anal. Jard. Bot. Madrid 49: 241. (1991, publ. 1992).
Y		<i>Diplotaxis simplex</i> (Viv.) Spreng.; Syst. Veg., ed. 16, 2: 914. (1825).
Y		<i>Diplotaxis sundingii</i> Rustan; Nordic J. Bot. 16: 47. (1996).
N	<i>Diplotaxis tenuifolia</i> subsp. <i>cretacea</i>	<i>Diplotaxis tanaitica</i> Schtscherb.; Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS 22: 150. (1963).
Y		<i>Diplotaxis tenuifolia</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 632. (1821).
Y		subsp. cretacea (Kotov) Sobrino Vesperinas; Anal. Jard. Bot. Madrid 54: 188. (1996).
Y		subsp. tenuifolia (L.) DC.
Y		<i>Diplotaxis tenuisiliqua</i> Delile; Index Sem. Hort. Monspel. 1847: 7. (1847).
Y		subsp. rupestris (Ball) Mart.-Laborde; Bot. J. Linn. Soc. 106: 70. (1991).
Y		subsp. tenuisiliqua Delile
N	<i>Diplotaxis tenuisiliqua</i> subsp. <i>rupestris</i>	var. <i>dasycarpa</i> O.E. Schulz
Y		<i>Diplotaxis varia</i> Rustan; Nordic J. Bot. 16: 47. (1996).
N	<i>Diplotaxis siifolia</i> subsp. <i>vicentina</i>	<i>Diplotaxis vicentina</i> (Cout.) Rothm.; Agron. Lusit. 2: 84. (1940).

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Y		<i>Diplotaxis villosa</i> Boulos & Jallad; Bot. Not. 128: 367. (1975).
Y		<i>Diplotaxis viminea</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 635. (1821).
Y		var. <i>integrifolia</i> Guss.; Fl. Siculae Prodr. 2: 275. (1828).
Y		var. <i>viminea</i> (L.) DC.
Y		<i>Diplotaxis virgata</i> (Cav.) DC.; Reg. Veg. Syst. Nat. 2: 631. (1821).
N	<i>Diplotaxis brachycarpa</i>	subsp. <i>brachycarpa</i> (Godr.) Nègre
N	<i>Diplotaxis cossoniana</i>	subsp. <i>cossoniana</i> (Reut. ex Boiss.) Maire & Weiller
N	<i>Diplotaxis muralis</i> subsp. <i>muralis</i>	subsp. <i>platystylis</i> (Pomel) Maire & Weiller
N	<i>Diplotaxis catholica</i>	subsp. <i>rivulorum</i> (Braun-Blanq. & Maire) Mart.-Laborde
N	<i>Diplotaxis siifolia</i> subsp. <i>vicentina</i>	subsp. <i>vicentina</i> Cout.
N	<i>Diplotaxis erucooides</i>	subsp. <i>platystylos</i> Willk.
N	<i>Diplotaxis harra</i>	<i>Diplotaxis vogelii</i> (Webb) Cout.; Arq. Univ. Lisboa 1: 248. (1914).
N	<i>Rytidocarpus moricandioides</i> var. <i>maroccanus</i>	<i>Distomocarpus maroccanus</i> O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 53. (1916).
N	<i>Douepea arabica</i>	<i>Dolichorhynchus arabicus</i> Hedge & Kit Tan; Pl. Syst. Evol. 156: 198. (1987).
Y		<i>Douepea arabica</i> (Hedge & Kit Tan) O. Appel & Al-Shehbaz; Novon 11: 297. (2001).
Y		<i>Douepea tortuosa</i> Cambess.; Jacquem., Voy. Inde 4: 18, tab. 18. (1837). ["1844"]
Y		<i>Enarthrocarpus arcuatus</i> Labill.; Icon. Pl. Syr. 5: 4. (1812).
N	<i>Eremophyton chevallieri</i>	<i>Enarthrocarpus chevallieri</i> Barratte ex L. Chevall.; Mém. Herb. Boissier 7: 2. (1900).
Y		<i>Enarthrocarpus clavatus</i> Godr.; Mém. Acad. Sci. Montpellier, Sect. Méd. 1: 412. (1853).
Y		<i>Enarthrocarpus lyratus</i> (Forssk.) DC.; Reg. Veg. Syst. Nat. 2: 661. (1821).
Y		<i>Enarthrocarpus pterocarpus</i> (Pers.) DC.; Reg. Veg. Syst. Nat. 2: 661. (1821).
Y		<i>Enarthrocarpus strangulatus</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 2(8): 44. (1849).
Y		<i>Eremophyton chevallieri</i> (Barratte ex L. Chevall.) Bég.; Boll. Soc. Bot. Ital. 1913: 102. (1913).
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	<i>Eruca cappadocica</i> Reut. ex Boiss.; Diagn. Pl. Orient. Nov., ser. 2, 3(6): 13. (1859).
N	<i>Brassica drepanensis</i>	<i>Eruca drepanensis</i> Caruel; Nuovo Giorn. Bot. Ital. 23: 240. (1891).
N	<i>Coincya monensis</i> subsp. <i>orophila</i>	<i>Eruca hispida</i> Cav.; Descr. Pl.: 425. (1802).
Y		<i>Eruca loncholoma</i> (Pomel) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	<i>Eruca longirostris</i> R.Uechtr.; Österr. Bot. Zeitschr. 24: 136. (1875).
N	<i>Eruca vesicaria</i>	<i>Eruca orthosepala</i> (Lange) Lange; Index Sem. Horto Haun. 1857: 28. (1857).
Y		<i>Eruca pinnatifida</i> (Desf.) Pomel; Nouv. Mat. Fl. Atlant.: 367. (1875).
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	<i>Eruca sativa</i> Mill.; Gard. Dict., ed. 8. (1768).
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	subsp. <i>lativalvis</i> (Boiss.) Greuter & Burdet
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	subsp. <i>longirostris</i> (Uechtr.) Jahand. & Maire
Y		<i>Eruca setulosa</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(5): 26. (1856).

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N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	<i>Eruca stenocarpa</i> Boiss. & Reut.; Pugillus Pl. Nov. Afr. Bor. Hispan.: 8. (1852).
Y		<i>Eruca vesicaria</i> (L.) Cav.; Descr. Pl.: 426. (1802).
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	subsp. <i>lativalvis</i> (Boiss.) Thell.
N	<i>Eruca vesicaria</i> subsp. <i>sativa</i>	subsp. <i>longirostris</i> (Uechtr.) Maire
N	<i>Eruca pinnatifida</i>	subsp. <i>pinnatifida</i> (Desf.) Emb. & Maire
Y		subsp. <i>sativa</i> (Mill.) Thell.; Hegi, Ill. Fl. Mitt.-Eur. 4: 201. (1918).
Y		subsp. <i>vesicaria</i> (L.) Cav.
N	<i>Erucaria pinnata</i>	<i>Erucaria aegiceras</i> J. Gay ex Boiss.; Fl. Orient. 1: 367. (1867), pro syn. (J. Gay ex Steudel, 1840, nomen.)
N	<i>Erucaria hispanica</i>	<i>Erucaria aleppica</i> Gaertn.; Fruct. Sem. Pl. 2: 298. (1791).
Y		<i>Erucaria bornmuelleri</i> O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 55. (1916).
N	<i>Erucaria rostrata</i>	<i>Erucaria boveana</i> Coss.; Coss. & Barratte, Ill. Fl. Atlant. 1: 45. (1884).
Y		<i>Erucaria cakiloidea</i> (DC.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Erucaria crassifolia</i> (Forssk.) Delile; Descr. Egypte, Hist. Nat., Fasc. 2: 244. (1813-1814).
Y		<i>Erucaria erucarioides</i> (Coss. & Durieu) Müll.Berol.; Walp., Ann. Bot. Syst. 7: 178. (1868).
Y		<i>Erucaria hispanica</i> (L.) Druce; Rep. Bot. Exch. Club Soc. Brit. Isles 3: 418. (1914).
Y		<i>Erucaria microcarpa</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 2(8): 47. (1849).
N	<i>Erucaria hispanica</i>	<i>Erucaria myagroides</i> (L.) Halácsy; Consp. Fl. Graec. 1: 123. (1900).
Y		<i>Erucaria ollivieri</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 30: 331. (1939).
Y		<i>Erucaria pinnata</i> (Viv.) Täckh. & Boulos; Publ. Cairo Univ. Herb. 5 (Suppl. Stud. Fl. Egypt): 37. (1972).
N	<i>Erucaria pinnata</i>	subsp. <i>pinnata</i> (Viv.) Täckh. & Boulos
N	<i>Erucaria uncata</i>	subsp. <i>uncata</i> (Boiss.) Greuter & Burdet
Y		<i>Erucaria rostrata</i> (Boiss.) Greuter & Burdet; Willdenowia 15: 419. (1986).
Y		<i>Erucaria uncata</i> (Boiss.) Asch. & Schweinf.; Mém. Inst. Egypt 2: 40. (1889).
N	<i>Erucaria uncata</i>	subsp. <i>aegiceras</i> (J. Gay ex Boiss.)
Y		<i>Erucastrum abyssinicum</i> (A. Rich.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Erucastrum arabicum</i> Fisch. & C.A. Mey.; Index Sem. Horti Petropol. 5: 35. (1839).
N	<i>Brassica elongata</i> subsp. <i>integrifolia</i>	<i>Erucastrum armoracioides</i> (Czern. ex Turcz.) Cruchet; Bull. Soc. Vaud. Sci. Nat. 38, n. 145: 333. (1902).
Y		<i>Erucastrum austroafricanum</i> Al-Shehbaz & Warwick; Novon 13: 266. (2003).
Y		<i>Erucastrum brevirostre</i> (Maire) Gómez-Campo; Anal. Jard. Bot. Madrid 41: 85. (1984).
Y		<i>Erucastrum canariense</i> Webb & Berthel.; Hist. Nat. Iles Canaries 3, 2 (Phyt. Canar. 1): 81. (1836).

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Y		<i>Erucastrum cardaminoides</i> (Webb ex H. Christ) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Diplotaxis cossoniana</i>	<i>Erucastrum cossonianum</i> Reut. ex Boiss.; Diagn. Pl. Orient. Nov., ser. 2, 3(5): 26. (1856).
N	<i>Brassica elongata</i> subsp. <i>pinnatifida</i>	<i>Erucastrum cretaceum</i> Kotov; J. Inst. Bot. Acad. Sci. Ukraine, Nos. 21-22: 237. (1939).
Y		<i>Erucastrum elatum</i> (Ball) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Erucastrum elgonense</i> Jonsell; Bot. Not. 132: 529. (1979).
Y		<i>Erucastrum erigavicum</i> Jonsell; Opera Bot. 121: 139. (1993).
Y		<i>Erucastrum gallicum</i> (Willd.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Erucastrum griquense</i> (N.E. Br.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		<i>Erucastrum ifniense</i> Gómez-Campo; Anal. Jard. Bot. Madrid 41: 84. (1984).
N	<i>Hirschfeldia incana</i>	<i>Erucastrum incanum</i> (L.) W.D.J. Koch; Syn. Fl. Germ. Helv.: 56. (1836).
N	<i>Erucastrum virgatum</i> subsp. <i>virgatum</i>	<i>Erucastrum laevigatum</i> (L.) O.E. Schulz; Engler & Prantl, Natürl. Pflanzenfam., ed. 2, 17b: 331. (1936).
N	<i>Erucastrum virgatum</i> subsp. <i>brachycarpum</i>	subsp. <i>brachycarpum</i> (Rouy) O. Bolòs & Vigo
N	<i>Erucastrum elatum</i>	subsp. <i>elatum</i> (Ball) Maire & Weiller
N	<i>Erucastrum littoreum</i> subsp. <i>glabrum</i>	subsp. <i>glabrum</i> Maire
N	<i>Erucastrum littoreum</i> subsp. <i>littoreum</i>	subsp. <i>littoreum</i> (Pau & Font Quer) Maire
N	<i>Erucastrum virgatum</i> subsp. <i>pseudosinapis</i>	var. <i>pseudosinapis</i> (Lange) O.E. Schulz
Y		<i>Erucastrum leucanthum</i> Coss. & Durieu; Bull. Soc. Bot. France 2: 307. (1855).
Y		<i>Erucastrum littoreum</i> (Pau & Font Quer) Maire; Cavanillesia 2: 46. (1929).
Y		subsp. <i>brachycarpum</i> (Maire & Weiller) Gómez-Campo; Anal. Jard. Bot. Madrid 40: 71. (1983).
Y		subsp. <i>glabrum</i> (Maire) Gómez-Campo; Anal. Jard. Bot. Madrid 40: 71. (1983).
Y		subsp. <i>littoreum</i> (Pau & Font Quer) Maire
Y		<i>Erucastrum meruense</i> Jonsell; Bot. Not. 132: 530. (1979).
Y		subsp. <i>balense</i> Jonsell; Opera Bot. 121: 135. (1993).
Y		subsp. <i>meruense</i> Jonsell
Y		subsp. <i>tsaratananae</i> Jonsell; Bot. Not. 132: 535. (1979)
Y		subsp. <i>yemenense</i> Jonsell; Opera Bot. 121: 19. (1993).
Y		<i>Erucastrum nasturtiifolium</i> (Poir.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		subsp. <i>nasturtiifolium</i> (Poir.) O.E. Schulz
Y		subsp. <i>sudrei</i> Vivant; Bull. Soc. Bot. France 124: 236. (1977).
N	<i>Erucastrum nasturtiifolium</i> subsp. <i>nasturtiifolium</i>	<i>Erucastrum obtusangulum</i> (Schleich. ex Willd.) Rchb.; Fl. Germ. Excurs.: 693. (1832).
Y		<i>Erucastrum pachypodum</i> (Chiov.) Jonsell; Bot. Not. 129: 127. (1976).

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Y		<i>Erucastrum palustre</i> (Pirona) Vis.; <i>Linnaea</i> 28: 365. (1857).
N	<i>Erucastrum virgatum</i> subsp. <i>pseudosinapis</i>	<i>Erucastrum pseudosinapis</i> Lange; <i>Kjoeb. Vidensk. Meddel.</i> : 79. (1865).
N	<i>Brassica fruticulosa</i> subsp. <i>rifana</i>	<i>Erucastrum rifanum</i> (Emb. & Maire) Gómez-Campo; <i>Anal. Jard. Bot. Madrid</i> 38: 353. (1981, publ. 1982).
Y		<i>Erucastrum rostratum</i> (Balf. f.) Gómez-Campo; <i>Anal. Jard. Bot. Madrid</i> 56: 379. (1998).
Y		<i>Erucastrum strigosum</i> (Thunb.) O.E. Schulz; <i>Bot. Jahrb.</i> 54, <i>Beibl.</i> 119: 56. (1916).
Y		<i>Erucastrum supinum</i> (L.) Al-Shehbaz & Warwick; <i>Novon</i> 13: 266. (2003).
Y		<i>Erucastrum takhtajani</i> V.I. Dorof.; <i>Bot. Zhurn.</i> 85: 183. (2000).
N	<i>Hirschfeldia incana</i>	<i>Erucastrum thellungii</i> O.E. Schulz; <i>Bot. Jahrb.</i> 54, <i>Beibl.</i> 119: 54. (1916).
Y		<i>Erucastrum varium</i> (Durieu) Durieu; <i>Coss. & Durieu, Expl. Sci. Algérie, Atlas</i> : tab. 75. (1849).
Y		subsp. <i>barbei</i> Vindt; <i>Compt. Rend. Séances Mens. Soc. Sci. Nat. Maroc.</i> 21: 96. (1955).
N	<i>Erucastrum brevirostre</i>	subsp. <i>brevirostre</i> Maire
Y		subsp. <i>mesatlanticum</i> Maire & Wilczek; <i>Bull. Soc. Hist. Nat. Afrique Nord</i> 25: 289. (1934).
Y		subsp. <i>subsifolium</i> Maire; <i>Bull. Soc. Hist. Nat. Afrique Nord</i> 25: 289. (1934).
Y		subsp. <i>varium</i> (Durieu) Durieu
Y		<i>Erucastrum virgatum</i> C. Presl.; <i>Fl. Sicula</i> 1: 94. (1826).
Y		subsp. <i>baeticum</i> (Boiss.) Gómez-Campo; <i>Anal. Jard. Bot. Madrid</i> 40: 66. (1983).
Y		subsp. <i>brachycarpum</i> (Rouy) Gómez-Campo; <i>Anal. Jard. Bot. Madrid</i> 40: 68. (1983).
Y		subsp. <i>pseudosinapis</i> (Lange) Gómez-Campo; <i>Anal. Jard. Bot. Madrid</i> 40: 68. (1983).
Y		subsp. <i>virgatum</i> (J. Presl & C. Presl) C. Presl
Y		<i>Erucastrum woodiorum</i> Jonsell; <i>Opera Bot.</i> 121: 140. (1993).
N	<i>Vella bourgaeana</i>	<i>Euzomodendron bourgaeianum</i> Coss.; <i>Notes Pl. Crit.</i> : 145 (1852).
N	<i>Hemicrambe fruticosa</i>	<i>Fabrisinapis fruticosus</i> C.C. Towns.; <i>Hook. Icon. Pl.</i> , ser. 5, 7(4): tab. 3673. (1971).
Y		<i>Fezia pterocarpa</i> Pit.; <i>Genre Cruc. Maroc.</i> 1. (1917).
Y		<i>Foleyola billotii</i> Maire; <i>Bull. Soc. Hist. Nat. Afrique Nord</i> 16: 90. (1925).
N	<i>Fortuynia garcinii</i>	<i>Fortuynia aucheri</i> Shuttlew. ex Boiss.; <i>Ann. Sci. Nat. Bot.</i> , ser. 2, 17: 178. (1842).
Y		<i>Fortuynia bungei</i> Boiss.; <i>Fl. Orient.</i> 1: 402. (1867).
Y		<i>Fortuynia garcinii</i> (Burm.) Shuttlew. ex Boiss.; <i>Ann. Sci. Nat. Bot.</i> , ser. 2, 17: 178. (1842).
Y		<i>Guiraoa arvensis</i> Coss.; <i>Notes Pl. Crit.</i> : 98. (1851).
N	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i>	<i>Guenthera amplexicaulis</i> (Desf.) Gomez-Campo; <i>Anal. Jard. Bot. Madrid</i> 60: 304. (2003).
N	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i>	subsp. <i>amplexicaulis</i> (Desf.) Gomez-Campo; <i>Anal. Jard. Bot. Madrid</i> 60: 304. (2003).
N	<i>Brassica souliei</i> subsp. <i>souliei</i>	subsp. <i>souliei</i> (Batt.) Gomez-Campo; <i>Anal. Jard. Bot. Madrid</i> 60: 304. (2003).
N	<i>Brassica desnottesii</i>	<i>Guenthera desnottesii</i> (Emb. & Maire) Gomez-Campo; <i>Anal. Jard. Bot. Madrid</i> 60: 305. (2003).
N	<i>Brassica souliei</i>	<i>Guenthera dimorpha</i> (Coss. & Durieu) Gomez-Campo; <i>Anal. Jard. Bot. Madrid</i> 60: 304. (2003).

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N	<i>Brassica elongata</i> subsp. <i>elongata</i>	<i>Guenthera elongata</i> (Ehrh.) Andr.; Besser, W.S.J.G. von, Enum. Pl. Volhyn., ed. 2: 83. (1822).
N	<i>Brassica elongata</i> subsp. <i>elongata</i>	<i>Guenthera elongata</i> (Ehrh.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica elongata</i> subsp. <i>elongata</i>	subsp. <i>elongata</i> (Ehrh.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica elongata</i> subsp. <i>imdrahsiana</i>	subsp. <i>imdrahsiana</i> (Quézel) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica elongata</i> subsp. <i>integrifolia</i>	subsp. <i>integrifolia</i> (Boiss.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica elongata</i> subsp. <i>pinnatifida</i>	subsp. <i>pinnatifida</i> (Schmalh.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica elongata</i> subsp. <i>subscaposa</i>	subsp. <i>subscaposa</i> (Maire & Weiller) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 304. (2003).
N	<i>Brassica gravinae</i>	<i>Guenthera gravinae</i> (Ten.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Eruca loncholoma</i>	<i>Guenthera loncholoma</i> (Pomel) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica nivalis</i> subsp. <i>nivalis</i>	<i>Guenthera nivalis</i> (Boiss. & Heldr.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica nivalis</i> subsp. <i>jordanoffii</i>	subsp. <i>jordanoffii</i> (O.E. Schulz) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica nivalis</i> subsp. <i>nivalis</i>	subsp. <i>nivalis</i> (Boiss. & Heldr.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>repanda</i>	<i>Guenthera repanda</i> (Willd.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>africana</i>	subsp. <i>africana</i> (Maire) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>almeriensis</i>	subsp. <i>almeriensis</i> (Gomez-Campo) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i>	subsp. <i>baldensis</i> Prosser & Bertolli; Willdenowia 37 : 192. (2007).
N	<i>Brassica repanda</i> subsp. <i>blancoana</i>	subsp. <i>blancoana</i> (Boiss.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>cadevallii</i>	subsp. <i>cadevallii</i> (Font Quer) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>cantabrica</i>	subsp. <i>cantabrica</i> (Font Quer) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>confusa</i>	subsp. <i>confusa</i> (Emb. & Maire) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>dertosensis</i>	subsp. <i>dertosensis</i> (Molero & Rovira) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>repanda</i>	subsp. <i>diplofaxiformis</i> (Maire) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>galissieri</i>	subsp. <i>galissieri</i> (Giraudias) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>glabrescens</i>	subsp. <i>glabrescens</i> (Poldini) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>gypsicola</i>	subsp. <i>gypsicola</i> (Gomez-Campo) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	subsp. <i>humilis</i> (DC.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>latisiliqua</i>	subsp. <i>latisiliqua</i> (Boiss. & Reut.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>maritima</i>	subsp. <i>maritime</i> (Willk.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>repanda</i>	subsp. <i>repanda</i> (Willd.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 305. (2003).
N	<i>Brassica repanda</i> subsp. <i>saxatilis</i>	subsp. <i>saxatilis</i> (DC.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>silentifolia</i>	subsp. <i>silentifolia</i> (Emb.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Brassica repanda</i> subsp. <i>turbonis</i>	subsp. <i>turbonis</i> (P. Monts.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
N	<i>Eruca setulosa</i>	<i>Guenthera setulosa</i> (Boiss. & Reut.) Gomez-Campo; Anal. Jard. Bot. Madrid 60: 306. (2003).
Y		<i>Hemicrambe fruticosa</i> (C.C. Towns.) Gómez-Campo; Lagascalia 7: 189. (1978).

