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A Taxonomic Index of the Species of *Eryngium* L. (Apiaceae: Saniculoideae)

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Summary

In this paper an index of the species names and synonyms of the genus *Eryngium* is presented. It includes 317 accepted names of species, subspecies and varieties, **6 new synonymizations**, **3 new typifications**, and **1 new combination**. This index is the basis of a further taxonomic and systematic treatment of the genus.

Zusammenfassung

In der vorliegenden Arbeit wird ein Index der Artnamen und der Synonyme der Gattung *Eryngium* vorgestellt. Er enthält 317 gültige Namen von Arten, Unterarten und Varietäten, **6 neue Synonymisierungen**, **3 neue Typifizierungen** und **1 Neukombination**. Der Index soll eine Grundlage für eine taxonomische und systematische Gesamtbearbeitung der Gattung liefern.

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1. Introduction

The following list of names is intended as a basis for a revision of *Eryngium* L., which is the largest genus of Apiaceae (PIMENOV & LEONOV 1993: 3). Most parts reflect the current state of knowledge. Nevertheless some new results are presented,

including a few synonymizations and typifications. It is not intended as a final taxonomic treatment but as a basis for further discussion.

2. Methods

All the names have been reconfirmed at their original place of publication except a few marked with “*not seen*”. To avoid misinterpretations, the citations are not abbreviated. The full citations are listed in the references. The types are indicated as “*Type material*”, where no holo- or lectotype has been designated. Most types are cited from the original description indicated by “ ”. Where types have been seen, the relevant herbarium is indicated by its *abbreviation* following HOLMGREN et alii (1990). For most synonyms a citation *in brackets* [...] is added: this indicates the reference in which the synonymization has been made. [!] are *synonymizations* made by the author of the taxon, [!!] indicates *new synonymizations* or synonymizations confirmed by the author of this paper.

3. Taxonomic index of the species of *Eryngium* L.

affine Wolf see **carlinae**

agavifolium Grisebach, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen 19: 155 (1874).

Type: Argentina: Am Ufer des Rio Primero bei Cordoba im Gebirge auf Felsen nicht selten, Jan. 1871, P. G. LORENTZ no. 330 (Holo-: GOE).

Chromosome number: $2n = 16$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

alismifolium Greene, Erythea 3 (4): 64 (1895).

Type material: Egg Lake, Madoc County, California, 25. 8. 1894, BAKER & NUTTING (UC) [MATHIAS & CONSTANCE 1941: 384].

articulatum var. *microcephalum* Coulter & Rose, Revision of North American Umbelliferae: 99 (1888) [MATHIAS & CONSTANCE 1941: 384].

Type material: “Plumas County, California”, 1878, R. M. AUSTIN (US).

minimum (Coulter & Rose) Coulter & Rose, Contributions from the US National Herbarium 7: 54 (1900).

petiolatum var. *minimum* Coulter & Rose, Revision of North American Umbelliferae: 98 (1888) (basionym) [MATHIAS & CONSTANCE 1941: 384].

Type material: “Donner Lake”, California, C. F. SONNE (UC, US).

aloëfolium Martius ex Urban in MARTIUS & EICHLER, Flora Brasiliensis 11 Pars 1: 309 (1879).

Type material: Brazil: “prope Rio de Janeiro, GLAZIOU 8238 (K, P), prope Villa Rica, MARTIUS 688 (M)”.

alpinum Lapeyrouse see **bourgatii**

alpinum Linnaeus, Species Plantarum Vol. 1: 233 (1753).

Lectotype: De L’OBEL, Plantarum seu stirpium icones 2: 23 (1581) designated by REDURON in Flora Nordica “[Eryngium] Alpinum caeruleum Genevense. / A. 375. T. 26. Tom. 2.”

Chromosome number: $2n = 16$, BURDET & MIÈGE (1968), WANSCHER (1943: 50).

altamiranoi Hemsley & Rose see **heterophyllum**

alternatum Coulter & Rose, Contributions from the U. S. National Herbarium 3 (5): 298 (1895).

Type material: “near the top of Sierra Madre near Chilpancingo, Guerrero, altitude 9000 to 10200 feet, Dec. 24, 1894”, E. W. NELSON no. 2248 (K).

americanum Walter ex Sprengel see **integrifolium**

amethystinodes Kuntze, Revisio Generum Plantarum 3 (2): 112 (1898).

Type material: “Chile: bei Maule häufig”.

amethystinum Lamarck see **bourgatii**

amethystinum Linnaeus, *Species Plantarum* Vol. 1: 233 (1753).

australe Wulfen & de Vest ex Sprengel in ROEMER & SCHULTES, *Carolus a Linné equitis Systema Vegetabilium* Vol. 6: 334 (1820) [Index Kewensis].

caeruleum Link, *Enumeratio plantarum horti regii berolinensis altera* I: 261 (1821), nomen nudum [Index Kewensis].

dilatatum Gussone, *Flora Siculae Synopsis* 1: 302 (1842) [Index Kewensis].

orientale Miller, *Gardeners Dictionary* ed. 8 no. 6 (1768) [!].

Type material: *Eryngium orientale* Miller (BM).

Chromosome number: $2n = 14$, HAMEL (1955: 498).

amethystinum var. **tenuifolium** Boissier et Heldreich in BOISSIER, *Flora Orientalis* 2: 826 (1872).

Type material: “in regione media et superiori Olympi Thessali, Parnassi et montis Kyllenes (HELDRL!), in Regione alpina Taygeti (HELDRL!). Fl. Aug.”

multifidum Sibthorp & Smith, *Florae Graecae Prodromus* Vol. 1: 175 (1806).

amethystinum Salzmann ex DeCandolle see **dilatatum**

amorginum K. H. Rechinger, *Magyar Botanikai Lapok* 1934, 33: 9 (1934).

Type material: “Kykladen, Insel Amorgos; in Ritzen senkrechter Kalkfelswände des Berges Krikelas oberhalb Langada, ca. 300–400 m s. m. Blühend am 4. Juli [1932]”, RECHINGER no. 2358 (W).

andicolum Wolff, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 40: 296 (1908).

Type material: “Bolivia australis andina: Cuesta vieja prope Yesera, a Tarija orientam versus, in declivibus, in 3000 m altitudinis (FIEBRIG No. 2952, flor. mense Januario 1904)”.

angustifolium DeCandolle see **ovinum**

anomalum W. J. Hooker & Arnott in Hooker, *Botanical Miscellany* 3: 350 (1833).

Type material: Valparaiso, CUMING no. 361 (Iso-: K).

antiatlanticum Jury, *Lagascaglia* 18 (2): 274 (1996).

Type: “Marocco, Anti Atlas, 30 km SW of Ait Baha, track to Ait Sembalet, 30°0' N 9°15' W, 700 m roadside bank, perennial. 5. 6. 1974, C. J. HUMPHRIES, S. L. JURY, M. MULLIN & I. B. K. RICHARDSON 320 (Reading University/British Museum [Natural History] expedition to Morocco)” (Holo-: BM, Iso-: E, MO, RNG).

antihystericum Rottböll see **foetidum**

aquaticum Hooker & Arnott see **petiolatum**

aquaticum Linnaeus, *Species Plantarum* Vol. 1: 232 (1753).

Lectotype: Clayton 500, Herb. Linn 331.4 (LINN), (Iso-: BM), designated here.

aquaticum Michaux, *Flora Boreali-Americana* 1: 163 (1803) [MATHIAS & CONSTANCE 1941: 381], not of ed. 2.

Type material: “in paludosis ascendente mare inundatis; praesertim ad pontem Goose-Creek”, MICHAUX (P-MICH).

foetidum Walter, *Flora Caroliniana*: 112 (1788) [MATHIAS & CONSTANCE 1941: 381].

plukenetii Elliott, *A Sketch on the Botany of South Carolina and Georgia* 1: 582 (1821) [MATHIAS & CONSTANCE 1941: 381].

prealtum Gray, *Boston Journal of Natural History* 6: 210 (1850) [MATHIAS & CONSTANCE 1941: 281].

Type material: “In tide swamps, S. Carolina and Georgia; August.” LINDHEIMER.

virginianum Lamarck, *Encyclopédie Méthodique* Vol. 4 (2): 759 (1798) [MATHIAS & CONSTANCE 1941: 381].

Type material: “Virginie & Caroline”, FRASER, JUSSIEU (Holo-: P-LAM).

Chromosome number: $2n = 96$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

aquaticum var. **floridanum** (Colter & Rose) Mathias & Constance, American Midland Naturalist 25: 382 (1941).

floridanum Coulter & Rose, Botanical Gazette 13 (6): 142 (1888) (basionym).

Type material: "Brackish marshes, Florida, Tampa (GARBER), and near Jacksonville (CURTISS)", both sub *praealtum*.

aquaticum var. **ravenelii** (Gray) Mathias & Constance, American Midland Naturalist 25: 382 (1941).

mettaueri Wood, Class Book ed. 2: 379 (1860).

ravenelii Gray, Boston Journal of Natural History 6: 209 (1850).

Type material: "in flat and damp pine land, Black Oak, St John, Berkley district, South Carolina." RAVENEL Iso-: G).

aquaticum Vellozo see **floribundum**

aquaticum var. *normale* Wolff see **yuccifolium**

aquaticum var. *subinerme* Wolff see **subinerme**

aquaticum var. *synchaetum* see **yuccifolium** var. **synchaetum**

aquifolium Cavanilles, Anales de Ciencias Naturales 3: 32 (1801).

Type material: de Tanger, BROUSSONET, Herb. CACANILLES (MA).

argutem Hemsley ex Wolff see **lemmonii**

argyreum Maire, Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord 15: 82 (1924).

Type material: "Hab. in collibus argillosis et calcareis Imperii Maroccani centralis prope urbem Fes in monte Zalagh, inter urbes Fes et Taza, nec non in monte Zerhoun prope Volubilim. Junio et julio floret.—Type in Herb. Univers. Algeriensis et in Herb. Imper. Scient. Rabatiensis." (Iso-: P).

aristulatum Jepson, Erythea 1: 62 (1893).

Type material: "in the dry bed of winter lake near Uncle Sam Mt., Lake Co., July 28, 1892", JEPSON no. 14281 (NY).

californicum Jepson, A Flora of Western Middle California: 343 (1901) [MATHIAS & CONSTANCE 1941: 385].

elongatum Coulter & Rose, Contributions from the US National Herbarium 7 (1): 53 (1900) non Pohl (1869) [MATHIAS & CONSTANCE 1941: 385].

Type material: Near San Francisco, 1875, G. R. VASEY (US).

jepsonii Coulter & Rose, Contributions from the US National Herbarium 7 (1): 54 (1900).

Type material: "near Orinda Park, Contra Costa County, Cal., 1895", W. L. JEPSON, (US) [MATHIAS & CONSTANCE 1941: 385].

laxibracteatum Mathias, Brittonia 2/3: 245 (1936), nomen novum.

oblanceolatum Coulter & Rose, Contributions from the US National Herbarium 7 (1): 56 (1900).

Type material: "Sonoma Valley, California", 1895, TORREY 159 (US) [MATHIAS & CONSTANCE 1941: 385].

vaseyi var. *oblanceolatum* (Coulter & Rose) Jepson, Madroño 1:107 (1922) [MATHIAS & CONSTANCE 1941: 385].

aristulatum var. **hooveri** Sheikh, Madroño 30 (2): 98 (1983).

Type: "USA, CA, San Benito Co., slightly alkaline depressions in lacustrine plain at n. end of San Felipe (Soap) Lake, on State Hwy. 152, 4,7 km W of intersection with San Felipe Road, 31 July 1978; SHEIKH and CONSTANCE 632" (Holo-: UC, Iso-: BM, K).

aristulatum var. **parishii** (Coulter & Rose) Mathias & Constance, American Midland Naturalist 25: 386 (1941).

subsp. *parishii* (Coulter & Rose) Beauchamp, Phytologia 59 (7): 437 (1986).

parishii Coulter & Rose, Contributions from the US National Herbarium 7: 57 (1900) (basionym).

- Type material: "Oceanside, San Diego Co." California, 1897, PARISH 4436 (US).
- jepsonii* var. *parishii* (Coulter & Rose) Jepson, Madroño 1: 107 (1922).
- armatum** (Watson) Coulter & Rose, Botanical Gazette 13 (6): 141 (1888).
- petiolatum* var. *armatum* Watson, Geological Survey of California 1: 255 (1876) (basionym) not seen.
- harmsianum* Wolff, Repertorium specierum novarum regni vegetabilis 8: 415 (1910).
- Type material: "In California, loco natali accuratiore non indicato legit anno 1852 cl. ANDERSON" [MATHIAS & CONSTANCE 1941: 383].
- longistylum* Coulter & Rose, Contributions from the US National Herbarium 7: 55 (1900) [MATHIAS & CONSTANCE 1941: 383].
- Type material: "San Simeon, San Louis Obispo County, Cal., collected by M. K. CURRAN, June 1888; Type in Herb. COULTER" [MATHIAS & CONSTANCE 1941: 383].
- aromaticum** Baldwin ex Elliott, A Sketch on the Botany of South Carolina and Georgia 1: 344 (1821).
- Type material: "In dry pine barrens, Florida", collector unknown.
- articulatum** Hooker, London Journal of Botany 6: 232 (1847).
- Type material: "stony edges of the Spokane River and Skitsoe and Coeur d'Alaine Lakes", Idaho, GEYER no. 583 (BM).
- barknessii* Curran, Bulletin of the Californian Academy of Sciences 1: 153 (1886) [MATHIAS & CONSTANCE 1941: 383].
- Type material: "Suisun Marsh, Aug. 1883, Dr. HARKNESS".
- petiolatum* auct. non Hooker 1834 [MATHIAS & CONSTANCE 1941: 383].
- articulatum** var. **bakeri** Jepson, Madroño 1: 104 (1922).
- Type material: Egg Lake, M. S. BAKER.
- articulatum* var. *microcephalum* Coulter & Rose see **alismifolium**
- arvense** Philippi, Linnaea 30: 190 (1859–60)
- Type material: "Chile: in planitie inter Rango et Curico frequens teste cl. VOLCKMANN".
- arvense* Vellozo see **elegans**
- asperifolium* Delaroché see **giganteum**
- atlanticum** Battandier & Pitard in Pitard, Exploration Scientifique du Maroc, Botanique: 45 (1913).
- Type material: "Pont Blondin à Camp Boulhaut".
- australe* Wulfen & de Vest ex Sprengel in Roemer & Schult. see **amethystinum**
- axilliflorum* Turcz. see **deppeanum**
- balansae* Wolff see **oligodon**
- balchanicum* Bobrov see **billardierei**
- baldwinii** Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 870 (1825).
- Type material: "Carolina, Florida", collector unknown.
- cervantesii* Chapman, Flora of the South Eastern United States: 160 (1865) non Delaroché [MATHIAS & CONSTANCE 1941: 378].
- filiforme* Shuttleworth ex Gray, Plantae Wrightianae Texano-Neo-Mexicanae Part 1: 78 (1852) [MATHIAS & CONSTANCE 1941: 378].
- gracile* Nuttall, The Genera of North American Plants 1: 175 (1818) non Delaroché (1808).
- Type material: "In West Florida, Dr. BALDWIN".
- prostratum* Wood, A class book of Botany ed. s.n.: 378 (1861) [MATHIAS & CONSTANCE 1941: 378] not seen.

reptans Willdenow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 870 (1825), in synon.

Atirsia pumila Rafinesque-Schmaltz, New Flora of North America Vol. 4: 37 (1836) (!).

Klonion gracile Rafinesque-Schmaltz, New Flora of North America Vol. 4: 36 (1836) [!].

Klonion tenuifolium Rafinesque-Schmaltz, New Flora of North America Vol. 4: 36 (1836) [MATHIAS & CONSTANCE 1941: 378].

Strebanthus auriculatus Rafinesque-Schmaltz, Bulletin Botanique 1: 218 (1830).

Strebanthus gracile Rafinesque-Schmaltz, New Flora of North America Vol. 4: 36 (1836) [!].

Strebanthus humilis Rafinesque-Schmaltz, New Flora of North America Vol. 4: 35 (1836) [!].

Strebanthus tenuifolium Rafinesque-Schmaltz, New Flora of North America Vol. 4: 36 (1836) [MATHIAS & CONSTANCE 1941: 378].

barrelierei Boissier see **pusillum** L.

beecheyanum Hooker & Arnott, The Botany of Captain BEECHEY'S Voyage, part 7: 294 (1838).

Type material: "Talisco", BEECHEY (K).

cryptanthum Hemsley in Hooker's Icones Plantarum 26: pl. 2509 (1897) [MATHIAS & CONSTANCE 1941: 375].

Type material: "Northwest-Mexico: Sierra Madre, SEEMAN, 2135" (K).

seleri Wolff, Repertorium novarum specierum regni vegetabilis 7: 275 (1909) [MATHIAS & CONSTANCE 1941: 375].

Type material: "Mexico: Distr. de Zulpetec, State of Mexico, in declivibus graminosis prope Hacienda de los Arcos; flor. et fruct. mense Decembri (CAECILIE et EDUARD SELER, Pl. mex. et centr. amer. no. 4455)".

tenuis Hooker & Arnott, The Botany of Captain BEECHEY'S Voyage, part 7: 293 (1838) non Lamarck 1797 [MATHIAS & CONSTANCE 1941: 375].

