WORLD CHECKLIST OF GERANIUM L. (GERANIACEAE)

by

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Resumen

Se presenta una “checklist” del género Geranium L. (Geraniaceae) en la que se aceptan 423 especies, repartidas en 3 subgéneros y 18 secciones. Seguimos la clasificación propuesta por Yeo, aunque reconocemos la sección Brasiliensia en el subg. Erodioidea, y las secciones Neurophyllodes, Paramensia y Azorelloida en el subg. Geranium. La sect. Azorelloida es propuesta como nombre nuevo para la sect. Petroea R. Knuth, nom. illeg. Asimismo se propone G. collae como nombre nuevo para G. intermedium Colla, nom. illeg. Se incluye una clave para la identificación de los subgéneros y secciones. Después de revisar la práctica totalidad de los nombres publicados en Geranium se da el nombre correcto, el lugar de publicación y el área de distribución de cada especie aceptada, así como las referencias bibliográficas más importantes para cada una de ellas. Para codificar las distribuciones geográficas, en los niveles de “región” y “país botánico”, se han seguido las propuestas del International Working Group on Taxonomic Databases (TDWG).

Palabras clave: Geranium, Geraniaceae, corología, checklist, clasificación seccional, nomenclatura.

Abstract

A checklist of the genus Geranium L. (Geraniaceae) is presented. Four hundred and twenty three species are recognized in 3 subgenera and 18 sections. Our classification differs from Yeo’s only in some aspects of subg. Erodioidea and Geranium. Section Brasiliensia is included in subg. Erodioidea, and sect. Neurophyllodes, Paramensia and Azorelloida in subg. Geranium. Section Azorelloida is proposed as an avowed substitute (nom. nov.) for sect. Petroea R. Knuth, nom. illeg. G. collae is proposed as avowed substitute (nom. nov.) for G. intermedium Colla, nom. illeg. An identification key to subgenera and sections is presented. A thorough revision of available names in the genus, and a review of their nomenclatural status were carried out. Correct name, place of publication and distribution are given for each species. Geographical distributions are given at region and botanical country levels following the International Working Group on Taxonomic Databases (TDWG) standard. When possible, selected references with relevant information are also included.

Key words: Geranium, Geraniaceae, geographical distribution, checklist, sectional classification, nomenclature.

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INTRODUCTION

After Knuth (1912) published his monograph on Geranium, several regional accounts as well as some detailed studies on some sections were published. These papers vastly increased the number of known species. Knuth (1912) recognized ca. 260 species, and over 423 are currently accepted. Information regarding the genus is nowadays scattered over numerous papers, which makes it difficult to grasp composition, circumscription, or any other particular of a given group within Geranium, or even of any species. The exception is Clifton's (1992) worldwide compilation; however, the shallow treatment of nomenclatural and distribution data limits its use.

The aim of this paper is to make accessible the most relevant information about Geranium produced in the last eighty years in a concise way. We mostly follow the infrageneric scheme proposed by Yeo (1984), but introduce some changes.

This compilation is primarily based on literature, but also numerous herbarium specimens were reviewed in order to clarify the systematic position of some problematic taxa. Thus, the checklist is the result of collating, interpreting and harmonizing the alternative taxonomies found in the literature and our own work with Geranium (see acknowledgment) (Nieto Feliner & Aedo, 1995; Aedo, 1996).

INFRAGENERIC CLASSIFICATION

Delimitation of Geranium, as we understand it, was settled early, when Erodium, Monsonia and Pelargonium were segregated from Linnaeus's original circumscription, and since then never questioned (Aiton, 1789; L'Héritier, 1792). Conversely, infrageneric classification of Geranium, has never been very stable. Dumortier (1827) was the first to propose an infrageneric division, split the genus into three sections. Reiche (1890) proposed the first classification for the entire genus, which he divided into 10 sections. Knuth (1903) recognized 12 sections and later, in his monograph (Knuth, 1912), distinguished 30. Subsequently, Knuth (1931) added two more.

Knuth's (1912, 1931) scheme —32 sections for the genus— has been questioned by numerous authors (Warburg, 1938a, 1938b; Tokarski, 1972), though without advancing an alternative until Yeo's (1984) review. Yeo first subdivides the genus into three subgenera on the basis of fruit-discharge mechanism, as Picard (1837) already proposed, without acceptance at the time.

Yeo (1984) distinguishes three principal types of fruit discharge, each characterizing one of the three subgenera. In the "seed-ejection-type" (which characterizes subg. Geranium) a single seed is actively discharged by the explosive recurvature of the awn, which remains together with the mericarp attached to the columella. The second type of discharge or "carpel-projection-type" characterizes subg. Robertium. Here, the explosive recurvature of the awn also acts as the propelling force, but in this case the whole mericarp, containing the seed, is dispersed, whereas the awn remains with the columella. Subgenus Erodioidea is identified by the "Erodium-type" discharge. In this case the mericarp, including the coiled awn, is propelled over a short distance. We follow the scheme proposed by Yeo (1984, 1990), except for a few changes that we discuss below (Table 1). We also provide an identification key to subgenera and sections, which includes the proposed new sections.

At first, Yeo (1984) distinguished two sections in subg. Erodioidea: sect. Erodioidea and sect. Subacaulia, and later Yeo (1990) added sect. Aculeolata; all three characterized by the presence of two-flowered cymes. This view, accepted in a recent revision of the subgenus (Aedo, 1996), is modified with the addition of sect. Brasilensis, which has one-flowered cymes. We examined specimens belonging to two of the three species of this section (G. arachnoideum and G. brasiliense), and confirmed that both species have "Erodium-discharge-type" fruits, the defining feature of the subgenus Erodioidea. However, this type of discharge,
Table 1

Classification of *Geranium* in subgenera and sections with the number of species of each group

<table>
<thead>
<tr>
<th>Subgenus</th>
<th>Section</th>
<th>Number of species</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Erodioidea</td>
<td>1. Erodioidea</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2. Aculeolata</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3. Subacaulia</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>4. Brasiliensi</td>
<td>3</td>
</tr>
<tr>
<td>II. Geranium</td>
<td>5. Geranium</td>
<td>339</td>
</tr>
<tr>
<td></td>
<td>6. Dissecta</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>7. Tuberosa</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>8. Neurophyllodes</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>9. Paramensia</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>10. Azorelloida</td>
<td>1</td>
</tr>
<tr>
<td>III. Robertium</td>
<td>11. Polyantha</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>12. Trilopha</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>13. Divaricata</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>14. Batrachioidea</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>15. Ungiculata</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>16. Lucida</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>17. Ruberta</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>18. Anemonifolia</td>
<td>2</td>
</tr>
</tbody>
</table>

widespread in the family, is likely plesiomorphic, and therefore does not support the monophyly of the subgenus (Niño Feliner & Aedo, 1995). Likewise, geographical distribution of the four sections, scattered over the Old World and South America (fig. 1) suggests that the subgenus is indeed an amalgam of relict and probably basal groups in the genus.

Considering only type of fruit discharge, Yeo (1984, 1990) divides subg. *Geranium* into three sections. Section *Geranium* is a widespread group, absent only in tropical lowlands, deserts and polar regions (fig. 2), whereas sections *Dissecta* and *Tuberosa* are focused on the Mediterranean area and Western Asia (fig. 3). *Geranium* sect. *Geranium* is a heterogeneous group that comprises over 339 species, which requires a profound revision. We propose here segregation from it of three small sections on the basis of leaf shape and veining: sect. *Paramensia*, sect. *Neurophyllodes* and sect. *Azorelloida*.

Section *Paramensia* comprises two very peculiar species, endemic to Northern Andes (fig. 3). Both species are low shrubs with narrow, coriaceous, glabrous, parallel-veined leaves (linear in *G. exallum*; cuneate and shallowly 3-lobed at the apex in *G. jahnii*), have the petiole articulate with the blade, cymules with one flower and a very distinctive “seed-ejection-type”.

Section *Neurophyllodes* includes 10 taxa, all endemic to Hawaii (fig. 3), and shares with the previous section a shrubby life-form (up to 2.5 m high), leaf veining and petiole articulation position. However, the leaves are much larger, usually elliptic to ovate (though obovate or cuneate in some species), the petiole is articulated with the stipules, and the cymules are two-flowered. This section is also firmly supported by data from chloroplast DNA (Pax & al., 1997). The similarities between the two sections suggest a common origin (Standley, 1915), a possibility that should be explored further, especially the implications of petiole articulation, which is obviously derived and less likely to be homoplasic than leaf veining.

Section *Azorelloida* contains only one species, known from the Colombian Andes (fig. 3). It is also a low shrub with one-flowered cymules and leaves very similar to those of *G. jahnii*: coriaceous, glabrous, cuneate and 3-lobed at the apex, though the petiole is not articulate.

This is just a small contribution towards the clarification of the taxonomy of the subg. *Geranium*, where more sections need to be recognized. Yeo (1984, 1985) already pointed out affinities among many species and identified several groups, mostly in Europe, Asia and N America. Obviously, any clarification of the subgenus should take into account the sections proposed by Knuth (1912, 1931), some of which could fit into the Yeo’s (1984, 1990) scheme.

We follow the treatment proposed by Yeo (1984, 1990) for subg. *Robertium*. According to his scheme, the subgenus comprises 8 sections and 30 species. Section *Polyantha* (7 species) is endemic to Eastern Himalayas and Southern China. Section *Anemonifolia*
Fig. 1.—Distribution of Geraniium subg. Erodioideae (sect. Aculéolana, sect. Brasilienstta, sect. Erodioideae and sect. Subacuilla).
Fig. 2—Distribution of Geranium subg. Geranium (sect. Geranium).
Fig. 5.—Distribution of *Geranium* subg. *Robertium* (sect. *Anemonifolia*, sect. *Batrachioidea*, sect. *Polyantha* and sect. *Unguiculata*).
(2 species) also show a limited distribution, being endemic to Madeira Island. Section Trilopha (5 species) is restricted to mountains of Tropical Africa, Western Asia and Eastern Himalayas. Distribution of the remaining five sections (Lucida, Ruberta, Divaricata, Batrachioidea and Unguiculata) is focused on the Mediterranean area and Western Asia, though sect. Ruberta extends in the east to Japan, and in the south to mountains of Tropical Africa (figs. 4, 5). This subgenus, morphologically well-defined, is also firmly supported by data from chloroplast DNA (PRICE & PALMER, 1993).

ARRANGEMENT OF THE CHECKLIST

Subgenera and sections are arranged according to the scheme by YEO (1984, 1990). New sections are listed at the end of their respective subgenera. Within sections, species are in alphabetic order. For each accepted species, place of publication, selected references, and geographic distribution are provided.

We have examined the original publication for all accepted names and basionyms and checked the nomenclatural status of each one. We have verified all synonyms in the current literature (ca. 2600 names) as well, but they are not listed here for the sake of brevity. The checklist has been generated from a database with a computer program developed by us, NOMENFMI, which sorts, formats and ensures nomenclatural consistency of the listed names. The list of references (1300) used for the compilation of the checklist would be too large to be included here in full, and only selected references for each species —where descriptions, identification keys, illustrations, nomenclature or distributional data on each one can be found— is provided. These references are listed after the species name by an identifying number in square brackets. For some species no references, other than that for the protologue, are given. This is due either to their recent publication or to their remote distribution, as is the case with most species from South America.

