

# *Utrecht University*

## *Botanic Gardens*

P.O. Box 80.162  
3508 TD Utrecht  
The Netherlands

### *Index Seminum No. 59 - 2017-18*

Internet Orders: <http://botgard.bio.uu.nl>  
(including many pictures)

In response to the Convention on Biological Diversity (CBD), the Utrecht University Botanic Gardens supplies seeds and other plant material in accordance with the Code of Conduct for Botanic Gardens and similar collections. We are IPEN-member (International Plant Exchange Network) and can exchange material with other IPEN-members without bi-lateral agreements. For a list of current IPEN-members check the web-site of BGCI (Botanic Gardens Conservation International).  
[http://www.bgci.org/resources/History\\_of\\_IPEN/](http://www.bgci.org/resources/History_of_IPEN/)

Non IPEN-members have to return the “*Agreement on the supply of living plant material for non-commercial purposes leaving the International Plant Exchange Network (IPEN version 2b)*” which must be signed by **authorized staff**. This agreement can be made valid for 1, 3 or 5 years and is printed on the back-side of the order form.

#### **Notes on ordering:**

- Correspondents are asked to use the order-form provided, **which must be signed by authorised staff**, and send it to the address mentioned upon it. Furthermore, they should check with their own authorities concerning import-regulations and include any necessary permits with their order.
- The first distribution will be shortly after **March 1, 2018**. Many seeds of limited amount will be out of stock shortly afterward, so please order before this date. Requests, with a maximum of 25 packets will be handled in sequence of entry.

## **Staff**

### **General Department:**

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## Garden location

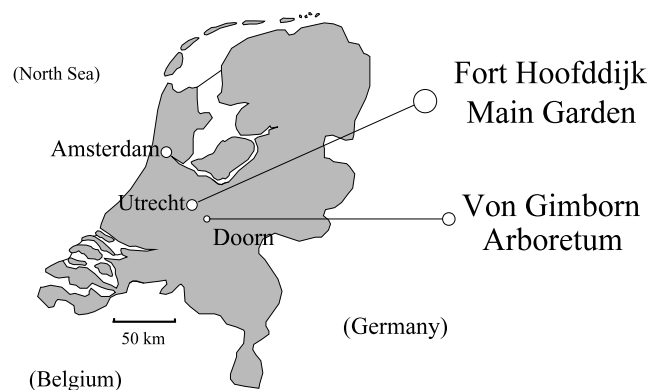
- Utrecht: Fort Hoofddijk (University Centre)

Further (collecting) gardeners for Utrecht: G.E. Bruinenberg, I. van Capel, A. Jacobs, W. Jansen, A.A. Jongerius, R. Koops, , H.W.M. Noordman and B. Valstar.

### Situation and climate:

Geographical position of the Main Garden	52° 06' N : 5° 11' E
Altitude	2 m above sea level
Geographical position of the Von Gimborn Arboretum	52° 00' N : 5° 20' E
Altitude	3 m above sea level
Mean daily minimum of the coldest month	- 0,6°C
Mean daily maximum of the warmest month	+ 21,6°C
Highest temperature	+ 36,8°C *
Lowest temperature	- 24,8°C *
Average rainfall	803 mm

\*Monitored since 1849



## From the Curator's Department

With the presentation of this Index Seminum No. **59-2017-18** we take the opportunity, as usual, to inform you on the latest developments in Utrecht University Botanic Gardens.

In general, the activities of the curators are divided in the following main groups:

- Hans Persoon [HP]: Systematic Garden, Theme Garden, Central Route and student courses.
- Eric Gouda [EG]: Greenhouse Collections (focal point: Neotropical Collections) and the Rock Garden

### **Specializations:**

In the framework of the National Plant Collection (NP), Utrecht University Botanic Gardens are maintaining specializations on the following groups and taxa:

- Flora of the Neotropics: [EG] Flora of the Guianas, with special emphasis on:  
*Bromeliaceae*      *Orchidaceae*      *Costaceae*

- *Annonaceae* (Research Collection) [EG]
- *Cecropiaceae* [EG]
- *Rhipsalis* [EG]
- *Aeonium* [EG]
- Alpines [EG]
- *Penstemon* [EG]
- *Eriogonum* [EG]
- selected woodland plants (*Arisaema*, *Asarum*, & *Trillium*) [EG]

These specializations are given extra attention regarding verification, nomenclature, wild source material, etc.