Type material: "Talisco".

bellidifolium Decaisne see **nudicaule** var. **bellidifolium**

biebersteinianum Nevski see **caeruleum**

billardierei Delaroché, Eryngiorum nec non generis novi Alepideae historia: 25, t. 2 (1808).

Type: Orient, Syrie-Liban (Libanon?), LABILLARIÈRE (Holo-: P, Iso-: G).

balchanicum Bobrov in SHISHKIN, Flora of the USSR Vol. 26: 589 (1950).

Type material: Centr. Asia: Mtn. Turkm. Greater Balkhan Range, from where described. Type in Leningrad. [PIMENOV & TAMAMSCHAN 1987: 53].

caerulescens Jacquemoud ex C. B. Clarke in HOOKER, Flora of British India, Vol. 2: 670 (1879), in synon.

nigromontanum Boissier & Buhse, Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou 12: 95 (1860) [PIMENOV & TAMAMSCHAN 1987: 53].

Type material: Karadagh, Juli 1847, in G-BOISS not found.

noëanum Boissier, Diagnoses Plantarum novarum Series 2 No. 2: 72 (1856) [PIMENOV & TAMAMSCHAN 1987: 53].

Type material: "prope Kirrind in Persia Mesopotamiae finitima cl. NOË. Floret Septembri".

billardierei subsp. *kotschyi* (Boissier) Wolff se **kotschyi**

billardierei Heldreich ex Boissier see **bourgatii** subsp. **heldreichii**

bithynicum Boissier, Annales des Sciences naturelles 3e Série 1: 123 (1844).

Type: (Turkey, A2 (A) Bursa) "Legi Aug. ineunte fere jam exsiccatam in dumosis montis Arganthonii inter Ghemlek et Broussam" (Iso-: G-BOISS); Mesopotamia, AUCHER no. 3477.

bocconeii Lamarck see **tricuspidatum** subsp. **bocconeii**

boissieuanum Wolff, Repertorium novarum specierum regni vegetabilis 7: 275 (1909).

Type material: Bolivia: “L’Amérique meridionale” D’ORBIGNY 1239; HARTWEG 295, Mexico (BM).

Note: CONSTANCE 1977 (Herbarium label in BM) synonymizes D’ORBIGNY 1239 to *ebracteatum* and HARTWEG 295 to *watsonii*. However, the latter is fairly different from the type of *watsonii*. HARTWEG 295 may be a separate species which has to get a name of its own.

bonplandii Delaroché, Eryngiorum nec non generis novi Alepideae historia: 52, t. 22 (1808).

Type: Illustration DELAROCHE l. c. plate 22.

bonplandianum Kunth in HUMBOLDT, BONPLAND & KUNTH, Nova Genera et Species Plantarum Vol. 5: 31 (1821) [!].

Type material: “prope S. Rosa et Guansenato, alt. 1430 (Regno Mexicano)” (P-BONPL).

leptopodium Hemsley in Hooker’s Icones Plantarum 26: pl. 2546 (1897) [MATHIAS & CONSTANCE 1941: 380].

Type material: “Real del Monte, State of Mexico, COULTER, 106, 1152 [BM]; Paso Nuevo, EHRENBERG, 177 [B]”.

microcephalum Willdenow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 871 (1825) [MATHIAS & CONSTANCE 1941: 380].

Holotype: Habitat in America meridionale, HUMBOLDT (B-WILLD no. 5558).

planum Sesse & Mociño, Flora Mexicana ed. 1: 82 (1887) non L. 1753 [MATHIAS & CONSTANCE 1941: 380].

Type material: “in montibus Acahuizotlae”, SESSE & MOCINO.

schaffneri Hemsley, Hooker’s Icones Plantarum 26: pl. 2545 (1897) [MATHIAS & CONSTANCE 1941: 380].

Type material: “mountains near Guajimalpan, SCHAFFNER, 376; in Pine woods, Nevado de Toluca at 10000 feet, PRINGLE, 4283”(K).

bonplandianum Humboldt, Bonpland & Kunth see **bonplandii**

bornmuelleri Nábelek, Publications de la Faculté des Sciences de l’Université Masaryk 35: 118 (1923).

Type material: Turkey, C 9/10 Hakkari: Gelo-Dar (Cilo Da.) dit. Gulamerik, ad tentamina aestive Djezra, in graminosis alt. ca. 2500 m, 6. 9. 1910, NÁBALEK, Iter Turcico-Persicum 1909–10 No. 362 (Holo-: BRA).

bourgatii Gouan, Illustrationes et Observationes Botanicae ad Specierum historiam Facientes: 7, pl. 3 (1773).

Holotype: Illustration GOUAN l. c., pl. 3.

alpinum Lapeyrouse, Histoire Abrégé des Plantes des Pyrenées: 137 (1813) [Index Kewensis].

amethystinum Lamarck, Flore Française Vol. 3: 401 (1778) [Index Kewensis].

pallescente Miller, Gardeners Dictionary ed. 8 no. 5 (1768) [!]; see note below.

Type material: *Eryngium pallescente* MILLER (BM).

planum Lapeyrouse, Histoire Abrégé des Plantes des Pyrenées 137 (1813) [Index Kewensis].

tournefortii Bubani, Flora Pyrenaea Vol. 2: 342 (1900).

Chromosome number: $2n = 16$ (HAMEL 1955: 497).

Note: This species probably has to be called *E. pallescente* Mill. The type of the older name *pallescente* has been identified by BRITTEN in BM (see also BRITTEN 1913: 132ff.). It belongs doubtless to the species called *E. bourgatii*. However, MILLER (1768) indicates, that his species naturally grows in the Alps, where *E. bourgatii* is completely absent. It is not clear, whether MILLER was erraneous about the places of origin of its garden specimens, or whether the types are later additions. Therefore, until further study has cleared this point, the name *bourgatii* is maintained for the moment.

bourgatii var. **atlanticum** Ball, Journal of Botany 1873: 334.

Type material: Morocco: “in monte Djebel Tezah circa 2400m”, HOOKER, MAW & BALL.

bourgatii var. **bourgatii**

bourgatii var. *pyrenaicum* Willkomm & Lange, Prodrumus Florae Hispanicae 3: 12 (1874).

Note: As GOUAN's Illustration shows a specimen of var. *pyrenaicum* Willkomm & Lange from southern France, this taxon must be considered as type variety.

bourgatii Gouan subsp. **heldreichii** (Boissier) Davis in Davis, Flora of Turkey and the East Aegean Islands 4: 300 (1972).

heldreichii Boissier, Diagnoses Plantarum Orientalium Series I No. 10: 20 (1849) (basionym).

Type material: "Hab. in monte Boudroun Pisidae alt 5000' (HELDREICH), [G-BOISS, M]; monte Gebel Scheick Antilibani alt. 7000-9000' (BOISS.)" (G-BOISS).

billardiarei Heldreich ex Boissier l. c.

bourgatii var. **hispanicum** Willkomm & Lange, Prodrumus Florae Hispanicae 3: 12 (1874).

bourgatii subsp. *hispanicum* (Willkomm & Lange) Rivas-Martinez, Fernandez-Gonzalez & Sanchez-Mata, Opuscula Botanica Pharmaciae Complutensis 2: 109 (1986).

bovei Boissier see **tricuspidatum** subsp. **bovei****bracteosum** (DeCandolle) Grisebach, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen 24: 146 (1879).

paniculatum var. *bracteosum* DeCandolle, Prodrumus systematis naturalis regni vegetabilis 4: 96 (1830) (basionym).

Type material: "in Brasilia Prov. Cispalatina".

brasiliense Constance, Brittonia 31 (3): 367 (1979).

Type: "Brazil: Distrito Federal: cerrado near Sobradinho, ca. 25 km E of Brasilia, 1000 m, 19. 7. 1966, IRWIN, GREAR, SOUZA & REIS DOS SANTOS 18131 (Holo-: UB, Iso-: NY, UC)".

bromeliaefolium Delaroché, Eryngiorum nec non generis novi Alepideae historia: 60, t. 28 (1808).

Type: Illustration DELAROCHE l. c. plate 28.

Chromosome number: $2n = 16$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

Note: This taxon has been considered to be synonymous to *E. monocephalum* by MATHIAS & CONSTANCE (1941: 373). Later it has been assessed as own species again by CONSTANCE (1977: 14).

buchtienii Wolff, Repertorium novarum specierum regni vegetabilis 7: 24 (1908).

Type material: "Bolivia: Nord-Yungas, Unduari, in Wäldern, 3200 m ü. M.; Floret mense Februario 1907 (BUCHTIEN, Fl. v. Bolivia, no. 658)".

bungei Boissier, Flora Orientalis 2: 824 (1872).

Type: "in Persiae prov. Chorassan, prope Riwd inter Schahrud et Nischapur", VI. Jun. 1858, A. BUNGE (Holo-: G-BOISS, Iso-: LE).

kermanense Bornmüller, Schedae ad plantae itinerae persio-turcicum [WOLFF 1913] not seen.

Type material: "Persia austr. inter prov. Kerman: Kerman, in monte Kuh-i-Nasr. 24. 5. 1892, J. BORNMÜLLER, Iter Persico-Turcicum No. 3794" (B).

bupleuroides Hooker & Arnott in Hooker, Botanical Miscellany 3: 352 (1833).

Type material: "Woody, stony, elevated situations at El Portezuelo, Juan Fernandez, Mrs. MARIA GRAHAM; BERTERO N. 1471 (TUE)".

frutescens Moris, Memorie della Reale Accademia delle Scienze di Torino 38: 45 (1835).

Lessonia bupleuroides Bertero ex Hooker & Arnott (1833) l. c.

cabrerae Pontiroli in Cabrera, Flora de la Provincia de Buenos Aires, Parte 4 Oxalidaceas a Umbelliferas: 351 (1966).

Type: "Argentina. Provincia de Buenos Aires. Punta Lara, leg. A. L. CABRERA, 2085, 26-III-1932 (LP)."

caerulescens Jacquemoud see **billardiarei**

caeruleum Bieberstein, Beschreibung der Länder zwischen den Flüssen Terek und Kur am Caspischen Meere: 155 (1800).

Type material: “Habitat in Iberia circa Tiflin et in Caucasi orientalis campis elatioribus”.

biebersteinianum Nevski, Acta Instituti Botanici Academiae Scientiarum URSS. Sér. 1, 4: 275 (1937).

Type material: “ad ripas fossarum irriguarum circa pagum Kuhitang”, 29. 6. 1931, NEVSKI 542.

causicum Trautvetter, Acta Horti Petropolitani 1: 23 (1871).

Type material: “Prope Derbent (A. BECKER), in Cartalinia, Imeretia et Mingrelia, (LAGOWSKY) nec non in Abchadia (LAGOWSKI) (LE).

planum Lindley in Royle, Illustrations of the Botany and other Branches of Natural History of the Himalayan Mountains Vol. 1: 232 (1839) non L. (1753) [HOOKER 1879: 669].

pskemense Pavlov, Vestnik Akademii nauk Kazakhskoj SSR 3: 30 (1950) not seen.

Chromosome number: $2n = 16$ (HAMEL 1955: 496).

Note: Contradictory to PIMENOV & TAMAMSCHAN (1987: 58). all names in GILIBERT (1782–83) and GILIBERT (1785) are not validly published (Appendix V, Tokyo Code). Therefore *E. caeruleum* Bieberstein can not be homonym of the invalid *E. coeruleum* Gilibert and must be accepted as valid name for this taxon.

caeruleum Link see **amethystinum**

caespitifera Font Quer & Pau see **huteri**

calaster Standley, Publications of Field Museum of Natural History Botanical Series 22: 42 (1940).

Type material: “Memelichi, Rio Mayo, Chihuahua, in meadow among pines, alt. 2250 meters, September 16, 1936, HOWARD SCOTT GENTRY 2762” (Iso-: K).

californicum Jepson see *aristulatum*

campestre Linnaeus, Species Plantarum Vol. 1: 233 (1753).

latifolium Hoffmannsegg & Link ex Willkomm & Lange, Prodomus Florae Hispanicae Vol. 3: 13 (1880), nomen nudum.

trifidum Linnaeus, Demonstrationes Plantarum in Horto Upsaliensis: 8 (1753) [Index Kewensis].

Chromosome number: $2n = 14$, (HAMEL 1955: 498, GARDÉ & MALHEIROS-GARDÉ 1949: 91, JAWORSKA in SKALINSKA et alii 1964: 53), $2n = 4x = 28$ (POLYA 1950: 52, Reese 1953: 68, HAKANSSON 1953: 303).

campestre var. **virens** (Link) Weiss, Verhandlungen der kaiserlich königlichen zoologisch-botanischen Gesellschaft in Wien 19: 50 (1869).

lycium Stapf & Wettstein in Stapf, Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 51: 369 (1886).

Type material: Lycia: “Ad Owadjik”, 1. 8. 1882, LUSCHAN.

virens Link, Linnaea 9: 570 (1835) (basionym).

vulgare Lamarck, Flore Française Vol. 3: 401 (1778), nomen nudum.

camporum Glaziou see **goulartii**

canaliculatum Chamisso & Schlechtendahl, Linnaea 1: 338 (err. typ. 238) (1826).

Type material: Brasilia interioribus regionibus, SELLOW.

ciliatum Vellozo, Flora Fluminensis Vol. 1: 126, Vol. 3: tab. 100 (1825, effective publication 1829) [!].

Type material: Illustration VELLOZO l. c. plate 100.

gymnocephalum Steudel, Nomenclator Botanicus ed. 2: 592 (1840), nomen nudum [Index Kewensis].

lineare Vellozo, Flora Fluminensis Vol. 1: 126, Vol. 3: tab. 102 (1825, effective publication 1829) [Index Kewensis].

Type material: Illustration VELLOZO l. c. plate 102.

Note: It is not clear from VELLOZO's illustration, whether *lineare* Vellozo is really synonymous to *canaliculatum*. It may be a species of its own.

cardosii Clos in Gay, Historia Fisica y Politica de Chile 3: Botanica: 113 (1847).

caricinum Standley see **ebracteatum**

carlinae Delaroché, Eryngiorum nec non generis novi Alepideae historia: 53, t. 23 (1808).

Type material: Illustration DELAROCHE l. c. plate 23.

affine Wolff, Repertorium novarum specierum regni vegetabilis 7: 345 (1909).

Type material: "in pratis montis 'Tavannah' (?) (Dr. H. POLAKOWSKY, Fl. costaric. n. 25). – Herb. Mus. bot. berol." [MATHIAS & CONSTANCE 1941: 374].

radiatum Willdow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. I: 871 (1825), in synon.

Type: B-WILLD No. 5560.

carlinoides Boissier, Flora Orientalis 2: 825 (1872).

Type material: "Affghania prope Muklour et in collo Kohjak (GRIFFITH exs. 1000! et 2598)" (G-BOISS, K, LÉ, W).

carthamoides J. E. Smith in Rees, Cyclopaedia: 13 (1809).

Type material: Algiers, BROUSSONET.

castrense Jepson, Madroño 1: 108 (1922).

Type material: "Chinese Camp, Tuolumne Co., JEPSON 6319".

globosum var. *medium* Jepson op. cit.: 108 [MATHIAS & CONSTANCE 1941: 387].

Type material: "Cathay foothills, Mariposa Co., JEPSON 8409".

spinosepalum var. *medium* (Jepson) Mathias, Brittonia 2: 245 (1936) [MATHIAS & CONSTANCE 1941: 387].

vaseyi var. *castrense* (Jepson) Hoover in Mathias & Constance, American Midland Naturalist 25: 387 (1941) [MATHIAS & CONSTANCE 1941: 387].

castrense var. **vallicolum** Jepson, Madroño 1: 108 (1922).

Type material: "Escalon, San Joaquin Valley, JEPSON".

caucasicum Trautvetter see **caeruleum**

cervantesii Chapman see **baldwinii**

cervantesii Delaroché, Eryngiorum nec non generis novi Alepideae historia: 47, t. 18 (1808).

Type material: Mexico: "Ab inclyto Botanico CERVANTES Domini HUMBOLDT et BONPLAND specimen imperfectus hujus plantae acceperunt"; Illustration DELAROCHE l. c. plate 18, fig. 1.

viviparum Cervantes ex Delaroché, Eryngiorum nec non generis novi Alepideae historia: 47 (1808), in synon.

chamissonis Urban see **pandanifolium** var. **chamissonis**

chubutense Neger ex Dusen, Ergebnisse der Schwedischen Expedition in die Magellanländer: 254 (1900).

Type material: "prope ostium fluminis Chubut ad coloniam Rawson. (Det. et descr. F. NEGER.)"

ciliatum Chamisso & Schlechtendahl, Linnaea 1: 349 (err. typ. 249) (1826).

Type material: "Crescit in campis provinciae Cisplatinae et Rio Grande do Sul Brasiliae meridionalis". SELLOW (K).

ciliatum Vellozo see **canaliculatum**

columnare Hemsley, Hooker's Icones Plantarum 26: pl. 2511 (1897).