Geographic distribution is recorded following the standard by HOLLIS & BRUMMITT (1992). We use level 2 (regions, grouped by continents) and level 3 (botanical countries) (see Appendix 1, 2). In a few cases, a more detailed distribution is provided using level 4 (basic recording units), or listing the specific localities between round brackets. Introduction in an area is indicated by enclosing its code in square brackets; extinction by appending the symbol † at the end the code; when presence is questionable in an area, a question mark follows its code.

Finally, we believe that others in the systematic community will find the checklist useful. We hope that it will assist those currently conducting research on Geranium and encourage others to undertake badly needed revisions of certain infrageneric groups.

KEY TO THE SUBGENERA AND SECTIONS OF GERANIUM

1. Fruit discharge "Erodium-type" (I. Geranium subg. Erodioidea) ........................................ 2
   - Fruit discharge type "seed-ejection" or "carpel-projection" ........................................ 5
2. Inflorescence armed with prickles .......................................................... 2. G. sect. Aculeolata
   - Inflorescence without prickles .................................................. 3
3. Cymules one-flowered ... 4. G. sect. Brasilienis 
   - Cymules two-flowered ........................................................ 4
4. Stems tall (20-80 cm), always erect; petals patent or reflexed, obtuse or mucronate at apex; inflorescence with both glandular hairs (>0.2 mm long) and ± sessile glands; nectaries pilose; petals with a very short claw .......................................................... 1. G. sect. Erodioidea
   - Stems short [up to 35(50) cm], usually decumbent; petals erect-patent, emarginate or obtuse at apex; inflorescence with only ± sessile glands (<40 mm long); nectaries glabrous; petals without claw .......................................................... 3. G. sect. Subacaulia
5. Fruit discharge type "seed-ejection" (II. Geranium subg. Geranium) ............. 6
   - Fruit discharge type "carpel-projection" (III. Geranium subg. Robertium) ............. 11
6. Mericarp with exappendiculate margin, never with prong or horny setiferous tubercle; awn twisted ........................................... 7. G. sect. Tuberosa
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Mericarp with the margin at the base drawn out into a prong or a horny setiferous tubercle; awn curved in one plane .................................. 7

7. Mericarp with the margin at the base drawn out into a prong lacking setae ... 6. G. sect. Dissecta


10. Petiole articulate with the stipules; cymules several-flowered ... 8. G. sect. Neurophyllodes

11. Leaves divided to the base ...................................... 12

12. Glandular hairs of the inflorescence purple; more than half the length of the stamens exserted from throat of flower ........................................ 18. G. sect. Anemonifolia


17. Perennial ............. 11. G. sect. Polyantha


5. G. argenteum L., Cent. Pl. II: 25 (1756) [1, 3, 7, 10, 37, 45, 47]


8. G. cinereum Cav., Diss. 4: 204, tab. 89 fig. 1 (1877) [1, 3, 7, 10, 37, 45, 47]
9. Geranium dolomiticum Rothm. in Bol. Soc. Esp. Hist. Nat. 34: 151 (1934) [1, 3, 37, 47]
Regions.—Southwestern Europe.
Botanical countries.—SPA.

Regions.—Western Asia.
Botanical countries.—TUR.

Regions.—Western Asia.
Botanical countries.—LBS.

12. G. nanum Coss. ex Batt. in Batt. & Trab., Fl. Algérie (Dicot.) 1: 119 (1888) [1, 3, 7, 47]
Regions.—Northern Africa.
Botanical countries.—MOR.

Regions.—Western Asia.
Botanical countries.—TUR.

Regions.—Western Asia.
Botanical countries.—TUR.

Regions.—Western Asia.
Botanical countries.—TUR.

Regions.—Western Asia.
Botanical countries.—TUR.

17. G. subargenteum Lange in Willk. & Lange, Prodr. Fl. Hispan. 3: 525 (1878) [1, 3, 7, 37, 47]
Regions.—Southwestern Europe.
Botanical countries.—SPA.

18. G. subcaulescens L'Hér. ex DC., Prodr. Fl. Hispan. 3: 640 (1824) [1, 3, 37, 45, 47]
Regions.—Southeastern Europe.
Botanical countries.—ALB GRC YUG.

Regions.—Southeastern Europe.
Botanical countries.—GRC YUG.


20. G. arachnoideum A. St.-Hil., Fl. Bras. Merid. 1: 82, tab. 20 (1825) [7]
Regions.—Brazil & Southern South America.
Botanical countries.—AGE BZS.

Regions.—Brazil.
Botanical countries.—BZL.

Regions.—Brazil.
Botanical countries.—BZS.

II. Geranium subgen. Geranium L.


Regions.—Western South America.
Botanical countries.—CLM ECU.

24. G. affine Ledeb., Fl. Altaic. 3: 229 (1831) [7, 29, 30]
Regions.—Siberia, Soviet Middle Asia, China & Mongolia.
Botanical countries.—ALT CHX KAZ MON.

25. G. albicans A. St.-Hil., Fl. Bras. Merid. 1: 83 (1825) [7, 17, 44]
Regions.—Brazil & Southern South America.
Botanical countries.—AGE AGW BZS PAR URU.

Regions.—North and Central Mexico.
Botanical countries.—MXE-CU MXE-DU.

27. G. albiflorum Ledeb., Fl. Altaic. 3: 230 (1831) [7, 10, 29, 30, 37, 45]
Regions.—East Europe, Siberia, Soviet Far East, Soviet Middle Asia, China & Mongolia.
Botanical countries.—ALT AMU BRY CHX CTA IRK KAZ KGZ KRA MON RUN WSB YAK.
Regions.—Western South America.  
Botanical countries.—BOL.

Regions.—North and Central Mexico & Mesoamerica.  
Botanical countries.—GUA MXG-VC MXS-OA.

Regions.—Southern Africa.  
Botanical countries.—CPP.

Regions.—Western South America.  
Botanical countries.—BOL.

32. G. andicola Loes. in Bull. Herb. Boissier ser. 2, 3: 93 (1903) [7, 11]  
Regions.—Mesoamerica.  
Botanical countries.—GUA SMX-CL.

Regions.—Western Indian Ocean.  
Botanical countries.—MDG.

Regions.—Western South America.  
Botanical countries.—CLM ECU.

Regions.—Southern Africa.  
Botanical countries.—GUA SMX-CL.

Regions.—Western South America.  
Botanical countries.—ECU.

37. G. antrorsum Carolin in Proc. Linn. Soc. New South Wales ser. 2, 89: 357, pl. 6 fig. 14, pl. 7 fig. 10 (1965) [42]  
Regions.—Australia.  
Botanical countries.—NSW VIC.

38. G. apricum Phil. in Linnaea 28: 676 (1856) [7, 61]  
Regions.—Southern South America.  
Botanical countries.—CLN CLS.

39. G. arabicum Forssk., Fl. Aegypt.-Arab.: 124 (1775) [7, 28, 39, 40, 43, 55]  
Botanical countries.—BUR CMN COM CPP? EGY ETH GGI-BI KEN MDG MLW NGA RSA SAU SUD TAN UGA YEM ZAM ZIM.

a. G. arabicum Forssk. subspp. arabicum  
Botanical countries.—BUR CMN CPP? EGY ETH GGI-BI KEN MDG MLW NGA RSA SAU SUD TAN UGA YEM ZAI ZAM ZIM.

b. G. arabicum subspp. latistipulatum  
Regions.—Northeast Tropical Africa, East Tropical Africa & Western Indian Ocean.  
Botanical countries.—COM ETH KEN TAN.

40. G. ardjunense Zoll. & Moritzi in Natuur-Geneesk. Arch. Ned.—Indië 2: 585 (1845) [7, 41]  
Regions.—Malesia.  
Botanical countries.—JAW.

Regions.—Southern South America.  
Botanical countries.—AGW CLN.

Regions.—Siberia.  
Botanical countries.—ALT KRA TVA? WSB.  
The name G. asiaticum must be adopted instead of G. bifolium Patrin ex DC., Prodr. 1: 642 (1824), nom. illeg., non Burm. f. (1759).
43. **G. atlanticum** Boiss., Diagn. Pl. Orient. ser. 1, 1: 59 (1843) [7, 47]
Regions.—Northern Africa.
Botanical countries.—ALG MOR TUN.

Regions.—Western South America.
Botanical countries.—PER.

45. **G. ayavacense** Kunth in Humb., Bonpl. & Kunth, Nov. Gen. Sp. 5: 231 (1822) [7, 12, 13, 18]
Regions.—Northern South America & Western South America.
Botanical countries.—ECU PER VEN.

46. **G. balgooyi** Veldkamp in Blumea 24(2): 469 (1978)
Regions.—Malesia.
Botanical countries.—NWG.

47. **G. bangii** Hieron. in Bot. Jahrb. Syst. 21: 314 (1895) [7, 13, 62]
Regions.—Western South America.
Botanical countries.—BOL PER.

Regions.—Soviet Middle Asia.
Botanical countries.—UZB.

Regions.—North and Central Mexico.
Botanical countries.—MNE-GU MXE-HI MXE-QU.

52. **G. bicknellii** Britton in Bull. Torrey Bot. Club 24: 92 (1897) [7, 15, 27, 45]
Regions.—Subarctic America, Western Canada, Eastern Canada, Northwestern USA, North-Central USA, Northeastern USA, Southwestern USA, Southeastern USA & [Northern South America].

Regions.—China.
Botanical countries.—CHC.

Regions.—Western South America.
Botanical countries.—BOL.

55. **G. brycei** N.E. Br. in Bull. Misc. Inform. 1901(175/177): 120 (1901) [7, 40, 55]
Regions.—Southern Africa.
Botanical countries.—CPP LES NAT OFS.

Regions.—China.
Botanical countries.—CHC.

57. **G. caeruleatum** Schur, Enum. Pl. Transsilv.: 136 (1866) [37, 47]
Regions.—Southeastern Europe.
Botanical countries.—ALB BUL ROM YUG.

58. **G. caespitosum** E. James, Account Exped. Pittsburgh ed. Amer. 2: 3 (1823) [7, 11, 14, 15]
Regions.—Northwestern USA, Southwestern USA, South-Central USA & North and Central Mexico.
Botanical countries.—ARI COL MXE MEX NEV NW MEX TEX UTA WYO.

Regions.—Southern Africa.
Botanical countries.—CPP NAT.

60. **G. californicum** G.N. Jones & F.L. Jones in Rhodora 45: 38 (1943) [7, 15]
Regions.—Southwestern USA.
Botanical countries.—CAL.