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Y		<i>Hemicrambe fruticulosa</i> Webb; Ann. Sci. Nat. Bot., ser. 3, 16: 248. (1851).
Y		<i>Hemicrambe socotrana</i> (A.J. Mill) Al-Shehbaz; Novon 14: 156. (2004).
N	<i>Hemicrambe fruticulosa</i>	<i>Hemicrambe townsendii</i> Gómez-Campo; Anal. Inst. Bot. Cavanilles 34: 154. (1977).
N	<i>Henophyton deserti</i>	<i>Henonia deserti</i> Coss. & Durieu; Bull. Soc. Bot. France 2: 247. (1855).
Y		<i>Henophyton deserti</i> (Coss. & Durieu) Coss. & Durieu; Ann. Sci. Nat. Bot., ser. 4, 4: 282. (1856).
N	<i>Henophyton deserti</i>	subsp. <i>deserti</i> (Coss. & Durieu) Coss. & Durieu
N	<i>Henophyton zygarrhenum</i>	subsp. <i>zygarrhenum</i> (Maire) Greuter & Burdet
Y		<i>Henophyton zygarrhenum</i> (Maire) Gómez-Campo; Anal. Jard. Bot. Madrid 56: 381. (1998).
Y		<i>Hirschfeldia incana</i> (L.) Lagr.-Foss.; Fl. Tarn. Garonne: 19. (1847).
N	<i>Erucastrum littoreum</i>	<i>Hirschfeldia littorea</i> Pau & Font Quer; Font Quer, Iter Marocc. 1927: No. 229. (1928).
N	<i>Erucastrum rostratum</i>	<i>Hirschfeldia rostrata</i> (Balf. f.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Erucaria pinnata</i>	<i>Hussonia pinnata</i> (Viv.) Jafri; Ali & Jafri, Fl. Libya 23: 67. (1977).
N	<i>Erucaria uncata</i>	<i>Hussonia uncata</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 2(8): 47. (1849).
N	<i>Coincya monensis</i> subsp. <i>nevadensis</i>	<i>Hutera cheiranthos</i> subsp. <i>nevadensis</i> (Willk.) Gómez-Campo; Anal. Inst. Bot. Cavanilles 34: 147. (1977).
N	<i>Coincya rupestris</i> subsp. <i>leptocarpa</i>	<i>Hutera leptocarpa</i> Gonz.-Albo; Cavanillesia 6: 176. (1934).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Hutera pseudoerucastrum</i> (Brot.) Gómez-Campo; Anal. Inst. Bot. Cavanilles 34: 148. (1977).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>setigera</i> (J. Gay ex Lange) Gómez-Campo
N	<i>Coincya rupestris</i> subsp. <i>rupestris</i>	<i>Hutera rupestris</i> Porta & Rigo ex Porta; Atti Accad. Agiati 8: 6. (1891).
N	<i>Kremeriella cordylocarpus</i>	<i>Kremeria cordylocarpus</i> Coss. & Durieu; Bull. Soc. Bot. France 3: 672. (1856).
Y		<i>Kremeriella cordylocarpus</i> (Coss. & Durieu) Maire; Jahandiez & Maire, Cat. Pl. Maroc 2: 293. (1932).
Y		<i>Moricandia arvensis</i> (L.) DC.; Reg. Veg. Syst. Nat. 2: 626. (1821).
N	<i>Moricandia arvensis</i>	subsp. <i>arvensis</i> (L.) DC.
N	<i>Moricandia nitens</i>	subsp. <i>nitens</i> (Viv.) Maire
N	<i>Moricandia spinosa</i>	subsp. <i>spinosa</i> (Pomel) Batt.
N	<i>Moricandia suffruticosa</i>	subsp. <i>suffruticosa</i> (Desf.) Maire
N	<i>Moricandia moricandioides</i> subsp. <i>baetica</i>	<i>Moricandia baetica</i> Boiss. & Reut.; Pugillus Pl. Nov. Afr. Bor. Hispan.: 8. (1852).
N	<i>Pseuderucaria clavata</i>	<i>Moricandia clavata</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(5): 25. (1856).
Y		<i>Moricandia foetida</i> Bourg. ex Coss.; Notes Pl. Crit.: 143. (1852).
Y		<i>Moricandia foleyi</i> Batt.; Bull. Soc. Bot. France 61: 52. (1914).
N	<i>Moricandia arvensis</i>	<i>Moricandia longirostris</i> Pomel; Nouv. Mat. Fl. Atlant.: 367. (1875).
Y		<i>Moricandia moricandioides</i> (Boiss.) Heywood; Feddes Repert. 66: 154. (1962).
Y		subsp. <i>baetica</i> (Boiss. & Reut.) Sobrino Vesperinas; Anal. Jard. Bot. Madrid 50: 146. (1992).

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Y		subsp. cavanillesiana (Font Quer & A. Bolòs) Greuter & Burdet; Greuter et al., Med-Checklist 3: 144. (1986).
Y		subsp. giennensis Valdés Berm.; Anal. Inst. Bot. Cavanilles 31: 71. (1974).
Y		subsp. moricandioides (Boiss.) Heywood
Y		Moricandia nitens (Viv.) E.A. Durand & Barratte; Fl. Libyc. Prodr.: 15. (1910).
N	<i>Moricandia moricandioides</i> subsp. <i>moricandioides</i>	<i>Moricandia ramburii</i> Webb; Iter Hisp.: 73. (1838).
Y		Moricandia sinaica (Boiss.) Boiss.; Fl. Orient. 1: 386. (1867).
Y		Moricandia spinosa Pomel; Nouv. Mat. Fl. Atlant.: 365. (1875).
Y		Moricandia suffruticosa (Desf.) Coss. & Durieu; Ann. Sci. Nat. Bot., ser. 4, 4: 282. (1855).
N	<i>Pseuderucaria clavata</i> subsp. <i>tourneuxii</i>	<i>Moricandia tourneuxii</i> Coss.; Coss. & Barratte, Ill. Fl. Atlant. 1: 36. (1882).
N	<i>Morisia monanthos</i>	<i>Morisia hypogaea</i> J. Gay ex Colla; Hort. Rip. App. 4: 50. (1829).
Y		Morisia monanthos (Viv.) Asch.; Barbey, Fl. Sard. Comp.: 173. (1885).
Y		Muricaria prostrata (Desf.) Desv.; J. Bot. Agric. 3: 159. (1815).
N	<i>Didesmus aegyptius</i>	<i>Myagrum aegyptium</i> L.; Sp. Pl. 2: 641. (1753).
N	<i>Rapistrum rugosum</i>	<i>Myagrum hispanicum</i> L.; Sp. Pl. 2: 640. (1753).
N	<i>Rapistrum rugosum</i>	<i>Myagrum orientale</i> L.; Sp. Pl. 2: 640. (1753).
N	<i>Rapistrum perenne</i>	<i>Myagrum perenne</i> L.; Sp. Pl. 2: 640. (1753).
N	<i>Rapistrum rugosum</i>	<i>Myagrum rugosum</i> L.; Sp. Pl. 2: 640. (1753).
N	<i>Hemicrambe socotrana</i>	<i>Nesocrambe socotrana</i> A.G. Mill.; Miller, A.G. & al. Willdenowia 32: 63. (2002).
Y		Orychophragmus limprichtianus (Pax) Al-Shehbaz & G. Yang; Novon 10: 351. (2000).
N	<i>Orychophragmus violaceus</i>	<i>Orychophragmus sonchifolius</i> Bunge; Enum. Pl. China Bor.: 7. (1833).
Y		Orychophragmus violaceus (L.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Spryginia winkleri</i>	<i>Orychophragmus winkleri</i> (Regel) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
Y		Otocarpus virgatus Durieu; Duchartre, Rev. Bot. Recueil Mens. 2: 436. (1847).
N	<i>Henophyton deserti</i>	<i>Oudneya africana</i> R. Br.; Denh. & Clapp., Narr. Travels Africa, App. 2: 220. (1826).
N	<i>Henophyton deserti</i>	<i>Oudneya deserti</i> (Coss. & Durieu) Bullock; Kew Bull. 19: 201. (1965).
N	<i>Henophyton zygarrhena</i>	<i>Oudneya zygarrhena</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 36: 90. (1946).
N	<i>Fortuynia garcinii</i>	<i>Peltaria garcinii</i> Burm. f.; Fl. Indica (Prodr. Fl. Cap.): 139. (1768).
N	<i>Diplotaxis ilorcitana</i>	<i>Pendulina ilorcitana</i> Sennen; Bull. Inst. Catalana Hist. Nat. Bot. 32: 109. (1932).
Y		Physorhynchus brahuicus Hook.; Icon. Pl., Ser. 2, 5: tab. 821-822. (1851).
Y		Physorhynchus chamaerapistrum (Boiss.) Boiss.; Fl. Orient. 1: 403. (1867).
Y		Pseuderucaria clavata (Boiss. & Reut.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 54. (1916).
Y		subsp. clavata (Boiss. & Reut.) O.E. Schulz
Y		subsp. tourneuxii (Coss.) Maire; Mém. Soc. Hist. Nat. Afrique N. 3: 110. (1933).

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Y		<i>Pseuderucaria teretifolia</i> (Desf.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 54. (1916).
N	<i>Pseuderucaria clavata</i> subsp. <i>tourneuxii</i>	<i>Pseuderucaria tourneuxii</i> (Coss.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 54. (1916).
N	<i>Vella pseudocytisus</i> subsp. <i>pseudocytisus</i>	<i>Pseudocytisus integrifolius</i> (Salisb.) Rehder; J. Arnold Arbor. 8: 23. (1927).
N	<i>Vella anremerica</i>	subsp. <i>anremerica</i> Litard. & Maire
N	<i>Vella pseudocytisus</i> subsp. <i>pau</i>	subsp. <i>glabrescens</i> (Coss.) Litard. & Maire
N	<i>Vella mairei</i>	<i>Pseudocytisus mairei</i> (Humbert ex Maire) Maire; Bull. Soc. Hist. Nat. Afrique Nord 28: 336. (1937).
Y		<i>Pseudofortuynia esfandiarii</i> Hedge; Rech. f., Fl. Iranica 57: 57. (1968).
Y		<i>Psychine stylosa</i> Desf.; Fl. Atlant. 2: 69. (1798).
N	<i>Quezeliantha tibestica</i>	<i>Quezelia tibestica</i> H. Scholz; Willdenowia 4: 207. (1966). [nom. illeg.]
Y		<i>Quezeliantha tibestica</i> (H. Scholz) H. Scholz ex Rauschert; Taxon 31: 558. (1982).
N	<i>Raphanus confusus</i>	<i>Quidproquo confusum</i> Greuter & Burdet; Willdenowia 13: 94. (1983).
Y		<i>Raffenaldia platycarpa</i> (Coss.) Stapf; Bot. Mag. (Curtis): tab. 9267. (1932) [in note].
Y		<i>Raffenaldia primuloides</i> Godr.; Mém. Acad. Sci. Montpellier, Sect. Méd. 1: 413. (1853).
N	<i>Raphanus sativus</i>	<i>Raphanus acanthiformis</i> Morel ex Sasaki; List. Pl. Formos.: 202. (1928).
N	<i>Brassica aucheri</i>	<i>Raphanus aucheri</i> Boiss.; Diagn. Pl. Orient. Nov., ser. 1, 2(8): 45. (1849).
N	<i>Erucaria cakiloidea</i>	<i>Raphanus cakiloideus</i> DC.; Reg. Veg. Syst. Nat. 2: 669. (1821).
N	<i>Raphanus sativus</i>	<i>Raphanus candidus</i> Vorosch.; Bull. Soc. Nat. Moscou, Biol., n.s., 52(3): 48. (1947).
N	<i>Raphanus sativus</i> var. <i>caudatus</i>	<i>Raphanus caudatus</i> L.; Mantissa Pl.: 95. (1767).
Y		<i>Raphanus confusus</i> (Greuter & Burdet) Al-Shehbaz & S.I. Warwick; Novon 7: 219. (1997).
N	<i>Raphanus raphanistrum</i> subsp. <i>landra</i>	<i>Raphanus landra</i> Moretti ex DC.; Reg. Veg. Syst. Nat. 2: 668. (1821).
N	<i>Raphanus raphanistrum</i> subsp. <i>landra</i>	<i>Raphanus maritimus</i> Sm.; Sowerby, Engl. Bot.: tab. 1643. (1806).
N	<i>Raphanus raphanistrum</i> subsp. <i>raphanistrum</i>	<i>Raphanus microcarpus</i> (Lange) Lange; Willk. & Lange, Prodr. Fl. Hispan. 3: 750. (1880).
N	<i>Raphanus sativus</i> var. <i>sativus</i>	<i>Raphanus niger</i> Mill.; Gard. Dict., ed. 8. (1768).
N	<i>Erucaria pinnata</i>	<i>Raphanus pinnatus</i> Viv.; Fl. Libyc. Spec.: 37. (1824).
N	<i>Enarthrocarpus pterocarpus</i>	<i>Raphanus pterocarpus</i> Pers.; Syn. Pl. 2: 209. (1806).
N	<i>Raphanus sativus</i> var. <i>sativus</i>	<i>Raphanus raphanistroides</i> (Makino) Sinskaya; Trudy Prikl. Bot. Gen. i Sel. 26(2): 35. (1931).
Y		<i>Raphanus raphanistrum</i> L.; Sp. Pl. 2: 669. (1753).
Y		subsp. <i>landra</i> (Moretti ex DC.) Bonnier & Layens; Tabl. Syn. Pl. Vasc. France: 21. (1894).
N	<i>Raphanus raphanistrum</i> subsp. <i>landra</i>	subsp. <i>maritimus</i> (Sm.) Thell.
N	<i>Raphanus raphanistrum</i> subsp. <i>raphanistrum</i>	subsp. <i>microcarpus</i> (Lange) Thell.
Y		subsp. <i>raphanistrum</i> L.
Y		subsp. <i>rostratus</i> (DC.) Thell.; Hegi, Ill. Fl. Mitt.-Eur. 4: 279. (1918).
N	<i>Raphanus raphanistrum</i> subsp. <i>raphanistrum</i>	subsp. <i>segetum</i> (Baumg.) Clavaud
N	<i>Raphanus raphanistrum</i> subsp. <i>rostratus</i>	<i>Raphanus rostratus</i> DC.; Reg. Veg. Syst. Nat. 2: 666. (1821).

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N	<i>Raphanus raphanistrum</i> subsp. <i>rostratus</i>	var. <i>pugioniformis</i> (Boiss.) O.E. Schulz ex Thell.; Hegi, Ill. Fl. Mitt.-Eur. 4: 279. (1918).
Y		<i>Raphanus sativus</i> L.; Sp. Pl. 2: 669. (1753).
Y		var. <i>caudatus</i> (L.) Hook. f. & T. Anderson(ID) / Thomson, T.(WP); Fl. Brit. India 1: 166. (1872).
Y		var. <i>sativus</i> L.
N	<i>Sinapis arvensis</i> subsp. <i>allionii</i>	<i>Raphanus turgidus</i> Pers.; Syn. Pl. 2: 209. (1806).
N	<i>Rapistrum rugosum</i>	<i>Rapistrum hispanicum</i> (L.) Crantz; Class. Crucif. Emend.: 106. (1769).
N	<i>Rapistrum rugosum</i>	<i>Rapistrum linnaeanum</i> Boiss. & Reut.; Diagn. Pl. Nov. Hisp.: 5. (1842). [nom. illeg.]
N	<i>Rapistrum rugosum</i>	<i>Rapistrum microcarpum</i> Jord. ex Loret; Bull. Soc. Bot. France 6: 93. (1859).
N	<i>Rapistrum rugosum</i>	<i>Rapistrum orientale</i> (L.) Crantz; Class. Crucif. Emend.: 106. (1769).
Y		<i>Rapistrum perenne</i> (L.) All.; Fl. Pedem. 1: 258. (1785).
Y		<i>Rapistrum rugosum</i> (L.) All.; Fl. Pedem. 1: 257. (1785).
N	<i>Rapistrum rugosum</i>	subsp. <i>linnaeanum</i> Rouy & Foucaud
N	<i>Rapistrum rugosum</i>	subsp. <i>orientale</i> (L.) Arcang.
N	<i>Rapistrum rugosum</i>	subsp. <i>rugosum</i> (L.) J.P. Bergeret
N	<i>Erucaria erucarioides</i>	<i>Reboudia erucarioides</i> Coss. & Durieu; Bull. Soc. Bot. France 3: 705. (1856).
N	<i>Erucaria microcarpa</i>	<i>Reboudia microcarpa</i> Coss.; Compt. Fl. Atlant. 2: 213. (1887).
N	<i>Erucaria pinnata</i>	<i>Reboudia pinnata</i> (Viv.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Rhynchosinapis cheiranthos</i> (Vill.) Dandy; Watsonia 4: 41. (1957).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>cheiranthos</i> (Vill.) Dandy
N	<i>Coincya monensis</i> subsp. <i>nevadensis</i>	subsp. <i>nevadensis</i> (Willk.) Heywood
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Rhynchosinapis coincyoides</i> (Humbert & Maire) Fern.Casas; not in IK
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Rhynchosinapis granatensis</i> (O.E. Schulz) Heywood; Feddes Repert. 66: 154. (1962).
N	<i>Coincya monensis</i> subsp. <i>orophila</i>	<i>Rhynchosinapis hispida</i> (Cav.) Heywood; Feddes Repert. 66: 154. (1962).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Rhynchosinapis johnstonii</i> (Samp.) Heywood; Feddes Repert. 68: 196. (1963).
N	<i>Coincya longirostra</i>	<i>Rhynchosinapis longirostra</i> (Boiss.) Heywood; Feddes Repert. 66: 154. (1962).
N	<i>Brassica nivalis</i> subsp. <i>nivalis</i>	<i>Rhynchosinapis nivalis</i> (Boiss. & Heldr.) Heywood; Feddes Repert. 68: 196. (1963).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	<i>Rhynchosinapis pseudoerucastrum</i> (Brot.) Franco; Anal. Inst. Super. Agron. 22: 172. (1959).
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>cintrana</i> (Cout.) Franco & P. Silva
N	<i>Coincya monensis</i> subsp. <i>cheiranthos</i>	subsp. <i>pseudoerucastrum</i> (Brot.) Franco
N	<i>Coincya richeri</i>	<i>Rhynchosinapis richeri</i> (Vill.) Heywood; Feddes Repert. 68: 196. (1963).
Y		<i>Rytidocarpus moricandioides</i> Coss.; Coss. & Barratte, Ill. Fl. Atlant. 1: 100. (1889).
N	<i>Savignya parviflora</i> subsp. <i>longistyla</i>	<i>Savignya longistyla</i> Boiss. & Reut.; Boiss., Diagn. Pl. Orient. Nov., ser. 2, 3(5): 27. (1856).
Y		<i>Savignya parviflora</i> (Delile) Webb; Giorn. Bot. Ital. 2(2): 215. (1847).