Type material: GRAHAM no. 217 (K), BATES.

commutatum Wolff see **scaposum**

comosum Delaroché, Eryngiorum nec non generis novi Alepideae historia: 30, t. 7 (1808).

- Type material: Rio Jasco, BONPLAND no. 4383 (P-BONPL), Illustration DELAROCHE l. c. plate 7.
- compactum* Small see **nasturtiifolium**
- confusum* Hemsley & Rose see **heterophyllum**
- constancei** Sheikh, Madroño 30 (2): 93 (1983).
Type: "USA, Ca: Lake Co. drying vernal pool along roadside in meadow with *Pinus ponderosa* and *Quercus jellogii*, Loch Lomond, 12 May 1973, SHEIKH and CONSTANCE 545 (HOLO-: UC; ISO-: BM, F, GH, K, LE, MAK, MEXU, MO, NY, ORE, OSU, P, PH, RM, RSA, S, US, WS, WTU)".
- coquimbantum** Philippi, Anales de la Universidad de Chile 85: 713 (1894).
- corallinum** Mathias & Constance, Bulletin of the Torrey Botanical Club 85 (4): 257 (1958).
Type: Brazil, Santa Catarina: "Mun. Chapeco: rocky barren, 9 km west of Campo Fro, alt 900–1000 m", 20 February 1957, SMITH & KLEIN no. 11537 (UC 1.085.148; US).
- corniculatum** Lamarck, Encyclopédie Méthodique Vol. 4 (2): 758 (1798).
Type material: Portugal, JUSSIEU (HOLO-: P-JU).
cornutum Donn, Hortus Cantabrigiensis, ed. IV: 56, nomen nudum [DECANDOLLE 1830: 92].
odoratum DeCandolle, Prodromus Systematis Naturalis Regni Vegetabilis 4: 92 (1830), in synon.
palustre DeCandolle, Prodromus Systematis Naturalis Regni Vegetabilis 4: 92 (1830), in synon.
suaveolens Broussonet ex Desfontaines, Tableau de l'École de Botanique du Muséum d'Histoire naturelle, ed. I: 122 (1804), nomen nudum [DECANDOLLE 1830: 92].
Chromosome number: $2n = 16$ (HAMEL: 1955: 499).
- cornutum* Donn. see **corniculatum**
- coronatum** Hooker & Arnott in Hooker, Botanical Miscellany 3: 350 (1833).
Type material: Buenos Aires, TWEEDIE (K).
- coronatum* Torrey & Gray see **hookeri**
- coronopifolium** Decaisne, Bulletin de la Société Botanique de France 20: 27 (1873).
Type material: "Brasil. austr., Prov. Corrientes, Santa Fé, etc., ubi floret februario, BONPLAND, n. 1202" (P).
- costaricense* Wolff see **scaposum**
- crantzioides* Grisebach see **pseudojunceum**
- crassisquamosum** Hemsley, Hooker's Icones Plantarum 28: pl. 2765 (1903).
Type material: Sierra Madre, SEEMANN no. 2136 (K).
- creticum** Lamarck, Encyclopédie Méthodique Vol. 4 (2): 754 (1798).
Type: L'Isle de Candie (Crete), JUSSIEU (HOLO-: P-JU).
cyaneum Sibthorp & Smith, Flora Graecae Prodromus Vol. 1: 175 (1806).
syriacum Lamarck, Encyclopédie Méthodique Vol. 4 (2): 759 (1798) [Index Kewensis].
Note: This synonymization needs to be reconfirmed.
- creticum* Jan see **triquetrum**
- creticum* Webb see **glaciale**
- crinitum* Presl see **dilatatum**
- cryptanthum* Hemsley see **beecheyanum**
- cuneifolium** Small, Manual of the Southeastern Flora: 964 (1933).
Type material: "SMALL & MOSIER, about Lake Nancesomee, Florida" (LECTO-: NY)
Type, designated by MATHIAS & CONSTANCE 1941: 383).

cyaneum Sibthorp & Smith see **creticum**

cylindraceum Willdenow see **phyteumae**

cylindricum Larranaga, Escritos de Don Damaso Antonio Larranaga, Vol. 2: 109 (1923).

larranagae Hiroë, Umbelliferae of World: 1882 (1979), nomen novum [!].

cymosum Delaroché, Eryngiorum nec non generis novi Alepideae historia: 63, t. 31 (1808).

Type material: HUMBOLDT & BONPLAND: "Nova Hispania", BONPLAND no. 4307 (P-BONPL), Illustration DELAROCHE l. c. plate 31.

dalla-torrei Hiroë see **planum**

davisii Kit Tan & Yildiz, Notes of the Royal Botanic Garden Edinburgh, 45 (3): 441 (1988, published 1989).

Type: "Turkey C4 Konya: south of Karanje dere, between Geyik Dagi and Bozkir, 1830 m, 1. 9. 1947, P. H. DAVIS 14616" (Holo-: E, Iso-: K).

decaisneanum Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 316 (1879).

Type material: Brazil, "culto in horto botanico Parisiensi et Beroliensi" (P).

delarocheanum Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 251 (1913).

Type material: WOLFF cites a long list of type specimens from all over South America.

depeanum Chamisso & Schlechtendahl, Linnaea 5: 207 (1830).

Type material: "Serro Colorado", DEPPE.

axilliflorum Turczaninow, Bulletin de la Société Impériale des Naturalistes de Moscou 20 (1): 172 (1847) [CONSTANCE 1963 in herb. K] [!!].

Type material: "Mexico: Pic d'Orizaba. Alt. 10000 Ped. GALEOTTI herb. no. 2765" (iso-: K).

painteri Hemsley & Rose in Rose, Contributions from the United States National Herbarium 8: 333 (1905) [MATHIAS & CONSTANCE 1941: 373].

Type material: "on the Sierra de Pachnea", September 1, 1903, ROSE and PAINTER no. 6723.

painteri var. *gigantophyllum* Wolff, Repertorium specierum novarum regni vegetabilis 8: 307 (1910).

Type material: "Mexiko, Staat Hidalgo: Wälder in der Umgebung von Real del Monte, bei 3000 m Meereshöhe, blühend im September (ENDLICH, Pl. mex. no. 1013)".

depressum Hooker & Arnott in Hooker, Botanical Miscellany 3: 351 (1833).

Type material: "Chiloe, CUMING (N. 61); Vina de la Mar, near Valparaiso; BRIDGES. Valparaiso, CUMING (N. 390.), Casa Blanca, BRIDGES, 1832 (N. 176.)" (K).

Note: HOOKER & ARNOTT divide this species into two varieties. Their stability and delimitation are doubtful and need further study. Therefore, they are not included in this list.

depressum var. **bridgesii** Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 169 (1913).

Type material: BRIDGES no. 1256 (BM).

desertorum Zohary, Palestine Journal of Botany Series 2, No. 2/3: 167 (1941).

Type material: "Syria: Syrian Desert: env. of Ein Tine at the foot of Jebel Hata; between Damascus and Kariatein in an *Artemisia Herba alba* steppe (both 1932 EZ): Coelsylria Plain, 9 km of Hermel, steppe of *Artemisia Herba alba* (1934 EZ)".

dichotomum Desfontaines, Flora Atlantica 1: 226 (1798).

Type material: "in collibus incultis circa Mascar" [Algeria] (P-Desf).

dichotomum var. *ficariifolium* see **variifolium**

diffusum Torrey, Annals of the Lyceum of Natural History of New York 2: 206 (1828).

Type material: "On the Canadian".

prostratum James ex Watson, Bibliographical Index to North American botany: 421 (1878), in synon.

digitatum Pančić see **serbicum**

digitifolium Stapf & Wettstein see **kotschyi**

dilatatum Gussone see **amethystinum**

dilatatum Lamarck, Encyclopédie Méthodique Vol. 4 (2): 755 (1798).

amethystinum Salzmann ex DeCandolle, Prodrromus Systematis Naturalis Regni Vegetabilis 4: 88 (1830), in synon.

crinitum Presl, Deliciae Pragenses Historiam Naturalem pectantes: 139 (1822) [Index Kewensis].

purpuratum J. E. Smith in Rees, Cyclopedia 13 (1809) [Index Kewensis].

Type material: Near Tangier, BRUSSONET & DURAND.

Chromosome number: $2n = 16$ (HAMEL 1955: 496).

discolor Watson see **phyteumae**

divaricatum Hooker & Arnott in Hooker, Botanical Miscellany 3: 350 (1833).

Type material: Buenos Ayres, TWEEDIE (K).

dorae Norman, The Journal of Botany 69: 100 (1931).

Holotype: "Uruguay: Cuñapiro, dept. Rivera, alt. 6000–7000 ft., Miss DORA WRIGHT (sine numero)" (BM).

duriaeanum Gay see **duriaei**

duriaei Gay ex Boissier, Voyage Botanique dans le Midi de l'Espagne Vol. 2: 237 (1840).

Type material: DURIEU, Plantae Asturiae exsiccatae no. 315.

duriaeanum Gay, Annales des Sciences Naturelles 3e Série 9: 155 (1848).

ilicifolium Brotero, Flora Lusitanica Vol. 1: 419 (1804) non Lamarck (1798)

Type material: "in asperis subalpinis Gerez" LINK.

duriaei Gay subsp. **juresianum** (Lainz) Lainz, Candollea 24/2: 255 (1969).

duriaeanum subsp. *juresianum* Lainz, Anales del Instituto Forestal de Investigaciones y Experiencias 10/2: 312 (1965) (basionym).

Holotype: "Picos de Fuente Fria, in rupestribus siliceis ad 1300 m, contra locum dictum Iribo (supra Requias, Muinos, Orense), 27-VII-1965", LAINZ.

juresianum (Lainz) Lainz, Anales del Instituto Forestal de Investigaciones y Experiencias 12: 34 (1967).

duriberum Sennen & Pau in Pau, Bulletin de l'Académie Internationale de Géographie Botanique 16: 76 (1906).

Type material: Miranda de Ebro, 15. 11. 1905, SENNEN.

dusenii Wolff, Repertorium specierum novarum regni vegetabilis 24: 224 (1928).

Type material: "Brasilia, Prov. Parana: Jaguariahya, in silva primaeva, ad ripam fluminis ca. 700 m, 6. 1. 1905, leg. DUSEN 16284" (Holo-: S).

ebracteatum Lamarck, Encyclopédie Méthodique Vol. 4 (2): 759 (1798).

Type material: "Paraguay aux environs de Montevideo & de Buenos Aires, où COMMERSON l'a recueillie (V. f. in herb. JUSSIEU)" (Holo-: P-JU).

boissieuanum Wolff, Repertorium novarum specierum regni vegetabilis 7: 275 (1909), p. [!].

Type material: "L'Amérique meridionale" D'ORBIGNY 1239; Mexico: HARTWEG 295, (BM).

caricinum Standley, Field Museum of Natural History Botanical Series 8: 147 (1930) [MATHIAS & CONSTANCE 1941] [!].

Type material: "Honduras: At edge of a small stream in pine forest near Siguatepeque, Dept. Comayagua altitude about 1100 m, February 1928, PAUL C. STANDLEY 56478 (Herb. Field Mus. No. 581216)" (Iso-: G).

nudiflorum Willdenow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 869 (1825), in synon.

Holotype: HUMBOLDT, B-WILLD No. 5567.

Chromosome number: $2n = 16$ (HAMEL 1955: 500).

Note: See *E. boissieuanum*.

ebracteatum var. **plicatum** Beauverd ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 216 (1913).

Type: "in udis et fossis prope Parongos", 21. 12. 1900, OSTEN n. 4338 (Holo-: G).

ebracteatum var. **poteriodes** (Grisebach) Urban, Linnaea 43: 297 (1882).

poteriodes Grisebach, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen 19: 155 (1874) (basionym).

Type material: Argentina: "Tucuman, in pascuis alpinis pr. Cienga", 25.–31. 3. 1872, LORENTZ no. 761, (K, GOE); "Catamarca, in convalle excelsa Granadillas pr. Yakutula", Feb. 1872, LORENTZ no. 536 (GOE).

eburneum Decaisne, Bulletin de la Société Botanique de France 20: 23 (1873).

Type material: "Herb. imp. brasil. n. 1157 [P]. – In herb. Mus. paris., et cult. hort. parisino".

echinatum Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 305 (1879).

Type material: "Brasilia, SELLOW No. 3655 [K]; Uruguay: St. HILAIRE No. 2488; in Argentina prope Corrientes: DUPRÉ".

ekmanii Wolff, Repertorium specierum novarum regni vegetabilis 8: 414 (1910).

Type material: "Argentina, in civitate Misiones apud Posadas in paludibus prope praedium 'La Granja' (EKMAN, Pl. argent. no. 40, fl. ?), Yermal vieijo (NIEDERLEIN, Pl. argent. no. 161, fl. Mense Novembri)".

elegans Chamisso & Schlechtendahl, Linnaea 1: 348 (err. typ. 248) (1826).

Type material: "Brasilia meridionalis Provinciis Montevideo et Rio Grande do Sul. SELLOW legit" (Iso-: G).

arvense Vellozo, Flora Fluminensis Vol. 1: 125 (1825, effective publication 1829) [Index Kewensis].

elegans var. **boliviense** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 311 (1879).

Type material: "in Boliviae prov. de Yungas: PENTLAND." (P).

elegans var. **macrocephalum** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 311 (1879).

Type material: "in Argentinae Sierra Acala prope Rodeo de los Caballos: HIERONYMUS." (P)

elegans var. **microcephalum** Urban in Martinus & Eichler, Flora Brasiliensis 11, Pars 1: 311 (1879).

Type material: Brazil, Minas Gerais, WEDDELL no. 917 (P).

elegans var. **longispinosum** Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 295 (1908).

Type material: "Prov. Santa Catarina, Serra de Oratoria, in paludibus formationis 'Campo' dicte (ULE No. 1478, flor. mense Februario)" (P).

elegans var. **uncinatum** (Chamisso & Schlechtendahl) Urban in Martius, Flora Brasiliensis 11, Pars 1: 311 (1879).

uncinatum Chamisso & Schlechtendahl, Linnaea 1: 347 (err. typ. 247) (1826) (basionym).

Type material: "in Brasilia meridionali legit SELLOW" (Iso-: G).

elongatum Pohl ex Urban see **hemisphaericum** var. **elongatum**

elongatum Coulter & Rose see **aristulatum** Jepson

endlichii Wolff see **heterophyllum**

eriphorum Chamisso & Schlechtendahl, Linnaea 1: 342 (err. typ. 242) (1826).

Type material: Brazil: "In Provinciis Cisplatina et Rio Grande do Sul imperii Brasiliensis frequenter lectum a SELLOWIO" (Iso-: K, M).

eriphorum var. **vegetius** (Chamisso) Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 337 (1879).

forma *vegetior* Chamisso, Linnaea 8: 325 (1833) (basionym).

erosum Urban see **junceum** subsp. **erosum**

eurycephalum Malme, Arkiv för Botanik 3 No. 13: 12 (1904).

Type material: "Matto Grosso: Serra da Chapada, inter Buriti et Sao Jeronymo, in campo ad oram silvae, 11. 6. 1903, MALME II: 3496 [S]; Minas Gerais: Serra de Caldas, locis siccis apricis, 10. 3. 1876, MOSÉN 4552; Caldas, in campo sicco REGNELL III: 602 [P]".

expansum F. v. Mueller, Papers and Proceedings of the Royal Society of Tasmania 3 (2): 236 (1859).

Type material: "On the Banks of the Dawson and Burnett Rivers". – F. v. MUELLER (K).

falcatum Delaroché, Eryngiorum nec non generis novi Alepideae historia: 40, t. 13 (1808).

Type material: In monte Libano, LABILLARDIÈRE.

falcifolium Irgang, Flora Ilustrada do Rio Grande do Sul 9: 66 (1974).

Type: "in rupestribus humidis parce humosis, Serra da Rocinha prope Bom Jesus, Rio Grande do Sul, Brasilia, 3. February 1953", RAMBO no. 53856 (Holo-: UC).

longibractum Hiroë, Umbelliferae of World: 1806 (1979), nomen superfl.

Type material: Same as *falcifolium*.

farinosum Glaziou see **regnellii**

fernandezianum Skottsberg, Kungliga Svenska Vetenskapsakademiens Handlingar 51 (9): 17 (1914).

Type material: Juan Fernandez Islands, Masatierra: Portozuelo de Villagra.

Note: A complete description of this species see SKOTTSBERG (1922: 160).

ferrisiae Constance, Brittonia 32 (2): 118 (1980).

Type: "Mexico: Nyarit: pine forest in mountains ca. 5.5 mi SW of Jalisco, road to El Malinal, 1300 m, 14. 11. 1959, McVAUGH & KOELTZ 657" (Holo-: MICH, Iso-: UC).

filiforme Shuttleworth ex Gray see **baldwinii**

fistulosum Philippi, Anales de la Universidad de Chile 85: 715 (1894).

Type material: "Chile: in Araucania ad lacum Guaieltué february 1887 invenit orn. C. RAHMER".

flaccidum Hooker & Arnott in Hooker, Botanical Miscellany 3: 350 (1833).