61. **G. campanulatum** Paray in Bol. Soc. Bot. México 16: 22, 23 fig. 2 (1954) [57]
Regions.—North and Central Mexico.
Botanical countries.—MNE-QU.
62. G. campii H.E. Moore in Brittonia 15: 92, 93 fig. 1 (1963)
   Regions.—Western South America.
   Botanical countries.—ECU.
63. G. canescens L’Hér. ex Aiton, Hort. Kew. 2: 433 (1789) [7, 40, 55]
   Regions.—Southern Africa.
   Botanical countries.—CPP.
64. G. canopurpureum Yeo in Edinburgh J. Bot. 49(2): 138, 139 fig. 3 (1992)
   Regions.—China.
   Botanical countries.—CHC.
   Regions.—North and Central Mexico.
   Botanical countries.—MXS-OA.
66. G. carolinianum L., Sp. Pl.: 682 (1753) [7, 11, 12, 15, 26, 27, 32, 45, 54]
   Regions.—[Western Indian Ocean], [China], [Eastern Asia], [Indian Sub-continent], [Subartic America], Western Canada, Eastern Canada, Northwestern USA, North-Central USA, Northeastern USA, Southwestern USA, South-Central USA, Southeastern USA, North and Central Mexico, Caribbean, [Brazil South], [Brazil Southeast], [Western South America] & [Southern South America].
   Regions.—Western South America.
   Botanical countries.—CLM.
68. G. chamaense Pittier in J. Wash. Acad. Sci. 19: 179 (1929) [18]
   Regions.—Northern South America.
   Botanical countries.—VEN.
   Regions.—Western South America.
   Botanical countries.—BOL.
   Regions.—North and Central Mexico.
   Botanical countries.—MXE-CU MXN-SI.
71. G. chilense Aedo & Muñoz Garm. in Kew Bull. 52(3): 725 (1997) [7, 61]
   Regions.—Southern South America.
   Botanical countries.—CLN.
   Regions.—Western South America.
   Botanical countries.—ECU.
73. G. chimmorazense R. Knuth in Engl., Pflanzer. IV.129 (Heft 53): 212 (1912)
   Regions.—Western South America.
   Botanical countries.—BOL.
74. G. chinense Migo in J. Shanghai Sc. Inst. 3: 95 (1935)
   Regions.—China.
   Botanical countries.—CHS.
75. G. clarkei Yeo, Hardy Geraniums: 188, 86 fig. 9.22, photo 11 (1985)
   Regions.—Indian Subcontinent.
   Botanical countries.—JMK.
76. G. christensenianum Hand-Mazz., Symb. Sin. 7: 621, Taf. 10 Abb. 2 (1933) [26, 64]
   Regions.—China.
   Botanical countries.—AGW CLN.
77. G. clarkei Yeo, Hardy Geraniums: 188, 86 fig. 9.22, photo 11 (1985)
   Regions.—Indian Subcontinent.
   Botanical countries.—JMK.
   Regions.—North and Central Mexico.
   Botanical countries.—MXS-OA.
79. G. collae Aedo, Muñoz Garm. & Pando, nom. nov. [7, 61]
   Regions.—Southern South America.
   Botanical countries.—ASW CLN.
80. **G. collinum** Stephan ex Willd., Sp. Pl. 3(1): 705 (1801) [7, 8, 10, 29, 30, 31, 36, 37, 45, 46, 47]
Regions.—Southwestern Europe, South- eastern Europe, East Europe, Siberia, Soviet Middle Asia, Caucasus, Western Asia, China & Indian Subcontinent.
Botanical countries.—AFG ALT BLR CHX IRN JMK KAZ KGZ KRY NCS PAK ROM RUC RUE RUS SPA TCS TKM TUR TZK UKR UZB WSB.

81. **G. columbianum** R. Knuth in Engl., Pflanzenr. IV.129 (Heft 53): 212 (1912) [18, 58]
Regions.—Northern South America & Western South America.
Botanical countries.—CLM? VEN.

82. **G. columbinum** L., Sp. Pl.: 682 (1753) [7, 10, 15, 29, 30, 31, 36, 37, 45, 47, 61]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, South- eastern Europe, East Europe, Northern Africa, Soviet Middle Asia, Caucasus, Western Asia, [North-Central USA], [Northeastern USA], [Northwestern USA], [Southeastern USA], [Southwestern USA] & [Southern South America].

83. **G. comarapense** R. Knuth in Meded. Rijks-Herb. 27: 69 (1915) [62]
Regions.—Western South America.
Botanical countries.—BOL.

84. **G. commutatum** Steud. in Flora 39(28): 439 (1856) [7, 61]
Regions.—Southern South America.
Botanical countries.—CLN.

Regions.—Western South America.
Botanical countries.—CLM.

Regions.—Southern Africa.
Botanical countries.—CPP.

87. **G. core-core** Steud. in Flora 39(28): 438 (1856) [7, 16, 17, 61]
Regions.—Southern South America.
Botanical countries.—AGW CLN JNF.

88. **G. costaricense** H.E. Moore in Gentes Herb. 8(3): 253 (1951) [19]
Regions.—Mesoamerica.
Botanical countries.—COS PAN.

89. **G. crassipes** Hook. ex A. Gray, U.S. Expl. Exped., Phan. 1: 309 (1854) [12, 13]
Regions.—Western South America.
Botanical countries.—CLN.

Regions.—North and Central Mexico.
Botanical countries.—MXE-NDX MXE-MX KE MXE-NE MXE-NL MXE-PA.

Regions.—North and Central Mexico.
Botanical countries.—MXC-DF MXC-ME MXC-PU MXG MXS-MI.

Regions.—Western South America.
Botanical countries.—ECU.

93. **G. dahuricum** DC., Prodr. 1: 642 (1824) [7, 26, 29, 30, 34, 45, 50, 51, 52, 54, 64]
Regions.—Siberia, Soviet Far East, China, Mongolia & Eastern Asia.
Botanical countries.—AMU CHC CHI? CHP CHN CTA JAP KHA KOR MON? ORM.

Regions.—Western South America.
Botanical countries.—BOL.

95. **G. dahuricum** DC., Prodr. 1: 642 (1824) [7, 26, 29, 30, 34, 45, 50, 51, 52, 54, 64]
Regions.—Siberia, Soviet Far East, China, Mongolia & Eastern Asia.
Botanical countries.—AMU CHC CHI? CHP CHN CTA JAP KHA KOR MON? ORM.
Regions.—North and Central Mexico.
Botanical countries.—MXE-CU MXE-DU MXE-GU MXE-QU MXE-SL MXE-ZA MXN-SI MXS-GR MXS-JA MXS-ML

Regions.—Western South America.
Botanical countries.—PER.

Regions.—Western South America.
Botanical countries.—BOL ECU PER.

Regions.—Western South America.
Botanical countries.—PER.

Regions.—Southern Africa.
Botanical countries.—CPP.

102. *G. donianum* Sweet, Geraniaceae 4, tab. 338 in textu (1827) [7, 26, 35, 45, 64]
Regions.—China & Indian Subcontinent.
Botanical countries.—BHU CHC CHT NEP.

Regions.—Southern Africa.
Botanical countries.—NAT.

Regions.—Southern Africa.
Botanical countries.—CPP OFS.

105. *G. drummondii* Carolin in Proc. Linn. Soc. New South Wales ser. 2, 89: 353, pl. 6 fig. 4 (1965) [42]
Regions.—Australia.
Botanical countries.—WAU.

Regions.—China.
Botanical countries.—CHC.

107. *G. durangense* H.E. Moore in Brittonia 15: 95, 94 fig. 2 (1963)
Regions.—North and Central Mexico.
Botanical countries.—MXE.

Regions.—Western South America.
Botanical countries.—ECU.

Regions.—Malesia.
Botanical countries.—NWG.

Regions.—Western Asia.
Botanical countries.—TUR.

111. *G. elatum* (Maxim.) R. Knuth in Engl., Pflanzenr. IV.129 (Heft 53): 113 (1912) [30, 60]
Regions.—Soviet Far East.
Botanical countries.—KHA PRM?

112. *G. endressii* J. Gay in Ann. Sci. Nat. (Paris) 26: 228 (1832) [7, 10, 37, 45, 47]
Regions.—[Northern Europe], [Middle Europe] & Southwestern Europe.
Botanical countries.—[BGM] FRA [GRB].

113. *G. erianthum* DC, Prodr. 1: 641 (1824) [7, 14, 15, 29, 30, 34, 45, 60, 61, 64]
Regions.—Siberia, Soviet Far East, China, Subartic America & Western Canada.
Botanical countries.—ABT ALU AMU ASK BRC CHM KAM KHA MAG KUR PRM SAK YAK YUK.

Regions.—Western South America.
Botanical countries.—BOL.

Regions.—South Tropical Africa.
Botanical countries.—MOZ ZIM.

116. *G. fallax* Steud. in Flora 39(28): 439 (1856) [7, 12, 13]
Regions.—Western South America & Southern South America.
Botanical countries.—AGW PER.
117. G. fargesii Yeo in Edinburgh J. Bot. 49(2): 150, 151 fig. 6 (1992)
Regions.—China.
Botanical countries.—CHC.

118. G. farreri Stapf in Bot. Mag. 151, tab. 9092 (1926) [26, 45, 54]
Regions.—China.
Botanical countries.—CHN.

119. G. ferganense Bobrov in Kom. & al. (eds.), Fl. URSS 14: 713 (1949) [29, 30]
Regions.—Soviet Middle Asia.
Botanical countries.—UZB.

Regions.—Western South America.
Botanical countries.—BOL.

121. G. filipes Killip in J. Wash. Acad. Sci. 16: 569 (1926) [12, 13]
Regions.—Western South America.
Botanical countries.—PER.

122. G. finitimum Woronow in Kusn., N. Busch & Fomin, Fl. Cauc. Crit. 3(7): 50 (1908) [30, 36, 47]
Regions.—Caucasus & Western Asia.
Botanical countries.—TCS TUR.

123. G. flaccidum Small in Underw. & Britton (eds.), N. Amer. Fl. 25(1): 11 (1907) [7, 11]
Regions.—North and Central Mexico.
Botanical countries.—MIXN-BC.

Regions.—Southern Africa.
Botanical countries.—CPP NAT SWZ.

125. G. franchetii R. Knuth in Engl., Pflanzenr. IV.129 (Heft 53): 177 (1912) [26, 64]
Regions.—China.
Botanical countries.—CHC.

Regions.—Malesia.
Botanical countries.—SUL.

Regions.—Western South America.
Botanical countries.—BOL.

Regions.—Southern South America.
Botanical countries.—CLN.

129. G. gentryi H.E. Moore in Contr. Gray Herb. 146: 74, pl. 1 fig. 1, pl. 5 fig. 6 (1943)
Regions.—North and Central Mexico.
Botanical countries.—MIXN-SO.

130. G. goldmanii Rose ex Hansk & Small in Underw. & Britton (eds.), N. Amer. Fl. 25(1): 17 (1907) [7, 11]
Regions.—Mesoamerica.
Botanical countries.—SMX-CL.

131. G. gorzibense Aedo & Muñoz Garm. in Kew Bull. 52(3): 725 (1997) [30, 60]
Regions.—Soviet Far East & Eastern Asia.
Botanical countries.—AMU KHA KOR PRM.

Regions.—Southern Africa.
Botanical countries.—CPP.

133. G. graniticola Carolin in Proc. Linn. Soc. New South Wales ser. 2, 89: 345, pl. 6 fig. 10, pl. 7 fig. 9 (1965) [42]
Regions.—Australia.
Botanical countries.—NSW.

Regions.—Western South America.
Botanical countries.—ECU.

Regions.—Mesoamerica.
Botanical countries.—COS ELS GUA HON NIC PAN SMX-CL.

Regions.—Western South America.
Botanical countries.—PER.

Regions.—Southern Africa.
Botanical countries.—CPP.

138. G. hattae Nakai in Bot. Mag. (Tokyo) 26: 263 (1912) [34]
Regions.—China & Eastern Asia.
Botanical countries.—CHM KOR.
139. **G. hayatanum** Ohwi in Acta Phytotax. Geobot. 2(3): 152 (1933) [7, 32]  
Regions.—Eastern Asia.  
Botanical countries.—TAI.

Regions.—Western South America.  
Botanical countries.—ECU.

141. **G. henryi** R. Knuth in Repert. Spec. Nov. Regni Veg. 19: 228 (1923) [26, 52, 54]  
Regions.—China.  
Botanical countries.—CHC CHN?