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N	<i>Savignya parviflora</i> subsp. <i>parviflora</i>	subsp. <i>aegyptiaca</i> (DC.) Maire; Sahara Central: 108. (1933).
Y		subsp. <i>globosa</i> Jafri ex Ali & Jafri; Ali & Jafri, Fl. Libya 23: 85. (1977).
Y		subsp. <i>longistyla</i> (Boiss. & Reut.) Maire; Bull. Soc. Hist. Nat. Afrique Nord 20: 172. (1929).
Y		subsp. <i>parviflora</i> (Delile) Webb
Y		<i>Schouwia purpurea</i> (Forssk.) Schweinf.; Bull. Herb. Boissier, ser. 1, 4, App. 2: 183. (1896).
Y		subsp. <i>purpurea</i> (Forssk.) Schweinf.
Y		subsp. <i>schimperi</i> (Jaub. & Spach) Maire; Mém. Soc. Hist. Nat. Afrique N. 3: 111. (1933).
N	<i>Schouwia purpurea</i> subsp. <i>schimperi</i>	<i>Schouwia schimperi</i> Jaub. & Spach; Ill. Pl. Orient. 3: 145. (1847).
N	<i>Schouwia purpurea</i>	<i>Schouwia thebaica</i> Webb; Parl., Giorn. Bot. Ital. 2: 219. (1847).
N	<i>Schouwia purpurea</i>	var. <i>microcarpa</i> (O.E. Schulz) Täckh.
Y		<i>Sinapidendron angustifolium</i> (DC.) Lowe; Man. Fl. Mad. 1: 30. (1868).
N	<i>Brassica bourgeau</i>	<i>Sinapidendron bourgaei</i> Webb ex H. Christ; Bot. Jahrb. 9: 89. (1887).
N	<i>Diplotaxis decumbens</i>	<i>Sinapidendron decumbens</i> A. Chev.; Bull. Mus. Hist. Nat. Paris, sér. 2, 7: 142. (1935).
Y		<i>Sinapidendron frutescens</i> (Sol.) Lowe; Trans. Camb. Philos. Soc. 4: 37. (1831).
Y		subsp. <i>frutescens</i> (Sol.) Lowe
Y		subsp. <i>succulentum</i> (Lowe) Rustan in A. Hansen & P. Sunding; Sommerfeltia 17: 8. (1993).
N	<i>Diplotaxis harra</i> subsp. <i>glauca</i>	<i>Sinapidendron glaucum</i> J.A. Schmidt; Beitr. Fl. Cap. Verd. Ins.: 267. (1852).
N	<i>Diplotaxis gracilis</i>	<i>Sinapidendron gracile</i> Webb; Hook., Icon. Pl., ser. 2, 4: tab. 751. (1848).
N	<i>Sinapidendron rupestre</i>	<i>Sinapidendron gymnocalyx</i> (Lowe) Rustan; Hansen, A. & Sunding, P., Sommerfeltia 17.: 8. (1993).
N	<i>Diplotaxis harra</i> subsp. <i>hirta</i>	<i>Sinapidendron hirtum</i> A. Chev.; Bull. Mus. Hist. Nat. Paris, sér. 2, 7: 141. (1935).
N	<i>Sinapis pubescens</i> subsp. <i>pubescens</i>	<i>Sinapidendron palmense</i> (Kuntze) O.E. Schulz; Engler, Pflanzenreich IV-105 (Heft 70): 87. (1919)
Y		<i>Sinapidendron rupestre</i> Lowe; Trans. Camb. Philos. Soc. 4: 37. (1831).
Y		<i>Sinapidendron sempervivifolium</i> Menezes; Broteria, Ser. Bot. 20: 113. (1922).
N	<i>Diplotaxis harra</i> subsp. <i>harra</i>	<i>Sinapidendron vogelii</i> Webb; Hook., Icon. Pl., ser. 2, 4: tab. 752. (1848).
Y		<i>Sinapis alba</i> L.; Sp. Pl. 2: 668. (1753).
Y		subsp. <i>alba</i> L.
Y		subsp. <i>dissecta</i> (Lag.) Simonk.; Enum. Fl. Transsilv.: 88. (1887).
Y		subsp. <i>mairei</i> (H. Lindb.) Maire; Bull. Soc. Hist. Nat. Afrique Nord 24: 197. (1933).
N	<i>Sinapis arvensis</i> subsp. <i>allionii</i>	<i>Sinapis allionii</i> Jacq.; Hort. Bot. Vindob. 2: 79, tab. 168. (1772).
N	<i>Sinapidendron angustifolium</i>	<i>Sinapis angustifolia</i> DC.; Reg. Veg. Syst. Nat. 2: 624. (1821).
N	<i>Trachystoma aphanoneurum</i>	<i>Sinapis aphanoneura</i> Maire & Weiller; Bull. Soc. Hist. Nat. Afrique Nord 19: 32. (1928).
N	<i>Sinapis pubescens</i> subsp. <i>aristidis</i>	<i>Sinapis aristidis</i> Pomel; Nouv. Mat. Fl. Atlant.: 358. (1875).
Y		<i>Sinapis arvensis</i> L.; Sp. Pl. 2: 668. (1753).
Y		subsp. <i>allionii</i> (Jacq.) Baillarg.; Willdenowia 15: 69. (1985).

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Y		subsp. arvensis L.
N	<i>Diplotaxis assurgens</i>	<i>Sinapis assurgens</i> Delile; Index Sem. Hort. Monspel. 1847: 7. (1847).
N	<i>Brassica aucheri</i>	<i>Sinapis aucheri</i> (Boiss.) O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 56. (1916).
N	<i>Didesmus bipinnatus</i>	<i>Sinapis bipinnata</i> Desf.; Fl. Atlant. 2: 97. (1798).
N	<i>Sinapis pubescens</i> subsp. <i>pubescens</i>	<i>Sinapis boivinii</i> Baillarg.; Taxon. Revis. Gattung Sinapis: 100. (1986).
N	<i>Brassica juncea</i>	<i>Sinapis cernua</i> Thunb.; Fl. Japon.: 261. (1784).
N	<i>Diplotaxis harra</i> subsp. <i>crassifolia</i>	<i>Sinapis crassifolia</i> Raf.; Caratt. Nuovi Gen.: 78. (1810).
N	<i>Brassica rapa</i> subsp. <i>dichotoma</i>	<i>Sinapis dichotoma</i> Roxb.; Fl. Ind. ed. 2, 3: 117. (1832).
N	<i>Sinapis alba</i> subsp. <i>dissecta</i>	<i>Sinapis dissecta</i> Lag.; Gen. Sp. Nov.: 20. (1816).
N	<i>Diplotaxis eruroides</i>	<i>Sinapis eruroides</i> L.; Cent. Pl. 2: 24. (1756).
Y		<i>Sinapis flexuosa</i> Poir.; Lam., Encycl. Méth. Bot. 4: 341. (1797).
N	<i>Sinapidendron frutescens</i> subsp. <i>frutescens</i>	<i>Sinapis frutescens</i> Sol.; Aiton, W.T., Hortus Kew., ed. 1, 2: 404. (1789).
N	<i>Hirschfeldia incana</i>	<i>Sinapis geniculata</i> Desf.; Fl. Atlant. 2: 98. (1798).
N	<i>Diplotaxis harra</i>	<i>Sinapis harra</i> Forssk.; Fl. Aegypt.-Arab.: 118. (1775).
N	<i>Erucaria hispanica</i>	<i>Sinapis hispanica</i> L.; Sp. Pl. 2: 669. (1753).
N	<i>Hirschfeldia incana</i>	<i>Sinapis incana</i> L.; Cent. Pl. 1: 19. (1755).
N	<i>Sinapis pubescens</i> subsp. <i>indurata</i>	<i>Sinapis indurata</i> Coss.; Bull. Soc. Bot. France 9: 168. (1862).
N	<i>Brassica juncea</i> subsp. <i>integrifolia</i>	<i>Sinapis integrifolia</i> H. West; Bidr. St. Croix: 296. (1793).
N	<i>Brassica juncea</i>	<i>Sinapis japonica</i> Thunb.; Fl. Japon.: 262. (1784).
N	<i>Brassica juncea</i>	<i>Sinapis juncea</i> L.; Sp. Pl. 2: 668. (1753).
N	<i>Erucastrum virgatum</i>	<i>Sinapis laevigata</i> L.; Cent. Pl. 1: 20. (1755). [nomen. ambig.]
N	<i>Coincya transtagana</i>	<i>Sinapis longirostris</i> subsp. <i>transtagana</i> Cout.; Fl. Portugal, ed. 1: 259. (1913).
N	<i>Sinapis alba</i> subsp. <i>mairei</i>	<i>Sinapis mairei</i> H. Lindb.; Acta Soc. Sci. Fenn., N. Ser. B, Itin. Medit. 1(2): 65. (1932).
N	<i>Erucastrum nasturtiifolium</i>	<i>Sinapis nasturtiifolia</i> Poir. ex Lam.; Encycl. Méth. Bot. 4: 346. (1797).
N	<i>Brassica nigra</i>	<i>Sinapis nigra</i> L.; Sp. Pl. 2: 668. (1753).
N	<i>Brassica repanda</i> subsp. <i>africana</i>	<i>Sinapis nudicaulis</i> Lag.; Gen. Sp. Nov.: 20, n. 267. (1816).
N	<i>Brassica oxyrrhina</i>	<i>Sinapis oxyrrhina</i> Coss.; Notes Pl. Crit.: 26. (1849).
N	<i>Brassica rapa</i> subsp. <i>pekinensis</i>	<i>Sinapis pekinensis</i> Lour.; Fl. Cochinchin. 2: 400. (1790).
N	<i>Brassica procumbens</i>	<i>Sinapis procumbens</i> Poir.; Lam., Encycl. Suppl. 4: 12. (1816).
Y		<i>Sinapis pubescens</i> L.; Mantissa Pl.: 95. (1767).
Y		subsp. aristidis (Pomel) Maire & Weiller; Maire, Fl. Afrique N. 12: 240. (1965).
Y		subsp. indurata (Coss.) Batt.; Batt. & Trabut, Fl. Algérie (Dicot.) 1: 53. (1888).
Y		subsp. pubescens L.
N	<i>Brassica juncea</i>	<i>Sinapis rugosa</i> Roxb.; Fl. Ind. ed. 2, 3: 122. (1832).

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N	<i>Sinapis arvensis</i> subsp. <i>arvensis</i>	<i>Sinapis schkuhriana</i> Rchb.; Deuschl. Fl. 1: 103. (1837-1838).
N	<i>Erucastrum nasturtiifolium</i> subsp. <i>nasturtiifolium</i>	<i>Sinapis subbipinnatifida</i> Lag.; Gen. Sp. Nov.: 20. (1816).
N	<i>Brassica rapa</i> subsp. <i>trilocularis</i>	<i>Sinapis trilocularis</i> Roxb.; Fl. Ind. ed. 2, 3: 121. (1832).
N	<i>Sinapis arvensis</i> subsp. <i>allionii</i>	<i>Sinapis turgida</i> (Pers.) Delile; Descr. Egypte, Hist. Nat., Fasc. 1: 67. (1813); Syn. Pl. 2: 207. (1806).
N	<i>Diploaxis virgata</i>	<i>Sinapis virgata</i> Cav.; Descr. Pl.: 428. (1802).
N	<i>Trachystoma ballii</i>	<i>Sinapis weilleri</i> Maire; Bull. Soc. Hist. Nat. Afrique Nord 13: 182. (1922).
N	<i>Schouwia purpurea</i> subsp. <i>purpurea</i>	<i>Subularia purpurea</i> Forssk.; Fl. Aegypt.-Arab.: 117. (1775).
Y		<i>Succowia balearica</i> (L.) Medik.; Pfl.-Gatt. 1: 64. (1792).
Y		<i>Trachystoma aphanoneurum</i> (Maire & Weiller) Maire & Weiller; Bull. Soc. Hist. Nat. Afrique Nord 25: 289. (1934).
Y		<i>Trachystoma ballii</i> O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 52. (1916).
Y		<i>Trachystoma labasii</i> Maire; Mém. Soc. Sci. Nat. Maroc 15: 6. (1927).
N	<i>Carrichtera annua</i>	<i>Vella annua</i> L.; Sp. Pl. 2: 641. (1753).
Y		<i>Vella anremerica</i> (Litard. & Maire) Gómez-Campo; Bot. J. Linn. Soc. 82: 175. (1981).
Y		<i>Vella aspera</i> Pers.; Syn. Pl. 2: 185. (1806).
Y		<i>Vella bourgaeana</i> (Coss.) S.I. Warwick & Al-Shehbaz; Novon 8: 324. (1998).
N	<i>Vella anremerica</i>	<i>Vella charpinii</i> Fern.Casas; Fontqueria 1: 9. (1982).
N	<i>Vella pseudocytisus</i> subsp. <i>pau</i>	<i>Vella glabrescens</i> Coss.; Coss. & Barrette, Ill. Fl. Atlant. 1: 71. (1884).
Y		<i>Vella luentina</i> M.B. Crespo; Bot. J. Linn. Soc. 109: 370. (1992).
Y		<i>Vella mairei</i> Humbert; Bull. Soc. Hist. Nat. Afrique Nord 15: 186. (1924).
Y		<i>Vella pseudocytisus</i> L.; Sp. Pl. 2: 641. (1753).
N	<i>Vella anremerica</i>	subsp. <i>anremerica</i> Litard. & Maire; Mém. Soc. Sci. Nat. Maroc 26: 6. (1931).
Y		subsp. <i>glabrata</i> Greuter; Greuter et al., Med-Checklist 3: 172. (1986).
N	<i>Vella pseudocytisus</i> subsp. <i>pau</i>	subsp. <i>glabrescens</i> (Coss.) Litard. & Maire; Mém. Soc. Sci. Nat. Maroc 26: 6. (1931).
Y		subsp. <i>pau</i> Gómez-Campo; Bot. J. Linn. Soc. 82: 174. (1981).
Y		subsp. <i>pseudocytisus</i> L..
Y		<i>Vella spinosa</i> Boiss.; Notice Abies Pinsapo: 9. (1838).
N	<i>Zilla spinosa</i> subsp. <i>biparmata</i>	<i>Zilla biparmata</i> O.E. Schulz; Bot. Jahrb. 54, Beibl. 119: 55. (1916).
N	<i>Physorhynchus chamaerapistrum</i>	<i>Zilla chamaerapistrum</i> Boiss.; Ann. Sci. Nat. Bot., ser. 2, 17: 381. (1842).
Y		<i>Zilla macroptera</i> Coss.; Bull. Soc. Bot. France 3: 670. (1856).
Y		<i>Zilla spinosa</i> (L.) Prantl; Engler & Prantl, Natürl. Pflanzenfam. 3(2): 175. (1891).
Y		subsp. <i>biparmata</i> (O.E. Schulz) Maire & Weiller; Bull. Soc. Hist. Nat. Afrique Nord 30: 260. (1939).
Y		subsp. <i>costata</i> Maire & Weiller; Bull. Soc. Hist. Nat. Afrique Nord 30: 260. (1939).

Part I, Section II: Life form, ecology and geographical data

LIFE CYCLE and GROWTH FORM [LIFE/FORM]

annual: of only one year's duration, always herbaceous.

biennial: of two years' duration.

perennial: of greater than two years' duration.

winter-annual: a plant from autumn-source seed which blooms and fruits in the following season.

acaulescent: stemless.

caespitose: growing in thick tufts or clumps.

herbaceous: non-woody stem.

suffrutescent: slightly woody or obscurely shrubby at the base of stem. Usually a short-lived perennial, unbranched stem.

suffruticose: sub-shrub, distinctly woody at base of branched stem, soft-wooded and growing from ground level.

shrub: long-lived woody, branched perennial, smaller than a tree, usually with several stems.

ECOLOGY

For each species there is a general climatic and topographical description of its range, followed by specific habitats and soil type where specified. The ecology and distribution of each species are described using the terms below:

adventive: not native to an area; may have arrived as an alien, casual or accidental introduction in produce shipments, etc., or as a spreading weed; not naturalized.

alluvium: rubble, sand or clay deposited along stream beds and river valleys during periodic flooding.

argillaceous: sub-soil of chalk mixed with clay.

barranco: moist crevices of shaded rock face.

brush: dense shrubby vegetation, thickets.

calcareous: containing chalk or limestone, alkaline.

chalk: soft, white powdery or earthy limestone; see also argillaceous.

clay: stiff, viscous earth which becomes mud in humid regions and bakes to a solid surface or cracks into fissures in arid regions; see also loam.

coastal: beaches, rocks, cliffs or plains bordering the sea.

crevices: cracks in rocks and cliffs where moisture and plant debris may accumulate.

deserts: arid regions with large expanses of sand, rubble, salt flats or dry pastures.

dry pastures: characteristic landscape of arid and semi-arid regions, with forage plants scattered among sand and rubble.

dry stream beds: shallow to deep depressions in arid to semi-arid areas, common where infrequent rains produce torrential flash floods which carry sand, rocks, pebbles and clay over hard sunbaked soil before retreating and drying up; called wadis in North Africa and Arabia; see also alluvium, gullies.

endemic: native to a defined area.

escarpments: steep sides of gorges, ravines, or tabletop mountains and outcrops.

fields: land cleared for crops, cultivated or fallow; farmland; planted fields identified as crops.

gullies: deep stream beds, ravines or gorges; in arid regions often derived from fissures in baked clay widened by flash flood waters.

gypsum and gypsaceous: greyish alkaline chalky soil containing calcium sulphate.

introduced: deliberately taken to a new area, e.g. as a garden or crop plant; see also adventive.

limestone: soft, calcareous rock; see also chalk.

loam: rich, loose soil of clay and sand mixed, often with a mixture of decomposed vegetable matter, common on steppes.

meadows: pastures with low herbaceous vegetation cover; most common in temperate lowlands or alpine valleys.

montane: on the slopes or in high valleys of mountain ranges, alpine, high sierras.

naturalized: established after introduction.

nitrous: neutral soil containing nitrates.

oases: spring-fed islands of vegetation in deserts.

open woodland: scattered trees on plains, pastures or grasslands; forest clearings.

parkland: scattered trees only on grasslands.

pastures: uncultivated areas with forage plants; see also dry pastures and meadows.

plateaus: high steppes, dry pastures, or flat tablelands in mountainous country, often between ranges.

porphyry: unstratified or igneous rock with feldspar crystals predominating.

riparian: along undisturbed river banks, lake shores.

roadsides and waste places: disturbed places along worn tracks, banks of rivers, streams or canals, paths, railways, roads, open areas with denuded or impoverished soil, dumps.

rubble: scattered rocks and pebbles.

saline: containing salt.

schistose: crumbling shale.

scree: hillside rubble.

scrub: semi-arid region with open bush or low shrubby vegetation; includes Mediterranean macchia or maquis; see also brush.

shale: slate rock.

shingle: coastal broken rock and stones.

siliceous: containing silicates, quartz.

steppes: flat to rolling fertile treeless plains or grasslands, prairies.

tropical montane: very high slopes or plateaus in equatorial regions.

volcanic: rock or soil formed from lava, basalt.

waste places: see roadsides and waste places.

weedy: tending to spread easily in disturbed areas or among crops, agrestal, escaped from cultivation.

GEOGRAPHY

The distribution of each species is grouped roughly by regions [i.e. Europe, Atlantic, Africa, ME/WAsia, Americas, and Aust/Asia] and then listed by the countries or areas which are indicated below in bold type. Country designations are adapted with slight modification from those found in *Flora europaea* (Tutin et al. 1964) and the *Med-checklist* (Greuter et al. 1986). Areas not included in those works have also been added to this tribal database. It should be noted that information on introductions to South America and Asia may not be complete. Complete distribution by province or state is given for Canada and the United States in Part IV of the Guide. Countries, regions, provinces, or other divisions mentioned in the Brassiceae literature which do not correspond to contemporary political boundaries are enclosed in square brackets and identified beside the current country code. Where plant distribution boundaries are uncertain, adjacent countries may be listed as a unit, or an earlier name retained. A number of islands and regions are listed separately because of distinctive ecology or restricted endemism. The majority of species in the tribe are narrow endemics confined naturally to a restricted geographical area. Unless indicated otherwise, the species is endemic to a given country. The symbol [E?] indicates that a species has been reported, but that its endemic status is not certain. The symbol [A] indicates that the species is known to be either recently introduced, adventive and/or recently naturalized. [A?] indicates that a species would have [A] status, but its presence has not been confirmed. The symbol [?] indicates that a species has been reported, but that its presence has not been confirmed.

Adriatic: eastern Adriatic coast from Trieste to Albania, including Dalmatian Coast and islands.

Aegean: islands in eastern Aegean Sea, including Chios, Lesbos, and Rhodes.

Afghanistan.

Albania.

Algeria: [Constantine prov., Draa, Hauts Plateaux, Hoggar (Central Sahara), Oran prov., ne Saharan Atlas, Tassili (Central Sahara), Tell].

Anatolia: central plateau of Asian Turkey; [nw Kurdistan].

Argentina.

Armenia: former USSR republic; [Transcaucasus].

Australia: includes Tasmania.

Austria: [Tyrol].

Azerbaijan: former USSR republic; [Baku, sw Caspian, Talish, Transcaucasus].

Azores: Portuguese Atlantic islands, including Corro, Faial, Florens, Graciosa, Pico, Santa Maria, São Jorge, São Miguel, Terceira; [Macaronesia].

Bahrain: [Gulf state].

Balearic Islands: Spanish w Mediterranean islands including Mallorca, Menorca, Ibiza.

Baltic: region bordering the eastern Baltic sea, including Estonia, Latvia, Lithuania, nw Russia, s Finland, Baltic islands; Baltic countries, including those bordering the western Baltic, are also listed separately.

Belarus: Former USSR republic.

Belgium: Belgium and Luxembourg.

Bhutan.

Bolivia.

Botswana: [Bechuanaland].

Brazil.

Bulgaria.

Canada: for provincial distribution, see Guide IV.

Canary Islands: Spanish Atlantic islands, including Fuerteventura, Gomera, Gran Canaria, Hierro, Lanzarote, Palma, Tenerife; [Macaronesia].

Cape Verde: Atlantic islands off the coast of Senegal, including Boa Vista, Brava, Fogo, Maio, Sal, Santo Antão, Santa Luzia, São Nicolau, São Tiago, São Vicente; [Macaronesia].

Caribbean: islands not listed separately.

Caucasus: northern region part of Russian Federation; south (Transcaucasus) includes Republics of Armenia, Georgia, and Azerbaijan, formerly part of the USSR.

Central America.

Chad: [Tibesti region, Central Sahara].

Channel Islands: British islands in the English Channel.

Chile.

China: includes Chinese Turkestan; Tibet listed separately.

Colombia.

Corsica: French w Mediterranean island.

Crete: Greek c Mediterranean island.

Crimea: Black Sea peninsula of Ukraine; [Krym].

Croatia: Republic of former Yugoslavia

Cyprus: e Mediterranean island with Greek and Turkish sectors.

Czech/Slovak Reps.: [Czechoslovakia, Bohemia, Moravia].

Denmark: [Jutland, Zeeland].

Ecuador.

Egypt: [Lower and Upper Egypt, e Libyan Desert, Nile Delta, Western Desert]; Sinai listed separately.

Estonia: Baltic Republic of former USSR.

Ethiopia: includes Somalia; [Abyssinia, Djibouti, Eritrea, German East Africa Somaliland].

Faeröe Islands: Danish North Sea islands.

Finland.

France: Corsica listed separately.

Georgia: former USSR republic; [se Black Sea, Gruzia, Iberia, Tiflis, Transcaucasus].

Germany: reunited East and West Germany; [Bavaria, Brandenburg, Mecklenburg, Prussia, Saxony, Schleswig-Holstein, Helgoland].

Great Britain: England, Scotland, Wales; Channel Islands listed separately.

Greece: [n and w Aegean, Corfu, Cyclades, Ionian Islands, Macedonia, Peloponnesus, Thessaly]; Crete and Cyprus listed separately; Eastern Aegean islands listed separately under Aegean.

Hungary.

Iceland.

India: [Bengal, Bhutan, Deccan, sw Himalayas, e Punjab, Rajastan].

Indonesia: includes Sumatra, Java, Kalimantan, Celebes and numerous smaller islands of the E. Indian Ocean

Iran: [Beluchistan, Fars, Khorassan, e Kurdistan, Luristan, Persia, se Transcaucasus].

Iraq: [Assyria, w Kurdistan, Mesopotamia].

Ireland: Irish Republic (Eire) and Northern Ireland (Br.).