Type material: Buenos Aires, TWEEDIE (K).

floribundum Chamisso & Schlechtendahl, Linnaea 1: 345 (err. typ. 245) (1826).

Type material: "Crescit in Brasilia meridionali. SELLOW legit."

aquaticum Vellozo, Flora Fluminensis Vol. 1: 126 (1825, effective publication 1829).

floribundum var. **angustifolium** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 313 (1879).

floribundum var. *pycnocephalum* see **serra**

floribundum var. *serroides* see **serra**

floridanum see **aquaticum** var. **floridanum**

fluitans Jones, Contributions to Western Botany 12: 48 (1908), not seen.

Type material: Marsh Lake, Sierra Madre Mts., Chihuahua, 19. 9. 1903, M. E. JONES (Iso-: BM).

wolffii Mathias, Annals of the Missouri Botanical Garden 16: 395 (1929) [MATHIAS & CONSTANCE 1941: 374].

Type material: "PRINGLE 3180, shallow ponds, Flor de Maria, State of Mexico, 1 Aug. 1890".

fluminense Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 326 (1879).

Type material: "Habitat prope Rio de Janeiro, [Haut des Orgues] GLAZIOU n. 2839 [P], 6603; loco non adnotato: GARDNER n. 432" (= Serra dos Orgaos at a label of a herbarium sheet in G).

foetidum Linnaeus, Species Plantarum Vol. 1: 232 (1753).

Lectotype: SLOANE (1707: tab. 156, fig. 3), designated here.

antihystericum Rottböll, Acta Literaria Universitatis Hafniensis 1: 288 (1778) [!], nomen superfl.

foetidum Walter see **aquaticum**

foliosum Scheele, Linnaea 17: 339 (1843).

Type material: Brazil: "in provincia Minarum generalium, leg. HARTLEBEN. 1832."

fontanum Holland & Thompson, Austrobaileya 4 (2): 155 (1994).

Type: Australia: "Queensland: South Kennedy District: Mound springs south of Doongmabulla Homestead, 1. April 1992, E. J. THOMPSON GAL 27 & B. K. SIMON" (Holo-: BRI, Iso-: K).

frutescens Moris see **bupleuroides**

galeottii Hemsley, Hooker's Icones Plantarum 26: pl. 2510 (1897).

Type material: "Cordillera of Oaxaca at 7000 to 8000 feet, GALEOTTI, 2767 [Iso-: G, K]; PRINGLE 4746".

galioides Lamarck, Encyclopédie Méthodique Vol. 4 (2): 757 (1798).

Type material: "Portugal, aux lieux humides, herb. JUSSIEU" (Holo-: P-JU).

pauciflorum Hoffmannsegg & Link, Flore Portugaise Vol. 2: 379 (1820) [WOLFF (1913: 113)].

pusillum Delaroché, Eryngiorum nec non generis novi Alepideae historia: 44, t. 16 (1808), p. p. [WOLFF (1913: 113)].

gentryi Constance & Bye, Botanical Museum Leaflets (Harvard University) 24 (8): 235 (1976).

Type: Mexico: "Chihuahua: Municipio de Ocampo, transition zone, pines, meadows, infrequent, marginal to streams, elevation 7500 feet, Memelichi, Rio Mayo, 16. Sept. 1936, H. S. GENTRY 2770" (Holo-: UC; Iso-: K).

ghiesbreghtii Decaisne, Bulletin de la Société Botanique de France 20: 21 (1873).

Type material: Mexico, Chiapas: "Prope Hinchilique et Ciudad-Real", BOURGEOU.

giganteum Bieberstein, Flora Tauro-Caucasicae 1: 201 (1808 [Jan.]).

Type material: "in Armeniae ibericae alpestribus".

asperifolium Delaroché, Eryngiorum nec non generis novi Alepideae historia: 36, t. 11 (1808) [Oct.] [WOLFF (1913: 124)].

Type: Illustration DELAROCHE l. c. plate 11.

glaucum Hoffmann, Hortus Mosquensis 15, no. 1309 (1808), nomen novum.

Chromosome number: $2n = 16$ (HAMEL 1955: 494).

glaciale Boissier, Bibliothèque Universelle de Genève N. S. 13: 409 (1838); Notice sur l'*Abies pinsapo*: 11 (1838), not seen; Elenchus Plantarum Novarum minusque cognitarum quas in Itinere hispanico legit: 44 (1838).

Type: In summis sterilibus Sierra Nevada, 8000'–10000', BOISSIER (Holo-: G, Iso-: TUE).

creticum Webb, Iter Hispaniense: 45 (1838), non Lamarck (1798).

Chromosome number: $2n = 16$, GARDÉ & MALHEIROS-GARDÉ (1949: 91).

Note: This species has been discovered by BOISSIER in 1837 and for the first time described 1838. It is difficult to decide, which of the three descriptions really has been the first. "Notice sur l'*Abies pinsapo*" is extremely difficult to find and possibly not validly published.

glaucum Hoffmann see **giganteum**

glaziouanum Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 325 (1879).

Type material: "prope Rio de Janeiro [Itatiaia], GLAZIOU 4837 [P]; Brasilia, loco non adnato, SELLOW".

globosum Hemsley see **palmeri**

globosum Jepson see *vaseyi* var. **globosum**

globosum auct. non Hemsley non Jepson see **mexiae**

globosum var. *medium* Jepson see **castrense**

glomeratum Lamarck, Encyclopédie Méthodique Vol. 4 (2): 755 (1798).

Type material: "PÎsle de Candie" (Crete), TOURNEFORT (P, Holo-: P-TRF).

parviflorum Sibthorp & Smith, Flora Graecae Prodromus Vol. 1: 175 (1821) [Index Kewensis].

pentechinum Sieber ex DeCandolle, Prodromus Systematis Naturalis Regni Vegetabilis 4: 89 (1830) [Index Kewensis].

scariosum Delaroche, Eryngiorum nec non generis novi Alepideae historia: 28, t. 5 (1808) [DAVIS 1972: 301]

Type material: Oriente, LABILLARDIÈRE.

Note: This species has been synonymized to *E. amethystinum* by CHATER (1968). However, this is hardly to accept from the specimens seen up to now.

glossophyllum Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 301 (1908).

Type material: "Bolivia andina australis: Calderillo, Puna Patanca, in uligionosis, in 3800 m altitudinis (FIEBRIG no. 3176; flor. mense Martio 1904)" (Iso-: G, P).

goldmanii Hemsley see **lemmonii**

goulartii Glaziou & Urban ex Urban, Beiblatt zu den Botanischen Jahrbüchern 25 No. 60 (3): 14 (1898).

Type material: "Brasilia civit. Rio de Janeiro, in summis montibus Serra dos Orgaos, m. Ian. flr. GLAZIOU Nr. 16085" (K).

camporum Glaziou, Bulletin de la Société Botanique de France 56, Mémoires 3: 330 (1909), nomen nudum [CONSTANCE in Herb. P].

Type material: Brazil: "Entre Ilheros et Sitio, dans le campo sec, Minas [GLAZIOU] no. 16097" (P).

goyazense Urban, Beiblatt zu den Botanischen Jahrbüchern 25 No. 60 (3): 13 (1898).

Type material: "Brasiliae civit. Goyaz ad Cabeceiras de Rio St. Anna in Courbiers, m. Jan. flor. et fruct.: GLAZIOU 21474" (Iso-: G).

gracile Nuttall see **baldwinii**

gracile Delaroche, Eryngiorum nec non generis novi Alepideae historia: 54, t. 24 (1808).

Type material: "In locis humidis novae Hispaniae", collector unknown; Illustration DELAROCHE l. c. plate 24.

longirameum Turczaninow, Bulletin de la Société Impériale des Naturalistes de Moscou 20 (1): 171 (1847) [MATHIAS & CONSTANCE 1941: 380].

Type material: "Sierra San Pedro Nolasco, Talea et caet. JURGENSEN coll. n. 819" (K).

paucisquamosum Hemsley, Hooker's Icones Plantarum 26: pl. 2505 (1897) [MATHIAS & CONSTANCE 1941: 380].

Type material: Mexico, mountains near Tlapancingo at 6000 to 8000 feet, E. W. NELSON 2083, summit of Sierra Madre, 9000 to 10200 feet, E. W. NELSON, 2213.

gramineum Delaroche, Eryngiorum nec non generis novi Alepideae historia: 60, t. 27 (1808).

Type material: "Nova Hispania", HUMBOLDT & BONPLAND; BONPL. no. 4384 (P-BONPL), Illustration DELAROCHE l. c. plate 27.

puberulentum Hemsley & Rose in Rose, Contributions from the United States National Herbarium 8 (4): 334 (1905) [MATHIAS & CONSTANCE 1941: 370].

Type material: Mexico: "Sierra Madre above Monterey, Nuevo Leon, August 1903" C. G. PRINGLE no. 11461 (Iso-: K).

grande Hemsley & Rose see **monocephalum**

grossii Font Quer, Index Seminum quae Hortus Botanicus Barcionensis Mutua Commutatione Offert: 12 (1938).

Type material: Spain: "pr. Competa (Malaga), 1. 'Barranco de Juan Rojo', ubi cel. GROS, cui dicta species, d. 28 junii 1926 legit".

lazaе Pau, Boletin de la Sociedad Española de Historia natural 39: 259 (1941).

Type material: "Camino del Puerto de Competa. Leg. MODESTO LAZA, 28. 6. 1935".

guatemalense Hemsley, Hooker's Icones Plantarum 28: sub pl. 2766 (1903).

Type material: "Guatemala: mountains near Hacienda de Chanco, at 11000 feet, E. W. NELSON, 3654 [K]; San Rafael, Zacatepequez, at 6500 feet, HALMRICH".

gymnocephalum Steudel see **canaliculatum**

haenkei Presl ex DeCandolle, Prodrum Systematis Naturalis Regni Vegetabilis 4: 94 (1830).

Type material: Mexico, Herb. HAENKE (G-DC).

Note: *E. haenkei* may be synonymous to *E. spiculosum* [MATHIAS & CONSTANCE 1941: 377].

hainesii Townsend, Kew Bulletin 19: 69 (1964).

Type: "Iraq, Serasang, 1050 m, dry rocky slopes in oak scrub – at lower limit here – it is common at 1650 m. 29. 8. 1957. WHEELER HAINES W 1238" (Holo-: K).

harknessii Curran see **articulatum**

harmsianum Wolff see **armatum**

hassleri Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 298 (1908).

Type: Paraguay: "in regione fluminis Yhu, in campis arenosis (HASSLER n. 9634, 9634a; flor. mense Novembri)" (G).

hedgeanum Kit Tan & Yildiz, Notes of the Royal Botanic Garden Edinburgh 45 (3): 443 (1988 publ. 1989).

Type: "Turkey, B6 Maras: Göksun, west slope of Berit Dag, calcareous stony *Astragalus* steppe, 1500–1700 m, 25. 7. 1981, B. YILDIZ 3150" (Holo-: E, Photo: HUB).

heldreichii Boissier see **bourgatii** subsp. **heldreichii**

hemisphaericum Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 324 (1879).

Type material: Illustration MARTIUS & EICHLER l.c.: pl. 86, fig. II (leaves only).

hemisphaericum var. **abbreviatum** Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 324 (1879).

Type material: "Brasiliae prov. Minas Gerais prope Lagoa Santa, in virgultis m. Decemb. flor.: WARMING; Prope Congonhas do Campo: STEPHAN; in Brasilia australis loco non adnotato: Sello n. 1247, POHL" (syn-: M).

hemisphaericum var. **elongatum** Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 324 (1879).

Type material: Prov. Minas Gerais, POHL.

elongatum Pohl ex Urban l. c. in synon.

hemsleyanum Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 255 (1913).

Type material: San Louis Potosi, SCHAFFNER no. 547 (Iso-: BM, M).

heterophyllum Engelman in Wislizenus, Memoir of a Tour to Northern Mexico: 106 (1848).

Type material: Mexico, Chihuahua: "In valleys about Coshuiriachi", WISLIZENIUS no. 176.

altamiranoi Hemsley & Rose in Rose, Contributions from the United States National Herbarium 10 (3): 129 (1906) [MATHIAS & CONSTANCE 1941: 375].

Type: Plains near Guadalajara, US National Herbarium no. 253003, October 1891, F. ALTAMIRANO no. 20.

confusum Hemsley & Rose in Rose, Contributions from the United States National Herbarium 10 (3): 129 (1906) [MATHIAS & CONSTANCE 1941: 375].

- Type: Mexico: "Oaxaca: On mountains northeast of Valley of Oaxaca, E. W. NELSON, October 3, 1904 (no. 1565, type)".
- endlichii* Wolff, Repertorium novarum specierum regni vegetabilis 8: 306 (1910) [MATHIAS & CONSTANCE 1941: 375].
Type material: "Mexico: Staat Durango: In Kiefernwäldern der Sierra la Vandela, bei 3000 m Meereshöhe, blühend im August (ENDLICH, pl. Mex. 23)".
- medium* Hemsley, Hooker's Icones Plantarum 28: pl. 2767 (1903).
Type material: "Mexico, near San Julian, Chihuahua, at 7000 to 8000 feet, E. W. NELSON, 4929" (K) [MATHIAS & CONSTANCE 1941: 375].
- wrightii* Gray, Plantae Wrightianae Texano-Neo-mexicanae Part 1: 78 (1852) [MATHIAS & CONSTANCE 1941: 375].
Type material: WRIGHT no. 230 (K).
- hookeri** Walpers, Repertorium Botanices Systematicae Vol. 2: 389 (1843).
coronatum Torrey & Gray, Flora of North America Vol. 1: 604 (1840) non Hooker & Arnott (1833) [!].
Type material: Texas, 1835, DRUMMOND (Iso-: G).
- horminoides** DeCandolle, Prodrromus Systematis Naturalis Regni Vegetabilis 4: 94 (1830).
Type: Circa Mexiko, 6. 8. 1827, DE CANDOLLE No. 664 (G-DC).
Note: WOLFF (1913: 282) synonymized this species with *E. phyteumae* Delaroché. However, this can not be accepted, because the types are fairly different. *E. horminoides* resembles much more to *E. carlinae* than to *E. phyteumae*. However, the type is still fairly different from the latter. Therefore, *E. horminoides* is treated as a species of its own.
- horridum** Malme, Arkiv för Botanik 3 No. 13: 15 (1904).
Type material: Brazil: "Rio Grande do Sul: in campis siccis v. subsiccis pluribi et copiose; reportavi specimina e Porto Alegre, 6. 12. 1901, MALME, Plantae Itineris Regnelliani II: 709" (S).
- humboldtianum* Humboldt, Bonpland & Kunth see **humboldtii**
- humboldtii** Delaroché, Eryngiorum nec non generis novi Alepideae historia: 61, t. 29 (1808).
Type material: Quindiu, regni novae Granatensis. BONPL. No. 4388 (Holo-: P-BONPL) = Illustration DELAROCHE l. c. plate 29.
humboldtianum Kunth in Humboldt, Bonpland & Kunth, Nova Genera et Species Plantarum, Vol. 5: 34 (1821), nomen novum pro *E. humboldtii*.
Note: The type of *E. humboldtii* is an extremely young specimen. Therefore, it is not finally possible to clear, whether it is really a separate species.
- humifusum** Clos in Gay, Historia Fisica y Politica de Chile 3: Botanica: 112 (1847).
Type material: In herbosis de los llanos frequens, Zuilacahuui, Januario 1835, GAY (P).
- humile** Cavanilles, Anales de Historia Natural 2 (4): 115 (1800).
Type material: Ex Chimborazo, Herb. CAVANILLES (MA).
ranunculinum Willdenow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 871 (1825).
Holotype: "Habitat in Mexico meridionalis" HUMBOLDT (B-WILLD No. 5559).
- humile** var. **brevibracteatum** Hieronymus, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 20, Beiblatt 49: 72 (1895).
Type material: "Columbia: crescit locis humidis antiplanitei Prarmo de Guanacas dictae prov. Cauca alt. s. m. 3000–3600 m" LEHMANN no. 4803.
- humile** var. **caulescens** Jameson in Hooker's Icones Plantarum 3: tab. 216 (1839).
Type material: On the Quitinian Andes, JAMESON.
- humile** var. **gigantophyllum** Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 190 (1913).
Type material: "Peru: Dep. Cajamarca, Prov. Hualgayoc, unterhalb San Miguel, 2500–2600 m ü. M., in einer dichten, häufig geschlossenen, aus Sträuchern und Kräutern gebildeten Formation (WEBERBAUER no. 3912 – blühend im Mai – herb. Berlin)".
- humile** var. **pulchellum** Weddell, Chloris Andina: 201 (1857).