142. **G. hernandesii** Moç. & Sessé ex DC., Prodr. 1: 640 (1824) [7, 11, 57]  
Regions.—North and Central Mexico.  
Botanical countries.—CLM VEN.

Regions.—Western South America.  
Botanical countries.—PER.

144. **G. herzogii** R. Knuth in Meded. Rijks-Herb. 27: 69 (1915) [62]  
Regions.—Western South America.  
Botanical countries.—BOL.

145. **G. himalayense** Klotzsch, Bot. Ergebn. Reise Waldemar: 122, Taf. 16 (1862) [7, 29, 30, 31, 35, 45, 46, 64]  
Regions.—Soviet Middle Asia, Western Asia, China & Indian Subcontinent.  
Botanical countries.—AFG CHX JMK NEP PAK TZE.

146. **G. hintonii** H.E. Moore in Contr. Gray Herb. 146: 80, pl. 1 fig. 5 (1943)  
Regions.—North and Central Mexico.  
Botanical countries.—MXS-GR.

Regions.—Western South America.  
Botanical countries.—ECU.

148. **G. holosericeum** Willd. ex Spreng., Syst. Veg. 3: 72 (1826) [7]  
Regions.—Northern South America & Western South America.  
Botanical countries.—CLM VEN.

Regions.—Malesia, Australasia, [North-Central Pacific] & [Southwestern USA]?  
Botanical countries.—[CAL]? [HAW] JAW QLD LSI NSW NZN TAS.

Regions.—Western South America.  
Botanical countries.—PER.

151. **G. humboldtii** Spreng., Syst. Veg. 3: 70 (1826) [12, 13]  
Regions.—Western South America & Southern South America.  
Botanical countries.—AGW CLN ECU PER.

Regions.—Malesia.  
Botanical countries.—NWG.

153. **G. hystricinum** H.E. Moore in Contr. Gray Herb. 146: 72, pl. 3 fig. 10, pl. 5 figs. 3, 7 (1943)  
Regions.—North and Central Mexico.  
Botanical countries.—MXS-GR.

Regions.—Western South America.  
Botanical countries.—ECU.

Regions.—Western South America.  
Botanical countries.—ECU.

156. **G. incanum** Burm. f., Spec. Bot. Geran.: 28, tab. 1 fig. 26 (1759) [7, 28, 38, 40, 43, 45, 55]  
Regions.—East Tropical Africa & Southern Africa.  
Botanical countries.—CPP TAN.

157. **G. jaekelae** J.F. Macbr. in Candollea 6: 7 (1934) [7, 12, 13]  
Regions.—Western South America.  
Botanical countries.—PER.

Regions.—China.  
Botanical countries.—CHC-SI.

Regions.—Indian Subcontinent.  
Botanical countries.—JMK.
Regions.—North and Central Mexico, Northern South America & Western South America.
Botanical countries.—CLM MXC-MC MXC-ME MXC-MO MXC-PU MXE-HI MXE-SL VEN.

Regions.—East Tropical Africa.
Botanical countries.—KEN TAN UGA.

Regions.—Western South America.
Botanical countries.—PER.

Regions.—Western South America.
Botanical countries.—CLM PER.

Regions.—Indian Subcontinent.
Botanical countries.—JMK.

165. G. knuthianum J.F. Macbr. in Candollea 6: 7 (1934)
Regions.—Western South America.
Botanical countries.—ECU.

Regions.—Eastern Asia.
Botanical countries.—KOR.

Regions.—China & Eastern Asia.
Botanical countries.—CHM KOR.

Regions.—Soviet Far East, China & Eastern Asia.
Botanical countries.—AMU CHC CHM JAP KHA KOR PRM.

Regions.—Malesia.
Botanical countries.—NWG.

170. G. lamberti Sweet, Geraniaceae: 4, tab. 338 (1827) [7, 31, 35, 45, 46, 64]
Regions.—China & Indian Subcontinent.
Botanical countries.—BHU CHT IND NEP JMK PAK.

Regions.—Eastern Asia.
Botanical countries.—KOR.

172. G. latilobum H.E. Moore in Contr. Gray Herb. 146: 70, pl. 3 fig. 15 (1943)
Regions.—North and Central Mexico.
Botanical countries.—MXS-JA.

173. G. latum Small in Underw. & Britton (eds.), N. Amer. Fl. 25(1): 18 (1907) [7, 11, 57]
Regions.—North and Central Mexico.
Botanical countries.—MXS-JA.

Regions.—Western South America.
Botanical countries.—ECU.

175. G. lechleri R. Knuth in Engl., Pflanzenr. IV.129 (Heft 53): 80 (1912) [7, 12, 13, 62]
Regions.—Western South America.
Botanical countries.—ECU.

176. G. lentum Wooton & Standl. in Contr. U.S. Natl. Herb. 16: 142 (1913) [14, 15]
Regions.—Southwestern USA, South-Central USA & North and Central Mexico.
Botanical countries.—ARI MXE NWM TEX.

Regions.—Malesia.
Botanical countries.—NWG.

Regions.—Southern South America.
Botanical countries.—AGW.

Regions.—Western South America.
Botanical countries.—CLM.


184. G. maculatum L., Sp. Pl.: 681 (1753) [7, 14, 15, 45] Regions.—Western Canada, Eastern Canada, North-Central USA, Northeastern USA, Southwestern USA & Southeastern USA. Botanical countries.—ALA ARK CNT DEL GEO ILL INI KAN KTY LOU MAI MAN MAS MIC MIN MRY MSI MSO NCA NDA NEB NWH NWJ NYO OHI OKL OMT PEN QUE RHO SCA SDA TEN VER VRG WDC WIS WVA.


186. G. magellanicum Hook. f., Fl. Antarct. 2: 251 (1845) [7, 17, 61] Regions.—Southern South America. Botanical countries.—AGW CLS.


189. G. maniculatum H.E. Moore in Gentes Herb. 8(3): 254 fig. 102 (1951) Regions.—Western South America. Botanical countries.—ECU.


192. G. maximowiczii Regel & Maack in Regel, Tent. Fl.-Ussur.: 39, tab. 3 figs. 4-6 c, f (1861) [7, 29, 30, 34, 50, 54, 64] Regions.—Soviet Far East, China & Eastern Asia. Botanical countries.—AMU CHM KHA KOR PRM.


Regions.-North and Central Mexico.
Botanical countries.—MXS-OA.

Regions.—Malesia.
Botanical countries.—NWG.

201. *G. moorei* Phil. in Anales Univ. Chile 82: 728 (1893) [7, 61]
Regions.—Southern South America.
Botanical countries.—CLN.

Regions.—Northern South America & Western South America.
Botanical countries.—VEN.

203. *G. multipartitum* Benth., Pl. Hartw. 2: 166 (1845) [7, 13]
Regions.—Western South America.
Botanical countries.—BOL ECU PER.

Regions.—Southern Africa.
Botanical countries.—CPP LES NAT OFS TVL.

205. *G. napuligerum* Franch., Pl. Delavay.: 115 (1889) [7, 26, 54]
Regions.—China & Eastern Asia.
Botanical countries.—CHC KOR.

Regions.—Southern Africa.
Botanical countries.—CPP NAT.

207. *G. neglectum* Carolin in Proc. Linn. Soc. New South Wales ser. 2, 89: 343, pl. 6 fig. 12, pl. 7 fig. 8 (1965) [42]
Regions.—Australia.
Botanical countries.—NSW QLD VIC.

208. *G. neohispidum* Aedo & Muñoz Garm. in Kew Bull. 52(3): 725 (1997) [7, 61]
Regions.—Southern South America.
Botanical countries.—CLN.

Regions.—Western South America.
Botanical countries.—ECU.

210. *G. nepalense* Sweet, Geraniaceae: 1, tab. 12 (1820) [7, 26, 31, 35, 41, 45, 46, 53, 54, 64]
Regions.—Soviet Far East, Western Asia, China, Eastern Asia, Indian Subcontinent, Indo-China & Malesia.
Botanical countries.—AFG ASS BMA BMA CHC CHM CHT IND JMK KOR KUR LAO NEP PAK SRL SUM THA VIE.

Regions.—Malesia.
Botanical countries.—NWG.

Regions.—Western South America.
Botanical countries.—PER.

Regions.—North and Central Mexico.
Botanical countries.—MXE-CU.

214. *G. nodosum* L., Sp. Pl.: 681 (1753) [7, 10, 37, 45, 47]
Regions.—[Northern Europe], Middle Europe, Southwestern Europe & Southeastern Europe.
Botanical countries.—[BGM] COR FRA [GER] [GRB] ITA [NET] SPA SWI YUG.

Regions.—Western Asia.
Botanical countries.—AFG.

Regions.—East Tropical Africa, South Tropical Africa & Southern Africa.
Botanical countries.—MLW MOZ TAN TVL ZIM.

217. *G. oaxacanum* H.E. Moore in Contr. Gray Herb. 146: 30, pl. 1 fig. 2 (1943)
Regions.—North and Central Mexico & Mesoamerica.
Botanical countries.—GUA MXS-OA.

218. *G. obtusisepalum* Carolin in Proc. Linn. Soc. New South Wales ser. 2, 89: 344, pl. 6 fig. 11, pl. 7 fig. 7 (1965) [42]
219. **G. ochsenii** Phil. in Linnaea 28: 676 (1856) [7, 61]
Regions.—Southern South America.
Botanical countries.—CLN.

220. **G. oreganum** Howell, Fl. N. W. Amer. 1: 106 (1897) [7, 14, 15, 45]
Regions.—Western Canada, Northwestern USA & Southwestern USA.
Botanical countries.—ABT BRC CAL ORE WAS.

Regions.—China.
Botanical countries.—CHC.

Regions.—Southern Africa.
Botanical countries.—NAT.

223. **G. paishanense** Y.L. Chang, Fl. Plant. Herb. Chinae Bor.-Or. 6: 291, 17 tab. 6 fig. 2 (1977)
Regions.—China.
Botanical countries.—CHM.

224. **G. palcaense** R. Knuth in Meded. Rijks-Herb. 27: 68 (1915) [62]
Regions.—Western South America.
Botanical countries.—BOL.

Regions.—Western South America.
Botanical countries.—BOL.

Regions.—Western South America.
Botanical countries.—CLM.

227. **G. palustre** L., Cent. Pl. II: 25 (1756) [7, 10, 29, 30, 36, 37, 45, 47]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Caucasus & Western Asia.

Regions.—Malesia.
Botanical countries.—NWG.

229. **G. pamiricum** Ilkonn. in Novosti Sist. Vyssh. Rast. 9: 301 (1972) [30, 46]
Regions.—Soviet Middle Asia, Western Asia & Indian Subcontinent.
Botanical countries.—AFG PAK TZK UZB.

Regions.—Southern South America.
Botanical countries.—AGE.

231. **G. parviflorum** Hook, f., Fl. Antarct. 2: 252 (1845) [7, 12, 13, 17, 62]
Regions.—Western South America & Southern South America.
Botanical countries.—AGE AGS AGW BOL CLS PER.

232. **G. philippii** J.F. Macbr. in Candollea 6: 7 (1934) [7, 16, 61]
Regions.—Southern South America.
Botanical countries.—CLN.

Regions.—Western South America.
Botanical countries.—ECU.
Regions.—Western South America.
Botanical countries.—CLM.

Regions.—Indian Subcontinent.
Botanical countries.—JMK.