Israel/Jordan: [Dead Sea, Gaza, Palestine, West Bank]; two countries are shown together if exact location is not clearly stated.

Italy: [Piedmont, Appenines]; Sardinia and Sicily listed separately.

Japan.

Jordan: see also Israel/Jordan; two countries are shown together if exact location is not clearly stated.

Kashmir: disputed territory, borders India and Pakistan.

Kazakhstan: former USSR republic; [ne Caspian, Central Asia].

Kenya: [East Africa, German East Africa].

Korea.

Kuwait: [Gulf state].

Kyrgyzstan: former USSR republic; [Turkestan].

Latvia: Baltic Republic of former USSR.

Lebanon/Syria: includes Golan Heights [nw Mesopotamia]; two countries are shown together if exact location is not clearly stated.

Libya: [Cyrenaica, Fezzan, Tripolitania].

Lithuania: Baltic republic of former USSR.

Madeira: Portuguese Atlantic island group, including Desertans, Madeira, Porto Santo; [Macaronesia].

Mali: [Central Sahara].

Malta: w Mediterranean island.

Manchuria.

Mauritania: [Central Sahara].

Mexico.

Mongolia.

Morocco: [Anti-Atlas, Middle and High Atlas, Rif]; Western Sahara listed separately.

Nakhichevan: Caucasian Republic of former USSR.

Namibia: [South West Africa, German South West Africa].

Nepal: [sw Himalayas].

Netherlands: [Friesland, Holland].

Niger: [Central Sahara].

Norway.

Oman: [e Arabia Felix, Gulf state].

Pakistan: [e Beluchistan, nw India, Punjab, Sind].

Paraguay.

Peru.

Poland: [Danzig, Pomerania].

Portugal: Azores and Madeira listed separately.

Qatar.

Romania: [Carpathia, Moldavia, Transylvania, Wallachia].

Ruanda.

Russia: (= w Russian Federation) former USSR federal republic; includes European regions and states of the Federation; [ne Black Sea, nw Caspian Sea, n Caucasus, Ciscaucasus, Volga Basin, White Sea]; the Asian part of the Russian Federation is listed separately under Siberia; the Baltic region is under Baltic.

Sardinia: Italian island in the w Mediterranean.

Saudi Arabia: [Arabia Petraea, Stony Arabia].

Siberia: Asian part of Russian Federation; [Altai].

Sicily: Italian island in the c Mediterranean.

Sikkim: (Himalayas).

Sinai: Egyptian peninsula east of Suez.

Slovenia: Republic of former Yugoslavia.

Socotra: Yemeni Island in the Gulf of Aden.

South Africa: [Dutch colonies, High Veld, Orange R.].

Spain: includes Gibraltar (Br.); Balearic Islands and Canary Islands listed separately.

Sudan: [Nubia].

Sweden: includes Gotland island.

Switzerland.

Syria: see also Lebanon/Syria; two countries are shown together if exact location is not clearly stated.

Tajikistan: former USSR republic; [Pamirs].

Tanzania: [German East Africa, Tanganyika].

Tibet.

Turkey: European region and the e Aegean, Mediterranean, and Black Sea coasts of the Asian region; [Bosphorus, Pontic Region, Thrace]; Cyprus and Anatolia listed separately.

Turkmenistan: former USSR republic; [e Caspian Sea, Central Asia, Turkestan, Turcomania].

Uganda.

Ukraine: former USSR republic, includes Moldova Republic; [e Carpathia, e Moldavia]; Crimea listed separately.

United Arab Emirates: [Gulf state].

United States: for state distribution see Guide IV.

Uruguay.

Uzbekistan: former USSR republic; [Bokhara, Central Asia, Turkestan].

Venezuela.

Western Sahara: [former Spanish Sahara, w Central Sahara].

Yemen: Reunited North and South Yemen; [Aden, Arabia Felix]; Socotra Island listed separately.

Yugoslavia: area of the former republic of that name, including Bosnia, Croatia, Hercegovina, Macedonia, Montenegro, Serbia, Slovenia; Dalmatian coast and e Adriatic islands listed separately under Adriatic.

PHYTOGEOGRAPHICAL ZONES [PHYTOGEO]

This category applies only to the area where the species is endemic or found naturally, including areas of origin and/or regions where the species has been naturalized for such a long time that its origin cannot be accurately determined. Because of wide spread cultivation, the endemic range for several crop species (*Brassica*, *Eruca*, and

Raphanus) is not known with certainty.

The following zones are adapted from Zohary (1973), Hedge (1976), and Oztürk et al. (1983) with the addition of American, Asian, East African/Red Sea and South African regions.

American: North America, Central America, Caribbean.

Asian: China

East African/Red Sea: areas east of the Rift Valley, Red Sea coasts of Saudi Arabia and s Yemen, including the Ethiopian plateau and highlands of Eritrea, Ethiopia, Kenya, Ruanda, Uganda, and Tanzania. Sea level to tropical highlands.

Euro-Siberian: Atlantic, North Sea, and Baltic Europe, Belarus, n Ukraine, n Caucasus, Russia, s Siberia and central western and eastern Europe from n Portugal to s Russia, c Italy, n Turkey.

Irano-Turanian: Anatolian plateau, interior Syria and Israel, Jordan, Iraq, southern Caucasus, most of Iran, Afghanistan, n Pakistan, Turkmenistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.

Macaronesian: northeastern to central eastern Atlantic Islands -- Azores, Madeira, Canary Islands, Cape Verde Islands.

Mediterranean: southern Europe from se Portugal and e Spain through se France, Ligurian and Adriatic Italy, Dalmatian coast, Albania, Greece, w and s Turkey, coastal Syria, Lebanon, Israel, and Egypt, ne Libya, Tunisia, n Algeria, n and nw Morocco, including islands from Gibraltar and the Balearics to Cyprus.

Saharo-Sindian: broad desert belt stretching from northwest Africa to Sind, including Saharan Morocco and Algeria, most of Libya, Egypt, s Sudan, and Sinai, Saudi Arabian peninsula (excluding the southern Red Sea coasts), Kuwait, s Iran, w Pakistan, nw India.

South African: South African plateau from northeastern prairies or High Veld to southwestern tableland, includes Namibian sub-desertic pasture lands.

Species: *Ammosperma cinerea* (Desf.) Hook. f.
Life/Form: annual
Ecology: desert plains and hills; dry steppes, pastures and stream beds, damp sandy places
Geography: Africa: nc & c Algeria, n Libya, s Tunisia
Phytogeo: Saharo-Sindian

Species: *Ammosperma variable* Nègre & Le Houér.
Life/form: annual
Ecology: desert; disturbed sites; sand or powdery gypsaceous soil
Geography: Africa: sw Libya
Phytogeo: Saharo-Sindian

Species: *Brassica assyriaca* Mouterde
Life/Form: biennial, perennial?
Ecology: montane; slopes of mountain peak
Geography: ME/WAsia: n Syria (Summit Jab)
Phytogeo: Irano-Turanian

Species: *Brassica aucheri* Boiss.
Life/Form: annual
Ecology: plains, hills to 800 m; rocky places, dry pastures, grassy places
Geography: ME/WAsia: Iran, Iraq
Phytogeo: Irano-Turanian

Species: *Brassica balearica* Pers.

Life/Form: perennial, shrub

Ecology: montane to 1400 m; scrub, rock crevices, chalky cliffs; limestone

Geography: Europe: Balearic Islands (Mallorca)

Phytogeo: Mediterranean

Species: *Brassica barrelieri* (L.) Janka

Life/Form: annual, rarely perennial

Ecology: non-arid to semi-arid coastal, plains, hills to 900 m; beaches, estuaries, sandy cliffs and fields; sandy places, sometimes on quartz sand; calcareous and acidic sub-soils

Geography:

Europe: Portugal, s & c Spain

Africa: n Algeria, n & w Morocco

Aust/Asia: sw Australia [A]

Phytogeo: Mediterranean

Species: *Brassica bivoniana* Mazzola & Raimondo

Life/Form: perennial, suffrutescent

Ecology: sublittoral more or less vertical cliffs and bases, 50 to 650 m.

Geography: Europe: n Sicily

Phytogeo: Mediterranean

Species: *Brassica bourgeau* (Webb. ex H. Christ) Kuntze

Life/Form: perennial, suffrutescent

Ecology: hills to 600 m; cliffs, rocks, rock crevices in steep, shady barrancos

Geography: Atlantic: Canary Islands (Gomera, Hierro, La Palma, Tenerife)

Phytogeo: Macaronesian

Species: *Brassica cadmea* Heldr. ex O.E. Schulz

Life/Form: annual

Ecology: inland hills; clay soils

Geography: Europe: c Greece (near Thivai)

Phytogeo: Mediterranean

Species: *Brassica carinata* A. Braun

Life/Form: annual

Ecology: high plateaus, montane valleys to 4000 m; wild form unknown, cultivated (Ethiopian plateau) and weedy escape in fields

Geography: Africa: Ethiopia, n Kenya

Phytogeo: East African/Red Sea

[Center of origin Ethiopian plateau, amphidiploid between parental taxa *B. nigra* and *B. oleracea*]

Species: *Brassica cretica* Lam.

Life/Form: perennial, suffrutescent

Ecology: coastal rocks, hills, montane to 1050 m; limestone cliffs and islets, crevices, ungrazed slopes, ravines; often shaded or north facing; limestone

Geography:

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- Europe: Aegean, Crete, Crimea [?], Greece, w Turkey
ME/WAsia: Israel, c to s Lebanon
- Phytogeo:** Mediterranean
Species: *Brassica deflexa* Boiss.
Life/Form: annual
Ecology: desert plains, montane to 2000 m; steppes, rocky slopes, cliffs; weedy in roadsides and waste places, fields, orchards, grain crops
Geography: ME/WAsia: sw Afghanistan, Anatolia, Iran, Iraq, Kuwait, Lebanon, Saudi Arabia, Syria
Phytogeo: Irano-Turanian
- Species:** *Brassica deserti* Danin & Hedge
Life/Form: annual, perennial, herbaceous
Ecology: desert montane to 1300 m; dry stream beds; chalky soil
Geography: ME/WAsia: Sinai
Phytogeo: Saharo-Sindian
- Species:** *Brassica desnottesii* Emb. & Maire
Life/Form: perennial, herbaceous, caespitose
Ecology: semi-arid montane to 1250 m; fields, dry pastures, rubble, open woodland; calcareous soil
Geography: Africa: ne Morocco
Phytogeo: Mediterranean
- Species:** *Brassica drepanensis* (Caruel) Damanti
Life/Form: perennial, suffrutescent
Ecology: sea level to 1000 m; limestone, rarely sandstone, cliffs and rocks, usually north-facing or shaded; limestone
Geography: Europe: nw Sicily
Phytogeo: Mediterranean
- Species:** *Brassica elongata* Ehrh.
Life/Form: biennial to perennial, suffrutescent/caespitose?
Ecology: semi-arid to arid desert plains, high plateaus, hills, montane to 1700 m; grassy steppes, dry pastures, dry rocky slopes; weedy in roadsides and waste places, fields, crops, vineyards; chalky soils
- Geography:**
Europe: Austria [E?], Baltic [A], Bulgaria, Crimea, Czech/Slovak Reps. [E?], Denmark [A], France [A], Germany [A], Great Britain [A], Hungary, Italy [A], Netherlands [A], Norway [A], Poland [E?], Romania, s & sw Russia, Turkey, Ukraine, Yugoslavia
Africa: Morocco
ME/WAsia: Afghanistan, Anatolia, Armenia, Georgia, Iran, Iraq, Mongolia, w Siberia, Turkmenistan, Uzbekistan
Americas: United States [A]
Aust/Asia: Australia [A]
- Phytogeo:** Irano-Turanian, Euro-Siberian
- Species:** *Brassica fruticulosa* Cirillo
Life/Form: annual to perennial, herbaceous to suffrutescent
Ecology: non-arid to semi-arid coastal, plains, montane from 1100-2100 m; sandy plains, cliffs, rocks,

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crevices, rubble, scree, brush, open woodland; weedy in fields, vineyards, olive groves; roadsides and waste places

Geography:

Europe: Adriatic (Croatia), s France, Italy, Malta, Sardinia, Sicily, Spain, Yugoslavia [?]
Africa: n Algeria, n & c Morocco (Rif and Middle Atlas), Libya [?]
Americas: United States [A]
Aust/Asia: Australia [A], New Zealand [A]

Phytogeo: Mediterranean

Species: *Brassica gravinae* Ten.

Life/Form: perennial, herbaceous, caespitose

Ecology: non-arid to semi-arid coastal, hills, montane to 2300 m; rock and cliff crevices, scree, summits, gullies, fields, meadows; chalky soil

Geography:

Europe: c & s Italy (Appenines)
Africa: n Algeria, n Libya, n & ec Morocco, Tunisia

Phytogeo: Mediterranean

Species: *Brassica hilarionis* Post

Life/Form: perennial, suffrutescent

Ecology: coastal hills (Kyrenia range) from 300-1000 m; steep limestone cliffs, crevices in castle walls

Geography: Europe: n Cyprus

Phytogeo: Mediterranean

Species: *Brassica incana* Ten.

Life/Form: perennial, suffrutescent

Ecology: coastal cliffs, hills to 900 m; limestone cliffs, stones and rocks below cliffs; rubble, scree, scrub, roadsides and waste places; limestone

Geography: Europe: Adriatic (s Croatia), Albania, s Crimea [E?], nw Greece, s & c Italy, e Sicily, s Yugoslavia

Phytogeo: Mediterranean

Species: *Brassica insularis* Moris

Life/Form: perennial, suffrutescent

Ecology: coastal cliffs, hills to 750 m; limestone cliffs, rarely rocks below cliffs, usually open sunny rocks, crevices, gullies, rocky limestone islets with scrub vegetation; limestone, rarely porphyry or volcanic rock

Geography:

Europe: Corsica, Sardinia
Africa: ne Algeria, n Tunisia

Phytogeo: Mediterranean

Species: *Brassica juncea* (L.) Czern.

Life/Form: annual

Ecology: coastal lowlands, sandy beaches, plateaus, montane to 1150 m or more; wild, cultivated, weedy escape; weedy in sandy roadsides and waste places, fields, crops

Geography:

Europe: Austria [A], Bulgaria [E?], Belarus [A], s Crimea [E?], Czech/Slovak Reps. [A], Estonia [A],

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Germany [A], Hungary [A], Latvia [A], Lithuania [A], Norway [A], Romania [A], w Russia [E?], Spain [A], Sweden [A], Ukraine [E?]
 Atlantic: Azores (Faial) [A], Madeira [A]
 Africa: East, North and South Africa
 ME/WAsia: Afghanistan, Anatolia, Azerbaijan, Iran, Iraq, Kyrgyzstan, Kuwait, Oman, Pakistan, Saudi Arabia, Turkmenistan, Yemen
 Americas: Bolivia [A], Canada [A], Central America [A], Mexico [A], Panama [A], Peru [A], United States [A]
 Aust/Asia: Australia (incl. Norfolk Is.) [A], Bhutan [A], China [A], Fiji [A], India [A], Indonesia [A], Japan [A], Malaysia [A], Mongolia [A], Nepal [A], New Caledonia [A], New Guinea [A], New Zealand [A], Philippines [A], Sikkim [A], Sri Lanka [A]; widely cultivated c and e Asia
Phytogeo: Euro-Siberian, Irano-Turanian
 [Center of origin uncertain, likely Middle East; possibly multiple origins between parental taxa *B. rapa* and *B. nigra*]

Species: *Brassica macrocarpa* Guss.
Life/Form: perennial, suffrutescent
Ecology: coastal mountains; crevices in limestone cliffs, rocks, rocky slopes, gullies; limestone
Geography: Europe: nw Sicily (and off-shore islets)
Phytogeo: Mediterranean

Species: *Brassica maurorum* Durieu
Life/Form: annual
Ecology: semi-arid coastal to foothills; dry pastures, fields, brush, roadsides and waste places
Geography: Africa: nw Algeria, ne Morocco
Phytogeo: Mediterranean

Species: *Brassica montana* Pourr.
Life/Form: perennial, suffrutescent
Ecology: coastal to hills, up to 1000 m; limestone cliffs and rocks below, rocky limestone islets, scree, gorges, quarries, scrub, waste places
Geography: Europe: s France, nw Italy, ne Spain
Phytogeo: Mediterranean

Species: *Brassica napus* L.
Life/Form: annual, biennial
Ecology: coastal lowlands, plateau, montane to 3000 m; wild (locations not certain), cultivated and weedy escape; stony cliffs, dry sandy or grassy places, dry stream beds, riparian; weedy in roadsides and waste places, fields, crops, gardens, oases, palm groves

Geography:
 Europe: Balearic Islands, Belgium, Corsica, Crimea, France, Germany, Greece, Italy, Norway, Portugal, Romania, Russia (Caucasus), Sardinia, w Siberia, Sicily, Spain, Sweden, Ukraine, Yugoslavia [Cultivated in all countries]
 Atlantic: Madeira [A]
 Africa: Algeria, Cameroon, Central Sahara, Kenya, Morocco, Tunisia
 ME/WAsia: Afghanistan, Anatolia, Egypt, Georgia, Iran, Iraq, Pakistan, Saudi Arabia [A], Tibet, Turkmenistan, Uzbekistan, Yemen
 Americas: Argentina [A], Canada [A], Central America [A], Chile [A], Colombia [A], Ecuador [A], Mexico [A],

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- Peru [A], United States [A]
Aust/Asia: Australia (incl. Norfolk Is.) [A], China [A], n India [A], Indonesia [A], Japan [A], Korea [A], New Zealand [A]
Phytogeo: Euro-Siberian, Irano-Turanian
[Center of origin uncertain, amphidiploid, likely multiple origins in Europe between parental taxa *B. rapa* and *B. oleracea* and related $n=9$ species]
- Species:** *Brassica nigra* (L.) W.D.J. Koch
Life/Form: annual
Ecology: coastal lowlands, plateaus, montane; wild, cultivated and weedy escape; sea cliffs, shingle, rubble, scrub, dry stream beds, riparian; weedy in roadsides and waste places, fields, crops, gardens, oases; damp calcareous loamy clays and silty soils
- Geography:**
Europe: Aegean, Albania, Austria, Baltic, Belgium, Belarus, Bosnia, Bulgaria, Corsica, Crete, Croatia, Cyprus, Czech/Slovak Reps., Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, s Russia (incl. Caucasus), Sardinia, Sicily, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, Yugoslavia
Atlantic: Azores [A], Canary Islands [A], Cape Verde [A], Madeira [A]
Africa: n Algeria, Ethiopia, Kenya [A], n Libya, n Morocco, South Africa [A], Tunisia
ME/WAsia: Afghanistan, Anatolia, Egypt, Iran, Iraq, Israel/Jordan, Lebanon/Syria, Pakistan, Sinai
Americas: Argentina [A], Canada [A], Central America [A], Ecuador [A], Mexico [A], Peru [A], United States [A]
Aust/Asia: Australia [A], China [A], India [A], Japan [A], Kashmir [A], New Zealand [A], Nepal [A]
Phytogeo: Euro-Siberian, Irano-Turanian, Mediterranean
[Center of origin and native range uncertain; possibly native to s & w Europe, Middle East]
- Species:** *Brassica nivalis* Boiss. & Heldr.
Life/Form: perennial, suffrutescent/caespitose
Ecology: montane from 2000-2500 m, above tree line near permanent snow; limestone and calcareous scree and rocks
- Geography:** Europe: Bulgaria (Mt. Pirin Planina), Greece (Mt. Olympus)
Phytogeo: Euro-Siberian
- Species:** *Brassica oleracea* L.
Life/Form: biennial, perennial, suffrutescent
Ecology: coastal; wild, cultivated and weedy escape; wild on limestone and chalky cliffs, beaches (rarely shingle), rocks, shale, sandstone, undisturbed grassy slopes, scree, gullies, brush; weedy in roadsides and waste places, fields, gardens
- Geography:**
Europe: Aegean [A], Channel Islands [E?], Corsica [A], w & n France, Germany (Helgoland), Great Britain, Ireland [A], n Spain (also widely cultivated)
Atlantic: Canary Is. [A]
Africa: Tunisia [A] (also widely cultivated in North, East and South Africa)
ME/WAsia: Iraq [A], Lebanon/Syria [A], Saudi Arabia [A], Yemen [A]
Americas: Canada [A], Chile [A], Ecuador [A], United States [A] (cultivated and rare weedy escape, reported to be naturalized on coastal cliffs in California)
Aust/Asia: Australia [A], China [A], Indonesia (Java) [A], Japan [A], New Caledonia [A], New Zealand [A], Sri

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Phytogeo: Lanka [A] (widely cultivated in Asia)
Euro-Siberian

Species: *Brassica oxyrrhina* (Coss.) Willk.

Life/Form: annual

Ecology: non-arid to semi-arid coastal to inland plains; beaches, dunes, sandy plains, riparian; sandy soil

Geography:

Europe: s Portugal, s & c Spain

Africa: nw Morocco

Aust/Asia: New Zealand [A]

Phytogeo: Mediterranean

Species: *Brassica procumbens* (Poir.) O.E. Schulz

Life/Form: annual

Ecology: plains, hills; steppes, grassy meadows, dry pastures, rubble, scree; weedy in roadsides and waste places, fields, crops

Geography:

Europe: Corsica [A], Italy (Giglio Isl.) [A]

Africa: n Algeria, Tunisia

Phytogeo: Mediterranean

Species: *Brassica rapa* L.