- pulchellum* Weddell l. c. in synon.
 Type material: Peru: "Cordillères de département de Cuzco (GAY)", 1839–1840, GAY no. 1411 (P).
- humile** var. **radiciflorum** (Trattinnick) Hieronymus ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 189 (1913).
radiciflorum Trattinnick Archiv, t. 764 (basionym), not seen.
- humile** var. **stellatum** (Mutis ex Delaroché) Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 190 (1913).
stellatum Mutis ex Delaroché, Eryngiorum nec non generis novi Alepideae historia: 55, t. 25 (1808) (basionym).
 Type material: "A celeberrimo botanico MUTIS circa Santa Fe di Bogota lectum et dominis HUMBOLDT et BONPLAND traditum. Specimina altera in Mexico lecta vidi in herbario clar. DOMBEY" (P).
- huteri** Porta, Atti dell'I. R. Accademia degli Agiati 9, 1891: 29 (1892).
 Type material: Spain: Granata in locis glaeosis Sierra Sagra, sol. calc., 2000–2500 m, PORTA & RIGO, Iter II Hispanicum Jul 1890 No. 411 (Iso-: G).
caespitifolium Font Quer & Pau, Cavanillesia 4: 30 (1931) [JURY 1996: 273] [!].
 Type material: Morocco: in cacumine montis Lexhab (Gomara-Imp., Maroc.), 21. Juli 1930, ad 2100 m alt., solo argilloso-calcareo, FONT QUER, Iter Maroccanum 1930 (Iso-: MA).
- ilex** Davis, Notes of the Royal Botanic Garden Edinburgh 24: 23 (1962).
 Type: "Turkey, Prov Tunceli: Munzer Dag above Ovacik, 2400 m, flowers blue, basal leaves green, 18. 7. 1957, DAVIS & HEDGE" D. 31347 (Holo-: E; Iso-: K, G).
- ilicifolium* Brotero see **duriaei**
- ilicifolium** Lamarck, Encyclopédie Méthodique Vol. 4 (2): 757 (1798).
 Type material: Portugal, JUSSIEU (Holo-: P-JU).
- inaccessum** Skottsberg, The Natural History of Juan Fernandez and Easter Islands Vol. 2: 158 (1922).
 Type: "Juan Fernandez, Masatierra: Portezuelo de Villegra, on the precipitous walls facing SW and SE, c. 620 m, about a dozen specimens seen", past fl. 25. 12. 1916, SKOTTSBERG no. 196 (Iso-: K).
- incognitum** Pavlov, Bulletin de la Société des Naturalistes de Moscou N. S. 47 (19): 81 (1938).
 Type material: "Tadshikistania, in collibus prope Stalinabad, 1000 m alt, 8/VII. 1932. lg. cl. I. STSCHUKIN (in Herb. Univers. Mosg. cons.)".
- integrifolium** Walter, Flora Caroliniana: 112 (1788).
americanum Walter ex Sprengel in Roemer & Schultes, Caroli a Linné equitis Systema Vegetabilium Vol. 6: 337 (1820) [MATHIAS & CONSTANCE 1941: 382].
ovalifolium Michaux, Flora Boreali-Americana 1: 163 (1803) [MATHIAS & CONSTANCE 1941: 382].
 Type material: "In subhumidis sylvaticis et pratensibus Carolinae" MICHAUX (Holo-: P-MICH).
- virgatum* Lamarck, Encyclopédie Méthodique Vol. 4 (2): 757 (1798) [MATHIAS & CONSTANCE 1941: 382].
 Type material: Herb. JUSSIEU, without locality (Holo-: P-JU).
- integrifolium** var. **lanceolatum** Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 161 (1913).
- integrifolium** var. **ludovicianum** (Morong) Coulter & Rose, Contributions from the U. S. National Herbarium 7: 48 (1900).
ludovicianum Morong, Bulletin of the Torrey Botanical Club 14: 51 (1887) (basionym).
 Type material: Natchitoches County, Louisiana, Langlois [MATHIAS & CONSTANCE 1941: 382].
- virgatum* var. *ludovicianum* (Morong) Morong ex Coulter & Rose, Revision of North American Umbelliferae: 96 (1888).
- intermedium* Weinmann see **planum**

involutratum Coulter & Rose, Contributions from the U. S. National Herbarium 3 (5): 299 (1895).

Type material: "Sierra de San Felipe, altitude 10000 feet, November 14 and December 24, 1894", C. G. PRINGLE no. 4747 (Iso-: G, K).

irwini Constance, Brittonia 31 (3): 371 (1979).

Type: "Brazil: Golas: Chapada dos Veadeiros, 31 km by road S of Terezina, ca. 40 km N of Alto Paraiso, elev. ca. 1500 m, sandy, grassy meadow with small shrubs (campo limpo) and cerrado on higher, drier slopes, 16 Mar. 1973, ANDERSON 7163 (with KALIN DE ARROYO, HILL, REIS DOS SANTOS & SOUZA) (Holo-: UB; Iso-: NY, UC)".

isauricum Contandriopoulos & Quezel, Bulletin de la Société Botanique de France 123 (7–8): 423 (1976).

Type: Turkey: "rocaïles calcaïres entre Anamus et Kazanci à une dizaine de kilomètres au sud de Kozagac.", 26. 7. 1970, P. QUEZEL et J. CONTANDRIOPOULOS no. 70–438 (Holo-: MARSSJ).

jaliscense Mathias & Constance, Contributions from the University of Michigan Herbarium 11 (1): 23 (1973).

Type material: Jalisco: "Occasional, eastern foothills of Sierra del Halo, ca. 25 km W of Jilotlan de los Dolores, (56 km from road junction 11–12 km SW of Tecalitlan) in pine forest, deep sandy granitic soils in stream valley, elev. 1600 m, 21–21 Nov. 1970, R. McVAUGH 2559 (MICH)".

jepsonii Coulter & Rose see **aristulatum**

jepsonii var. *parishii* (Coulter & Rose) Jepson see **aristulatum** var. **parishii**

junceum Chamisso & Schlechtendahl, Linnaea 1: 341 (err. typ. 241) (1826).

Type material: "In Brasiliae calidoris legit regionibus SELLOW".

junceum subsp. **erosum** (Urban) Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 262 (1913).

erosum Urban, Beiblatt zu den Botanischen Jahrbüchern 25, No. 60, Heft 3: 14 (1898) (basionym).

Type material: "Brasiliae civit. Minas Gerais in Serra do Batatal, m. Iun. flor.: GLAZIOU n. 14876" (P).

junceum subsp. *lineare* see **juncifolium**

junceum subsp. **setigerum** Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 335 (1879).

juncifolium (Urban) Mathias & Constance, Sellowia 23: 50 (1971).

junceum subsp. *juncifolium* Martius ex Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 335 (1879) (basionym).

Type: "ad Rio San Francisco" MARTIUS 1750 (M).

junceum subsp. *lineare* Pohl ex Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 335 (1879).

Type material: "in Serra do Christaes, POHL no. 831".

lineare Pohl ex Urban, l. c., in synonym.

juresianum (Lainz) Lainz see **duriaei** subsp. **juresianum**

karatavicum Iljin, Repertorium novarum specierum regni vegetabilis 29: 320 (1936).

Type: "Montes Karatau: Koldenensaj, declivia schistosa. 8. 8. 1934 no. 19. leg. M. M. ILJIN u. E. M. ILJIN".

kermanense Bornmüller see **bungeo**

koehneanum Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 323 (1879)

Type: "Habitat prope Rio de Janeiro, GLAZIOU No. 8237" (G).

kotschyi Boissier, Diagnoses Plantarum novarum Series 2 Vol. 5: 97 (1856).

Type: Turkey: C5 Adana/Icel: "in Tauro Cilicico ad terminos Cedreti versus plumbi fodinas, 1980 m", KOTSCHY no. 241 (Holo-: G-BOISS, Iso-: K, M).

billardierei Delarochae subsp. *kotschyi* (Boissier) Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 149 (1913).

digitifolium Stapf & Wettst. ex Stapf, Denkschriften der Kaiserlichen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Classe 51: 370 (1886) [DAVIS et alii 1972].

Type material: Lycia: "In monte Rahat Dagħ", 1882, LUSCHAN.

kurtzii Hicken, Apuntes de Historia Natural 1: 52 (1909).

Type material: "In Argentina, Prov. Buenos Aires prope vico Salto in pratis humidis et in limo lacunarum incola", KURTZ.

lacustre Pohl ex Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 318 (1879).

Type material: "Prov. Minas Gerais ad Rib. S. Domingos, POHL No. 3944; in campis et humidis ad Sorocaba: RIEDEL; in Prov. Goyaz, GARDNER 4165" (G, K); SCHÜCH 5487.

langlassei Wolff see **longifolium**

larranagae Hiroë see **cylindricum**

lassauxii Decaisne see **pandanifolium** var. *lassauxii*

latifolium Hoffmannsegg & Link see **campestre**

laxibracteum Mathias see **aristulatum**

lazae Pau see **grossii**

leavenworthii Torrey & Gray, Flora of North America Vol. 1: 604 (1840).

Type material: "Red River, Arkansas", LEAVENWORTH; Texas, DRUMMOND (Iso-: K).

lemmonii Coulter & Rose, Botanical Gazette 14 (11): 279 (1889).

Type material: "Chirricahua, Mountains, SE Arizona", Sept. 1881, LEMMON no. 17 (US, P).

argutum Hemsley ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 195 (1913), in synonym.

goldmanii Hemsley, Hooker's Icones Plantarum 27: pl. 2638 (1900) [MATHIAS & CONSTANCE 1941: 376].

Type material: "North Mexico: Sierra Madre, near Guasarachi, Chihuahua, at 6500 to 6800 feet, GOLDMANN, 168" (K).

leptophyllum Wolff, Repertorium novarum specierum regni vegetabilis 7: 278 (1909).

Type material: "Planta in Horto botanico berolinensi e seminibus a cl. GLAZIOU in provincia Minas Gerais Brasiliae collectis culta est."

leptopodium Hemsley see **bonplandii**

leucacanthum St. Lager see **spinalba**

lineare Pohl ex Urban see **juncifolium**

lineare Vellozo see **canaliculatum**

lingua-tucani Martius see **pristic**

loesnerianum Wolff see **purpusii**

longibracteam Hiroë see **falcifolium**

longifolium Cavanilles, Anales de Historia Natural 2 (4): 133 (1800).

Type material: "ex Pachuco et Real del Monte en Nuova-España, Herb. CAVANILLES" (MA).

langlassei Wolff, Repertorium novarum specierum regni vegetabilis 9: 417 (1911) [MATHIAS & CONSTANCE 1941: 370].

Type material: "Mexico. Sierra Madre, solo granítico, 1750 m., fl. meso Januario. LANGLASSÉ, Herbor. Au Mexique, Etats de Michoacan et de Guerrero no. 777. – Herb. berol.; Herb. DELESSERT" (Iso-: G, K).

watsonii Coulter & Rose in Rose, Contributions from the United States National Herbarium 8 (4): 334 (1905) [MATHIAS & CONSTANCE 1941: 370].

Type material: "Mexico: Mountains near Lake Chapala, Jalisco, October 18, 1895", C. G. PRINGLE no. 6197 (Iso-: G, K).

longifolium Gray see **sparganophyllum**

longipetiolatum Hemsley see **scaposum**

longirameum Turcz. see **gracile**

longispinum Coulter & Rose see **pectinatum**

longistylum Coulter & Rose see **armatum**

lorentzii Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 300 (1908).

Type material: "Argentina: Sierra de Tucuman, prope Ciénga" flor. mense Martio 1872, LORENTZ s. n.

ludovicianum Morong see **integrifolium** var. **ludovicianum**

luzulifolium Chamisso & Schlechtendahl, Linnaea 1: 340 (err. typ. 240) (1826).

Type material: Brasilia meridionalis, SELLOW.

lycium Stapf & Wettstein see **campestre** var. **virens**

macracanthum Philippi, Anales de la Universidad de Chile 85: 715 (1894).

Type material: Chile: prope Carrizal invenit orn. GUILL. GEISSE.

macrocalyx Schrenk, Enumeratio Plantarum Novarum Cl. SCHRENK lectarum: 60.

Type: "Lect. in desertis Songariae, ad rivulum Kinasch." 17. 7. 1840, A. SCHRENK (LE).

madrense Watson, Proceedings of the American Academy of Arts and Sciences 23: 274 (1888).

Type material: "in ponds on the plains at the base of the Sierra Madre, Chihuahua", 24. 10. 1887, PRINGLE 1531 (Holo-: VT).

malmeanum Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 252 (1913).

Type material: Brazil: "Prov. Rio de Janeiro (GLAZIOU n. 16086 – Herb. Berlin) (K).

marginatum Pohl ex Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 321 (1879).

Type material: "Habitat in Prov. Goyaz: St. HILAIRE, C no. 783 [P]; in prov. Minas Gerais locis humidis prope Sorocaba: RIEDEL; in Serra Chrystaes: POHL no. 748".

maritimum Linnaeus, Species Plantarum I: 233 (1753).

Lectotype: LINN 331.8 (designated by REDURON & JARVIS in JARVIS et alii (1993: 46). Chromosome number: $2n = 16$ (WULFF 1937: 819, HAMEL 1955: 492, JAWORSKA in SKALINSKA et alii 1964: 54).

marocanum Pitard, Contribution à l'Étude de la Flore du Maroc: 17 (1918).

mathiasiae Sheikh, Madroño 30 (2): 95 (1983).

Type: USA, California: "Mococ Co., drying roadside swale, opening in *Pinus-Juniperus* woodland 15.8 km NNW of Canby on State Hwy. 139, 27 Jun 1973, SHEIKH and CONSTANCE 551" (Holo-: UC; Iso-: F, MAK, S).

mauritanicum Pomel see **tricuspidatum** subsp. **mauritanicum**

medium Hemsley see **heterophyllum**

megapotamicum Malme, Arkiv för Botanik 3 No. 13: 13 (1904).

Type material: Rio Grande do Sul: "reportavi specimina e Porto Allegre, Morro da Po-

licia (26. 11. 1901, II: 563. Floribus nondum bene evolutis ornata. – 9. 12. 1901, II: 563a. Florigera. – 14. 02. 1902 II: 941. Fructibus submaturis ornata) et Cachoeira (4. 1. 1902, II: 941. Florigera. – 10. 1. 1902, II: 1051. Fructibus immaturis ornata)” (S).

mesopotamicum Pedersen, Bonplandia 9 (3/4): 252 (1997).

Type: “Argentina, Prov. Corrientes, Dep. San Roque: Chavarria, low, evidently often flooded land by the R. Corriente, soil mainly clay, 4/2/1967” T. MYNDEL PEDERSEN no. 8058 (Holo-: C).

mettaueri Wood see **aquaticum** var. **ravenelii**

mexiae Constance, Brittonia 32 (2): 122 (1980).

Type material: “Mexico: Jalisco: rocky precipitous slope, 2500 m, Real Alto, La Bufa, Sierra Madre Occidental, 30. 1. 1927, YNES MEXIA 1596” (Holo-: UC, Iso-: BM, CAS, DS, G, NY).

globosum auct. non Hemsley non Jepson.

Note: This taxon has been called *E. globosum* Hemsley up to CONSTANCE (1980: 124), who proved, that the holotype of *globosum* Hemsley is “actually a representative of *E. palmeri* Hemsl. with atypically underdeveloped involucre bracts.” Consequently all collections of *E. globosum* (except the holotype) have been newly described as *E. mexiae*.

mexicanum Watson see **phyteumae**

microcephalum Willdenow see **bonplandii**

minimum Coulter & Rose see **alismifolium**

mirandum Bobrov in Shishkin, Flora of the USSR Vol. 26: 589 (1950).

Type material: “Karakalpakia, in monte Beltau, leg. MURAVLIANSKY, 21. VI. 1932”.

molleri Gandoger, Bulletin de la Société Botanique de France 65: 31 (1918).

Type material: “Africa trop. occid. in insula S. Thomé ad Roca Rodia”, MOLLER no. 513.

monocephalum Cavanilles, Anales de Historia Natural 2 (4): 116 (1800).

Type material: “Chilpancingo y Huanajuato, pueblos de la Nova España”, Herb. CAVANILLES (MA).

grande Hemsley & Rose in Rose, Contributions from the US National Herbarium 8 (4): 332 (1905) [MATHIAS & CONSTANCE 1941: 373].

Type material: “State of Mexico: Nevado de Toluca, J. N. ROSE and JOS. H. PAINTER, October 15, 1903, altitude 3100 meters (no. 7938, type)”.

montanum Coulter & Rose, Contributions from the US National Herbarium 3 (5): 300 (1895).

Type material: “Collected in wet meadows, Sierra de Clavelinas, Oaxaca, 9000 feet by Mr. E. W. NELSON, September 10 to 20, 1894 (No. 1386 [US]; and also by Mr. C. G. PRINGLE, October 17, 1894 (No. 6040) [K, M].”

moritzii Wolff, Repertorium novarum specierum regni vegetabilis 7: 277 (1909).

Type material: “Columbia: Paramo de Asucati et Paramo des Mucachies, fruct. mense Octobri, MORITZ, Columbian n. 1146 [BM]; Ecuador: Ad flum. Bamba, Cordillera Dauas (?), ca. 3000 m s. m. (STÜBEL, Fl. aequator. no. 243).”

multicapitatum Morong, Annals of the New York Academy of Science 7: 124 (1893).

Type material: “on the campo between Villa Rica and Escoba January, MORONG 451”.

multifidum see **amethystinum** var. **tenuifolium**

nasturtiifolium Delaroché, Eryngiorum nec non generis novi Alepideae historia: 46, t. 17 (1808).