Regions.—Western South America.
Botanical countries.—PER.

242. *G. platyanthum* Duthie in Gard. Chron. ser. 3, 39: 52 (1906) [7, 26, 29, 34, 45, 50, 51, 52, 54, 64]
Regions.—Siberia, Soviet Far East, China, Mongolia & Eastern Asia.
Botanical countries.—AMU BRY CHC CHM CHN CHT CTA IRK KHA KOR MON PRM SAK.

Regions.—China.
Botanical countries.—CHC.

244. *G. pogonanthum* Franch., Pl. Delavay.: 111 (1889) [7, 26, 45]
Regions.—China & Indo-China.
Botanical countries.—BMA CHC.

245. *G. potentillifolium* DC., Prodr. 1: 639 (1824) [7, 11, 57]
Regions.—North and Central Mexico.
Botanical countries.—MXC-DF MXC-ME MXC-MO MXC-PU MXC-TL MXE-HI MXG MXS-MI.

246. *G. potentilloides* L'Hér. ex DC., Prodr. 1: 639 (1824) [7, 15, 21, 42]
Regions.—Australia, New Zealand & [Southwestern USA].
Botanical countries.—ATP [CAL] NSW NZN NZS SOA TAS VIC.

247. *G. potosinum* H.E. Moore in Contr. Gray Herb. 146: 41, pl. 4 fig. 3 (1943)
Regions.—North and Central Mexico.
Botanical countries.—MXE-NL.

248. *G. pratense* L., Sp. Pl.: 681 (1753) [7, 10, 15, 26, 29, 30, 31, 34, 35, 37, 45, 46, 47, 54]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, South-eastern Europe, East Europe, Siberia, [Soviet Far East], Soviet Middle Asia, Caucasus, Western Asia, China, Mongolia, Indian Subcontinent, [Western Canada], [Eastern Canada] & [North-eastern USA].
Botanical countries.—ALT AMU AUT BGM BLR BLT BRY BUL CHC CHM CHX [CNT] CZE DEN FIN FRA GER GRB GRC HUN IND [IRE] IRK ITA JMK KAZ KGZ KRA [LAB] [MAI] [MAN] [MAS] MON [NBR] NEP NET [NFL] NOR [NSC] [ONT] PAK [PEI] POL [PRM] [QUE] ROM RUC RUE RUN RUS SPA SWE SWI TCS TUR TZK UKR WSB YAK YUG.

Regions.—North and Central Mexico.
Botanical countries.—MXE-HI.

Regions.—Indian Subcontinent.
Botanical countries.—ASS BHU IND NEP.

Regions.—China.
Botanical countries.—CHC.

Regions.—East Europe, Siberia, Soviet Middle Asia & Mongolia.
Botanical countries.—ALT BRY IRK KAZ KRA MON RUE WSB YAK.

Regions.—[Northern Europe], Caucasus & Western Asia.
Botanical countries.—[GRB] NCS TCS TUR.

Regions.—Southern Africa.
Botanical countries.—CPP NAT.

255. *G. pyzowianum* Maxim. in Bull. Acad. Imp. Sci. Saint-Pétersbourg 26: 466 (1880) [7, 26, 45, 52, 54, 64]
Regions. — Western South America.
Botanical countries. — PER.

Regions. — Brazil.
Botanical countries. — BZL.

Regions. — Soviet Middle Asia, China & Indian Subcontinent.
Botanical countries. — CHX JMK KAZ KGZ PAK.

259. G. refractum Edgew. & Hook. f. in Hook. f., Fl. Brit. India 1: 428 (1874) [7, 26, 35, 54]
Regions. — China, Indian Subcontinent & Indo-China.
Botanical countries. — BHU BMA CHC CHT NEP.

Regions. — Eastern Asia.
Botanical countries. — JAP KOR.

261. G. renifolium Hieron. in Bot. Jahrb. Syst. 21: 315 (1895) [7, 12, 13]
Regions. — Western South America.
Botanical countries. — PER.

262. G. repens H.E. Moore in Contr. Gray Herb. 146: 78 (1943)
Regions. — North and Central Mexico & Mesoamerica.
Botanical countries. — COS GUA MXS-GR PAN SMX-Cl.

Regions. — Western South America.
Botanical countries. — ECU.

264. G. retectum Yeo in Edinburgh J. Bot. 49(2): 179, 180 fig. 9 (1992)
Regions. — China.
Botanical countries. — CHC.

265. G. retrorsum L’Hér. ex DC., Prodr. 1: 644 (1824) [15, 21, 42, 59]
Regions. — Australia, New Zealand, [North-Central Pacific] & [Southwestern USA].
Botanical countries. — [CAL] [HAW] NSW NZN NZS QLD SOA TAS VIC WAU.

266. G. rhomboidale H.E. Moore in Gentes Herb. 8(3): 255, 256 fig. 103 (1951)
Regions. — Western South America.
Botanical countries. — CLM.

267. G. richardsonii Fisch. & Trautv. in Fisch., C.A. Mey & Trautv., Index Sem. Hort. Petrop. 4: 37 (1838) [7, 14, 15, 45]
Regions. — Subartic America, Western Canada, Northwestern USA, North-Central USA, Southwestern USA & South-Central USA.
Botanical countries. — ABT ARI BRC CAL COL IDA MNT NEV NWM NWT-MK ORE SAS SDA UTA WYO YUK.

268. G. rivulare Vill., Prosp. Hist. Pl. Dauphiné: 40 (1779) [7, 37, 45, 47]
Regions. — Middle Europe, Southwestern Europe & Southeastern Europe.
Botanical countries. — FRA ITA SWI.

Regions. — Northern South America.
Botanical countries. — VEN.

270. G. robustum Kuntze, Revis. Gen. Pl. 3(2): 32 (1898) [7, 40, 55]
Regions. — Southern Africa.
Botanical countries. — CPP LES NAT OFS TVL.

Regions. — China.
Botanical countries. — CHC.

272. G. rotundifolium L., Sp. Pl.: 683 (1753) [7, 10, 15, 21, 29, 30, 31, 36, 37, 40, 42, 44, 45, 46, 47, 55]
Regions. — Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Macaronesia, [Southern Africa], Soviet Middle Asia, Caucasus, Western Asia, Indian Subcontinent, [Australia], [Northwestern USA], [North-Central Pacific].
273. G. rubifolium Lindl. in Edward’s Bot. Reg. 26, tab. 67 (1840) [7, 45, 46, 64]
Regions.—Indian Subcontinent.
Botanical countries.—JMK PAK.

274. G. ruizii Hieron. in Bot. Jahrb. Syst. 20, Beiblatt 49: 31 (1895) [7, 12, 13]
Regions.—Western South America.
Botanical countries.—BOL PER.

Regions.—Western South America.
Botanical countries.—BOL.

276. G. ruprechtii (Woronow) Grossh., Fl. Kavk. 3: 7 (1932) [29, 30]
Regions.—Caucasus.
Botanical countries.—NCS TCS.

277. G. sanguineum L., Sp. Pl.: 683 (1753) [7, 10, 15, 29, 30, 36, 37, 45, 47]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Siberia, Caucasus, Western Asia, [Subartic America] & [Northeastern USA].
Botanical countries.—ALB [ASK] AUT BGM BLR BLT BUL BUL COR? CZE DEN FIN FRA GER GRB GRC HUN IRE ITA KRY [MIC] NCS NOR [NYW] POL POR ROM RUC RUE RUS RUW SIC SPA SWE SWI TCS TUE TUR UKR WSB YUG.

Regions.—Southern South America.
Botanical countries.—AGS.

Regions.—North and Central Mexico & Mesoamerica.
Botanical countries.—MXC-ME MXC-PU MXC-TL MXE-HI MXE-QU MXE-SL MXG MXS-OA SMX-TB.

Regions.—Soviet Middle Asia, China & Indian Subcontinent.
Botanical countries.—AFG CHX KAZ PAK TKM TZK.

281. G. schleidenum Schltdl. in Linnaea 10: 253 (1836) [7, 11, 45, 57]
Regions.—North and Central Mexico & Mesoamerica.
Botanical countries.—MXC-ME MXC-PU MXC-TL MXE-HI MXE-QU MXE-SL MXG MXS-OA SMX-TB.

Regions.—Western South America.
Botanical countries.—Ecuador.

Regions.—Southern Africa.
Botanical countries.—CPP LES NAT OFS TVL.

Regions.—Western South America.
Botanical countries.—CM.

Regions.—Western South America.
Botanical countries.—PER.

Regions.—Indian Subcontinent.
Botanical countries.—NEP.

Regions.—Northern South America.
Botanical countries.—VEN.

288. G. seemannii Peyr. in Linnaea 30: 66 (1859) [7, 11, 12, 13, 57]
Regions.—North and Central Mexico, Mesoamerica & Western South America.
Botanical countries.—ECU GUA MXC-DF MXC-ME MXC-PU MXC-TL
Regions.—Brazil.
Botanical countries.—BZS.

Regions.—Western South America.
Botanical countries.—BOL.

291. G. sericeum Willd, ex Spreng., Syst. Veg. 3: 70 (1826) [7]
Regions.—Western South America.
Botanical countries.—ECU.

292. G. sessiliflorum Cav., Diss. 4: 198, tab. 77 fig. 2 (1787) [7, 12, 13, 17, 21, 42, 45, 61, 62]
Regions.—Australia, New Zealand, Western South America & Southern South America.
Botanical countries.—AGS AGW BOL CLN CLS NSW NZN NZS PER TAS.

a. G. sessiliflorum subsp. sessiliflorum
Regions.—Western South America & Southern South America.
Botanical countries.—AGS AGW BOL CLN CLS.

b. G. sessiliflorum subsp. brevicaule
(Hook. f.) Carolin in Proc. Linn. Soc. New South Wales. ser. 2, 89: 357 (1965)
Regions.—Australia.
Botanical countries.—NNSW TAS.

c. G. sessiliflorum subsp. novazealandiae
Regions.—New Zealand.
Botanical countries.—NZN NZS.

293. G. shensianum R. Knuth in Repert. Spec. Nov. Regni Veg. 28: 5 (1930) [52, 64]
Regions.—China.
Botanical countries.—CHN.

294. G. shikokianum Matsum. in Bot. Mag. (Tokyo) 15: 123 (1901) [7, 33, 45, 50, 51]
Regions.—Eastern Asia.
Botanical countries.—JAP KOR.

Regions.—Indo-China.
Botanical countries.—THA.

296. G. sibbaldoides Benth., Pl. Hartw. 2: 166 (1845) [7, 12, 13]
Regions.—Western South America.
Botanical countries.—CLM ECU PER.

297. G. sibiricum L., Sp. Pl.: 683 (1753) [7, 10, 15, 26, 29, 30, 31, 33, 34, 37, 45, 46, 47, 50, 51, 52, 54]
Regions.—[Northern Europe], [Middle Europe], [Southwestern Europe], South-eastern Europe, East Europe, Siberia, Soviet Far East, Soviet Middle Asia, Caucasus, Western Asia, China, Eastern Asia, Indian Subcontinent, [North-Central USA], [Northeastern USA] & [Southwestern USA].
Botanical countries.—AFG ALT AMU [AUT] BLT BRY [CAL] CHC CHM CHN CHT CHX CTA [CZE] [FRA] [GER] [HUN] [ILL] [ITA] JAP JMK KAM KAZ KGZ KHA KOR KRA MAG [MAS] MON NCS [NOR] [NWY] [PAK] [PEN] [POL] PRM? ROM RUC RUE RUS SAK [SWI] TCS TUR TZK UKR [WIS] WSB YAK.