Life/Form: annual, winter annual, biennial

Ecology: non-arid coastal lowlands, plateaus, hills, montane to 2700 m or more; wild (locations not certain), cultivated, and weedy escape; steppes, high meadows, pastures, grassy places, bare slopes, alluvium; weedy in roadsides and waste places, fields, gardens, crops

Geography:

Europe: Albania, Balearic Islands, Belgium, Bosnia, Bulgaria, Corsica, Crimea, Denmark, Estonia, Finland, France, Great Britain, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Romania, Russia, Sardinia, Sicily, Spain, Slovenia, Sweden, Switzerland, Ukraine, Yugoslavia (long cultivated in most of Europe, north to Iceland, east to Siberia)

Atlantic: Canary Islands (Tenerife)

Africa: n Algeria, Ethiopia, n Libya, n Morocco, South Africa, Tunisia

ME/WAsia: Anatolia, Egypt, India [A], Iran, Israel/Jordan, Kuwait, Lebanon/Syria, Oman, Qatar, Saudi Arabia, Yemen

Americas: Argentina [A], Bolivia [A], Brazil [A], Canada [A], Caribbean [A], Central America [A], Chile [A], Ecuador [A], Mexico [A], Peru [A], United States [A], Uruguay [A] (cultivated & weedy)

Aust/Asia: Australia [A], Bhutan [A], China [A], India [A], Indonesia (Java) [A], Japan [A], Java [A], Kashmir [A], Korea [A], Manchuria [A], Mongolia [A], Nepal [A], New Caledonia [A], New Zealand [A] (cultivated and weedy)

Phytogeo: Euro-Siberian, Mediterranean
[Center of origin and native range uncertain]

Species: *Brassica repanda* (Willd.) DC.

Life/Form: perennial, herbaceous, caespitose

Ecology: semi-arid coastal rocks (rare), plateaus, hills, foothills (Alps) from 140-160 m, montane to 3650 m; steep cliffs and precipices, rubble, scree, limestone and silica rocks, gypsum and clay slopes,

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riparian, along river beds in dry chalk rubble with sparse grass cover, dry pastures, open woodlands; sandy, stony, calcareous and argillaceous soils

Geography:

Europe: se France, ne & nw Italy, e & s Spain
Africa: nw Algeria, n Morocco

Phytogeo: Mediterranean

Species: *Brassica rupestris* Raf.

Life/Form: perennial, suffrutescent

Ecology: sea level to coastal montane to 1100 m; limestone, rarely sandstone cliffs, usually north faces; rocky slopes; limestone

Geography: Europe: sw Italy, w Sicily

Phytogeo: Mediterranean

Species: *Brassica somalensis* Hedge & A.G. Mill.

Life/Form: perennial, suffruticose

Ecology: montane, 1400 to 1900 m; overgrazed stony gypseous plains to windswept limestone and gravel slopes

Geography: Africa: ne Somalia

Phytogeo: East African/ Red Sea

Species: *Brassica souliei* (Batt.) Batt.

Life/Form: annual to perennial, herbaceous to suffrutescent

Ecology: semi-arid coastal hills, high plateaus, montane to 1500 m; cliffs, rocks, scree, dry pastures, meadows, brush; weedy in roadsides and waste places, fields; clay, chalky slate or argillaceous soils

Geography:

Europe: Sicily
Africa: n Algeria, Libya, ne Morocco, Tunisia

Phytogeo: Mediterranean

Species: *Brassica spinescens* Pomel

Life/Form: perennial, suffruticose

Ecology: coastal rocks and cliffs; calcareous or siliceous soils

Geography: Africa: n Algeria

Phytogeo: Mediterranean

Species: *Brassica tinei* Lojac.

Life/Form: perennial, suffrutescent

Ecology: shaded mountainous calcareous rocks to 480 m

Geography: Europe: Sicily

Phytogeo: Mediterranean

Species: *Brassica tournefortii* Gouan

Life/Form: annual

Ecology: semi-arid to arid coastal and riparian sands and dunes, plateaus to 2400 m; dry pastures; weedy in roadsides and waste places and occasionally weedy in fields, gardens, oases, crops

Geography:

- Europe: Aegean, Crete, Cyprus, France [A], Greece, Italy, Malta, Portugal [?], Sardinia, Sicily, Spain, Turkey
Africa: Algeria, Libya, Morocco, South Africa [A], Tunisia
ME/WAsia: Anatolia, Azerbaijan, Bahrain, Egypt, Iran, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, w Pakistan, Qatar, Saudi Arabia, Sinai, Turkmenistan [E?], United Arab Emirates, Uzbekistan [E?], Yemen
Americas: nw Mexico [A], United States [A]
Aust/Asia: Australia [A], India [A], New Zealand [A]

Phytogeo: Mediterranean, Saharo-Sindian (Irano-Turanian)

Species: *Brassica tyrrhena* Giotta, Piccitto and Arragoni

Life/Form: perennial, suffrutescent

Ecology: calcareous rocky slopes near the sea

Geography: ce Sardinia

Phytogeo: Mediterranean

Species: *Brassica villosa* Biv.

Life/Form: perennial, suffrutescent

Ecology: sea level to 1000 m; limestone, rarely sandstone, cliffs and rocks, usually north-facing or shaded; limestone

Geography: Europe: c & nw Sicily

Phytogeo: Mediterranean

Species: *Cakile arabica* Velen. & Bornm.

Life/Form: annual

Ecology: inland desert from near sea level to 800 m; stable sands and gravel

Geography: ME/WAsia: sw Iran, s Iraq, Kuwait, Saudi Arabia, United Arab Emirates

Phytogeo: Saharo-Sindian

Species: *Cakile constricta* Rodman

Life/Form: annual

Ecology: seacoast; sandy beaches, dispersal of seeds by water

Geography: Americas: se United States

Phytogeo: American

Species: *Cakile edentula* (Bigelow) Hook.

Life/Form: annual

Ecology: seacoasts, shores of Great Lakes; sandy and gravelly beaches, dispersal of seeds by water

Geography:

Atlantic: Azores [A]

Americas: Canada, Mexico, United States

Aust/Asia: se Australia (incl. Lord Howe Is.) [A], New Zealand [A]

Phytogeo: American

Species: *Cakile geniculata* (B.L. Rob.) Millsp.

Life/Form: annual

Ecology: seacoasts; sandy beaches, dispersal of seeds by water

Geography: Americas: e Mexico, se United States

Phytogeo: American

Species: *Cakile lanceolata* (Willd.) O.E. Schulz

Life/Form: annual

Ecology: seacoasts; sandy beaches, dispersal of seeds by water

Geography: Americas: Caribbean, Central America, Colombia, Mexico, Venezuela, s United States

Phytogeo: American

Species: *Cakile maritima* Scop.

Life/Form: annual or biennial, rarely perennial

Ecology: seacoasts; sandy beaches, dunes, shingle, rubble, debris, dispersal of seeds by water

Geography:

- Europe: Adriatic, Aegean, Albania, Balearic Islands (Menorca), Baltic, Belgium, Bulgaria, Corsica, Crete, Crimea, Croatia, Cyprus, Denmark, Estonia, Faerøe Islands, Finland, France, Germany, Great Britain, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway [E?], Poland, Portugal, Romania, Russia, Sardinia, Sicily, Slovenia, Spain, Sweden, Turkey, Ukraine, Yugoslavia
- Atlantic: Canary Islands (Lanzarote, Fuertaventura, Tenerife) [A], Cape Verde (Boavista) [A], Madeira (Porto Santo) [A]
- Africa: n Algeria, n Libya, n & w Morocco, Tunisia
- ME/WAsia: n Egypt, Israel, Lebanon, Sinai
- Americas: Argentina [A], w Canada [A], e & w United States [A], Uruguay [A]
- Aust/Asia: Australia [A], New Caledonia [A], New Zealand [A]

Phytogeo: Euro-Siberian, Mediterranean

Species: *Carrichtera annua* (L.) DC.

Life/Form: annual

Ecology: semi-arid to arid coastal, plains, hills, desert depressions; beaches, steppes, rocky places, brush, dry pastures; weedy in roadsides and waste places, fields, crops, vineyards; sandy, silty, or chalky soils

Geography:

- Europe: Aegean, Balearic Islands, Crete, Cyprus, Greece, Italy, Portugal, Sardinia, Sicily, Spain
- Atlantic: Canary Islands (except Hierro, La Palma)
- Africa: n Algeria, n Libya, Morocco, Tunisia
- ME/WAsia: n Egypt, w & s Iran, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, Saudi Arabia, Sinai
- Aust/Asia: Australia [A], New Zealand [A]

Phytogeo: Mediterranean, Irano-Turanian (Saharo-Sindian)

Species: *Ceratocnemum rapistroides* Coss. & Balansa

Life/Form: annual

Ecology: semi-arid to arid plateaus, hills to 1100 m; steppes, fields, pastures, brush, scree and rubble

Geography: Africa: ne Morocco

Phytogeo: Mediterranean

Species: *Chalcanthus renifolius* (Boiss. & Hohen.) Boiss.

Life/Form: perennial, herbaceous

Ecology: montane to 3600 m; high valley slopes, chalk cliffs

Geography: ME/WAsia: nw Afghanistan, Iran, n Iraq, Tajikistan, Turkmenistan, se Uzbekistan

Phytogeo: Irano-Turanian

Species: *Coincya longirostra* (Boiss.) Greuter & Burdet

Life/Form: biennial to perennial, herbaceous

Ecology: hills from 600-800 m; rocky outcrops, schistose or shale slopes

Geography: Europe: sc Spain

Phytogeo: Mediterranean

Species: *Coincya monensis* (L.) Greuter & Burdet

Life/Form: annual to perennial, herbaceous

Ecology: coastal and riparian sands and dunes, non-arid inland montane to 3200 m; shaded rocky slopes, crevices and scree, open woodland; weedy in roadsides and waste places, fields; siliceous or calcareous rocks and sand

Geography:

Europe: Belgium, Channel Islands, Corsica, France, Germany, Great Britain (w England, Isle of Man), Italy, Portugal, Netherlands [E?], Norway [?], Sardinia [E?], w Scotland, Spain, Switzerland

Africa: n Morocco

Americas: United States [A]

Phytogeo: Euro-Siberian

Species: *Coincya richeri* (Vill.) Greuter & Burdet

Life/Form: perennial, herbaceous

Ecology: montane (sw Alps) from 1750-2500 m; schistose rocks, crevices, rubble, grassy places, alpine meadows, near glaciers

Geography: Europe: se France, nw Italy

Phytogeo: Euro-Siberian

Species: *Coincya rupestris* Porta & Rigo ex Rouy

Life/Form: biennial to perennial, herbaceous

Ecology: hills from 700-1100 m; scree, crevices in calcareous or schistose rocky outcrops

Geography: Europe: sc Spain

Phytogeo: Mediterranean

Species: *Coincya transtagana* (Cout.) Clem.-Muñoz & Hern.-Berm.

Life/Form: annual

Ecology: arid low hills; dry pastures, roadsides and waste places, disturbed land at mining sites; sand, rubble, clay

Geography: Europe: s Portugal, sw Spain

Phytogeo: Mediterranean

Species: *Coincya wrightii* (O.E. Schulz) Stace

Life/Form: biennial?, perennial, herbaceous

Ecology: coastal; granitic cliffs and shale slopes

Geography: Europe: Great Britain (se Lundy Island, Bristol Channel)

Phytogeo: Euro-Siberian

Species: *Conringia austriaca* (Jacq.) Sweet

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Life/Form: annual, biennial
Ecology: low valleys, montane to 1350 m; sunny, stony cliffs, meadows, brush; weedy in roadsides and waste places, fields; loam and chalky soils

Geography:
Europe: Austria, Bulgaria, Czech/Slovak Reps., Greece, Hungary, Italy, Romania, Yugoslavia
ME/WAsia: Anatolia, Armenia, Georgia, nw Iran
Phytogeo: Euro-Siberian (Irano-Turanian)

Species: *Conringia grandiflora* Boiss. & Heldr.
Life/Form: annual
Ecology: coastal hills from 300-1000 m; rocky limestone slopes
Geography: Europe: sw Turkey (Antalya Coast)
Phytogeo: Mediterranean

Species: *Conringia orientalis* (L.) Dumort.
Life/Form: annual, biennial, winter annual
Ecology: non-arid to arid coastal, high plateaus, montane to 3280 m; weedy in roadsides and waste places, fields, crops, vineyards, oases; argillaceous, calcareous, gypsaceous soils

Geography:
Europe: Aegean, Albania, Austria, Balearic Islands [A], Belgium [A], Bulgaria, Crimea, Croatia, Estonia [A], Cyprus, Czech/Slovak Reps., Denmark [A], France, Germany, Greece, Hungary, Italy, Latvia [A], Lithuania [A], Malta, Poland, Romania, n, c & s Russia, Sicily [?], Spain [A], Sweden [A], Switzerland, Turkey, Ukraine, Yugoslavia
Africa: n Algeria, Libya, Morocco, Tunisia
ME/WAsia: Afghanistan, Anatolia, Armenia, Azerbaijan, Egypt, Georgia, Iran, Iraq, Israel/Jordan, Lebanon/Syria, nw Pakistan, Turkmenistan
Americas: Canada [A], Mexico [A], United States [A]
Aust/Asia: Australia [A]
Phytogeo: Mediterranean, Euro-Siberian, Irano-Turanian

Species: *Conringia perfoliata* (C.A. Mey.) N. Busch
Life/Form: annual
Ecology: plains, hills, montane to 1700 m; steppes, scree, cliffs, rubble; weedy in roadsides and waste places, fields, vineyards, crops; loam and calcareous soils

Geography:
Europe: Crimea, s Russia, Turkey
ME/WAsia: nw Afghanistan, Anatolia, Armenia, Azerbaijan, Georgia, Iran, n Iraq, Lebanon/Syria, Turkmenistan
Phytogeo: Irano-Turanian

Species: *Conringia persica* Boiss.
Life/Form: annual
Ecology: hills, montane from 1000-3600 m; high valleys, rubble, rocky ridges; weedy in roadsides and waste places, fields
Geography: ME/WAsia: Afghanistan, Anatolia, Armenia, Azerbaijan, Georgia, Iran, ne Iraq, w Pakistan, Turkmenistan
Phytogeo: Irano-Turanian

Species: *Conringia planisiliqua* Fisch. & C.A. Mey.
Life/Form: annual
Ecology: montane from 1000-4600 m; grassy and rocky slopes, brush, riparian, sandy, stony places, shale
Geography:
Europe: Greece [A]
ME/WAsia: Afghanistan, Anatolia, Armenia, Georgia, Iran, Mongolia, w Pakistan, w Tibet, Turkmenistan, Uzbekistan
Aust/Asia: China [A], India [A]
Phytogeo: Irano-Turanian

Species: *Cordylocarpus muricatus* Desf.
Life/Form: annual
Ecology: semi-arid plains, high plateaus, hills; steppes, alluvium of dry stream beds and gullies, open woodlands and brush, dry pastures; weedy in roadsides and waste places, fields, crops; argillaceous soil
Geography:
Africa: nw Algeria, ne Morocco
ME/WAsia: Israel [A]
Phytogeo: Mediterranean

Species: *Crambe aculeolata* (N. Busch) Czerniak.
Life/Form: perennial, herbaceous
Ecology: montane slopes and high valleys
Geography: ME/WAsia: n Iran; Nakhichevan (s Caucasus)
Phytogeo: Irano-Turanian

Species: *Crambe amabilis* Buktov & Majlun
Life/Form: perennial, herbaceous
Ecology: grassy slopes, waste places
Geography: Europe: s Ukraine; ME/WAsia: e Uzbekistan, W Tian Shan Mtns, Tashkent region
Phytogeo: Irano-Turanian

Species: *Crambe arborea* Webb ex H. Christ
Life/Form: perennial, suffruticose
Ecology: basaltic cliffs
Geography: Atlantic: Canary Islands (Tenerife)
Phytogeo: Macaronesian

Species: *Crambe armena* N. Busch
Life/Form: perennial, herbaceous
Ecology: montane, saline soils
Geography: Europe: Nakhichevan (s Caucasus)
Phytogeo: Irano-Turanian

Species: *Crambe aspera* M.Bieb.
Life/Form: perennial, herbaceous
Ecology: stony, calcareous soils of steppes and river flats; chalky slopes

Geography: Europe: Crimea, se Russia (Lower Volga & Don Rivers), se Ukraine
Phytogeo: Euro-Siberian

Species: *Crambe cordifolia* Steven
Life/Form: perennial, herbaceous
Ecology: plains, hills, montane from 700-1000 m; w Tibetan highlands to 4500 m; steppes, high valleys, sunny slopes, riparian

Geography:
Europe: Great Britain (e England) [A], s Russia (n Caucasus)
ME/WAsia: nw Afghanistan, Azerbaijan, Iran, Kazakhstan, Pakistan, w Tibet, Turkmenistan, Uzbekistan
Aust/Asia: India
Phytogeo: Irano-Turanian

Species: *Crambe cretacea* Czerniak.
Life/Form: perennial, herbaceous
Ecology: sandy plains, coastal around inland seas (e Caspian and Aral Seas)
Geography: ME/WAsia: Turkmenistan, Uzbekistan
Phytogeo: Irano-Turanian

Species: *Crambe edentula* Fisch. & C.A. Mey.
Life/Form: perennial, herbaceous
Ecology: coastal and inland sea depressions (Caspian and Aral Seas); sandy plains
Geography: ME/WAsia: Turkmenistan, Uzbekistan
Phytogeo: Irano-Turanian

Species: *Crambe feuilleei* A. Santos
Life/Form: perennial, suffruticose
Ecology: basaltic walls of fayal-breza forests and upland shrub vegetation
Geography: Atlantic: Canary Islands (El Hierro Island)
Phytogeo: Macaronesian

Species: *Crambe filiformis* Jacq.
Life/Form: perennial, herbaceous
Ecology: semi-arid hills, montane to 2200 m; high valleys, riparian, rocks, crevices, gullies, rubble, pastures, meadows, open woodlands and brush, fields, hedges; calcareous rock

Geography:
Europe: s Spain
Africa: nw Algeria, Morocco
Americas: Chile [A?]
Phytogeo: Mediterranean

Species: *Crambe fruticosa* L.f.
Life/Form: perennial, suffruticose
Ecology: coastal rocks and cliffs, hills; dry, sunny exposed cliffs and rocks, ridges
Geography: Atlantic: Madeira (Madeira, Porto Santo, Deserta)
Phytogeo: Macaronesian

Species: *Crambe glaberrima* (Bornm.) Greuter & Burdet
Life/Form: perennial, herbaceous
Ecology: sub-alpine valleys to 2200 m
Geography: ME/WAsia: Lebanon/ Syria, nw Iran, ne Turkey/Armenia
Phytogeo: Irano-Turanian

Species: *Crambe gomeraea* Webb ex H. Christ
Life/Form: perennial, suffruticose
Ecology: laurel forests
Geography: Atlantic: Canary Islands (La Gomera)
Phytogeo: Macaronesian

Species: *Crambe gordjagii* Sprygin & Popov
Life/Form: perennial, suffruticose to shrubby
Ecology: plateau, foothills (Pamirs); dry steppes
Geography: ME/WAsia: se Kazakhstan, Tajikistan, e Uzbekistan
Phytogeo: Irano-Turanian

Species: *Crambe grandiflora* DC.
Life/Form: perennial, herbaceous
Ecology: coastal, plains, foothills; river valleys, grassy steppes
Geography:
Europe: Crimea, s Russia (n Caucasus)
ME/WAsia: Georgia (s Caucasus)
Phytogeo: Euro-Siberian

Species: *Crambe grossheimii* I.Khalilov
Life/Form: perennial, herbaceous
Ecology: dry, clay hill slopes
Geography: ME/WAsia: Nakhichevan (s Caucasus)
Phytogeo: Irano-Turanian

Species: *Crambe hedgeri* I. Khalilov
Life/Form: perennial, herbaceous
Ecology: high montane, 3300 m
Geography: ME/WAsia: e Afghanistan
Phytogeo: Irano-Turanian

Species: *Crambe hispanica* L.
Life/Form: annual
Ecology: non-arid to semi-arid coastal, plains, hills to 1200 m, tropical montane (Abyssinian Highlands) to 2000 m; beaches, shaded rocks and crevices, grassy steppes and slopes, rubble, fields, olive groves, brush; limestone and silica rocks, fertile soils; sometimes cultivated (subsp. *abyssinica*)
Geography:
Europe: Adriatic, Albania, Belarus, Cyprus, Czech Rep. (escapes reported), Greece (w Aegean), e Italy, Portugal, Sicily, Spain, Yugoslavia
Africa: Ethiopia, N Kenya, n Morocco, Ruanda

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ME/WAsia: w Iran, Israel/Jordan, Lebanon/Syria, Turkey (escape reported)
Phytogeo: Mediterranean; East African/Red Sea

Species: *Crambe juncea* M.Bieb.
Life/Form: biennial ?, perennial, herbaceous
Ecology: arid slopes and stony places on hills 300-1300 m
Geography:
Europe: s Russia
ME/WAsia: Georgia (s Caucasus), n Iran
Phytogeo: Euro-Siberian; Irano-Turanian

Species: *Crambe kilimandscharica* O.E. Schulz
Life/Form: annual, herbaceous
Ecology: grasslands, open areas at 1200-1300m
Geography: Kenya
Phytogeo: Africa

Species: *Crambe koktebelica* (Junge) N. Busch
Life/Form: perennial, herbaceous
Ecology: coastal valleys, hills; loam and chalky soils, calcareous rock crevices
Geography: Europe: Crimea, s Russia (nw Caucasus)
Phytogeo: Euro-Siberian

Species: *Crambe kotschyana* Boiss.
Life/Form: perennial, herbaceous
Ecology: montane to 4300 m, high valleys and slopes
Geography:
ME/WAsia: Afghanistan, nw India (Himalayas), Iran, nw Pakistan, s Turkmenistan
Aust/Asia: China [A]
Phytogeo: Irano-Turanian

Species: *Crambe kralikii* Coss.
Life/Form: annual, perennial, herbaceous
Ecology: desert and arid sub-desert plains, montane to 2700 m; dry pastures, dry stream beds, gullies, rock crevices, sand and rubble, scree, oases; loam and chalky soils
Geography: Africa: nc & s Algeria, s & ec Morocco
Phytogeo: Saharo-Sindian

Species: *Crambe laevigata* DC. ex H. Christ
Life/Form: perennial, suffruticose
Ecology: no precise information
Geography: Atlantic: Canary Islands (Tenerife)
Phytogeo: Macaronesian

Species: *Crambe maritima* L.
Life/Form: perennial, herbaceous
Ecology: coastal (shores of Atlantic, Baltic, Black and Azov Seas); sandy or stony beaches, shingle, rarely

on sea cliffs; occasionally cultivated, weedy escape

Geography:

Europe: Baltic, Belgium, Bulgaria, Channel Islands, Crimea, Denmark, Estonia, Faerøe Islands, s Finland, n France, n Germany, Great Britain, Ireland, Lithuania [E?], Netherlands, Norway, Romania, s & w Russia, Sweden, Turkey, s Ukraine

ME/WAsia: Georgia, Israel/Jordan

Americas: United States [A]

Phytogeo: Euro-Siberian

Species: *Crambe microcarpa* A. Santos

Life/Form: perennial, suffrutescent

Ecology: Steep rocks, 300-1600 m

Geography: Atlantic: Canary Islands (se La Palma)

Phytogeo: Macaronesian

Species: *Crambe orientalis* L.