Type material: “Habitat in America meridionali, unde a peregrinatore Houston allatum fuit. Specimen vidi in herbario professoris JUSSIEU” (Holo-: P-JU).

- compactum* Small, Flora of the Southeastern United States: 863 (1903) [MATHIAS & CONSTANCE 1941: 377].
Type material: “In low grounds, near the River Rio Grande, Texas”, no collector indicated.
- nelsonii* Coulter & Rose see **scaposum**
- nigromontanum* Boiss. & Buhse see **billardierei**
- noëanum* Boissier see **billardierei**
- nudicaule** Lamarck, Encyclopédie Méthodique Vol. 4 (2): 759 (1798).
Type material: Montevideo, COMMERSON (Holo-: P-LAM).
- nudicaule** var. **bellidifolium** (Decaisne) Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 304 (1879).
bellidifolium Decaisne, Bulletin de la Société Botanique de France 20: 26 (1873) (basionym).
Type material: “Banda orient. Uruguay (A. ST.-HILAIRE no. 2020 et 2087 Herb. Mus. par.)”.
- nudicaule** var. **peruvianum** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 304 (1879).
Type material: “in Bolivia, MANDON 585 [P]; in Peruvia: HAENKE.”
- nudicaule** var. **pinnatifidum** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 304 (1879).
Type material: “in Uruguay: ST.-HILAIRE C No. 2087 (ex parte)” (P).
- nudiflorum* Willdenow see **ebracteatum**
- nudum** Gillies & Hooker in Hooker, Botanical Miscellany 1: 334 (1830).
Type material: “In planitie ‘Pampas’ dictam, circa Buenos Ayres. GILLIES” (K).
- oblanceolatum* Coulter & Rose see **aristulatum**
- octophyllum** Korovin, Notulae Systematicae ex Herbario Instituti Botanici Academiae Scientiarum Uzbekistanica 8: 4 (1947) not seen.
- odoratum* DeCandolle see **corniculatum**
- odoratum* Lamarck see **pusillum**
- oligodon** Grisebach, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen 24: 146 (1879).
Type material: Paraguaría: “prairies marécageuses de Cosme, entre Villa Rica et Caaguazú”, Nov. 1874, BALANSA, Pl. du Paraguay no. 1086 (G, GOE).
balansae Wolff, Repertorium novarum specierum regni vegetabilis 7: 274 (1909).
Type material: Same as *oligodon*.
- oliverianum** Delaroché, Eryngiorum nec non generis novi Alepideae historia: 37, t. 12 (1808).
Type material: “Orient, Herb. VAILLANT, Herb. de JUSSIEU” (P), Illustration DELAROCHE l. c. plate 12.
- ombrophilum** Dusen & Wolff in Dusen, Arkiv för Botanik 10 No. 5: 2 (1911).
Type material: Brazil, Prov. Paraná: “Serra do Mar, auf feuchtem Boden im Urwalde, in Gebüsch und an Flußläufen, in einer Höhe von 400–800 m ü. M. (DUSEN No. 3611, blühend im Februar [G], no. 6516, blühend im August; gelegentlich blühende Pflanzen fanden sich auch noch im Oktober)”.
- orientale* Miller see **amethystinum**
- ovalifolium* Michaux see **integrifolium**
- ovinum** Cunningham in Fields, Geographical Memoirs on New South Wales: 358 (1825).
angustifolium DeCandolle, Prodomus Systematis Naturalis Regni Vegetabilis 4: 95 (1830) [!].
Type material: Nouvelle Hollande – M. CALEY (Holo-: G).

pinnatifidum Bunge in Lehmann, *Plantae Preissianae* 1: 293 (1845).

Type material: Australia: "in solo fertili montium continuorum Darling's Range, Aug. 1841, Herb. PREISS no. 2054" (P) [!].

tetracephalum Bunge in Lehmann, *Plantae Preissianae* 1: 293 (1845).

Type material: Australia: "in arenosis sylvae prope Keiermuln, Perth, 27. Oct. 1839, Herb. PREISS No. 2053" (Iso-, G) [!].

Note: This species is certainly not conspecific to the Chilean *E. rostratum*. However, the name *rostratum* often occurs in Australian floras. The Australian plants clearly differ from the South American specimens by their longer involucre leaves and bracts, the latter not tufted at the apex of the umbel, their by far greater number of umbels and more intensively branched inflorescence.

painteri Hemsley & Rose see **deppeanum**

pallescente Miller see **bourgatii**

palmatum Pančić & Visani, *Memorie del Reale Istituto Veneto di Scienze, Lettere ed Arti* 15: 20 (1870).

palmeri Hemsley, *Hooker's Icones Plantarum* 28: sub pl. 2765 (1903).

Type material: Mexico: Rio Blanco, Jalisco, PALMER no. 681 (US Type, Iso-: G).

globosum Hemsley, *Hooker's Icones Plantarum* 28: sub pl. 2765 (1903).

Type material: "Mexico: Near Tepic at 5000 feet, NELSON, 4174" (US), drawing at Kew [CONSTANCE 1980: 124].

Note: CONSTANCE (l. c.) pointed out, that the type of *E. globosum* is "a representative of *E. palmeri* Hemsl. with atypically underdeveloped involucre bracts". However, it can not be excluded, that *E. globosum* Hemsley may be a taxon of its own.

palmito Boissier & Heldreich, *Diagnoses Plantarum Orientalium novarum* 10: 21 (1849).

Type: "in aridis pinetorum umbrosorum in faucibus montis Anemas Lycaoniae, Aug. fine vix florere incipiebat (HELDREICH)" (Holo-: G, Iso-: K, BM).

paludosum (Moore & Betche) P. W. Michael, *Telopea* 7 (2): 173 (1997).

rostratum var. *paludosum* Moore & Betche, *Handbook of the Flora of New South Wales*: 220 (1893) (basionym).

Holotype: Australia, New South Wales: Nevertire, in a waterhole on the railway line. Sept. 1886, E. BETSCHE NSW 456361 (NSW).

palustre DeCandolle see **corniculatum**

pamiralaicum Korovin, *Notulae Systematicae ex Herbario Instituti Botanici Academiae Scientiarum Uzbekistanica* 8: 3 (1947) not seen.

pandanifolium Chamisso & Schlechtendahl, *Linnaea* 1: 336 (err. typ. 236) (1826).

Type material: "In Brasiliae meridionalis provincia Cispalatina legit SELLOW" (K).

Chromosome number: $2n = 48$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

pandanifolium var. **chamissonis** (Urban) Mathias & Constance, *Sellowia* 23: 50 (1971).

chamissonis Urban in Martius & Eichler, *Flora Brasiliensis* 11 Pars 1: 315 (1879) (basionym).

Type material: "Habitat in prov. Rio Grande, GAUDICHAUD 1155 [1833] [P], in Brasilia australis loco non adnato, SELLO[w] n. 3342"

pandanifolium var. **lassauxii** (Decaisne) Mathias & Constance, *Sellowia* 23: 50 (1971).

lassauxii Decaisne, *Bulletin de la Société Botanique de France* 20: 22 (1873) (basionym).

Type material: "Brazil. austr. Montevideo. – Cult in horto paris. ubi floret sept.-dec."; no collector indicated (P, BM).

Chromosome number: $2n = 48?$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

paniculatum Cavanilles & Dombey ex Delaroché, *Eryngiorum nec non generis novi Alepidae historia*: 59, t. 26 (1808).

Type material: Chili, Herb. CAVANILLES, Herb. DOMBEY; *Illustration DELAROCHE* l. c. plate 26.

subulatum Vellozo, *Flora Fluminensis* Vol. 1: 126 (1825, effective publication 1829) [WOLFF (1913: 250)].

Chromosome number: $2n = 48?$ (GARDÉ & MALHEIROS-GARDÉ 1949: 99).

paniculatum var. *bracteosum* DeCandolle see **bracteosum**

paraguariense Urban in Chodat & Hassler, Bulletin de l'Herbier Boissier 2me Série 3: 1123 (1903).

Type material: "Sierra de Maracayu, in campo Ipé hu, m. Dec.: HASSLER No. 5593" (G).

parishii Coulter & Rose see **aristulatum** var. **parishii**

parviflorum Sibthorp & Smith see **glomeratum**

pauciflorum Hoffmannsegg & Link see **galioides**

paucisquamosum Hemsley see **gracile**

pectinatum Presl ex DeCandolle, Prodromus Systematis Naturalis Regni Vegetabilis 4: 96 (1830).

Type material: Mexiko, HAENKE (PR).

longispinum Coulter & Rose ex Hemsley, Hooker's Icones Plantarum 28 sub pl. 2766 (1903) [MATHIAS & CONSTANCE 1941: 372].

Type material: "Pedregal, Valley of Mexico, 4. 12. 1892, PRINGLE, 4359" (K, P).

stenolobum Hemsley in Hooker's Icones Plantarum 28 sub pl. 2766 (1903). [MATHIAS & CONSTANCE 1941: 372].

Type material: Mexico: "near Cuernavaca, MORELOS, ROSE & HOUGH, 4393" (US).

pentechicum Sieber ex DeCandolle see **glomeratum**

petiolatum Hooker in Hooker & Arnott, Flora Boreali-Americana I: 259 (1840).

Type material: "Moist soil on the plains of Multnomak River" (Willamette River) Oregon, DOUGLAS.

aquaticum Hooker & Arnott, The Botany of Captain BEECHEY'S Voyage, part 7: 142 (1838), non L. (1753), nomen nudum [Index Kewensis].

petiolatum var. **juncifolium** Gray, Proceedings of the American Academy of Arts and Sciences 8: 385 (1873).

petiolatum auct. non Hooker see **articulatum**

petiolatum var. *armatum* Watson see **armatum**

petiolatum var. *minimum* see **alismifolium**

phyteumae Delaroché, Eryngiorum nec non generis novi Alepideae historia: 51, t. 21 (1808).

Type material: "Nova Hispania" HUMBOLDT & BONPLAND (P-BONPL), Illustration DELAROCHE l. c. plate 21.

cylindraceum Willdenow ex Sprengel, Systema Vegetabilium editio decima sexta Vol. 1: 872 (1825) [Index Kewensis].

Type: "Habitat in America meridionalis", HUMBOLDT (Holo-: B-WILLD No. 5557) [!].

discolor Watson, Proceedings of the American Academy of Arts and Sciences 18: 193 (1883) [WOLFF, herb. G, !!].

Type: "At Cienga in the Huachuga Mountains, Southern Arizona, growing in water; J. G. LEMMON [no. 2714], September 1882" (Iso-: G).

mexicanum Watson, Proceedings of the American Academy of Arts and Sciences 26: 136 (1891) non Wolff 1913 [MATHIAS & CONSTANCE 1941: 374] [!].

Type material: "In wet meadows at Del Rio, State of Mexico; August 1890", WATSON no. 3229 (Iso-: MA).

phyteumatos Bentham, Plantas Hartwegianas imprimis Mexicanas adjectis nonnullis grahamensis: 38 (1839), in synonym.

phyteumatos Bentham see **phyteumae**

pilularioides Hemsley & Rose in Rose, Contributions from the United States National Herbarium 8 (4): 333 (1905).

Type material: "shallow hollows of meadows in eastern Hidalgo", 8300 feet, 10. 8. 1904, PRINGLE 8948 (US, UC, MICH, G, K).

pinnatifidum Bunge see **ovinum**

pinnatisectum Jepson, Madroño 1: 105 (1922).

Type material: "Duffield Canon, Soulsbyville, Calif.", JEPSON 7690.

planifolium Pallas see **planum**

plantagineum F. v. Mueller, Papers and Proceedings of the Royal Society of Tasmania 3 (2): 235 (1859).

Type material: On the fertile basaltic downs of Peak Range. – F. v. MUELLER (K).

plantaginifolium Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 297 (1908).

Type material: "prope Caaguazu in regione fluminis Yhu, in campsi aridis (HASSLER, Plantae paraguariensis, florula Caaguazuensis n. 9301, flor. mense Martio [BM], n. 9561 (flor. et fruct. mense Octobri) [G])".

planum Lapeyrouse see **bourgatii**

planum Lindley see **caeruleum**

planum Linnaeus, Species Plantarum Vol. 1: 233 (1753).

dalla-torrei Hiroë, Umbelliferae of World: 1881 (1979), nomen novum as '*Dalla-Torrei*' [!].

brunardii Guétrot, Plantes Hybrides de France 3–4: 99 (1927–28, publ. 1929) [REDURON, pers. communication].

hybridum Brunard ex Guétrot, Bull. Soc. Fr. Ech. Pl. 19 (1927), not seen [REDURON, pers. communication].

intermedium Weinmann, Bulletin de la Société Impériale des Naturalistes de Moscou 7: 59 (1837) [Index Kewensis].

planifolium Pallas, Reise durch verschiedene Provinzen des russischen Reiches Vol. 3: 316 (1776), nomen nudum [Index Kewensis].

pumilum Gilib. Chor. Grodn. 20 [Index Kewensis], not seen.

Chromosome number: $2n = 16$ (WANSCHER 1934: 50, HAMEL 1955: 495, JAWORSKA in SKALINSKA et alii 1964: 53).

planum var. **armatum** Csato ex Simonkai, Enumeratio Florae Transilvanicae Vesiculosae Criticae: 249 (1886).

planum Sesse & Mociño see **bonplandii**

platyphyllum Decaisne see **serra**

plukenetii Elliott see **aquaticum**

pohlium Urban in Martius & Eichler, Flora Brasiliensis 11 Pars 1: 336 (1879).

Type material: "Habitat in Prov. Minas Gerais: POHL no. 3755".

polycephalum Haussknecht ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 153 (1913).

Type: Turkey: B 7 Adiyama: "auf dem Ak-Dagh, zwischen Adiaman und Malatia", HAUSSKNECHT (Holo-: G).

polyrhizum Clos in Gay, Historia Fisica y Politica de Chile 3: Botanica: 116 (1847).

Type material: Chili, GAY no. 1498 (P).

poterioides Grisebach see **ebracteatum** var. **poterioides**

praealtum Gray see **aquaticum**

pratense Philippi, Linnaea 30: 189 (1859–60).

uruguayense Hiroë, Umbelliferae of World: 1882 (1979), nomen novum [!].

pringlei Hemsley & Rose in Rose, Contributions from the United States National Herbarium 8 (4): 333 (1905).

Type: "in alkaline meadows, Hacienda de Angostura, San Louis Potosi" July 10, 1891, PRINGLE no. 3759 (US 461279, BM, G).

pristis Chamisso & Schlechtendahl, Linnaea 1: 337 (err. typ. 237) (1826).

Type material: Rio Grande do Sul, SELLOW (K).

lingua-tucani Martius in Spix & Martius, Reise in Brasilien 1: 291 (1823), nomen nudum. *tucano* Vellozo, Flora Fluminensis Vol. 1: 126, Vol. 3: tab. 103 (1825, effective publication 1829) [WOLFF (1913: 259)].

pristis var. **mitigatum** Malme, Arkiv för Botanik 3/13: 17 (1904).

Type material: Brazil: "Rio Grande do Sul: Cachoeira, in campo aprico, inter myrtaecae fruticosa humiles, quas 'Araca' vovant incolae (10. 1. 1802 [= 1902], II: 1283a. Specimina floribus ornata. - 31. 1. 1802 [= 1902], II: 1283, Specimina floribus fructibus ornata)".

proliferum Brade, Rodriguesia 10 No. 20: 45 (1946).

Type material: Brazil: "Serra do Itatiaia, Cascata do Rio Maromba, 1000 m s. n. do mar. - leg. A. C. BRADE No. 17.170. 5. II. 1942. - 'Typus': Herbario Jardim Botânico do Rio de Janeiro No. 46.613" (RB).

prostratum James see **diffusum**

prostratum Nuttall ex DeCandolle, Prodrum Systematis Naturalis Regni Vegetabilis 4: 92 (1830).

Type material: "In Americae bor. Territoria Arkansano" NUTTALL (Iso-: K).

baldwinii var. B. Torrey & Gray, Flora of North America Vol. 1: 605 (1840).

Strebanthus heterophyllus Rafinesque-Schmaltz, New Flora of North America Vol. 4: 35 (1836) [!].

prostratum Wood see **baldwinii**

proteiflorum Delaroché, Eryngiorum nec non generis novi Alepideae historia: 62, t. 30 (1808).

Type material: "in nova Hispania ad radices montis Igniflui Yorullo", no collector indicated (Holo-: P-BONPL) = Illustration DELAROCHE l. c. plate 30.

seatonii Coulter & Rose in Seaton, Proceedings of the American Academy of Arts and Sciences 28: 118 (1893) [MATHIAS & CONSTANCE 1941: 373].

Type material: "in pine woods, Mt. Orizaba, 12,000 ft., August ([SEATON] no. 197)".

pseudojunceum Clos in Gay, Historia Física y Política de Chile 3: Botanica: 114 (1847).

Type material: Chile: in paludolis herborique de los llanos Dagllipulli, Janeiro 1835, GAY no. 129 (P).

pseudojunceum var. **bracteosum** Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 268 (1913).