298. G. sinense R. Knuth in Engl., Pflanzenr. IV. 129 (Heft 53): 577 (1912) [26, 45, 64]
Regions.—China.
Botanical countries.—CHN.

299. G. skottsbergii R. Knuth in Repert. Spec. Nov. Regni Veg. 34: 143 (1933) [61]
Regions.—Southern South America.
Botanical countries.—CLN.

300. G. smithianum R. Knuth in Repert. Spec. Nov. Regni Veg. 34: 146 (1933) [12, 13]
Regions.—Western South America.
Botanical countries.—PER.

Regions.—China, Soviet Far East & Eastern Asia.
Botanical countries.—CHM JAP KOR PRM.

Regions.—Western South America.
Botanical countries.—CLM ECU PER.


308. G. squamosum Phil. in Anales Univ. Chile 82: 733 (1893) [7, 61] Regions.—Southern South America. Botanical countries.—CLN.


313. G. stuebelii Hieron. in Bot. Jahrb. Syst. 21: 316 (1895) [7, 12, 13] Regions.—Western South America. Botanical countries.—PER.


316. G. sublaevispernum H.E. Moore in Contr. Gray Herb. 146: 69, pl. 3 fig. 8, pl. 4 figs. 5, 8 (1943) Regions.—North and Central Mexico. Botanical countries.—MXE-CU.


Regions.—Eastern Asia.
Botanical countries.—TAI.

Regions.—Indian Subcontinent.
Botanical countries.—JMK PAK.

326. *G. sylvaticum* L., Sp. Pl.: 681 (1753) [7, 10, 15, 29, 30, 31, 36, 37, 45, 47]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Siberia, Soviet Middle Asia, Caucasus, Western Asia & Subartic America.
Botanical countries.—ALB ALT? AUT BGM BLR BLT BUL COR CZE DEN FIN FOR FRA GER GNL GRB GRC [NET] NOR POL ROM RUC RUE RUN RUS RUW SPA SWE SWI TCS TUR UKR WSB YUG.

Regions.—Southern South America.
Botanical countries.—AGW.

Regions.—China.
Botanical countries.—CHC-SI.

Regions.—North and Central Mexico.
Botanical countries.—MXE-SL.

Regions.—Macaronesia], North-Central USA, South-Central USA, Southeastern USA & North and Central Mexico.
Botanical countries.—ARK [AZO] LOU MXE-CU OKL TEX.

331. *G. thunbergii* Siebold ex Lindl. & Paxton, Paxt. Fl. Gard. 1(12): 186 fig. 115 (1851) [15, 26, 30, 32, 33, 45, 50, 51, 64]
Regions.—Soviet Far East, China, Eastern Asia & [Northeastern USA].
Botanical countries.—CHN [CNT] JAP KOR KUR [MAS] NNS TAI.

Regions.—Western South America. Botanical countries.—ECU PER.

Regions.—Western South America.
Botanical countries.—BOL.

Regions.—Northern South America.
Botanical countries.—VEN.

Regions.—Siberia, China & Mongolia.
Botanical countries.—BRY CHI CHM CTA IRK MON.

336. *G. traversii* Hook. f., Handb. N. Zeal. Fl.: 726 (1867) [7, 21, 45]
Regions.—New Zealand.
Botanical countries.—CTM.

Regions.—Northern South America & Western South America.
Botanical countries.—CLM VEN.

Regions.—Eastern Asia.
Botanical countries.—JAP KOR.

Regions.—North and Central Mexico.
Botanical countries.—MXE-DU.

340. *G. unguiculatum* H.E. Moore in Contr. Gray Herb. 146: 24, pl. 2 fig. 5, pl. 4 figs. 2, 7 (1943)
Regions.—North and Central Mexico.
Botanical countries.—MXS-GR.

Regions.—East Europe & Siberia.
Botanical countries.—RUN WSB.

Regions.—West-Central Tropical Africa, East Tropical Africa & South Tropical Africa.
Botanical countries.–CON? KEN MLW RWA TAN UGA ZAI.

a. *G. vagans* subsp. *vagans*
Regions.–West-Central Tropical Africa, East Tropical Africa & South Tropical Africa.
Botanical countries.–CON? KEN MLW RWA TAN UGA ZAI.

Regions.–South Tropical Africa.
Botanical countries.–MLW.

Regions.–Northern South America.
Botanical countries.–VEN.

Regions.–Southern South America.
Botanical countries.–AGW.

345. *G. versicolor* L., Cent. Pl. I: 21 (1755) [7, 10, 37, 45, 47]
Regions.–[Northern Europe], [Southwestern Europe] & Southeastern Europe.
Botanical countries.–ALB [FRA] [GRB] GRC [IRE] ITA SIC YUG.

346. *G. viscosissimum* Fisch. & C.A. Mey. in C.A. Mey., Index Sem. Hort. Petrop. 11, Suppl.: 18 (1846) [7, 14, 15, 45]
Regions.–Western Canada, Northwestern USA, North-Central USA & Southwestern USA.
Botanical countries.–ABT BRC CAL COL IDA MNT NEV ORE SDA SAS UTA WAS WYO.

Regions.–North and Central Mexico & Mesoamerica.
Botanical countries.–MXC-DF MXC-ME MXG MXS-MI SMX-CL.

Regions.–Southern Africa.
Botanical countries.–CPP LES NAT OFS SWZ TVL.

349. *G. wallichianum* D. Don ex Sweet, Geraniaceae: 1, tab. 90 (1821) [7, 31, 35, 46, 64]
Regions.–Western Asia, China & Indian Subcontinent.
Botanical countries.–AFG BHU? CHT IND JMK NEP PAK.

Regions.–Western South America.
Botanical countries.–PER.

Regions.–Western South America.
Botanical countries.–BOL PER.

Regions.–Malesia.
Botanical countries.–NWG.

Regions.–[Middle Europe], Soviet Far East, China & Eastern Asia.
Botanical countries.–AMU CHC CHM CHN JAP KOR [POL] PRM TAI.

Regions.–Malesia.
Botanical countries.–NWG.

Regions.–Southwestern USA, South-Central USA & North and Central Mexico.
Botanical countries.–ARI MXE-CU MXE-DU MXN-SO NWM TEX.

Regions.–Siberia, Soviet Far East, China, Eastern Asia, Indian Subcontinent & Indo-China?
Botanical countries.–AMU BMA? BRY CHC? CHM CHN CTA IRK JMK KHA KORM ON PRM.

Regions.–China.
Botanical countries.–CHC.


361. **G. yunnanense** Franch., Pl. Delavay. 114 (1889) [7, 25, 26, 45] Regions.—China & Indo-China. Botanical countries.—BMA CHC.


a. **G. asphodeloides** Burm. f. subsp. *asphodeloides* Regions.—Southeastern Europe, East Europe, Caucasus & Western Asia. Botanical countries.—ALB BUL GRC ITA KRY LBS ROM SIC TCS TUE TUR YUG.


365. **G. dissectum** L., Cent. Pl. 1: 21 (1755) [7, 10, 12, 15, 21, 29, 30, 31, 36, 37, 39, 40, 42, 43, 44, 45, 47, 55, 61] Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southwestern Europe, East Europe, Northern Africa, Macaronesia, [Northeast Tropical Africa], [Southern Africa], Soviet Middle Asia, Western Asia, [Eastern Asia], [Australia], [New Zealand], [North-Central Pacific], [Western Canada], [Eastern Canada], [Northwestern USA], [North-Central USA], [Northeastern USA], [Southwestern USA], [South-Central USA], [Southeastern USA], [Caribbean], [Western South America], [Brazil South] & [Southern South America]. Botanical countries.—AFG [AGE] ALB [ARK] ALG [ARK] [ATP] AUT AZO BAL BGM BLR BLT [BRC] BUL [BZS] [CAL] [CLN] [CNT] CNY COR [CPP] CYP CZE [DEL] DEN [DOM] EGY [ETH] FIN FRA [GEO] GER GRB GRC [HAI] [HAW] HUN [ILL] IRE IRN IRQ ITA [JAP] [KER] KRI KRY [KTY] LBS LBY [LHN] [LOU] [MAS] MDR [MIC] MOR [MRY] [MSI] [MSO] [NCA] NCS NET NOR [NSW] [NYW] [NZN] [OKL] [NVS] [ONT] [ORE] PAL [PEN] [PER] POL POR ROM RUC RUE RUN RUS RUW SAR SIC [SOA] SPA SWE SWI [TAS] TCS [TEN] [TEX] TUE TUN TUR TZK UKR [URU] [VIC] [VRG] [WAS] [WAU] YUG.


366. **G. kotschyi** Boiss., Diagn. Pl. Orient. ser. 1, 6: 30 (1846) [7, 9, 29, 30, 31, 46]
Regions.—Soviet Middle Asia & Western Asia.
Botanical countries.—AFG IRN PAK TKM TZK.
   a. **G. kotschyi** Boiss. subsp. **kotschyi**
Regions.—Soviet Middle Asia & Western Asia.
Regions.—Soviet Middle Asia & Western Asia.
Regions.—Soviet Middle Asia & Western Asia.
Botanical countries.—AFG IRN TKM TZK.

367. **G. libanoticum** A. Schenk, Pl. Spec. Schubert: 39 (1840) [7, 9, 36, 47]
Regions.—Western Asia.
Botanical countries.—LBS IRN TUR.

368. **G. linearilobum** DC. in Lam. & DC., Fl. Franç. ed. 3, 5: 629, in note (1815) [9, 10, 29, 30, 31, 37, 45, 54, 64]
Regions.—East Europe, Siberia, Soviet Middle Asia, Caucasus, Western Asia & China.
Botanical countries.—ALT CHX IRN IRQ KAZ KGZ KRY NCS RUE RUS TCS TKM TUR UKR UZB.
   a. **G. linearilobum** DC. subsp. **linearilobum**
Regions.—East Europe, Caucasus & Western Asia.
Botanical countries.—KRY NCS RUS TCS TUR UKR.
Regions.—East Europe, Siberia, Soviet Middle Asia, Caucasus, Western Asia & China.
Botanical countries.—ALT CHX IRN IRQ KAZ KGZ RUE TCS TKM TUR UZB.

369. **G. macrostylum** Boiss., Diagn. Pl. Orient. ser. 1, 1: 58 (1843) [9, 36, 37, 45, 47]
Regions.—Southeastern Europe & Western Asia.
Botanical countries.—ALB BUL GRC TUR YUG.

Regions.—Southwestern Europe & Northern Africa.
Botanical countries.—ALG MOR SPA TUN.

Regions.—Western Asia.
Botanical countries.—IRN IRQ.

372. **G. tuberaria** Jacqem. ex Cambess. in Jacqem., Voy. Inde 4: 33, tab. 37 (1844) [7, 46]
Regions.—Indian Subcontinent.
Botanical countries.—JMK.

373. **G. tuberosum** L., Sp. Pl.: 680 (1753) [7, 9, 10, 29, 30, 31, 36, 37, 45, 47]
Regions.—Southeastern Europe, Eastern Europe, Northern Africa, Soviet Middle Asia, Caucasus & Western Asia.
Botanical countries.—ALB? ALG BUL COR? CYP FRA GRC IRN IRQ ITA KRI KRY LBS LBY NCS PAL ROM RUS SAR? SIC SIN TCS TKM TUN TUR YUG.
   a. **G. tuberosum** L. subsp. **tuberaria**
Regions.—Southeastern Europe, Eastern Europe, Northern Africa, Soviet Middle Asia, Caucasus & Western Asia.
Regions.—Soviet Middle Asia, Caucasus & Western Asia.
Botanical countries.—IRN IRQ LBS NCS TCS TUR YUG.
Regions.—Western Asia.
Botanical countries.—IRN IRQ LBS NCS TCS TCM TUR.