We are especially interested in material from natural sources of the groups and taxa mentioned above. We seek cooperation with gardens with identical specializations. If you are interested, please contact us and we will provide additional information.

### ***Bromeliaceae:***

Study and development in the *Bromeliaceae* collection has several focus points. In the first place the *Bromeliaceae* research project for the “Flora of the Guianas” and for the Flora of Ecuador: we try to grow all possible species from this area. Beside this, the *Tillandsioideae* collection (as Subfamily of the *Bromeliaceae*) is part of the National Plant Collection (NP). The genus *Tillandsia* of the Andian countries (especially Bolivia & Ecuador) has a special attention because of the various taxonomic problems on species level in these areas. To increase the general knowledge about the recognised genera in the Family we try to grow representatives from all genera. It is evident that our Bromeliaceae Collections will increase dramatically in both size and quality.

### ***Arisaema:***

The last few years we have been very active with this group, increasing the number of wild collected species in the collection. Some areas, like the Peat Garden, have been improved to grow more Arisaemas. International contact with various *Arisaema* (*Araceae*) specialists caused considerable improvement of the collection.

Last but not least, the living collections have been enriched this year. Many new accessions from natural sources replaced accessions from cultivated origin, as part of the long-term collection strategy to replace plants of cultivated origin for wild-collected stock.

### **Codes used**

#### Verification:

The seeds in this list have been taken from verified plants and only if we were reasonably sure that cross-pollination with related species would be unlikely.

Verification codes used:

**0**= not been determined by any authority;

**1**= determined by comparison with other named plants;

**2**= determined by a taxonomist or other competent person;

**3**= determined by a specialist (taxonomist working on that group)

#### Explanation of provenance codes of the plants:

**W**= Accession of wild source (treat as 'Z' because the donor plant is cultivated in our B.G., except W\*, which is wild collected seed, distributed as such.)

**Z**= from a wild source plant in cultivation.

**G**= Garden origin.

#### IPEN-Number:

The first two positions are the iso-code of the country of origin. xx means: country of origin unknown.

The next position is a digit meaning: special restrictions (1) or not (0).

The next position is the abbreviation of the garden introducing the material in IPEN (in this seed-list only u).

The rest consists of the internal accession number:

The first four digits of it indicate the year of registration, (1900 = unknown year of entry).

The next two characters are coding for the garden location or specific group of plants: **GR**=Green houses; **BL**=Rock Garden; **ZG**=Orig. Von Gimborn Arboretum; **RD**=Woody Plants; **SL**= Seedlist only; **ZE**=Annuals and Biennials; **ZS** and **ZB**= Perennials.

The other five digits are a sequence number within a year.

The IPEN-number as a whole stays attached to the accession, wherever it may go, so that it is always possible to trace back its origin.

The \* at the end of the description is followed by the seed-list collecting year.

Apiaceae

1. 1W *Eryngium yuccifolium* Michx.  
[IPEN us0u-2002BL00542] United States, Michigan ,  
Ingham county, MSU Prairie Planting, naturalized  
area, dry. , Alt.: 256 m. 04/10/2001 \*2015

Araceae

2. 3W *Arisaema ciliatum* var. *liubaense* Gusman & Gouda  
[IPEN cn0u-1989BL00077] China, China  
South-Central, Sichuan , Liuba , Alt.: 3600 m. , Coll.:  
Teune, C. 369 14/09/1981 \*2017
3. 2G *Arisaema ciliatum* var. *liubaense* Gusman & Gouda  
[IPEN xx0u-1987BL00172] \*2017
4. 2Z *Arisaema consanguineum* Schott  
[IPEN cn0u-2001BL00109] China , San-ba. , Coll.: A  
Exp.-'94 China (A.G.S.) 2036 \*2015
5. 2W *Arisaema tortuosum* (Wall.) Schott  
[IPEN in0u-1997BL00004] India, Uttar Pradesh ,  
Kumaon area, C.Himalaya , Alt.: 1500 -2800 m. ,  
Coll.: Chadwell, C. et al. CC-1760 \*2017