Type material: Chile, Lesson, PHILIPPI; Conception de Chile, d'URVILLE.

pseudojunceum var. **crantzoides** (Grisebach) Philippi, Anales de la Universidad de Chile 85: 716 (1894).

crantzoides Grisebach, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen 6: 123 (1854) [MATHIAS & CONSTANCE, herb. GOE].

Type material: Chile: Valdivia: "Laguna de Ranco, in arenosis inundatis, m. Martio flor. leg. LECHLER, Pl. magellan. no. 829" (K, GOE).

pseudojunceum var. **fistulosum** Philippi, Anales de la Universidad de Chile 85: 716 (1894).

pseudothorifolium Contandriopoulos & Quezel, Bulletin de la Société Botanique de France, 123 (7-8): 422 (1976).

Type: "terrain marneux dans la haute vallée du Koca Cay à une trentaine de kilomètres au NE de Fethyie, 100 m." 22-6-1973, P. QUEZEL et J. CONTANDRIOPOULOS no. 73-60 (Holo-: MARSSJ).

Chromosome number: 2n = 16 (CONTANDRIOPOULOS & QUEZEL [1976: 417]).

Note: There are some doubts, whether this taxon is really a species different from *E. thorifolium*. The leaf characters vary, and they can not even be confirmed at the type. The umbels of the type specimen are partly destroyed. However, what is left greatly resembles to the type of *E. thorifolium* in G-BOISS. Unfortunately, until now few specimens of *E. pseudothorifolium* can be found in the herbaria. This taxon needs further study.

pskemense Pavlov see **caeruleum**

puberulentum Hemsley & Rose see **gramineum**

pulchellum Philippi, *Flora Atacamensis*: 25 (1860).

Type material: "prope Hueso parado (25° 24' lat. m. et 760 p. s. m.)".

pulchellum Weddell see **humile** var. **pulchellum**

pumilum Gilibert see **planum**

purpuratum Smith see **dilatatum**

purpusii Hemsley & Rose in Rose, *Contributions from the United States National Herbarium* 13: 311 (1911).

Type material: "Cerro de Cacolotl, Puebla, 8000–9000 feet, August 1909", C. A. PURPUS no. 4105 (US, M, NY, UC).

loesnerianum Wolff in Engler, *Das Pflanzenreich* Vol. 4 (228): 255 (1913) [MATHIAS & CONSTANCE 1941: 371].

Type material: Mexico: "Oaxaca, Distr. Etlá, Cerro de Buena Vista, (C. & E. SELER Pl. mex n. 99 – Herb. Berlin)".

pusillum Delaroché see **galioides**

pusillum Linnaeus, *Species Plantarum* Vol. 1: 233 (1753).

Type: Herb. CLIFFORT: 87; *Eryngium* 4 (Lecto-: BM [LÓPEZ-GONZÁLEZ 1986: 322]).

barrelierei Boissier, *Annales des Sciences naturelles* 3e Série 1: 125 (1844).

Type material: "Italia australi (TEN.), Sicilia (JUSS.), Sardinia (MORIS.), Africa boreali DESF. herb. meum".

odoratum Lamarck, *Encyclopédie Méthodique* Vol. 4 (2): 756 (1798) [Index Kewensis].

Type material: Three specimens in P-JU.

pyramidale Boissier & Haussknecht ex Boissier, *Flora Orientalis* 2: 829 (1872).

Type: Iran: "in monte Awiheng Persiae austro-occidentalis", 2130 m, HAUSSKNECHT (Holo-: G-BOISS).

racemosum Jepson, *Flora of California* Vol. 2: 659 (1936).

Type material: San Joaquin, California, JEPSON 10287.

radiatum Willdenow see **carlinae**

radiciflorum Trattinnick see **humile** var. **radiciflorum**

ramboanum Mathias & Constance, *Bulletin of the Torrey Botanical Club* 81 (3): 215 (1954).

Type: "in rupestris humidis turfosis parce humosis, Aparados da Rocinha prope Bom Jesus, Rio Grande do Sul, Brasilia, 28 February 1946", RAMBO 32438 (UC 985501), (Iso-: B).

ranunculinum Willdenow see **humile**

ranunculoides Bentham see **subacaule**

rauhianum Mathias & Constance, *Bulletin of the Torrey Botanical Club* 84 (3): 192 (1957).

Type: Peru: "CUSCO: Rio Marcapata, dry places, 1500–2500 m alt. 15–20 May 1954, RAUH & HIRSCH P 1279" (Holo-: UC, Iso-: HEID, SMU).

raulinii Mathias & Constance, *Sellowia* 23: 47 (1971).

Type: "Brasil: Santa Catarina: Mun. Meleiro: mata Serra do Pilão, alt. 1000 m, P. R. REITZ 3419 (29. 1. 1950)" (Holo-: HBR 14174; Iso-: RB 86010).

ravenelii see **aquaticum** var. **ravenelii**

rechingeri Tamamschan & Pimenov in Rechinger, Flora Iranica 162: 55 (1987).

Type: In saxosis 10 km W Shahrestan versus Deh Kundi, 2200 m, substr. Tonschiefer, 2. 7. 1967, RECHINGER f. 36816 (Holo-: W, Iso-: G).

regnellii Malme, Arkiv för Botanik 3 No. 13: 9 (1904).

Type material: Rio Grande do Sul: “Cachoeira, in summa ripa praerupta rivuli campestris, 5. 1. 1902, MALME, Plantae Itineris Regnellianae II No. 973 (S). (Specimina fructibus maturis submaturisve ornata). Minas Gerais: in cacuminibus siccis montis Serra de Caldas, 1. 10. 1873, MOSÉN 541. (Specimina floribus ornata). Caldas, 23. 11. 1861, REGNELL III: 604 p. p. (S). Specimina fructibus submaturis immaturisve ornata. Ad aquaeductum, 5. 12. 1873, MOSÉN 890 (Specimina fructibus submaturis immaturisve ornata)”.

farinosum Glaziou, Bulletin de la Société Botanique de France 56, Mémoires 3: 330 (1909), nomen nudum, p. p.

Type material: Brazil: “Bas de la Serra dos Pyreneus, dans le campo, Goyaz, [GLAZIOU] No. 21467, 21468”.

reitzii Mathias & Constance, Bulletin of the Torrey Botanical Club 85 (4): 255 (1958).

Type: Brazil, Santa Catarina: “Mun. Bom Retiro: bog and pasture, by Fazenda Santa Antonio, Campo dos Padres, alt. cas. 1650 m”, 23. January 1957 SMITH & REITZ 10336 (UC 1.085.147; US).

reptans Hemsley, Hooker’s Icones Plantarum 26: pl. 2543 (1897).

Type: Quezaltenango, BERNOULLI & CARIO no. 2745 (K).

reptans Willdenow see **baldwinii**

rigidum Lamarck see **spinalba**

riparium Larranaga, Escritos de Don Damaso Antonio Larranaga, Vol. 2: 109 (1923).

rochei Constance, Brittonia 31 (3): 365 (1979).

Type: Paraguay: “In altaplanitie et declivibus ‘Sierra de Amambay’”, Febr. 1908, ROJAS, HASSLER, Plantae Paraguariensis no. 10215 (Holo-: UC; Iso-: BAF, BM, G, K, P, W).

rojasii Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 248 (1913).

Type material: “Nord-Paraguay: Sierra de Amambay (ROJAS in HASSLER, Pl. parag. n. 10075 – blühend im Januar)” (B, G).

rosei Hemsley, Hooker’s Icones Plantarum 26: pl. 2579 (1899).

Type material: “between Dolores and Santa Gertrudis, and other localities”, J. N. ROSE 2035 (K), 2456, 3526 (US).

rostratum Cavanilles, Anales de Historia Natural 2 (4): 118 (1800).

Type material: Ex Talcahuano in Chile, Herb. CAVANILLES (MA).

Note: This is an exclusively South American species. See note at *E. ovinum*.

rostratum var. **diversifolium** Philippi ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 168 (1913).

Type material: Colchagua, PHILIPPI.

rostratum var. *paludosum* see **paludosum**

sanguisorba Chamisso & Schlechtendahl, Linnae 1: 339 (err. typ. 239) (1826).

Type material: Brazil: Prov. Rio Grande do Sul, SELLOW (K).

Reilia eryngioides Steudel, Synopsis Plantarum Glumacearum Pars 2: 311 (1855).

sanguisorba var. **rosulatum** Urban in Maritus & Eichler, Flora Brasiliensis Vol. 11 Pars 1: 319.

Type material: “in montibus altis ad Murungaba m. Mar. flor.: LANGSDORFF no. 317”.

sarcophyllum Hooker & Arnott in Hooker, Botanical Miscellany 3: 352 (1833).

Type material: “Massa Fuera, near Juan Fernandez, CUMING (N. 1355)” (Holo-: K).

- scaposum** Turczaninow, Bulletin de la Société Impériale des Naturalistes de Moscou 20 (1): 172 (1847).
 Type material: Mexico: "Oaxaca", 9000 feet, GALEOTTI 2766 (P).
commutatum Wolff, Repertorium novarum specierum regni vegetabilis 8: 306 (1910) [MATHIAS & CONSTANCE 1941: 380].
 Type material: Mexico: "Oaxaca: Sierra de San Felipe, 10300' (PRINGLE, Pl. mex. no. 4834), blühend im Oktober" (M).
costaricense Wolff, Repertorium novarum specierum regni vegetabilis 7: 278 (1909) [MATHIAS & CONSTANCE 1941: 380].
 Type material: "Costarica: Prov. Carthago, Volcan de Turrialba, 2600 m. s. m. floret mense Januario, fruct. m. Februario (JOHN DONNEL SMITH, Pl. guatemal. necnon salvador. etc. no. 7528 leg. PITTIER Herb. Mus. Berol.)" (G, M).
longipetiolatum Hemsley, Hooker's Icones Plantarum 26: pl. 2504 (1897) [MATHIAS & CONSTANCE 1941: 380].
 Type material: "Mexico: near San Cristobal, Chiapas, 7000–8800 feet, NELSON 3151".
nelsonii Coulter & Rose, Contributions of the US National Herbarium 3 (5): 300 (1895) [MATHIAS & CONSTANCE 1941: 380].
 Type material: "Collected by E. W. NELSON near La Parada, altitude 7500 to 8500 feet, August 19, 1894 (No. 1011), and on mountains about Yalalag, altitude 6000 feet, August 1, 1894 (No. 972)".
- scariosum* Delaroché see **glomeratum**
- schaffneri* Hemsley see **bonplandii**
- schiedeanum** Chamisso & Schlechtendahl Linnaea 5: 206 (1830).
 Type material: Mexico: Jalapa, SCHIEDE & DEPPE (Iso-: G).
 Note: This name has been considered to be synonymous to *serratum* by MATHIAS & CONSTANCE (1941: 381). However, the types are fairly different in the leaf shape and in the number of the cauline leaves, in number and shape of the involucreal leaves and in habitus. Therefore they are treated as separate species in this list.
- schwackeanum** Urban ex Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 243 (1913).
 Type material: Brazil: "Minas Gerais, in der Nähe von Sao Joao d'El Rei (SCHWACKE, n. 10201 – fruchtend im Dezember; Alvaro Silveira in Comm. geogr. e. geol. de Minas n. 1397 – blühend im Oktober); Rio Grande do Sul, Porto Alegre, auf dürren Sandstellen (C. et M. LINDMAN n. 659 – blühend im November); São Paulo, Serra dos Orgaos (USTERI n. 13)".
- scirpinum** Chamisso, Linnaea 8: 324 (1833).
 Type material: Brasília, SELLOW (G, ex B).
- seatonii* Coulter & Rose see **proteiflorum**
- seleri* Wolff see **beecheyanum**
- sellowii** Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 249 (1913).
 Type material: Brazil: "ohne nähere Angabe (SELLOW – Herb. Berlin)".
- serbicum** Pančić, Verhandlungen des zoologisch-botanischen Vereins in Wien 6: 520 (1856).
 Type material: "Steinige, buschige Abhänge bei Dobraca im Kragujevacer – am Fuße des M. Stol im Cacaker Kr. August. als *E. digitatum* an Freunde verschickt" [i. e. sub *digitatum*].
digitatum Pančić l. c. nudum.
- serra** Chamisso & Schlechtendahl, Linnaea 1: 346 (err. typ. 246) (1826).
 Type material: "In Brasilia meridionalis provincia Cispatatina prope Montevideo legit SELLOW" (K).
floribundum var. *pycnocephalum* Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 313 (1879).
 Type material: Brazil: "in prov. Rio Grande: GAUDICHAUD n. 1156 [P]; prope Montevideo, SELLO[w] n. 1902".

floribundum var. *serroides* Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 313 (1879).

Type material: “in brasilia australi prope S. Ignatio: SELLO[W] n 1245; loco non adnotato: SELLO[W] n. 4859”.

platyphyllum Decaisne, Bulletin de la Société Botanique de France 20: 24 (1873) [URBAN, in herb. P].

Type material: “Brasil. austr. provinc. Goyaz-A. St. (H. n. 805); Rio Grande Herb. imp. bras. no. 1156 [P]. – Herb. Mus. et cult. in hort. parisino [P]”.

serratum St. Lager, Annales de la Société Botanique de Lyon 8: 203 (1881), nomen superfl.

Chromosome number: $2n = 16$ (HAMEL 1955: 500).

serratum Cavanilles, Anales de Historia Natural 2 (4): 132 (1800).

Type material: “Huanajuato in Nova-España, Herb. CAVANILLES” (MA).

serratum St. Lager see **serra**

siculum Lojaccono Pojero, Malpighia 20: 294 (1906).

Type material: “Falde delle Pizzuta. Herb. PAN.! Busumbra LOJAC. Tin 19 giugno 1827”.

smithii Mathias & Constance, Sellowia 23: 47 (1971).

Type: Brazil: “Santa Catarina: Mun. Bom Retiro: Bog, Fazenda Campo dos Patres, alt. 1650 m, L. B. SMITH & P. R. REITZ 10459 (25. 1. 1957) (Holo-: UC 1084766, Iso-: K, L, P, US)”.

sparganifolium Wolff see **sparganophyllum**

sparganoides Clos in Gay, Historia Fisica y Politica de Chile 3: Botanica: 113 (1847).

Type material: Chile, GAY (P).

sparganophyllum Hemsley, Hooker’s Icones Plantarum 26: pl. 2508 (1897).

Type material: “New Mexico: Las Playas Springs, near the Sierra de los Animos, WRIGHT, 1103” (K).

longifolium Gray, Plantae Wrightianae Texano-Neo-mexicanae Part 2: 64 (1853) non CAVANILLES.

Type material: Same as *sparganophyllum*.

sparganifolium Wolff in Englers Pflanzenreich 4 (228): 256 (1913), nomen superfl.

spiculosum Hemsley, Hooker’s Icones Plantarum 26: pl. 2507 (1897).

Type material: “Mexico: without locality, [1842] OCAMPO [P]; Michoacan, HAHN” (K ex P); “Estado de Morelos, F. ALTAMIRANO, 18” (US).

Note: This species may be synonymous to *haenkei* Presl ex DeCandolle

spinalba Villars, Prospectus de l’Histoire des Plantes de Dauphiné: 26 (1779).

leucacanthum St. Lager, Annales de la Société Botanique de Lyon 8: 125 (1880) 25, nomen superfl.

rigidum Lamarck, Encyclopédie Méthodique Vol. 4 (2): 752 (1798) [GRENIER & GODRON 1848: 755; !].

Holotype: P-LAM.

Chromosome number: $2n = 16$, HAMEL (1955: 497).

spinosepalum Mathias see **vaseyi** var. **globosum**

spinosepalum var. *medium* (Jepson) Mathias see **castrense**

spinosissimum Stapf & Wettstein in Stapf, Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 51: 369 (1886).