7.2. Geranium subsect. Mediterranea
374. G. bohemicum L., Cent. Pl. II: 25 (1756) [5, 7, 10, 29, 30, 36, 37, 45, 47]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, South- eastern Europe, East Europe, Caucasus & Western Asia.
Botanical countries.—ALB BLR BLT BUL COR CZE FIN FRA GER GRC HUN ITA KRY NCS NOR POL ROM RUC RUE RUN RUS RUW SAR SPA SWE SWI TCS TUR UKR YUG.

Regions.—Caucasus & Western Asia.
Botanical countries.—IRN NCS TCS TUR.

376. G. gymnocauleon DC., Prodr. 1: 640 (1824) [5, 7, 10, 29, 30, 36, 45, 47]
Regions.—Caucasus & Western Asia.
Botanical countries.—NCS TCS TUR.

377. G. ibericum Cav., Diss. 4: 209, tab. 124 fig. 1 (1787) [5, 7, 10, 15, 29, 30, 36, 37, 45, 47]
Regions.—[Northern Europe], [Southwestern Europe], Caucasus, Western Asia, [Eastern Canada] & [Northeastern USA].
Botanical countries.—[FRA] [GRB] [MAS] NCS [NFL] [NWY]† TCS TUR.

a. G. ibericum Cav. subsp. ibericum
Regions.—[Southwestern Europe], Caucasus, Western Asia, [Eastern Canada] & [Northeastern USA].
Botanical countries.—[FRA] [GRB] [MAS] NCS [NFL] [NWY]† TCS TUR.

Regions.—Western Asia.
Botanical countries.—TUR.

Regions.—Western Asia.
Botanical countries.—IRQ TUR.

379. G. lanuginosum Lam., Encycl. 2: 655 (1788) [5, 7, 10, 36, 37, 45, 47]
Regions.—[Northern Europe], Southwestern Europe, Southeastern Europe, Northern Africa & Western Asia.
Botanical countries.—ALB ALG BUL COR FRA GRC ITA MOR POR SAR SPA SWE SWI TCS TUR UKR YUG.

Regions.—Western Asia.
Botanical countries.—LBS PAL TUR.

Regions.—Caucasus & Western Asia.
Botanical countries.—IRN NCS [NFL] TCS TUR.

382. G. peloponnesiacum Boiss., Diagn. Pl. Orient. ser. 2, 1: 110 (1854) [5, 7, 37, 45, 47]
Regions.—Southeastern Europe.
Botanical countries.—ALB GRC.

Regions.—Caucasus & Western Asia.
Botanical countries.—IRN TCN TCS TUR.

Regions.—[Caucasus].
Botanical countries.—NCS TCS.


Regions.—North-Central Pacific.
Botanical countries.—HAW (Maui I).

386. G. cuneatum Hook., Icon. Pl. 2, tab. 198 (1837) [6, 7, 15, 20]
Regions.—North-Central Pacific.
Botanical countries.—HAW (Maui and Hawai Is).

a. G. cuneatum Hook. subsp. cuneatum
Regions.—North-Central Pacific.
Botanical countries.—HAW (Hawai I).

b. G. cuneatum subsp. cuneatum
Regions.—North-Central Pacific.
Botanical countries.—HAW (Hawai I).
b. Geranium cuneatum subsp. hololeucum
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Hawaii).

c. Geranium cuneatum subsp. hypoleucum
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Hawaii).

d. Geranium cuneatum subsp. tridens (Hillebr.)
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

387. Geranium hanaense
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

388. Geranium hillebrandii
   Aedo & Muñoz Garm., Kew Bull. 52(3): 725 (1997) [6, 7, 15, 20]
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

389. Geranium kauaiense
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Kauai).

390. Geranium multiflorum
   A. Gray, U.S. Expl. Exped., Phan. 1: 311, tab. 29 figs. 1-4 (1854) [6, 7, 15, 20]
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

a. Geranium multiflorum subsp. multiflorum
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

b. Geranium multiflorum subsp. ovatifolium
   Regions.--North-Central Pacific.
   Botanical countries.--HAW (Maui).

9. Geranium sect. Paramensia

391. Geranium exallum
   H.E. Moore in Brittonia 13(2): 142, 143 fig. 1A (1961)

392. Geranium jahnii
   Standl. in J. Wash. Acad. Sci. 5: 601 (1915) [2, 18]
   Regions.--Northern South America.
   Botanical countries.--VEN.

10. Geranium sect. Azorelloida
    Aedo, Muñoz Garm. & Pando, nom. nov.

393. Geranium azorelloides
    Regions.--Western South America.
    Botanical countries.--CLM.

III. Geranium subgen. Robertium
   (Picard) Rouy in Rouy & Fouc., Fl. France 4: 94 (1897)

11. Geranium sect. Polyantha
    Reiche in Engl. & Prantl, Nat. Pflanzenfam. 3(4): 8 (1890) [5, 7]

394. Geranium hispidissimum
    (Franch.) R. Knuth in Engl., Pflanzenr. IV.129 (Heft 53): 183 (1912) [5, 26]
    Regions.--China.
    Botanical countries.--CHC.

395. Geranium moupinense
    Regions.--China.
    Botanical countries.--CHC.

396. Geranium nakaoanum
    Regions.--Indian Subcontinent.
    Botanical countries.--BHU NEP.

397. Geranium polyanthes
    Edgew. & Hook. f. in Hook. f., Fl. Brit. India 1: 431 (1874) [5, 7, 26, 35, 45, 64]
    Regions.--China & Indian Subcontinent.
    Botanical countries.--ASS BHU CHC CHT IND NEP.

398. Geranium strictipes
Regions.—China. Botanical countries.—CHC.

Regions.—China. Botanical countries.—CHC.

Regions.—Indo-China. Botanical countries.—BMA.


Regions.—West-Central Tropical Africa. Botanical countries.—ZAI.

Regions.—Northeast Tropical Africa. Botanical countries.—ETH SOC SOM SUD YEM.

Regions.—Northern Africa, Northeast Tropical Africa & Arabian Peninsula. Botanical countries.—DJI EGY ETH IRN PAL SOC SOM SUD YEM.

Regions.—West Tropical Africa, West-Central Tropical Africa, Northeast Tropical Africa, East Tropical Africa, South Tropical Africa, Western Asia, Arabian Peninsula, China & Indian Subcontinent. Botanical countries.—AFG ANG ASS CHC CMN DJI EGY ETH IND IRN JMK KEN MLW NGA NEP OMA PAK SAU SOC SOM SUD TAN UGA YEM ZAI ZIM.
Some authors classified *G. ocellatum* Cambess. in Jacquem., Voy. Inde 4: 33, tab. 38 (1844) as separate of *G. mascatense* (Kokwaro, 1971). In agreement with Knuth (1912), we consider both taxa as the same species, though under Boissier's previous name. Nevertheless, as Yeo (comm. pers.) mentioned, plants from Tropical Africa, could be distinguished at species level.

Regions.—Northern Africa, Northeast Tropical Africa, Western Asia & Arabian Peninsula. Botanical countries.—DJI EGY ETH IRN PAL SOC SOM SUD YEM.


Regions.—Caucasus & Western Asia. Botanical countries.—IRN NCS TCS.

407. *G. divaricatum* Ehrh. in Beitr. Naturk. 7: 164 (1792) [5, 7, 10, 29, 30, 31, 36, 37, 47]
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Soviet Middle Asia, Caucasus, Western Asia, China & Indian Subcontinent. Botanical countries.—AFG ALB ALT AUT BLR BLT BUL CHX CZE FRA GER GRC HUN IND IRN IRQ ITA JMK KAZ KGZ KRY NCS POL ROM RUC RUS SPA SWI TCS TKM TZN TUR UKR UZB YUG.


Regions.—Northern Europe, Middle Europe, Southwestern Europe, [New Zealand] & [Northeastern USA]. Botanical countries.—BGM DEN FRA GER GRB [MAS] [NWJ] [NYW] [NZN] [OHI] [PEN] [VER].

409. *G. molle* L., Sp. Pl.: 682 (1753) [5, 7, 10, 15, 21, 29, 30, 31, 36, 37, 40, 42, 44, 45, 47, 55, 61]

**Regions.**—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Caucasus, Western Asia, Indian Subcontinent, [New Zealand], [North-Central Pacific], [Western Canada], [Eastern Canada], [Northwestern USA], [North-Central USA], [Northeastern USA], [Southwestern USA], [Southeastern USA], [North and Central Mexico], [Southern South America] & [Subantarctic Islands].

**Botanical countries.**—AFG [AGE] ALB ALG [ARK] AUT AZO BAL BGM BLT BLR [BRC] BUL [CAL] [CLN] [CLS] [CNT] CNY [CPP] CYP CZE [DEL] DEN EGY [FAL] FIN FRA GEO [GRE] GRB GRC [HAW] HUN [ICA] IND IRE IRN IRQ ITA JMK KRY [KTY] LBS [MAJ] [MAN] [MAS] [MIC] [MNT] MOR [MYR] [MSO] [NCA] NCS [NDA] [NEB] NET NOR [NWJ] [NWM] [NYW] [NZN] [NZS] [OHI] [OKL] [ONT] [ORE] PAK [PEN] POL POR [QUE] ROM RUC RUE RUN RUS RUW SAR [SDA] SIC SPA SWE SWI TCS [TEN] TKM TUE TUR URE [URU] [UTA] UZB [VRG] [WAS] [WDC] [WIS] [WVA] [WYO] YUG.

**G. pusillum** L., Syst. Nat. ed. 10, 2: 1144 (1759) [5, 7, 10, 15, 21, 29, 30, 31, 36, 37, 45, 46, 47]

**Regions.**—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Macaronesia, [Southern Africa], Caucasus, Western Asia, [Eastern Asia], Indian Subcontinent, [Australia], [New Zealand], [North-Central Pacific], [Western Canada], [Eastern Canada], [Northwestern USA], [North-Central USA], [Northeastern USA], [Southwestern USA], [Southeastern USA], [North and Central Mexico], [Southern South America] & [Subantarctic Islands].


a. *G. pyrenaicum* Burm. f. subsp. *pyrenaicum*

**Regions.**—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Caucasus, Western Asia, [Eastern Canada], [Northeastern USA], [Southeastern USA] & [Southern South America].

Regions.—Southwestern Europe  
Botanical countries.—POR SPA

15. **Geranium** sect. **Unguiculata** (Boiss.) Reiche in Engl. & Prantl, Nat. Pflanzenfam. 3(4): 8 (1890) [5, 7]

412. **G. cataractarum** Coss., Notes Pl. Crit.: 99 (1851) [5, 7, 37, 45, 47, 48, 56]  
Regions.—Southwestern Europe & Northern Africa.  
Botanical countries.—MOR SPA.

a. **G. cataractarum** Coss. subsp. **cataractarum**  
Regions.—Southwestern Europe.  
Botanical countries.—SPA.

Regions.—Northern Africa.  
Botanical countries.—MOR.