Arecaceae

6. 1G *Chamaerops humilis* var. *humilis*  
[IPEN xx0u-1975GR00337] \*2016

Aristolochiaceae

7. 2W *Aristolochia trilobata* L.  
[IPEN gf0u-1992GR00904] French Guiana , Saül ,  
Coll.: Mori, S. 22351 \*2016

Asteraceae

8. 1Z *Baccharis sagittalis* (Less.) DC.  
[IPEN CL-0-FRP-24352] Chile , Cordillera El  
Melón, Quebrada Carretón 04/04/2008 \*2017
9. 1Z *Berkheya cirsiifolia* (DC.) Roessler  
[IPEN ZA-0-IB-008865] South Africa \*2015
10. 1Z *Berkheya purpurea* Benth., Hook.f. & Mast.  
[IPEN za0u-2005BL01021] South Africa ,  
Drakensberge \*2013
11. 1W *Cynara cardunculus* L.  
[IPEN it0u-2001BL00758] Italy, Sicilia 1994 \*2017
12. 2Z *Helichrysum compactum* Boiss.  
[IPEN tr0u-2004BL01351] Turkey , Kastamonu,  
Ilgaz Dagi Pass , Alt.: 1800 m. , Coll.: Persson, J.  
94-17 \*2017
13. 2Z *Helichrysum nudifolium* subsp. *pilosellum* (L.f.) Beentje  
[IPEN ls1m-2010/0431] Lesotho , Qacha's Nek  
Distr., Ramatseliso's Gate , Alt.: 2418 m. , Coll.:  
B.Ntloko \*2017

Begoniaceae

14. 2W *Begonia glabra* Aubl.  
[IPEN pa0u-2004GR00872] Panama, Panam ,  
Fortuna , Alt.: 1000 m. , Coll.: Maas, P.J.M. et  
al. s.n. 25/05/2004 \*2016

Betulaceae

15. 2W *Betula lenta* subsp. *lenta*  
[IPEN ca0u-1986RD00002] Canada, Ontario ,  
Niagara Reg., Louth Tp., only verified population in  
Canada, steep slope above Lake Ontario; 1985. , Alt.:  
88 m. \*2015

## Brassicaceae

16. 2W *Erysimum pulchellum* (Willd.) Gay.  
[IPEN tr0u-2010BL00844] Turkey , Boz Dag , Alt.:  
2000 m. \*2017
17. 1W *Pachyphragma macrophyllum* (Hoffm.) N.Busch  
[IPEN xx0u-1998BL00720] Caucasus , NW. \*2017

## Bromeliaceae

18. 3G *Aechmea chrysocoma* Baker  
[IPEN xx0u-2008GR00766] \*2017
19. 3Z *Aechmea coelestis* var. *coelestis*  
[IPEN br0b-1850397] Brazil, Brazil South, Santa  
Catarina , Joinville near Campo Alegre, Rio de Julio ,  
Alt.: 750 m. , Coll.: Leme, E. 1650 \*2017
20. 3W *Aechmea flemingii* H.Luther  
[IPEN gp0u-2012GR00294] Guadeloupe ,  
Grande-Terre. Pterocarpus forest N of La Raizet  
airport. , Coll.: Conrad Fleming \*2016
21. 3G *Aechmea lueddemanniana* (K.Koch) Mez  
[IPEN xx0u-2014GR00535] \*2016
22. 2Z *Aechmea nudicaulis* var. *nudicaulis*  
[IPEN br0u-1996GR00653] Brazil, Brazil Northeast,  
Bahia , Mun. Camaca, Estrada BR101, 2 km S  
Camaca, mata higrofila with Cacao. , Coll.:  
Leuenberger et all. 3096 23/04/1983 \*2016
23. 3Z *Aechmea recurvata* var. *recurvata*  
[IPEN py0u-2009GR00781] Paraguay , Alto Parana,  
Itabo \*2017
24. 3G *Aechmea weberbaueri* Harms  
[IPEN xx0b-2131687] \*2016
25. 3G *Aechmea weberbaueri* Harms  
[IPEN xx0u-2006GR01088] \*2016
26. 3W *Aechmea* x '*pseudonudicaulis*' Leme  
[IPEN BR-0-U-2009GR00733] Brazil , Coll.: Alvim  
Seidel (Brazil) 1047 \*2017
27. 2G *Billbergia brasiliensis* L.B.Sm.  
[IPEN xx0u-2007GR00347] \*2017