Type material: Lycia: “In glaerosis haud procul a cacumine montis Ak Dagħ”, 17. 7. 1882, LUSCHAN.

stellatum Mutis see **humile** var. **stellatum**

stenolobum Hemsley see **pectinatum**

- stenophyllum** Urban in Maritus & Eichler, Flora Brasiliensis 11 Pars 1: 330 (1879).
- stenophyllum** var. **corymbosum** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 330 (1879).
Type material: "Uruguay, SELLOW, 4510".
- stenophyllum** var. **hassleri** Urban in Chodat & Hassler, Bulletin de l'Herbier Boissier 2me Série 3: 1123 (1903).
Type material: Paraguay: "in valle fluminis Y-aca in stagnis prope Valenzuela, m. Febr. fl. HASSLER n. 7130" (B, G).
- stenophyllum** var. **subracemosum** Urban in Martius & Eichler, Flora Brasiliensis 11, Pars 1: 330 (1879).
Type material: "Brasilia australis, SELLOW, no. 3451, 3606; in prov. Rio Grande, GAUDICHAUD no. 1154" (P).
- strotheri** Constance & Affolter, Annals of the Missouri Botanical Garden 77 (4): 852 (1990).
Type: "Mexico: Chiapas: summit of Cerro Morotal, E Sierra Madre, 15. Oct. 1980, JOHN L. STROTHER (C-2189)" (Holo-: UC).
- suaveolens* Broussonet see **corniculatum**
- subacaule** Cavanilles, Anales de Historia Natural 2 (4): 116 (1800).
Type material: "pueblo del Chalma en la Nueva-España", Herb. CAVANILLES (MA).
ranunculoides Bentham, Plantae Hartwigianae imprimis Mexicanas adjectis nonnullis grahamensis: 38 (1839) [CONSTANCE 1977: 14] [!!].
Type material: "in pascuis montanis, Anganguio", HARTWEG 294 (Iso-: G, K).
- subinerme** (Wolff) Mathias & Constance, Sellowia 23: 49 (1971).
Type: Brazil: "Prov. Parana, Capao Grande bei Ponte Grossa in Sümpfen, P. DUSEN 2617" (Lecto-: S [MATHIAS & CONSTANCE 1971]).
aquaticum var. *subinerme* Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 242 (1913) (basionym).
- subulatum* Vellozo see **paniculatum**
- supinum** Black, Transactions and Proceedings of the Royal Society of South Australia 60: 140 (1931).
Type material: South Australia: Diamantina River, Aug. 1930, MORGAN (K), near Innamincka, COCKBURN.
plantagineum var. *supinum* F. v. Mueller in herb., nomen illeg.
- synchaetum* (Gray) Coulter & Rose see **yuccifolium** var. **synchaetum**
- syriacum* Lamarck see **creticum**
- tenue* Hooker & Arnott see **beecheyanum**
- tenue** Lamarck, Encyclopédie Méthodique Vol. 4 (2): 755 (1798)
Type material: "Espagne, sur les collines, CAVANILLES, VALH." (Holo-: P-LAM).
- tenuissimum** Hemsley, Hooker's Icones Plantarum 26: pl. 2580 (1897).
Type material: "Jalisco, BEECHEY" (K).
- ternatum** Poiret, Encyclopédie Botanique Supplement 4: 295 (1816).
tournefortianum Sternberg, Sylloge plantarum novarum vel minus cognitarum Ratisbonae 1: 32 (1824) [WOLFF (1913: 137)].
Type material: "in insula Creta, SIEBER".
- tetracephalum* Bunge see **ovinum**
- thorifolium** Boissier, Annales des Sciences naturelles 3e Série 1: 122 (1844).
Type: Turkey, S. W. Anatolia: "in montibus Lyciae", 1843, PINARD (Holo-: G-BOISS).
Chromosome number: 2n = 16 [CONTANDRIOPOULOS & QUEZEL (1976: 417)].
- thyrsoideum** Boissier, Annales des Sciences naturelles 3e Série 1: 121 (1844).
Type: "ad radices montis Ararat", AUCHER 3570 (Iso-: K).

tournefortianum Sternberg see **ternatum**

tournefortii Bubani see **bourgatii**

tricuspidatum Linnaeus, *Demonstrationes Plantarum in Horto Upsaliensis*: 8 (1753).

zanonii Lamarck, *Encyclopédie Méthodique* Vol. 4 (2): 754 (1798) [Index Kewensis].

Type material: “à la côte de Barbarie”, DESFONTAINES.

tricuspidatum subsp. **bocconei** (Lamarck) Wörz **comb. nov.**

bocconai Lamarck, *Encyclopédie Méthodique* Vol. 4 (2): 754 (1798) (basionym).

Type material: “Sicilie; Côte de Barbarie, DESFONTAINES” (P-LAM).

tricuspidatum subsp. **bovei** (Boissier) Battandier in Battandier & Trabut, *Flore de l’Algérie*, Dicotyledones: 340 (1889).

bovei Boissier, *Annales des Sciences naturelles* 3e Série 1: 124 (1844) (basionym).

Type material: “In Africa boreali circa Bone et Stora herb. meum, BOVÉ pl. exs. sub *E. dichotomo*” (Holo-: G).

var. *bovei* (Boissier) Wolff in Engler, *Das Pflanzenreich* Vol. 4 (228): 134 (1913).

tricuspidatum subsp. **mauritanicum** (Pomel) Battandier in Battandier & Trabut, *Flore de l’Algérie*, Dicotyledones: 340 (1889).

mauritanicum Pomel, *Nouveaux Matériaux pour la Flore Atlantique*: 138 (1874) (basionym).

Type material: “Garrouban, Merdjadjou d’Oran”.

tricuspidatum var. *variifolium* see **variifolium**

trifidum L. see **campestre**

tripartitum Desfontaines, *Catalogus Plantarum Horti Regii Parisiensi* ed. 3: 405 (1829), not seen.

triquetrum Vahl, *Symbolae Botanicae* Vol. 2: 46 (1791).

Type material: “in campis aridis regni Tunetani, FORSKAL” (C).

creticum Jan ex Gussone, *Florae Siculae Prodrromus* 1, Addenda et Emendanda: 7 (1827), nomen nudum, in synon. [!].

triquetrum subsp. **xauense** (Pau) Jovet & Sauvage, *Bulletin de la Société des Sciences Naturelles et Physiques du Maroc* 38: 204 (1956).

triquetrum var. *xauense* Pau in Vidal y Lopez, *Boletín de la Real Sociedad Española de Historia Natural* 21: 277 (1921) (basionym).

tuberosum Rafinesque-Schmaltz, *Florula Ludoviciana*: 60 (1817).

tucano Vellozo see **pristis**

tzeltal Constance, *Brittonia* 32 (2): 124 (1980) Mexico.

Type: Mexico, Chiapas: “steep slopes along road just above Tenejapa Center, Mpio. de Tenejapa, 7100 feet, 5. 8. 1964, D. E. BREEDLOVE 6897” (Holo-: DS, Iso-: UC).

uncinatum Chamisso & Schlechtendahl see **elegans** var. **uncinatum**

unifultum Clos in Gay, *Historia Fisica y Politica de Chile* 3: Botanica: 113 (1847).

Type material: Chile: Prov. Colchagua, in aridis. Acquihoa Febrero 1831, GAY no. 2 (P).

urbanianum Wolff, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 40: 295 (1908).

Type material: Brazil: “Prov. Santa Catharina, Serra do Oratorio, in paludibus formationis ‘Campo’ dictae (ULE n. 1477; fruct. mense Januario 1890)”.

uruguayense Hiroë see **pratense**

variifolium Cosson, *Bulletin de la Société Botanique de France* 22: 59 (1875).

Type material: Djebel Ouensa, 22. 7. 1875, IBRAHIM, (Iso-: G, K).

dichotomum var. *ficariifolium* Ball, *Journal of Botany* 1873: 334.

Type material: Morocco: Ait Mesan, circa 1700 m, 13–16 May 1871, BALL, Iter Maroccanum (K).

tricuspidatum var. *variifolium* (Cosson) Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 134 (1913).

Chromosome number: $2n = 16$ (HAMEL 1955: 496).

vaseyi Coulter & Rose, Botanical Gazette 13 (6): 142 (1888).

Type material: "San Antonio River, Monterey County, California", VASEY 222 (US Type, Iso-: K).

vaseyi var. **globosum** (Jepson) Hoover in Mathias & Constance, American Midland Naturalist 25 (1941): 387.

globosum Jepson, Madroño 1: 108 (1922) (basionym).

Type: Exeter, Tulare County, California, K. BRANDEGEE.

spinosepalum Mathias, Brittonia 2: 245 (1936), nomen novum [MATHIAS & CONSTANCE 1941: 387].

vaseyi var. *castrense* (Jepson) Hoover see **castrense**

vaseyi var. *oblanceolatum* see **aristulatum**

venustum Bartlett in Constance, Brittonia, 32 (2): 121 (1980).

Type: "Mexico: Tamaulipas: near crest of range above Mesa di Tierra, vicinity of San José", 12. 7. 1930, H. H. BARTLETT (Holo-: MICH).

vesiculosum Labillardière, Novae Hollandiae Plantarum specimen 1: 73 t. 98 (1804).

Type material: "Capite Van Diemen, Herb. LABILLARDIÈRE" (Iso-: G).

virens Link see **campestre** var. **virens**

virgatum Lamarck see **integrifolium**

virgatum var. *ludovicianum* see **integrifolium** var. **ludovicianum**

virginianum Lamarck see **aquaticum**

virginianum Elliott see **aquaticum**

viviparum Cervantes see **cervantei**

viviparum Gay, Annales des Sciences Naturelles 3e Sér. 9: 171 (1848).

vulgare see **campestre** var. **virens**

wanaturi Woronow, Bulletin du Musée de Caucase 11: 54 (1917).

Type material: "Armenia turcica: districtus Bajazet; in decliv. prope Sandzan, 1. VII. 1916, lg. B. ŠIŠKIN; distr. Muš: in decliv. lapidosis circa Bostan-kaja 26. VII. 1916, leg. B. SAPOZNIKOW et B. ŠIŠKIN."

woronowii Bordzilowski, Repertorium novarum specierum regni vegetabilis 36: 303 (1934) [PIMENOV & TAMAMSCHAN 1987, SHISHKIN 1950].

Type material: "Armenia. Daralagez. Supra Baschkend. 26. VII. 1933 (initio florescendi. ARMEN TACHTADZHJAN! (Herb. Musei Hist. Natur. Armeniae in Eriwan)".

watsonii Coulter & Rose see **longifolium**

weberbaueri Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 294 (1908).

Type material: "Peru, dep. Junin, Prov. Tarma, in montibus a Palca orientem versus, in formatione aperta fructibus intermixta, in 2700–3100 m altitudinis WEBERBAUER n. 2438; flor. mense Februario 1903".

wiegandii Adamovic, Oesterreichische Botanische Zeitschrift 55: 178 (1905).

Type material: "Macedonia: In saxosis praeruptis fluminis Treska ad Skoplje detexit D. BIERBACH".

wolffii Mathias see **fluitans**

woronowii Bordzilowski see **wanaturi**

wrightii Gray see **heterophyllum**

yuccifolium Michaux, Flora Boreali-Americana 1: 164 (1803).

Type material: "in paludosis Viginiae" MICHAUX (P).

aquaticum Linnaeus Species Plantarum ed. 2, 1: 336 (1762), non Linnaeus Species Plantarum I (ed. 1): 232 (1753) [MATHIAS & CONSTANCE 1941: 370].

aquaticum var. *normale* Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 240 (1913).

yuccifolium var. **synchaetum** Gray ex Coulter & Rose, Revision of North American Umbelliferae: 94 (1888).

Type material: "Florida (CHAPMAN, CURTISS, PALMER), Louisiana, near New Orleans (Dr. INGALLS, in 1835)".

synchaetum (Gray ex Coulter & Rose) Coulter & Rose, Contributions from the US National Herbarium 7 (1): 44 (1900) (basionym).

aquaticum var. *synchaetum* (Gray ex Coulter & Rose) Wolff in Engler, Das Pflanzenreich Vol. 4 (228): 242 (1913).

zanoni Lamarck see **tricuspidatum**

zosterifolium Wolff, Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 229 (1908).

Type material: Brazil: "Prov. Santa Catharina, in cacumine 'Serra de Oratorio' in formatione 'Campo' dicta (ULE n. 1476; flor. mense Januario 1890)" (P).

4. Hybrids

x **chevalieri** Sennen, Bulletin de la Société Botanique de France 49: 375 (1902).

bourgatii x *campestre*.

x **dalmaticum** Teyber, Verhandlungen der kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien 60: 259 (1910).

Type material: "Inter parentes pluribus locis circa urbem Makarska in Dalmtia".
amethystinum x *creticum*.

x **embergeri** Sennen ex Sennen & Mauricio, Catalogo de la Flora del Rif Oriental: 46 (1933), nomen nudum.

dichotomum x *tricuspidatum*.

x **heteracanthum** Teyber, Verhandlungen der kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien 59: 66 (1909).

Type material: "locis incultis inter Dalmatia urbes Spalatum et Salonam in consortio parentum et *Eryngii amethystini*".
campestre x *creticum*.

x **kalotaszegense** Papp & Ujv., not seen.

planum x *campestre*.

x **mohamedanii** Font Quer & Pau, Cavanillesia 4: 31 (1931).

Type material: "In cacumine montis Lexhab (Gomara-Imp. Maroc.), inter parentes, ad 2000–2100 m alt., ubi d. 22. Julii legi; Dr. FONT QUER – Iter Maroccani, 1930" (Iso-: G).

bourgatii var. *hispanicum* x *huteri*.

x **rocheri** Corbière ex Guétrot, Plantes Hybrides de France 3–4: 100 (1927–28, publ. 1929).

campestre x *maritimum*.

x **visianii** Teyber, Verhandlungen der kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien 60: 259 (1910).

Type material: Inter parentes prope urbem Salona in Dalmatia.

x *intermedium* (Gelmi) Dalla Torre & Sarntheim, Die Farn- und Blütenpflanzen von Tirol, Liechtenstein und Vorarlberg Vol. 4/2: 899 (1909) non Weinmann (1837) [!].

campestre var. *b. intermedium* Gelmi, Prospectus Florae Trentinae: 71 (1893) (basionym), not seen.
amethystinum x *campestre*.

x **zabeli** Christ, Berichte der Schweizerischen Botanischen Gesellschaft 17: 258 (1907).
alpinum x *bourgatii*.

Chromosome number: $2n = 16$, BURDET & MIÈGE (1968).

Note: This is a garden hybrid, which is sterile (BURDET & MIÈGE, l. c.).

5. Synonyms from other genera

Atirsita pumila Rafinesque-Schmaltz see *E. baldwinii*

Klonion gracile Rafinesque-Schmaltz see *E. baldwinii*

Klonion tenuifolium Rafinesque-Schmaltz see *E. baldwinii*

Lessonia bupleurioides Bertero ex Hooker & Arnott see *E. bupleuroides*

Reilia eryngioides Steudel see *E. sanguisorba*

Strebanthus auriculatus Rafinesque-Schmaltz see *E. baldwinii*

Strebanthus gracile Rafinesque-Schmaltz see *E. baldwinii*

Strebanthus heterophyllus Rafinesque-Schmaltz see *E. prostratum*

Strebanthus humilis Rafinesque-Schmaltz see *E. baldwinii*

Strebanthus tenuifolium Rafinesque-Schmaltz see *E. baldwinii*.

6. Excluded name

moluccanum Buwalda in van Steenis, Flora Malesiana Ser. 1, Vol. 4: 127 (1949).

Type material: Indonesia, Moluccas, Ceram, summit zone of Mt. Pinaja, ca. 3000 m alt., EYMA a. 1937/8 (Iso-: K, L).

Note: This name is not validly published, because its original description is in English instead of Latin language (see Art. 36 of the ICBN rules). The type does not belong to the genus *Eryngium*. It may be a species of the Hydrocotyloideae sub-family of the Apiaceae, probably the genus *Hydrocotyle*. This taxon needs further study.

7. Names not cleared

albo-villosum Forskal, Flora Aegyptio-Arabica: XIII, nomen nudum.

andersoni Loudon, Hortus Britannicus: 101, not seen.

bourgatii Vahl, Symbolae Botanicae Vol. 2: 47 (1791).

caucasicum Fischer ex Steudel, Nomenclator Botanicus ed. 1: 315 (1821), nomen nudum.

crinitum Lange, Videnskabelige Meddelelser fra den naturhistoriske Forening i Kjoebenhavn 1865: 32 (1866).

Type material: "Circa Malaga (HÄNS. in herb. AGARDH)".

dubium Trattinick, Archiv der Gewächskunde: tab. 188 (1841), not seen.

foetidum Forskal, Flora Aegyptio-Arabica: XXIII (1775) non L. (1753).

- gruinum** Hornemann, Enumeratio Plantarum Horti botanici Hafniensis: 16 (1807), nomen nudum.
- x **hybridum** Bergmans, Vaste Pl., Rotsheesters: 318 (1924), not seen.
- laeve** Brousson ex Sprengel in Roemer & Schultes, Caroli a Linné equitis Systema Vegetabilium Vol. 6: 337 (1820), nomen nudum.
- microcephalum** Sieber ex Steudel, Nomenclatur Botanicus ed. 2: 592 (1840), nomen nudum.
- pentanthum** Link ex Steudel, Nomenclator Botanicus ed. 1: 316 (1821), nomen nudum.
- poterium** Chodat, Bulletin de la Société Botanique de Genève 2 me Série 12: 43 (1921), in obs., nomen nudum.
- pusillum** Boissier, Annales des Sciences naturelles 3e Série 1: 125 (1844).
Type material: "In Hispania centrali prope Matritum (herb. PAVON!), Lusitania (TOURN.), Baetia prope Gades (herb. meum), Gallia occidentali in Neustria (herb. MAILLE)".
- rostratum** var. **subdecumbens** Bentham, Flora Australiensis 3: 370 (1866).
Type material: Swan River, DRUMMOND, 3rd coll. no. 230 (K, G), Tweed River, OLD-FIELD.
- thessalonicum** Nadj, [Charrel] Emp. Ottom [Pl. de Salon.] (1892) 22, not seen.

8. New combination

Eryngium tricuspdatum L. subsp. *bocconeii* (Lamarck) Wörz **comb. nov.** See p. 35.

9. New typifications

- E. alpinum* L. see p. 2
E. aquaticum L. see p. 3
E. foetidum L. see p. 16.

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