413. **G. dalmaticum** (Beck) Rech. f. in Magyar Bot. Lapok 33: 28 (1934) [5, 7, 10, 37, 45, 47, 56]  
Regions.—Southeastern Europe.  
Botanical countries.—ALB YUG.

414. **G. glaberrimum** Boiss. & Heldr. in Boiss., Diagn. Pl. Orient. ser. 1, 8: 116 (1849) [5, 7, 36, 45, 47]  
Regions.—Western Asia.  
Botanical countries.—TUR.

415. **G. lasiopus** Boiss. & Heldr. in Boiss., Diagn. Pl. Orient. ser. 1, 8: 117 (1849) [5, 7, 36, 47]  
Regions.—Western Asia.  
Botanical countries.—TUR.

416. **G. macrorrhizum** L., Sp. Pl.: 680 (1753) [5, 7, 10, 29, 30, 37, 45, 47, 56, 61]  
Regions.—[Northern Europe], Middle Europe, Southeastern Europe, [East Europe] & [Southern South America].  


417. **G. lucidum** L., Sp. Pl.: 682 (1753) [5, 7, 10, 29, 30, 31, 35, 36, 37, 45, 46, 47, 56]  
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Macaronesia, Soviet Middle Asia, Caucasus, Western Asia, Arabian Peninsula & Indian Subcontinent.  
Botanical countries.—ALB ALG AUT BAL BUL CYP CZE DEN FIN FRA GER GRB HRC HUN IND IRE IRN IRQ ITA JMK KRY LBS LBY MDR MOR NCS NEP NOR PAL POR ROM RUS SAR SAU SIC SPA SWE SWI TCS TKM TUE TUN UKR YUG.

17. **Geranium** sect. **Ruberta** Dumort., Fl. Belg.: 112 (1827) [4, 5, 7]

418. **G. purpureum** Vill., Hist. Pl. Dauphiné I: 272 (1786) [4, 5, 7, 10, 22, 28, 30, 31, 36, 37, 40, 42, 47, 49, 55, 56]  
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Macaronesia, East Tropical Africa, [Southern Africa], Caucasus, Western Asia & [New Zealand].  
Botanical countries.—ALB ALG AZO BAL BUL CNY COR [CPP] CYP FRA GRB GRC IRE IRN IRQ ITA KEN KRI KRY LBN LBS LBY MDR MOR [NZN] PAL POR ROM SAR SIC SPA SWI TAN TSC TUE TUN UGA YUG.

419. **G. reuteri** Aedo & Muñoz Garm., Kew Bull. 52(3): 726 (1997) [4, 5, 45, 56]  
Regions.—Macaronesia.  
Botanical countries.—CNY.

420. **G. robertianum** L., Sp. Pl.: 681 (1753) [4, 5, 7, 10, 15, 21, 23, 24, 26, 29, 30, 31, 35, 36, 37, 44, 45, 46, 47, 54, 56, 61]  
Regions.—Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, East Europe, Northern Africa, Macaronesia, Northeast Tropical Africa, [Western Indian Ocean], Siberia, Soviet Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Eastern Asia, Indian
Subcontinent, [Malesia], [New Zealand], [Subartic America], [Western Canada], [Eastern Canada], [Northwestern USA], [North-Central USA], [Northeastern USA], [Southwestern USA], [Southwestern USA], [Southeastern USA], [Caribbean], [Western South America], [Brazil] & [Southern South America].

Botanical countries.-[AGE] [AGW] ALB ALG ALT [ASK] AUT AZO BGM BLR BLT [BOL] [BRC] BUL [BZS] [CAL] CHC [CLN] [CLS] [CNT] CNY COR CYP CZE [DEL] DEN [DOM] ETH FIN FRA GER GRB GRC [HAI] HUN [ILL] [INI] IRE IRN ITA JAP JMK [JNF] KAZ KGZ KRI KRY LBS LBY [MAI] [MAN] [MAS] [MDG] MDR [MIC] [MIN] [MLY] MOR [MRY] [NBR] NCS [NEB] NEP NET [NFL] NOR [NSC] [NWH] [NWJ] [NYW] [NZN] [NZS] [OHI] [ONT] PAK [PEI] [PEN] POL POR [QUE] [REU] [RHO] ROM RUC RUE RUN RUS RUW SAR SAU SIC SPA SWE SWT TAI TCS [TEN] TUE TUN TUR TZK UKR [URU] [VER] [WAS] [WIS] [WVA] YEM YUG.

Botanical countries.—MDR.


Botanical countries.—MDR.

423. *G. palmatum* Cav, Diss. 4: 216, tab. 84 fig. 2 (1787) [4, 5, 7, 15, 45, 56] Regions.—Macaronesia & [Southwestern USA].
Botanical countries.—[CAL] MDR.

**Acknowledgements**

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**Numerical codes for references**

1. AEDO (1996)
2. MOORE (1961)
4. YEO (1973)
5. YEO (1984)
6. CARLQUIST & BISSING (1976)
7. KNUTH (1912)
8. LÓPEZ (1982)
9. DAVIS (1970)
10. TUKARSKI (1972)
11. MOORE (1943)
12. MACBRIDE (1949)
14. JONES & JONES (1943)
15. KARTESZ (1994)
16. NAVAS (1976)
17. BARBOZA & CORREA (1988)
18. LASSER (1947)
19. BURGER (1991)
20. MEDEIROS & ST. JOHN (1988)
21. CAROLIN (1965)
22. BAKER (1955a)
23. BAKER (1955b)
24. BÖCHER (1947)
25. YEO (1975)
26. YEO (1992)
27. FERLAND (1935)
28. LASSER (1971)
29. BOBROV (1949)
30. CZEREPANOV (1995)
31. SCHONBECK-TEMESY (1970)
32. HUANG (1993)
33. ZOKU (1965)
34. KITAGAWA (1979)
35. HARA (1979)
36. DAVIS (1967)
37. WEBB & FERGUSON (1968)
38. LAUNDON (1963)
REFERENCES


Huang, T.-C. (1993). Flora of Taiwan, ed. 2. Lungwei Printing Company Ltd., Taipei [ref. 32].


Kartesz, J.T. (1994). A synonymized checklist of the vascular flora of the United States, Canada, and
Greenland, ed. 2. Timber Press, Portland, Oregon [ref. 15].


Lee, T.B. (1989). Illustrated flora of Korea (in Korean) [ref. 50].


**APPENDIX 1**

(Regions and their code number, ordered by continents)

**EUROPE**

10 Northern Europe
11 Middle Europe
12 Southwestern Europe
13 Southeastern Europe
14 East Europe

**AFRICA**

20 Northern Africa
21 Macaronesia
22 West Tropical Africa
23 West-Central Tropical Africa
24 Northeast Tropical Africa
25 East Tropical Africa
26 South Tropical Africa
27 Southern Africa
29 Western Indian Ocean

**ASIA-TROPICAL**

30 Siberia
31 Soviet Far East
32 Soviet Middle Asia

**ASIA-TEMPERATE**

33 Caucasus
34 Western Asia
35 Arabian Peninsula
36 China
37 Mongolia
38 Eastern Asia

**Australasia**

40 Indian Subcontinent
41 Indo-China
42 Malesia

**PACIFIC**

50 Australia
51 New Zealand

**NORTHERN AMERICA**

63 North-Central Pacific

**SOUTHERN AMERICA**

70 Subartic America
71 Western Canada

**ANTARCTIC**

90 Subantarctic Islands

**APPENDIX 2**

(Codes of the botanical countries and their region number)

<p>| ABT | Alberta (71) | AFG | Afghanistan (34) | AGE | Argentina Northeast (85) | AGS | Argentina South (85) | AGW | Argentina Northwest (85) | ALA | Alabama (78) | ALB | Albania (13) | ALG | Algeria (20) | ALT | Altay (30) | ALU | Afulian Is (70) | AMU | Amur (31) | ANG | Angola (26) | ARI | Arizona (76) | ARK | Arkansas (78) | ASK | Alaska (70) | ASS | Assam (40) | ATP | Antipodean Is (51) | AUT | Austria (11) | AZO | Azores (21) | BAH | Bahamas (81) | BAL | Baleares (12) | BER | Bermuda (81) | BGM | Belgium (11) | BHU | Bhutan-Sikkim (40) | BLR | Belorussiya (14) | BLT | Baltic States (14) | BMA | Burma (41) | BOL | Bolivia (83) | BRC | British Columbia (71) | BRY | Buryatiya (30) | BUL | Bulgaria (13) | BUR | Burundi (23) | BZL | Brazil Southeast (84) | BZS | Brazil South (84) | CAL | California (76) | CHC | China South-Central (36) | CHI | Inner Mongolia (36) | CHM | Manchuria (36) |</p>
<table>
<thead>
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<th>Code</th>
<th>Region</th>
<th>Name</th>
<th>Subdivision</th>
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<tbody>
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<td>China North-Central (36)</td>
<td>JNF Juan Fernández Is (85)</td>
<td>MXS Mexico Southwest (79)</td>
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<td>CHS</td>
<td>China Southeast (36)</td>
<td>KAM Kamchatka (31)</td>
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<td>CHT</td>
<td>Tibet-Qinghai (36)</td>
<td>KAN Kansas (74)</td>
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<td>CHX</td>
<td>Xinjiang (36)</td>
<td>KAZ Kazakhstan (32)</td>
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<td>Colombia (83)</td>
<td>KEN Kenyia (25)</td>
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<td>NAT Natal (27)</td>
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<td>KHA Khabarovsk (31)</td>
<td>NCA North Carolina (78)</td>
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<td>LBS Lebanon-Syria (34)</td>
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<td>LBY Libya (20)</td>
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<td>NSC Nova Scotia (72)</td>
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<td>LOU Louisiana (78)</td>
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<td>MAI Maine (75)</td>
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C. AEDO & AL.: WORLD CHECKLIST OF GERANIUM 251
SIC Sicilia (13)  TCS Transcaucasus (33)  VIE Vietnam (41)
SIE Sierre Leone (22)  TEN Tennessee (78)  VRG Virginia (78)
SIN Sinai (34)  TEX Texas (77)  WAS Washington (73)
SMX Mexico Southeast (80)  THA Thailand (41)  WAU Western Australia (50)
(Ci: Chiapas)  TKM Turkmenistan (32)  WDC District of Columbia (78)
SOA South Australia (50)  TUE Turkey-in-Europe (13)  WIS Wisconsin (74)
SOC Socotra (24)  TUN Tunisia (20)  WSA Western Sahara (20)
SOM Somalia (24)  TUR Turkey (34)  WSB West Siberia (30)
SPA Spain (12)  TVA Tuva (30)  WVA West Virginia (75)
SRL Sri Lanka (40)  TVL Transvaal (27)  WYO Wyoming (73)
SUD Sudan (24)  TZE Tadzhikistan (32)  YAK Yakutiya (30)
SUL Sulawesi (42)  UGA Uganda (25)  YEM Yemen (35)
SUM Sumatera (42)  UKR Ukraina (14)  YUG Yugoslavia (13)
SWE Sweden (10)  URU Uruguay (85)  YUK Yukon (70)
SWI Switzerland (11)  UTA Utah (76)  ZAI Zaire (23)
SWZ Swaziland (27)  UZB Uzbekistan (32)  ZAM Zambia (26)
TAI Taiwan (38)  VEN Venezuela (82)  ZIM Zimbabwe (26)
TAN Tanzania (25)  VER Vermont (75)  
TAS Tasmania (50)  VIC Victoria (50)

Editado por Carlos Lado
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