## Bromeliaceae (cont.)

28. 3W *Goudea* aff. *chrysostachys* (E. Morren) W. Till & Barfuss  
[IPEN ec0u-2008GR01062] Ecuador, Prov.  
Morona-Santiago , N of Tres Ranchos, road to  
Paraiso , Alt.: 1140 m. , Coll.: E.J.Gouda,  
J.Manzanares & B.Patterson 08-43 01/04/2008 \*2017
29. 3Z *Guzmania osyana* (E.Morren) Mez  
[IPEN ec0u-2009GR01290] Ecuador , Near Hacienda  
Selva negra (ex. tipe of *Guzmania recurvobracteata*  
Rauh) , Coll.: Rauh, W. 34472 \*2016
30. 3Z *Guzmania roezlii* (E.Morren) Mez  
[IPEN EC-0-U-2004GR01095] Ecuador , Region  
Amazónica, Provincia Sucumbíos, Canton Lago  
Agrio, inhabited place Parroquia Santa Cecilia,  
Muñozlandía , Alt.: 300 m. , Coll.: Rauh, W. 34701  
15/08/1973 \*2016
31. 3G *Neoregelia kautskyi* E.Pereira  
[IPEN XX-0-U-2005GR01416] \*2017
32. 3W *Pitcairnia* aff. *altensteinii* (Link, Klotzsch & Otto) Lem.  
[IPEN AR-0-U-2012GR00690] Argentina, Argentina  
Northwest, Salta , Brealito , Coll.: Jeroen van der  
Steen s.n. 10/2004 \*2017
33. 3W *Pitcairnia altensteinii* (Link, Klotzsch & Otto) Lem.  
[IPEN ve0u-2006GR01032] Venezuela ,  
N.-Venezuela, rancher station National Park Henri  
Pittier near Aragua and Carabobo \*2016
34. 3Z *Pitcairnia bifrons* (Lindl.) Read  
[IPEN gp0ncy-19893627] Guadeloupe, La  
Soufriere \*2016
35. 3G *Pitcairnia echinata* Hook.f.  
[IPEN xx0u-2004GR00680] \*2016
36. 3W *Pitcairnia echinata* Hook.f.  
[IPEN CO-0-U-2014GR00824] Colombia , San  
Vicente del Termes , Coll.: Peter Tristram s.n. 2014  
\*2017

## Bromeliaceae (cont.)

37. 3W *Pitcairnia flammea* var. *floccosa* L.B.Sm.  
[IPEN br0u-2012GR00681] Brazil, Brazil  
Southeast, Rio de Janeiro , mun. Campos, Morro do  
Côco , Alt.: 150 -250 m. , Coll.: Walter Till 11140  
04/02/1995 \*2016
38. 3W *Pitcairnia maidifolia* (C.Morren) Decne.  
[IPEN CO-0-U-2014GR00803] Colombia, Dept.  
Cauca , El Queremal Rd. , Coll.: Peter Tristram s.n.  
2014 \*2017
39. 3G *Pitcairnia maidifolia* (C.Morren) Decne.  
[IPEN xx0u-2012GR00708] Colombia , Dagua , Alt.:  
1000 m. , Coll.: Piet van Beest (BCG) s.n. \*2017
40. 3W *Pitcairnia paniculata* (Ruiz & Pav.) Ruiz & Pav.  
[IPEN PE-0-U-2005GR01560] Peru , Tarapoto -  
Moyobamba , Alt.: 700 m. , Coll.: Peter Bak s.n.  
09/2003 \*2016
41. 3G *Racinaea fraseri* (Baker) Spencer & L.B.Sm.  
[IPEN xx0u-2007GR01052] \*2017
42. 3W *Tillandsia butzii* var. *roseiflora* Ehlers  
[IPEN gt0u-2007GR01047] Guatemala , Parramos ,  
Alt.: 2100 m. , Coll.: E. Bludau (Köln) s.n. \*2017
43. 1W *Tillandsia chapalillaensis* Ehlers  
[IPEN MX-0-U-2000GR00731] Mexico, Mexico  
Southwest, Nayarit , near Chapallila, South of Tepic  
\*2017
44. 3W *Tillandsia chapalillaensis* Ehlers  
[IPEN mx0u-2004GR00599] Mexico, Mexico  
Southwest, Nayarit , near Chapallila, South of Tepic  
15, km 18/19 , Coll.: Ehlers, Renate EM041501  
18/02/2004 \*2017
45. 3W *Tillandsia juncea* (Ruiz & Pav.) Poir.  
[IPEN pe0u-2013GR00755] Peru , Taroná Nini  
Pampa , Alt.: 2750 m. , Coll.: Peter Bak tisp187  
09/2003 \*2017
46. 3W *Tillandsia schiedeana* Steud.  
[IPEN mx0u-1994GR02029] , Mexico (?) , Coll.:  
Mulder-Roelfsema, Tineke \*2017