Life/Form: perennial, herbaceous

Ecology: plateaus, hills, montane to 2800 m; grassy or stony steppes and slopes, exposed rocks, forest margins, rubble; weedy (tumbleweed) in fields and wastelands; loam, chalky, or argillaceous soils

Geography:

Europe: s Russia (n Caucasus)

ME/WAsia: Afghanistan, Anatolia, Azerbaijan, Armenia, Georgia, Iran, n Iraq, Israel/Jordan, Lebanon/Syria, Turkmenistan

Phytogeo: Irano-Turanian

Species: *Crambe persica* Boiss.

Life/Form: Biennial or perennial, herbaceous

Ecology: arid and desert areas, calcareous steppes, montane

Geography: ME/WAsia: se Azerbaijan, n Iran, n Iraq, n Syria, s Turkey

Phytogeo: Irano-Turanian

Species: *Crambe pritzelii* Bolle

Life/Form: perennial, suffruticose

Ecology: forest areas along coast, 400-800 m

Geography: Atlantic: Canary Islands (Gran Canaria)

Phytogeo: Macaronesian

Species: *Crambe santosii* Bramwell

Life/Form: perennial, suffruticose

Ecology: laurel forest ravines, shady and wet places, 300-800 m

Geography: Atlantic: Canary Islands (La Gomera, La Palma, Tenerife)

Phytogeo: Macaronesian

Species: *Crambe scaberrima* Webb ex Bramwell

Life/Form: perennial, suffruticose

Ecology: -

Geography: Atlantic: Canary Islands (Tenerife)

Phytogeo: Macaronesian

Species: *Crambe schugnana* Korsh.
Life/Form: perennial, herbaceous
Ecology: montane to 2500 m; high stony slopes, cliffs
Geography: ME/WAsia: ne Afghanistan, Tajikistan
Phytogeo: Irano-Turanian

Species: *Crambe scoparia* Svent.
Life/Form: perennial, suffrutescent
Ecology: steep rocky shaded areas in mountains above shore; cliffs to 1600 m
Geography: Atlantic: Canary Islands (Gran Canaria, Tenerife)
Phytogeo: Macaronesian

Species: *Crambe sinuato-dentata* Hochst. ex F. Petri
Life/Form: annual
Ecology: tropical plateau (Abyssinian Highlands), montane to 1650 m; steppes; weedy in maize fields
Geography: Africa: s Ethiopia, n Uganda
Phytogeo: East African/Red Sea

Species: *Crambe steveniana* Rupr.
Life/Form: perennial, herbaceous
Ecology: coastal, plains, foothills; grassy steppes
Geography: Europe: Crimea, s Russia (n Caucasus)
Phytogeo: Euro-Siberian

Species: *Crambe strigosa* L'Hér.
Life/Form: perennial, suffruticose
Ecology: montane to 1250 m; cliffs and rocks, rocky slopes, barrancos; brush, arborescent in euphorbia woods
Geography: Atlantic: Canary Islands (Gomera, Gran Canaria, Hierro, La Palma, Tenerife)
Phytogeo: Macaronesian

Species: *Crambe sventenii* B. Pett. ex Bramwell & Sundell
Life/Form: perennial, suffruticose
Ecology: coastal, montane
Geography: Atlantic: Canary Islands (Fuerteventura)
Phytogeo: Macaronesian

Species: *Crambe tamadabensis* A. Prina & A. Marrero
Life/Form: perennial, suffruticose
Ecology: semi-arid coastal slopes to interior montane 500-1000 m, ancient degraded rocks, crevices
Geography: Atlantic: Canary Islands (Gran Canaria)
Phytogeo: Macaronesian

Species: *Crambe tataria* Sebeók
Life/Form: perennial, herbaceous

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Ecology: coastal, river valleys, high plateaus from 900-1400 m; sunny, grassy steppes and hills, stony slopes, pastures; weedy in roadsides and waste places, fields, vineyards; loam, sandy, sometimes saline soils

Geography:

Europe: Austria, Bulgaria, Crimea, Czech/Slovak Reps., Hungary, nw Italy, Poland, Romania, sw & s Russia (incl. n Caucasus), s Ukraine, Yugoslavia

ME/WAsia: Anatolia, e Kazakhstan, w Siberia

Phytogeo: Euro-Siberian, Irano-Turanian

Species: *Crambe wildpretii* A. Prina & Bramwell

Life/Form: perennial, suffrutescent

Ecology: cliff at 850 m

Geography: Atlantic: Canary Islands (La Gomera)

Phytogeo: Macaronesian

Species: *Crambella teretifolia* (Batt. & Trab.) Maire

Life/Form: annual

Ecology: high plains, montane river basins; dry stony steppes, meadows, fields; clay soils

Geography: Africa: ne Morocco (Middle Atlas)

Phytogeo: Mediterranean

Species: *Didesmus aegyptius* (L.) Desv.

Life/Form: annual

Ecology: semi-arid to arid coastal, plains, plateau to 650 m; beaches, grassy steppes, fields, brush, shaded sides of cliffs, chalk and stone rubble; sandy soil

Geography:

Europe: Aegean, Crete, Cyprus, Greece

Africa: n Libya

ME/WAsia: Egypt

Phytogeo: Mediterranean

Species: *Didesmus bipinnatus* (Desf.) DC.

Life/Form: annual

Ecology: desert to semi-arid coastal, high plateaus, foothills; beaches, grassy steppes, dry pastures, dry stream beds, fields; sandy, loam soils

Geography:

Africa: c Algeria, n Libya, Tunisia

ME/WAsia: Egypt, Kuwait [E?], nw Saudi Arabia [E?]

Phytogeo: Saharo-Sindian

Species: *Diploaxis acris* (Forssk.) Boiss.

Life/Form: annual, winter annual, rarely perennial

Ecology: desert depressions, plateaus to 1200 m; steppes, dry stream beds, gullies, dry pastures, roadsides and waste places; sand, rubble, silt

Geography:

Africa: s Algeria, n & s Libya, Tunisia

ME/WAsia: Anatolia, n & s Egypt, Iraq, Israel/Jordan, Kuwait, Saudi Arabia, Sinai, Yemen

Phytogeo: Saharo-Sindian

Species: *Diplotaxis antoniensis* Rustan

Life/Form: perennial, suffruticose

Ecology: montane 900-1940 m; arid to subhumid areas on dry, gravel plains and slopes, cliffs, abandoned fields

Geography: Atlantic: Cape Verde (Santo Antão)

Phytogeo: Macaronesian

Species: *Diplotaxis assurgens* (Delile) Gren.

Life/Form: annual

Ecology: semi-arid to arid plains, hills; steppes, dry pastures, sandy and stony fields

Geography:

Europe: France [A]

Africa: wc & sw Morocco

Phytogeo: Mediterranean

Species: *Diplotaxis berthautii* Braun-Blanq. & Maire

Life/Form: annual

Ecology: semi-arid to arid plains, hills; rocky dry pastures, stony fields

Geography: Africa: wc Morocco

Phytogeo: Mediterranean

Species: *Diplotaxis brachycarpa* Godr.

Life/Form: annual

Ecology: semi-arid to arid plains, high plateaus; steppes, open woodlands, dry pastures, sandy fields, roadsides and waste places

Geography:

Europe: France [A]

Africa: n Algeria

Phytogeo: Mediterranean

Species: *Diplotaxis brevisiliqua* (Coss.) Mart.-Laborde

Life/Form: annual

Ecology: coastal

Geography: Africa: nw Algeria, ne Morocco

Phytogeo: Mediterranean

Species: *Diplotaxis catholica* (L.) DC.

Life/Form: annual, winter annual

Ecology: non-arid to semi-arid coastal, plains, hills; beaches, sandy plains and cliffs, dry pastures, brush; weedy in roadsides and waste places and fields

Geography:

Europe: Corsica [A], w Spain (incl. Alboran Isl.), Portugal

Atlantic: Azores (S. Maria, S. Miguel) [A], Canary Islands (Gran Canaria) [A], Madeira [A]

Africa: nw & wc Morocco

Phytogeo: Mediterranean (Macaronesian)

Species: *Diplotaxis cossoniana* (Reut. ex Boiss.) O.E. Schulz
Life/Form: annual
Ecology: semi-arid to arid coastal, plains, hills, montane to 1600 m; hilly steppes, rugged slopes, rubble, dry stony stream beds, dry pastures; weedy in fields and crops
Geography: Africa: n Algeria
Phytogeo: Mediterranean

Species: *Diplotaxis decumbens* (A. Chev.) Rustan & Borgen
Life/Form: perennial, suffruticose
Ecology: montane, 1000 m
Geography: Atlantic: Cape Verde (Ile de Fogo)
Phytogeo: Macaronesian

Species: *Diplotaxis eruroides* (L.) DC.
Life/Form: annual, winter annual
Ecology: non-arid to semi-arid plains, plateaus, hills to 2900 m; dry pastures, dry stream beds; weedy in roadsides and waste places, fields, crops, vineyards, oases, ballast

Geography:
Europe: Albania, Balearic Islands, Corsica, Croatia, s France, Italy, Malta, Portugal [?], Romania [A], Sardinia, Sicily, Slovenia, Spain, Yugoslavia [E?]
Africa: n Algeria, s Algeria [A], Morocco [?], Tunisia
ME/WAsia: Anatolia, n Egypt, sw Iran, Iraq, Israel/Jordan, Lebanon/Syria, Oman [A], Saudi Arabia [A], Sinai, Yemen [A]
Americas: Canada [A]
Phytogeo: Mediterranean, Irano-Turanian

Species: *Diplotaxis gorgadensis* Rustan
Life/Form: perennial, suffruticose
Ecology: Humid, subhumid or semiarid areas on ne to nw exposed cliffs and gravelly slopes, 450-1500 m
Geography: Atlantic: Cape Verde (Santo Antão)
Phytogeo: Macaronesian

Species: *Diplotaxis gracilis* (Webb) O.E. Schulz
Life/Form: perennial, suffruticose
Ecology: montane valleys to 1740 m; rocks
Geography: Atlantic: Cape Verde (Brava, S. Antão, S. Nicolau)
Phytogeo: Macaronesian

Species: *Diplotaxis griffithii* (Hook.f. & Thomson) Boiss.
Life/Form: annual
Ecology: foothills (Salt Range), montane valleys to 1900 m; fields, dry pastures, roadsides and waste places
Geography: ME/WAsia: ne Afghanistan, nw Pakistan
Phytogeo: Saharo-Sindian

Species: *Diplotaxis harra* (Forssk.) Boiss.
Life/Form: annual to perennial, suffruticose
Ecology: desert to semi-arid hills, plateaus, coastal rocks to montane to 2200 m; rocks, cliffs, damp crevices,

rubble, dry stream beds, desert wastelands; chalky soils, lava rock

Geography:

Europe: Sicily, se Spain
Atlantic: Cape Verde (all islands except Maio, S. Luzia)
Africa: Algeria, Ethiopia, Libya, Morocco, Tunisia
ME/WAsia: Afghanistan, Bahrain, Egypt, Iran, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, Oman, w Pakistan, Saudi Arabia, Sinai, United Arab Emirates, Yemen

Phytogeo: Saharo-Sindian, East African/Red Sea (Mediterranean)

Species: *Diplotaxis ibicensis* (Pau) Gómez-Campo

Life/Form: perennial, suffrutescent to suffruticose

Ecology: coastal; calcareous rocks, islets

Geography: Europe: Balearic Islands, e Spain (islet off of Cabo de S. Antonio)

Phytogeo: Mediterranean

Species: *Diplotaxis ilorcitana* (Sennen) Aedo, Mart.-Laborde & Muñoz Garm.

Life/Form: annual

Ecology: coastal to inland hills; riparian, dry sandy or stony fields, pastures

Geography: Europe: e Spain

Phytogeo: Mediterranean

Species: *Diplotaxis kohlaanensis* A.G Mill. & J. Nyberg

Life/Form: perennial, herbaceous to suffrutescent

Ecology: sandstone, limestone cliffs, 2300-3000 m

Geography: ME/WAsia: Yemen

Phytogeo: Saharo-Sindian

Species: *Diplotaxis muralis* (L.) DC.

Life/Form: annual, biennial, rarely perennial, herbaceous

Ecology: non-arid to semi-arid low valleys, plateaus, rarely hills; pastures, open woodlands and brush; weedy in roadsides and waste places, fields, crops, vineyards, gardens, oases, dunes, railway ballast; clay, sandy, peaty and chalky soil

Geography:

Europe: Adriatic, Albania, Austria [A], Balearic Islands, Belgium, Bulgaria, Corsica, Crimea, Croatia, Denmark [A], Estonia [A], France, Germany, Great Britain [A], Greece, Hungary, Ireland [A], Italy, Latvia [A], Lithuania [A], Malta, Netherlands, Norway [A], Poland, Portugal, Romania, e Russia [A], Sardinia, Sicily [E?], Spain, Sweden [A], Switzerland, Turkey, Ukraine, Yugoslavia

Atlantic: Azores (S. Miguel) [A]

Africa: n Algeria, n Libya, n Morocco [?], South Africa [A], Tunisia

ME/WAsia: Georgia

Americas: Argentina [A], Canada [A], Ecuador [A], Mexico [A], Peru [A], United States [A]

Aust/Asia: Australia [A], China [A], India [A], New Zealand [A]

Phytogeo: Euro-Siberian, Mediterranean

Species: *Diplotaxis nepalensis* H. Hara

Life/Form: perennial, suffruticose

Ecology: montane, 1200 m; steep cliffs

Geography: Aust/Asia: w Nepal
Phytogeo: Irano-Turanian

Species: *Diplotaxis ollivieri* Maire
Life/Form: annual
Ecology: arid low hills; dry pastures, dry stream beds (Tensift R.); clay, stony or sandy soil
Geography: Africa: sw Morocco
Phytogeo: Mediterranean

Species: *Diplotaxis pitardiana* Maire
Life/Form: annual
Ecology: arid sub-desert plains, hills; dry pastures, dry stream beds
Geography: Africa: nw Algeria, n Mauritania, ec & ne Morocco, Western Sahara
Phytogeo: Saharo-Sindian

Species: *Diplotaxis scaposa* DC.
Life/Form: annual
Ecology: semiarid scrubland
Geography:
Europe: s Italy (Lampedusa Is.)
Africa: Tunisia [?]
Phytogeo: Mediterranean

Species: *Diplotaxis siettiana* Maire
Life/Form: annual
Ecology: sandy soils
Geography: Europe: Spain (Alboran Island) [probably extinct]
Phytogeo: Mediterranean

Species: *Diplotaxis siifolia* Kunze
Life/Form: annual
Ecology: coastal; sandy plains, dry stream beds; weedy in roadsides and waste places, fields, vineyards, wall and roof crevices
Geography:
Europe: sw Portugal, sw Spain
Atlantic: Madeira [A]
Africa: n Algeria, w Morocco
Phytogeo: Mediterranean

Species: *Diplotaxis simplex* (Viv.) Spreng.
Life/Form: annual
Ecology: semi-arid to arid sub-desert coastal, plains, hills to 1100 m; beaches, sandy plains, steppes, dry pastures, dry stream beds
Geography:
Africa: n Algeria, n Libya, sw Morocco [?], Tunisia
ME/WAsia: n Egypt
Phytogeo: Saharo-Sindian

Species: *Diplotaxis sundingii* Rustan

Life/Form: perennial, suffruticose

Ecology: montane, humid zone; n to ne exposed cliffs and gravelly slopes, 590-640 m

Geography: Atlantic: Cape Verde (São Nicolau)

Phytogeo: Macaronesian

Species: *Diplotaxis tenuifolia* (L.) DC.

Life/Form: annual, biennial, perennial, suffrutescent

Ecology: coastal, plains, montane to 1100 m; beaches, dunes, chalk hills, rocky and chalky slopes, crevices in rocks; weedy in roadsides and waste places, fields, crevices in walls; sandy and chalky soils

Geography:

Europe: Albania, Austria, Balearic Islands (Menorca) [A], Baltic (all states) [A], Belgium, Bulgaria, Corsica, Crimea, Czech/Slovak Reps., Denmark [A], Faerøe Islands [A], France, Germany, Great Britain [A], Greece, Hungary, Italy, Malta, Netherlands, Norway [A], Poland [A], Portugal [A], Romania, c & se Russia [A], Sardinia, Sicily, Spain, Sweden [A], Switzerland, Turkey, Ukraine, Yugoslavia

Africa: n Algeria [A], n Morocco [A?]

ME/WAsia: Anatolia, Armenia, Georgia, Lebanon/Syria, Yemen [A]

Americas: Argentina [A], Canada [A], United States [A]

Aust/Asia: Australia [A], New Caledonia [A], New Zealand [A]

Phytogeo: Euro-Siberian, Mediterranean

Species: *Diplotaxis tenuisiliqua* Delile

Life/Form: annual

Ecology: semi-arid coastal, plains, hills to 500 m; dunes, sandy fields, open woodlands, brush, dry pastures, dry stream beds, rocks, rubble, scree, roadsides and waste places; nitrous soil

Geography: Africa: nw Algeria, n & c Morocco, Tunisia [A]

Phytogeo: Mediterranean

Species: *Diplotaxis varia* Rustan

Life/Form: perennial, suffruticose

Ecology: humid to semi-arid coastal to interior mountainous areas 20 to 900 m, exposed cliffs, occasionally on gravelly slopes.

Geography: Atlantic: Cape Verde Islands (Santiago and Brava)

Phytogeo: Macaronesian

Species: *Diplotaxis villosa* Boulos & Jallad

Life/Form: annual

Ecology: high desert valley, 500 m; dry stream beds

Geography: ME/WAsia: s Jordan (El-Jafr)

Phytogeo: Irano-Turanian

Species: *Diplotaxis viminea* (L.) DC.

Life/Form: annual

Ecology: coastal, plains, hills; dry plains, rubble; weedy in roadsides and waste places, fields, crops, gardens, vineyards; sandy, chalky, often damp, rich soil

Geography:

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Europe: Aegean, Austria [A], Balearic Islands (all), Bulgaria, Crete, Crimea, Croatia, Cyprus, France, Germany [A], Greece, Italy, Malta, Portugal, Romania, Sardinia, Sicily, Spain, Turkey, Ukraine [A]
Africa: n Algeria [E?], n Morocco, Tunisia [E?]
ME/WAsia: Anatolia, Egypt, Israel/Jordan, Lebanon/Syria
Phytogeo: Euro-Siberian, Mediterranean

Species: *Diplotaxis virgata* (Cav.) DC.
Life/Form: annual
Ecology: arid to semi-arid coastal and desert plains, hills; beaches, sandy plains, dry pastures, rocks and rubble, brush; weedy in roadsides and waste places, fields, crops; loam, sandy, or gypsaceous soils

Geography:
Europe: Portugal, Spain
Africa: nw Algeria, e Morocco
Phytogeo: Mediterranean & Saharo-Sindian

Species: *Douepea arabica* (Hedge & Kit Tan) O. Appel & Al-Shehbaz
Life/Form: perennial, suffrutescent
Ecology: desert hills to 610 m; dry stream beds, sandstone buttes and ledges in narrow ravines, rocky rubble, roadsides and waste places

Geography: Africa: nw Saudi Arabia
Phytogeo: Saharo-Sindian

Species: *Douepea tortuosa* Cambess.
Life/Form: perennial, suffrutescent
Ecology: desert plains, foothills from 700-900 m; steppes; saline soils
Geography: ME/WAsia: nw India, w Pakistan
Phytogeo: Irano-Turanian

Species: *Enarthrocarpus arcuatus* Labill.
Life/Form: annual
Ecology: sea level to coastal hills; littoral sands, rocks, rubble, slopes, fields, crevices in walls
Geography:
Europe: Aegean, Crete, Cyprus, Greece, Turkey
ME/WAsia: Anatolia, Israel, Lebanon/Syria
Phytogeo: Mediterranean

Species: *Enarthrocarpus clavatus* Godr.
Life/Form: annual
Ecology: arid plateaus, foothills; steppes, lower slopes, dry pastures, dry stream beds; weedy in roadsides and waste places, grazed and cultivated areas; sandy, loam soils
Geography: Africa: n Algeria, nw Libya, ne Morocco, Tunisia
Phytogeo: Mediterranean

Species: *Enarthrocarpus lyratus* (Forssk.) DC.
Life/Form: annual
Ecology: coastal, plains, lowland valleys; steppes, riparian, dry sandy stream beds; weedy in roadsides and

waste places, fields, crops, oases

Geography:

Europe: Cyprus [E, extinct?], s Greece [E?]

Africa: Algeria [A]

ME/WAsia: Egypt, Israel/Jordan, Lebanon, Pakistan [?], Saudia Arabia [E?], Sinai, n Yemen [A]

Phytogeo: Mediterranean

Species: *Enarthrocarpus pterocarpus* (Pers.) DC.

Life/Form: annual

Ecology: desert coastal, plains, plateaus to 660 m; rubble, stony plains, dry pastures, dry stream beds, brush; weedy in roadsides and waste places, fields, gardens

Geography:

Europe: Malta [E?]

Africa: n Libya

ME/WAsia: Egypt, Sinai

Phytogeo: Saharo-Sindian

Species: *Enarthrocarpus strangulatus* Boiss.

Life/Form: annual

Ecology: desert plains; steppes, dry pastures, brush; weedy in roadsides and waste places, fields, crops; clay, stony and sandy soils

Geography:

Africa: n Libya

ME/WAsia: Egypt, Israel/Jordan, Sinai

Phytogeo: Saharo-Sindian

Species: *Eremophyton chevallieri* (Barratte ex L. Chevall.) Bég.

Life/Form: annual

Ecology: desert plains, foothills; calcareous and sandstone rocks, rubble, dry sandy stream beds

Geography: Africa: c & s Algeria, w Libya [E?], n Mauritania, s Morocco, Western Sahara

Phytogeo: Saharo-Sindian

Species: *Eruca loncholoma* (Pomel) O.E. Schulz

Life/Form: perennial, herbaceous, caespitose

Ecology: plateau, montane to 2300 m; esparto-grass steppes, high meadows, fields, stony pastures

Geography: Africa: ne Algeria, w Tunisia

Phytogeo: Mediterranean

Species: *Eruca pinnatifida* (Desf.) Pomel

Life/Form: annual

Ecology: semiarid to desert stony and sandy areas, foothills, plateaus

Geography:

Europe: Spain [E?]

Africa: Algeria, Morocco, Tunisia

Phytogeo: Mediterranean; Saharo-Sindian

Species: *Eruca setulosa* Boiss. & Reut.

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Life/Form: perennial, herbaceous, caespitose
Ecology: non-arid montane to 1600 m; high fields, meadows, stony and clay pastures; calcareous soils
Geography: Africa: nw Algeria, ne Morocco
Phytogeo: Mediterranean

Species: *Eruca vesicaria* (L.) Cav.

Life/Form: annual

Ecology: coastal, plateaus, montane to 2600 m; wild, cultivated, and weedy escape; beaches, steppes, dry pastures, dry stream beds, rubble; weedy in roadsides and waste places, fields, crops, oases, palm and olive groves; sandy, chalky, loam, or saline soils

Geography:

Europe: Adriatic [A], Aegean, Balearic Islands, Belarus, Bulgaria, Corsica, Crete, Crimea, Croatia [A], Cyprus, Estonia [A], France [A], Greece, Hungary [A], Italy [A], Latvia [A], Lithuania [A], Malta, Portugal, Romania, s Russia [A], Sardinia, Sicily, Spain, Switzerland [A], Turkey, Ukraine [A], Yugoslavia [A] (ssp. *sativa* widely naturalized and also cultivated in Europe)

Atlantic: Canary Islands (all), Madeira (Madeira, Porto Santo)

Africa: Algeria, n Chad, Ethiopia, Libya, Morocco, South Africa, Sudan, Tunisia

ME/WAsia: Afghanistan, Anatolia, Armenia, Azerbaijan, Bahrain, Egypt, Georgia, nw India, Iran, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, Oman, nw Pakistan, Qatar, Saudi Arabia, Turkmenistan, United Arab Emirates, Yemen [A]

Americas: Argentina [A], Canada [A], Chile [A], Ecuador [A], Mexico [A], United States [A]

Aust/Asia: Australia [A], China [A], India [A], Mongolia [A], New Zealand [A]

Phytogeo: Mediterranean, Irano-Turanian (Saharo-Sindian, Euro-Siberian)
[Native range of ssp. *sativa* is uncertain]

Species: *Erucaria bornmuelleri* O.E. Schulz

Life/Form: annual

Ecology: valleys, hills; steppes, dry wastelands, fields

Geography: ME/WAsia: nw Iraq, Syria

Phytogeo: Irano-Turanian

Species: *Erucaria cakiloidea* (DC.) O.E. Schulz

Life/Form: annual, biennial

Ecology: hills to 400 m; grassy steppes, dry pastures, gypsum slopes

Geography: ME/WAsia: w Iran, Iraq, n Syria

Phytogeo: Irano-Turanian

Species: *Erucaria crassifolia* (Forssk.) Delile

Life/Form: annual

Ecology: low-lying desert plains; sandy or stony plains; weedy in roadsides and waste places, gardens, oases

Geography: ME/WAsia: Egypt, w & s Iraq, Israel/Jordan [?], Qatar, Saudi Arabia, Sinai, United Arab Emirates

Phytogeo: Saharo-Sindian

Species: *Erucaria erucarioides* (Coss. & Durieu) Müll.Berol.

Life/Form: annual

Ecology: desert plains, hills; steppes, dry pastures, dry stream beds, gullies, rocks; sand and sandy loam

- soils
Geography: ME/WAsia: w & c Algeria, n Mauritania, ne & s Morocco, Western Sahara
Phytogeo: Saharo-Sindian
- Species:** *Erucaria hispanica* (L.) Druce
Life/Form: annual or biennial
Ecology: semi-arid plains, hills, montane to 1800 m; weedy in roadsides and waste places, fields, grain crops, vineyards, olive groves; sandy, clay soils
- Geography:**
Europe: Aegean, Crete, Cyprus, Greece, nw Italy [A], s Spain [A], Turkey
Africa: Algeria [A]
ME/WAsia: Afghanistan, Anatolia, Bahrain, Egypt, Iran, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, Qatar, Saudi Arabia, Sinai, United Arab Emirates
Phytogeo: Mediterranean, Irano-Turanian
- Species:** *Erucaria microcarpa* Boiss.
Life/Form: annual
Ecology: desert to semi-arid plains, plateaus to 1100 m; steppes, dry pastures, dry stream beds, roadsides and waste places; sandy soil
- Geography:**
Africa: Libya
ME/WAsia: Egypt, Iraq, Israel/Jordan, Sinai
Phytogeo: Saharo-Sindian
- Species:** *Erucaria ollivieri* Maire
Life/Form: annual
Ecology: desert plains; argillaceous or sandy saline soils
Geography: Africa: sw Morocco
Phytogeo: Saharo-Sindian
- Species:** *Erucaria pinnata* (Viv.) Täckh. & Boulos
Life/Form: annual
Ecology: desert plains, hills; dry steppes, dry stream beds, roadsides and waste places; sand, clay, rubble
Geography:
Africa: Algeria, Libya, Morocco, Tunisia
ME/WAsia: Egypt, Israel/Jordan, Saudi Arabia, Sinai
Phytogeo: Saharo-Sindian
- Species:** *Erucaria rostrata* (Boiss.) Greuter & Burdet
Life/Form: annual
Ecology: desert plains, hills; dry steppes; weedy in fields, crops
Geography: ME/WAsia: Israel/Jordan, Lebanon/Syria, Sinai
Phytogeo: Saharo-Sindian, Irano-Turanian
- Species:** *Erucaria uncata* (Boiss.) Asch. & Schweinf.
Life/Form: annual
Ecology: sandy and stony deserts

Geography:

Africa: Egypt, Libya
ME/WAsia: Israel-Jordan, Saudi Arabia, Sinai

Phytogeo: Saharan-Sindian

Species: *Erucastrum abyssinicum* (A. Rich.) O.E. Schulz

Life/Form: annual

Ecology: non-arid tropical montane from 1000-3100 m; fields, damp grassy places

Geography:

Africa: Ethiopia
ME/WAsia: Yemen
Aust/Asia: Sri Lanka [A, rare]

Phytogeo: East African/Red Sea

Species: *Erucastrum arabicum* Fisch. & C.A. Mey.

Life/Form: annual

Ecology: non-arid coastal lowlands, plains, hills, fields, sandstone cliffs to 3100 m; tropical montane to 2200 m; steppes; weedy in fields, gardens, coffee plantations, maize crops; occasionally cultivated

Geography:

Africa: Ethiopia, Kenya, Namibia, Ruanda, South Africa, Tanzania, Uganda
ME/WAsia: Egypt, Oman, Qatar, Saudi Arabia, United Arab Emirates, Yemen

Phytogeo: East African/Red Sea, South African

Species: *Erucastrum austroafricanum* Al-Shehbaz & Warwick

Life/Form: annual

Ecology: slopes, steppes (high veld) to 1000 m, field margins

Geography: South Africa (Transvaal to eastern Cape); Lesotho

Phytogeo: South African

Species: *Erucastrum brevirostre* (Maire) Gómez-Campo

Life/Form: annual

Ecology: non-arid to arid coastal plains, hills; fields, dry pastures; sand, rubble

Geography: Africa: c & w Morocco

Phytogeo: Mediterranean

Species: *Erucastrum canariense* Webb & Berthel.

Life/Form: annual to biennial

Ecology: roadsides and waste places, fields; volcanic soil

Geography: Atlantic: Canary Islands (all except Hierro)

Phytogeo: Macaronesian

Species: *Erucastrum cardaminoides* (Webb ex H. Christ) O.E. Schulz

Life/Form: annual to biennial

Ecology: rocky places, fields; volcanic rock and soil

Geography: Atlantic: Canary Islands (all)

Phytogeo: Macaronesian

Species: *Erucastrum elatum* (Ball) O.E. Schulz
Life/Form: perennial, suffrutescent to suffruticose
Ecology: foothills, montane from 1100-2500 m; rock, rubble, brush, meadows, chalk cliffs
Geography: Africa: w & wc Morocco (Middle and High Atlas)
Phytogeo: Mediterranean

Species: *Erucastrum elgonense* Jonsell
Life/Form: annual? to perennial, herbaceous
Ecology: tropical montane from 3050-3400 m; open woodlands and brush
Geography: Africa: Uganda (Mt. Elgon)
Phytogeo: East African/Red Sea

Species: *Erucastrum erigavicum* Jonsell
Life/Form: perennial, suffrutescent
Ecology: montane, juniper forests at 2000 m on coastal escarpment
Geography: Africa: n Somalia
Phytogeo: East African/Red Sea

Species: *Erucastrum gallicum* (Willd.) O.E. Schulz
Life/Form: annual or biennial, herbaceous
Ecology: river valleys, hills; riparian, alluvium of rivers and lakes, rubble; weedy in roadsides and waste places, railways, gardens, orchards, fields; sandy to argillaceous and nutrient-rich loam soils
Geography:
Europe: Austria [E?], Baltic [A], Belarus [A], Belgium [E?], Crimea, Denmark [A], Finland [A], France, Germany, Great Britain [A], Hungary, Ireland [A], Italy, Netherlands [E?], Norway [A], Poland [A], Portugal, Romania [A], Slovak Rep., Slovenia [E?], n Spain, Sweden [A], Switzerland, Ukraine [A], Yugoslavia [E?]
Americas: Canada [A], United States [A]
Aust/Asia: Korea [A]
Phytogeo: Euro-Siberian

Species: *Erucastrum griquense* (N.E. Br.) O.E. Schulz
Life/Form: annual
Ecology: plateaus, valleys, hills; steppes (high veld), sandy places, along rivers; limestone soils
Geography: Africa: Botswana, w South Africa
Phytogeo: South African

Species: *Erucastrum ifniense* Gómez-Campo
Life/Form: annual
Ecology: arid sub-desert Atlantic coastal plain; roadsides and waste places
Geography: Africa: sw Morocco (Sidi Ifni region)
Phytogeo: Macaronesian

Species: *Erucastrum leucanthum* Coss. & Durieu
Life/Form: perennial, herbaceous
Ecology: semi-arid to arid high plateaus, montane to 1600 m; open woodlands, grassy steppes, dry rocky pastures and stony meadows, alluvium, shale, rubble; calcareous soils

Geography: Africa: n Algeria, n & c Morocco
Phytogeo: Mediterranean

Species: *Erucastrum littoreum* (Pau & Font Quer) Maire
Life/Form: perennial, herbaceous
Ecology: coastal rocks, hills below 800 m; rock crevices, dry slopes
Geography: Africa: n & c Morocco (Rif, Middle Atlas)
Phytogeo: Mediterranean

Species: *Erucastrum meruense* Jonsell
Life/Form: perennial, suffruticose to shrubby
Ecology: tropical montane, cliff ledges 2300 to 3100m, volcanic crater; parkland, brush
Geography:
Africa: n Tanzania (Mt. Meru), Madagascar
ME/WAsia: Yemen
Phytogeo: East African/Red Sea

Species: *Erucastrum nasturtiifolium* (Poir.) O.E. Schulz
Life/Form: annual to perennial, herbaceous
Ecology: montane valleys to 1300 m; slopes, riparian, high meadows; weedy in roadsides and waste places, fields, occasionally crops; sandy, stony, or rich calcareous soils, usually lacking in humus, damp sites
Geography: Europe: Albania [E?], Austria, Czech/Slovak Reps. [A], France, Germany, Hungary [E?], Italy, Poland [A], Portugal, Romania [A], Russia [A], Sicily [A], Slovenia [E?], Spain, Switzerland, Ukraine [A]
Phytogeo: Euro-Siberian (Mediterranean)

Species: *Erucastrum pachypodum* (Chiov.) Jonsell
Life/Form: annual
Ecology: tropical plateau, montane from 2700-3550 m; steppes, fields, parkland
Geography: Africa: Ethiopia
Phytogeo: East African/Red Sea

Species: *Erucastrum palustre* (Pirona) Vis.
Life/Form: perennial, herbaceous
Ecology: swampy lowland
Geography: Europe: n Italy (n Adriatic)
Phytogeo: Mediterranean

Species: *Erucastrum rostratum* (Balf. f.) Gómez-Campo
Life/Form: annual
Ecology: hills; shaded rock and cliff faces, evergreen thickets, scrubland, rocky limestone slopes, grassland
Geography: Africa: Socotra
Phytogeo: East African/ Red Sea

Species: *Erucastrum strigosum* (Thunb.) O.E. Schulz
Life/Form: annual

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Ecology: coastal, river valleys, tableland plateau, hills, montane to snow line; fields, riparian, stream beds, grassy and chalky slopes, among rubble, scrub desert (karroo)

Geography: Africa: sw South Africa

Phytogeo: South African

Species: *Erucastrum supinum* Al-Shehbaz & Warwick

Life/Form: annual

Ecology: coastal, riparian, moist sand, clay and fluvial mud, stony, rocky calcareous soil, meadows, hillsides, waste places

Geography: Europe: Baltic: Estonia, s Finland (Öland Is.), s Sweden (Gotland); nw Europe: France, Belgium [?], Germany [?], Spain [?], Switzerland

Phytogeo: Euro-Siberian

Species: *Erucastrum takhtajanii* V.I. Dorof.

Life/Form: perennial

Ecology: on clay soil, montane to 2200 m on dry schistose terrain

Geography: Caucasus: Armenia

Phytogeo: Irano-Turanian

Species: *Erucastrum varium* (Durieu) Durieu

Life/Form: annual, biennial

Ecology: semi-arid plains, plateaus, hills to 800 m; esparto grass steppes, dry pastures, chalk slopes, rubble, gorges, dry stream beds; weedy in fields

Geography:

Europe: France [A], Spain [A], Switzerland [A]

Atlantic: Canary Islands [?]

Africa: n Algeria, n Libya, Morocco, Tunisia

Phytogeo: Mediterranean

Species: *Erucastrum virgatum* C. Presl.

Life/Form: annual (rare) to perennial, suffruticose

Ecology: coastal plains to low hills; rocks, rubbles, sandhills, brush, dry fields, meadows; weedy in roadsides and waste places, vineyards; sand and chalky soils

Geography:

Europe: s Italy, ne Sicily, s & e Spain

Africa: Morocco [?]

Phytogeo: Mediterranean

Species: *Erucastrum woodiorum* Jonsell

Life/Form: perennial, suffrutescent

Ecology: montane, cliff ledges and wadi; 2300-2600 m

Geography: ME/WAsia: sw Yemen

Phytogeo: East African/Red Sea

Species: *Fezia pterocarpa* Pit.

Life/Form: annual, winter annual

Ecology: semi-arid plains, hills; steppes, low slopes; viscous clay fields, roadsides and waste places; bare

- clay
Geography: Africa: nc Morocco
Phytogeo: Mediterranean
- Species:** *Foleyola billotii* Maire
Life/Form: perennial, suffruticose to shrubby
Ecology: desert plains; stony plains, dry stream beds and gullies, riparian after rains; sandy soil
Geography: Africa: sw Algeria, se Morocco
Phytogeo: Saharo-Sindian
- Species:** *Fortuynia bungei* Boiss.
Life/Form: perennial, suffruticose
Ecology: desert plateaus, montane to 2200 m; sandy soil
Geography: ME/WAsia: sw Afghanistan, s,c,e Iran, w Pakistan
Phytogeo: Saharo-Sindian
- Species:** *Fortuynia garcinii* (Burm.) Shuttlew. ex Boiss.
Life/Form: perennial, suffruticose
Ecology: desert plains, hills to 900 m; stony plains; sandy soils
Geography: ME/WAsia: s, c & e Iran
Phytogeo: Saharo-Sindian
- Species:** *Guiraoa arvensis* Coss.
Life/Form: annual
Ecology: coastal plains, montane to 1300 m; sandy fields, calcareous slopes, weedy in roadsides and waste places; saline to calcareous soils
Geography: Europe: se Spain
Phytogeo: Mediterranean
- Species:** *Hemicrambe fruticosa* (C.C. Towns.) Gómez-Campo
Life/Form: perennial, shrub
Ecology: coastal montane from 600-1000 m; rock ledges on sheer cliff face, granite pinnacles, mountain rocks, brush [?]
Geography: Yemen: Soqotra
Phytogeo: East African/Red Sea
- Species:** *Hemicrambe fruticulosa* Webb
Life/Form: perennial, suffruticose to shrubby
Ecology: montane from 400-1500 m; calcareous rock crevices in cliff face
Geography: Africa: n Morocco (Tangier Peninsula)
Phytogeo: Mediterranean
- Species:** *Hemicrambe socotrana* (A.G. Mill.) Al-Shehbaz
Life/Form: perennial, herb, woody at base
Ecology: moist, shady places on limestone pinnacles and cliffs along exposed, isolated ridge
Geography: Yemen: w Soqotra
Phytogeo: East African/Red Sea

Species: *Henophyton deserti* (Coss. & Durieu) Coss. & Durieu
Life/Form: perennial, suffruticose
Ecology: desert plains, hills; steppes, dry pastures (forage for camels and mules), dry stream beds, gullies; sand, rubble, limestone, gypsum, or loam soils
Geography: Africa: s Algeria, w & sw Libya, s Morocco, s Tunisia
Phytogeo: Saharo-Sindian

Species: *Henophyton zygarrhenum* (Maire) Gómez-Campo
Life/Form: perennial, suffruticose
Ecology: desert steppes
Geography: Africa: e Morocco, s Tunisia
Phytogeo: Saharo-Sindian

Species: *Hirschfeldia incana* (L.) Lagr.-Foss.
Life/Form: annual, winter annual, biennial, perennial (rare)
Ecology: coastal, plateaus, high valleys, montane; rocks and dunes, sunny slopes, alluvium of streams and gorges; weedy in roadsides and waste places, fields, crops, oases, olive and palm groves, open cork woodlands; calcareous and nitrous soils

Geography:
Europe: Adriatic, Aegean, Albania, Austria [A], Balearic Islands, Belgium [A], Corsica, Crete, Crimea [E?], Cyprus, Denmark [A], Estonia [A], s France, Germany [A], Great Britain [A], Greece, Ireland [A], Italy, Latvia [A], Lithuania [A], Malta, Netherlands [A], Norway [A], Portugal, Russia [A], Sardinia, Sicily, Spain, Switzerland [A], Turkey, Yugoslavia [A]
Atlantic: Azores (Santa Maria, São Miguel) [A], Canary Islands (all) [A], Madeira (Madeira, Deserta) [A]
Africa: n Algeria, n Libya, n Morocco, South Africa [A], Tunisia
ME/WAsia: Anatolia, Armenia, Azerbaijan, Georgia [A], Iran, Iraq, Israel/Jordan, Lebanon/Syria, Saudi Arabia [A], Yemen [A]
Americas: Argentina, United States [A]
Aust/Asia: Australia [A], New Zealand [A]
Phytogeo: Mediterranean, Irano-Turanian

Species: *Kremeriella cordylocarpus* (Coss. & Durieu) Maire
Life/Form: annual
Ecology: semi-arid inland coastal hills; shaded rocks, crevices of calcareous rocks, open woodlands, brush
Geography: Africa: nw Algeria, ne Morocco
Phytogeo: Mediterranean

Species: *Moricandia arvensis* (L.) DC.
Life/Form: annual to perennial, suffruticose
Ecology: coastal to inland hills; sandstone cliffs, rocky slopes, dry pastures, river plains or, dry stream beds, rubble, brush; weedy in roadsides and waste places, fields, crops, oases, palm groves; argillaceous, gypsaceous, chalky, or sandy saline soil

Geography:
Europe: Balearic Islands, s France [A], nw Greece, Italy, Malta, Portugal [A], Sardinia [A], Sicily, Spain
Atlantic: Canary Islands (Gran Canaria) [A]
Africa: n Algeria, n Libya [?], s Morocco, Tunisia
Americas: United States [A]

Phytogeo: Mediterranean

Species: *Moricandia foetida* Bourg. ex Coss.

Life/Form: biennial, suffrutescent

Ecology: coastal hills; argillaceous, chalky or saline calcareous soils

Geography: Europe: s & se Spain

Phytogeo: Mediterranean

Species: *Moricandia foleyi* Batt.

Life/Form: annual

Ecology: desert plains, valleys; dry stream beds, fields and crops; muddy, sandy alluvium, sandstone and shale

Geography: Africa: n Algeria, ne Morocco

Phytogeo: Mediterranean

Species: *Moricandia moricandioides* (Boiss.) Heywood

Life/Form: perennial, suffrutescent to suffruticose

Ecology: semi-arid low valleys and hills; riparian, stream beds, cliffs and crevices, rubble, scree, stony alluvium; sandy, siliceous, calcareous, viscous, or gypsaceous soils

Geography: Europe: sc & e Spain

Phytogeo: Mediterranean

Species: *Moricandia nitens* (Viv.) E.A. Durand & Barratte

Life/Form: perennial, suffruticose

Ecology: coastal, desert montane to 2800 m; sands and cliffs, dry river beds, rubble, wastelands

Geography:

Africa: nc Algeria, Libya, Tunisia

ME/WAsia: n Egypt, Israel/Jordan, Sinai

Phytogeo: Saharo-Sindian

Species: *Moricandia sinaica* (Boiss.) Boiss.

Life/Form: annual to perennial, suffrutescent to suffruticose

Ecology: desert plains, hills 1800 to 2500 m; dry stream beds, escarpments, rocky places, chalky slopes; roadsides

Geography: ME/WAsia: Egypt, Iran, Israel/Jordan, Kuwait, Oman, sw Pakistan, Saudi Arabia, Sinai, Yemen

Phytogeo: Saharo-Sindian

Species: *Moricandia spinosa* Pomel

Life/Form: perennial, suffrutescent

Ecology: desert plains, hills; dry stream beds, gullies, rocks, rubble, scree; prefers chalky soil

Geography: Africa: s Algeria

Phytogeo: Saharo-Sindian

Species: *Moricandia suffruticosa* (Desf.) Coss. & Durieu

Life/Form: perennial, suffruticose

Ecology: desert plains, plateaus, hills; dry sunny slopes, bases of rocks, cliffs, stony sands

Geography: Africa: nc Algeria, w Libya, s Morocco, s Tunisia

Phytogeo: Saharo-Sindian

Species: *Morisia monanthos* (Viv.) Asch.

Life/Form: perennial, herbaceous, caespitose, acaulescent

Ecology: coastal, high plains, montane to 1200 m; damp grassy or sandy places, high rock crevices, sandy sub-soil

Geography: Europe: Corsica, Sardinia

Phytogeo: Mediterranean

Species: *Muricaria prostrata* (Desf.) Desv.

Life/Form: annual

Ecology: desert plains, arid plateaus, foothills to 1075 m; dry steppes, fields, rubble, dry stream beds, gullies, roadsides and waste places; sandy or muddy alluvial soil

Geography: Africa: n Algeria, Libya, c Morocco (Saharan High Atlas), Tunisia

Phytogeo: Saharo-Sindian

Species: *Orychophragmus limprichtianus* Al-Shehbaz & G. Yang

Life/Form: annual or rhizomatous perennial, herbaceous

Ecology: grassy areas along streams, moist slopes, roadsides, rocky slopes , 300–1200 m

Geography: Aust/Asia: e c China (Anhui & Zhejiang)

Phytogeo: Asian

Species: *Orychophragmus violaceus* (L.) O.E. Schulz

Life/Form: annual or biennial herbaceous

Ecology: montane, meadows, fallow fields, riverbanks, among crops or gardens

Geography: Aust/Asia: n & c China

Phytogeo: Asian

Species: *Otocarpus virgatus* Durieu

Life/Form: annual

Ecology: semi-arid high plateaus, hills; dry fields and clay pastures, gullies, roadsides and waste places

Geography: Africa: nw Algeria (High Plateau)

Phytogeo: Mediterranean

Species: *Physorhynchus brahuicus* Hook.

Life/Form: perennial, suffrutescent

Ecology: coastal deserts and hills; waste places, around hot springs, salt ranges; sandy or gypsaceous soils

Geography: ME/WAsia: Afghanistan, s & e Iran, w Pakistan

Phytogeo: Saharo-Sindian

Species: *Physorhynchus chamaerapistrum* (Boiss.) Boiss.

Life/Form: perennial, suffrutescent

Ecology: coastal deserts and hills to 700 m; waste places; sandy or gypsaceous soils

Geography: ME/WAsia: s & sw Iran, Kuwait [A, extinct?], Oman, w Pakistan, United Arab Emirates

Phytogeo: Saharo-Sindian

Species: *Pseuderucaria clavata* (Boiss. & Reut.) O.E. Schulz

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Life/Form: annual
Ecology: desert plains below sea level, plateaus, hills; stream and lake beds, alluvium, rock crevices; argillaceous, gypsaceous, calcareous, coarse sandy, or saline soils

Geography:
Africa: c & s Algeria, c Libya, n Niger, s Tunisia
ME/WAsia: Egypt, Israel/Jordan, Sinai
Phytogeo: Saharo-Sindian

Species: *Pseuderucaria teretifolia* (Desf.) O.E. Schulz
Life/Form: annual
Ecology: desert plains, plateaus, montane; dry steppes, dry pastures, dry stream beds, gullies, rubble, scree; calcareous, gypsaceous, or damp sandy soils

Geography:
Africa: n & nc Algeria, w Libya, s Morocco, s Tunisia
ME/WAsia: w Egypt
Phytogeo: Saharo-Sindian

Species: *Pseudofortuynia esfandiarii* Hedge
Life/Form: perennial, suffruticose
Ecology: semi-arid montane from 1500-2430 m
Geography: ME/WAsia: s & w Iran
Phytogeo: Irano-Turanian

Species: *Psychine stylosa* Desf.
Life/Form: annual
Ecology: semi-arid to arid plateaus, foothills; steppes, brush, dry pastures, dry stream beds, roadsides and waste places, fields; argillaceous and gypsaceous soils
Geography: Africa: n Algeria, nw to ne Morocco, Tunisia
Phytogeo: Mediterranean

Species: *Quezeliantha tibestica* (H. Scholz) H. Scholz ex Rauschert
Life/Form: annual? to perennial, suffruticose
Ecology: desert montane, 800 m; dry stream beds
Geography: Africa: n Chad (Tibesti Mountains)
Phytogeo: Saharo-Sindian

Species: *Raffenaldia platycarpa* (Coss.) Stapf
Life/Form: perennial, herbaceous, caespitose, acaulescent
Ecology: high plateau, montane from 3000-3750 m; steppes and calcareous slopes; scree, snowy depressions; clay to argillaceous to soils
Geography: Africa: c Morocco (High Atlas)
Phytogeo: Mediterranean

Species: *Raffenaldia primuloides* Godr.
Life/Form: perennial, herbaceous, caespitose, acaulescent
Ecology: high plateaus, montane to 3200 m; grassy steppes, dry stony pastures, open woodland, occasionally weedy in crops; caly to argillaceous soils

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Geography: Africa: c & w Algeria, n & e Morocco
Phytogeo: Mediterranean

Species: *Raphanus confusus* (Greuter & Burdet) Al-Shehbaz and S.I. Warwick
Life/Form: annual
Ecology: coastal to inland hills; dry cliffs, rocky places, warm valleys; chalk soil
Geography: ME/WAsia: Israel, Lebanon
Phytogeo: Mediterranean

Species: *Raphanus raphanistrum* L.
Life/Form: annual to perennial, herbaceous
Ecology: coastal, plains, hills, plateaus, montane to 2800 m; shingle, cliffs and dunes, grasslands, meadows, riparian; weedy in roadsides and waste places, fields, crops; sandy, chalky, saline, or rich nitrous soil; ssp. *maritima* tidal seed dispersal

Geography:
Europe: Aegean, Albania, Balearic Islands, Belarus, Belgium, Bulgaria, Corsica, Crete, Crimea, Croatia, Cyprus, Czech/Slovak Reps., Denmark, Estonia, Finland, France, Great Britain, Greece, Italy, Latvia, Lithuania, Malta, Netherlands, Portugal, Romania, n Russia, Sardinia, Sicily, Slovenia, Spain, Sweden, Turkey, Ukraine, Yugoslavia (also adventive or naturalized in most of Atlantic, northern and central Europe)
Atlantic: Azores (all) [A], Canary Islands (all except La Palma) [A], Madeira (Madeira, Porto Santo) [A]
Africa: n Algeria, n Libya, n Morocco, Namibia [A], South Africa [A], Tunisia
ME/WAsia: Afghanistan, Anatolia, Armenia, Azerbaijan, Bahrein [A], Egypt, Iran, Iraq, Israel/Jordan, Lebanon/Syria, Oman [A], Pakistan, Saudi Arabia [A], Yemen [A]
Americas: Argentina [A], Brazil [A], Canada [A], Central America [A], Chile [A], Ecuador [A], Mexico [A], Paraguay [A], Peru [A], United States [A]
Aust/Asia: Australia [A], Bhutan [A], China [A], n India [A], Indonesia (Java) [A], Japan [A], Korea [A], Malaysia [A], Mongolia [A], New Zealand [A], Philippines [A], Sikkim [A]
Phytogeo: Mediterranean, Euro-Siberian, Irano-Turanian

Species: *Raphanus sativus* L.
Life/Form: annual, biennial
Ecology: coastal, plains, hills, montane to 2200 m; cultivated and weedy escape; weedy in roadsides and waste places, fields, gardens; prefers rich nitrous soils

Geography:
Europe: Cultivated and/or weedy in most countries except very cold regions.
Atlantic: Canary Islands (all) [A], Madeira (Madeira, Porto Santo) [A]
Africa: Cultivated and/or weedy in North and South Africa.
ME/WAsia: Cultivated and/or weedy in most countries of Middle East and Arabian peninsula
Americas: Argentina [A], Canada, Central America [A], Chile [A], Ecuador [A], Mexico [A], Peru [A], United States (Cultivated and/or weedy in warm temperate regions)
Aust/Asia: China [A], Fiji [A], India [A], Indonesia (Java) [A], Japan [A], New Caledonia [A], New Zealand [A], Sri Lanka [A], Taiwan [A] (Cultivated and/or weedy in Australia and most of Asia)
Phytogeo: Unknown as a wild plant, suggested to be derived from *Raphanus raphanistrum* ssp. *landra* which is endemic to the Mediterranean

Species: *Rapistrum perenne* (L.) All.
Life/Form: biennial, perennial, herbaceous

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Ecology: plains, hills; steppes, dry slopes, fields, occasionally among crops, roadsides and waste places
Geography: Europe: Austria, Bulgaria, Crimea, Croatia, Czech/Slovak Reps., Estonia [A], France [A], Germany [E?], Hungary, Italy [A], Latvia [A], Lithuania [A], Poland [E?], Romania, s Russia, Slovenia, Switzerland [A?], Ukraine, Yugoslavia
Phytogeo: Euro-Siberian

Species: *Rapistrum rugosum* (L.) J.P. Bergeret
Life/Form: annual, rarely ? biennial to perennial, herbaceous
Ecology: plains, montane valleys and slopes to 2600 m; steppes, sand and gravel alluvium; weedy in roadsides and waste places, fields, crops, vineyards, olive groves; rich nitrous, usually argillaceous or calcareous soils

Geography:
Europe: Adriatic, Aegean, Albania, Balearic Islands, Belarus [A], Belgium [A], Bulgaria, Corsica, Crete, Crimea, Croatia, Cyprus, Estonia [A], France, Germany [A], Great Britain [A], Greece, Ireland [A], Italy, Latvia [A], Lithuania [A], Malta, Netherlands [A], Norway [A], Portugal, Romania [A], se Russia, Sardinia, Sicily, Spain, Sweden [E, extinct?], Turkey, Yugoslavia
Atlantic: Azores (all except Flores) [A], Canary Islands (all except Hierro) [A], Madeira (all) [A]
Africa: Algeria, Libya, Morocco, South Africa [A], Tunisia
ME/WAsia: Anatolia, Azerbaijan, Egypt, Iran, Iraq, Israel/Jordan, Lebanon/Syria, Saudi Arabia, Sinai, Turkmenistan, Yemen [A?]
Americas: Argentina [A], Bolivia [A], Canada [A], Chile [A], Mexico [A], United States [A]
Aust/Asia: Australia (incl. Norfolk Is.) [A], New Zealand [A]
Phytogeo: Mediterranean, Irano-Turanian, Macaronesian

Species: *Rytidocarpus moricandioides* Coss.
Life/Form: annual, biennial
Ecology: hills; uncultivated slopes, fields; clay soils
Geography: Africa: n Morocco
Phytogeo: Mediterranean

Species: *Savignya parviflora* (Delile) Webb
Life/Form: annual
Ecology: desert plains, hills; steppes, dunes, dry pastures, dry stream beds; sandy or chalky soil
Geography:
Africa: s Algeria, n & s Libya, s Morocco, s Tunisia, Western Sahara
ME/WAsia: sw Afghanistan, Bahrain, Egypt, Iran, Iraq, Israel/Jordan, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, Sinai, United Arab Emirates, Yemen [?]
Phytogeo: Saharo-Sindian

Species: *Schouwia purpurea* (Forssk.) Schweinf.
Life/Form: annual
Ecology: semi-arid coastal plains, hills, inland deserts; steppes, rubble, sand, sandy rock crevices, scree, dry stream beds; fields, damp loamy places after rains in arid regions
Geography:
Africa: n & s Algeria, Libya, n Mali, n Mauritania, n & s Morocco, n Niger, Sudan, Western Sahara
ME/WAsia: Egypt, Saudi Arabia, Sinai, Yemen
Aust/Asia: India [A]

Phytogeo: Saharo-Sindian

Species: *Sinapidendron angustifolium* (DC.) Lowe

Life/Form: perennial, suffrutescent

Ecology: hills from 500-1000 m; steep rocks and cliffs

Geography: Atlantic: Madeira

Phytogeo: Macaronesian

Species: *Sinapidendron frutescens* (Sol.) Lowe

Life/Form: perennial, suffrutescent

Ecology: coastal to inland montane valleys to 1800 m; coastal and inland rocks, barrancos, crevices and gullies; sea cliffs

Geography: Atlantic: Madeira

Phytogeo: Macaronesian

Species: *Sinapidendron rupestre* Lowe

Life/Form: perennial, suffruticose

Ecology: coastal to inland montane valleys to 1500 m; coastal and inland rocks, rocky slopes, ravines

Geography: Atlantic: Madeira

Phytogeo: Macaronesian

Species: *Sinapidendron sempervivifolium* Menezes

Life/Form: perennial, herbaceous to suffrutescent

Ecology: rocky areas

Geography: Atlantic: Madeira (Deserta Grande)

Phytogeo: Macaronesian

Species: *Sinapis alba* L.

Life/Form: annual

Ecology: coastal plains, hills, montane; wild, cultivated and weedy escape; chalk, gypsum slopes, open woodlands, brush, alluvium, damp steep rock faces; weedy in roadsides and waste places, fields, crops, vineyards, olive groves; calcareous, nitrous soils

Geography:

Europe: Aegean, Albania [A], Balearic Islands, Belarus [A], Belgium [A], Bulgaria, Austria [A], Corsica, Crete, Crimea, Cyprus, Czech/Slovak Reps. [A], Denmark [A], Estonia [A], France, Germany [A], Great Britain [A], Greece, Hungary [A], Italy, Malta, Netherlands [A], Poland [A], Portugal, Romania, s Russia, Sardinia, Sicily, Spain, Switzerland [A], Turkey, Ukraine [A], Yugoslavia

Atlantic: Azores (Faial) [A], Canary Islands (all) [A], Madeira (Madeira) [A]

Africa: n Algeria, n Libya, Morocco, South Africa [A], Tunisia

ME/WAsia: Anatolia, n Egypt, Iran, n Iraq, Israel/Jordan, ne Kyrgyzstan [E?], Lebanon/Syria, Saudi Arabia [A]

Americas: Argentina [A], Canada [A], Central America [A], Mexico [A], United States [A]

Aust/Asia: China [A], India [A], Japan [A], New Zealand [A]

Phytogeo: Mediterranean (Irano-Turanian, Euro-Siberian)

Species: *Sinapis arvensis* L.

Life/Form: annual

Ecology: coastal, plains, montane to 1800 m; dry stream beds; weedy in roadsides and waste places, fields,

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irrigated farmland, crops, oases; mainly calcareous soils

Geography:

- Europe: Aegean, Albania, Balearic Islands, Belarus, Belgium, Bulgaria, Corsica, Crete, Crimea, Croatia, Cyprus, Czech/Slovak Reps., Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, w Russia, Sardinia, Sicily, Slovenia, Spain, Sweden, Switzerland, Turkey, Yugoslavia (area of origin not determined, recently naturalized in many countries)
- Atlantic: Azores (Santa Maria, Faial) [A], Canary Islands (all except Hierro & La Palma) [A], Madeira [A]
- Africa: n Algeria, n Libya, n Morocco, South Africa [A], Tunisia
- ME/WAsia: Afghanistan [E?], Anatolia, Armenia [E?], Azerbaijan [E?], n Egypt, Iran [E?], Iraq [E?], Israel/Jordan, Kuwait [E?], Lebanon/Syria, Pakistan [E?], Qatar [E?], Saudi Arabia [E?], Sinai, Turkmenistan [E?], United Arab Emirates [E?]
- Americas: Argentina [A], Canada [A+E?], Caribbean [A], Central America [A], Colombia [A], Mexico [A], Peru [A], United States [A+E?]
- Aust/Asia: Australia [A], China [A?], India [A], Japan [A?], Korea [A], Mongolia [A], New Zealand [A], United States (Hawaii)

Phytogeo: Mediterranean, Irano-Turanian, Saharo-Sindian (Euro-Siberian? American?)

Species: *Sinapis flexuosa* Poir.

Life/Form: annual

Ecology: non-arid to semi-arid coastal, plains, montane to 1600 m; cliffs, beaches, sandy fields and plains, dry pastures, open woodlands, brush; chalky soil

Geography:

- Europe: s Spain
- Atlantic: Canary Islands (Tenerife, Gomera) [A]
- Africa: nw Algeria, Libya, n & w Morocco

Phytogeo: Mediterranean

Species: *Sinapis pubescens* L.

Life/Form: perennial, suffrutescent

Ecology: non-arid to semi-arid coastal, plateau, hills, montane to 2300 m; rocks, cliffs, shaded grassy slopes, gullies, rubble, scrub, open woodlands and brush, dry pastures, fields, meadows, crops; chalky soil

Geography:

- Europe: Albania, se France, s Italy, Sicily
- Atlantic: Canary Islands (La Palma) [A]
- Africa: n Algeria, Libya, Tunisia
- ME/WAsia: Egypt [A]

Phytogeo: Mediterranean

Species: *Succowia balearica* (L.) Medik.

Life/Form: annual

Ecology: non-arid to semi-arid coastal lowlands to inland montane; grassy slopes, shaded rocks, open woodlands and brush

Geography:

- Europe: Balearic Islands, Corsica, se France, w Italy, Sardinia, w Sicily (and Islets), e Spain
- Atlantic: Canary Islands (Tenerife) [E?]
- Africa: n Algeria, n Morocco, Tunisia

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- Aust/Asia: Australia [A]
Phytogeo: Mediterranean
- Species:** *Trachystoma aphanoneurum* (Maire & Weiller) Maire & Weiller
Life/Form: annual
Ecology: semi-arid valleys in low hills; dry stream beds, scree and clay fields and slopes, dry pastures, open woodlands and brush
Geography: Africa: nc Morocco
Phytogeo: Mediterranean
- Species:** *Trachystoma ballii* O.E. Schulz
Life/Form: annual
Ecology: high valleys, foothills to 1400 m; open woodland, brush and scree, fields, crops
Geography: Africa: nc Morocco (High Atlas)
Phytogeo: Mediterranean
- Species:** *Trachystoma labasii* Maire
Life/Form: annual
Ecology: non-arid to semi-arid foothills to montane; open woodlands and brush, rocks, scree
Geography: Africa: nc Morocco (Middle Atlas)
Phytogeo: Mediterranean
- Species:** *Vella anremerica* (Litard. & Maire) Gómez-Campo
Life/Form: perennial, shrub
Ecology: montane above 2000 m; dry pastures
Geography: Africa: c Morocco (High Atlas)
Phytogeo: Mediterranean
- Species:** *Vella aspera* Pers.
Life/Form: perennial, suffrutescent
Ecology: arid sub-desert; dry pastures and scree; saline or brown calcareous to strongly gypsaceous soils
Geography: Europe: e Spain
Phytogeo: Mediterranean
- Species:** *Vella bourgaeana* (Coss.) S.I. Warwick & Al-Shehbaz
Life/Form: perennial, suffrutescent
Ecology: dry hills to 500 m; saline scree; calcareous or gypsaceous soils
Geography: Europe: se Spain
Phytogeo: Mediterranean
- Species:** *Vella lucentina* M.B. Crespo
Life/Form: perennial, shrub
Ecology: semi-arid low coastal hills; scrub, waste places; dry, argillaceous soil
Geography: Europe: se Spain [rare]
Phytogeo: Mediterranean
- Species:** *Vella mairei* Humbert

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Life/Form: perennial, shrub
Ecology: montane from 2400-3100 m; brush; limestone, rarely granite
Geography: Africa: Morocco (High Atlas)
Phytogeo: Mediterranean

Species: *Vella pseudocytisus L.*
Life/Form: perennial, shrub
Ecology: semi-arid to arid high plains, montane; stony somewhat saline steppes, dry pastures; clay, argillaceous, calcareous, gypsaceous, or sandy loam soils

Geography:
Europe: c & e Spain
Africa: n Algeria, n Morocco
Phytogeo: Mediterranean

Species: *Vella spinosa Boiss.*
Life/Form: perennial, shrub
Ecology: semi-arid to arid coastal montane, 1400-2300 m; rocks and stony places; limestone
Geography: Europe: s & se Spain
Phytogeo: Mediterranean

Species: *Zilla macroptera Coss.*
Life/Form: perennial, suffruticose
Ecology: desert areas; calcareous hills to 1100 m, gullies, wadis, sand & clay soils in stony places
Geography: Africa: nc Algeria, Libya, ne Morocco
Phytogeo: Saharo-Sindian

Species: *Zilla spinosa (L.) Prantl*
Life/Form: perennial, suffruticose to shrubby
Ecology: desert plains, arid plateaus, montane to 2500 m; dry steppes, fields, rocky and sandy wastelands and embankments, ravines, dry stream beds, silty alluvium; sand, mica-slate, granite and volcanic rock; sandy, loamnigra, calcareous, or argillaceous soils
Geography:
Africa: n & s Algeria, n Chad, Libya, n & s Morocco, Tunisia, Western Sahara
ME/WAsia: Egypt, Iraq, Israel/Jordan, Kuwait, Lebanon/Syria, Oman, Qatar, Saudi Arabia, Sinai, United Arab Emirates, s Yemen
Phytogeo: Saharo-Sindian

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