## Bromeliaceae (cont.)

47. 2W *Tillandsia schiedeana* Steud.  
[IPEN hn0u-1994GR02192] Honduras , without  
locality. \*2017
48. 3Z *Vriesea drepanocarpa* (Baker) Mez  
[IPEN BR-0-U-2015GR00921] Brazil , Coll.: Maas,  
P.J.M. et al. s.n. \*2016
49. 3W *Vriesea speckmaieri* Till  
[IPEN VE-0-U-2009GR01733] Venezuela, Estado  
Carabobo , Distr. Valencia, Fila El Caf, W of  
Naguanagua , Alt.: 1100 m. , Coll.: M. Speckmaier  
s.n. 31/12/1998 \*2016

## Campanulaceae

50. 2Z *Asyneuma canescens* (Waldst. & Kit.) Griseb. & Schenk  
[IPEN gr0u-2008BL00486] Greece , Mt. Timfrestos  
\*2015
51. 2W *Lobelia thapsoides* Schott  
[IPEN br1u-2009GR01315] Brazil, Brazil Southeast,  
Espírito Santo , Santa Teresa , Coll.: Maas, P.J.M. et  
al. s.n. 04/05/2009 \*2013

## Cannaceae

52. 3W *Canna paniculata* Ruiz & Pav.  
[IPEN pe0u-1976GR00106] Peru , dept. Huanuco,  
Puente Durand, herb. 5 m, fls. red/orange; 76-03-22 ,  
Alt.: 1000 m. , Coll.: Plowman, T. & Kennedy, H.  
5700 \*2016
53. 2W *Canna tuerckheimii* F.Kr., nzl.  
[IPEN ec0u-1980GR00287] Ecuador , Alluriquin  
area, between Sto. Domingo de los Colorados and  
Quito, mountain forest; 80-10-00 , Alt.: 850 m. ,  
Coll.: Maas, P.J.M. et al. 4796 \*2016

Caprifoliaceae

54. 2Z *Scabiosa argentea* L.  
[IPEN ro0u-1999BL00569] Romania, Cistr.  
Constanza, Vama Veche (1997). \*2017

Caryophyllaceae

55. 2Z *Dianthus arenarius* subsp. *borussicus* Vierh.  
[IPEN at0u-1991BL01115] Austria , no other details  
available! \*2017
56. 2W *Dianthus versicolor* Fisch. ex Link  
[IPEN su0u-1987BL00694] Russian Federation,  
Tuva \*2017
57. 2Z *Minuartia circassica* (Albov) Woron.  
[IPEN tr0u-2002BL00794] Turkey , Kalkanli Dag.  
\*2017
58. 2G *Paronychia macedonica* Chaudhri  
[IPEN xx0u-2001BL00835] \*2017

Cistaceae

59. 1Z *Cistus albanicus* E.F.Warb. ex Heywood  
[IPEN al0u-2013BL00136] Albania , Burrel , Alt.:  
1200 m. \*2015

Clusiaceae

60. 1Z *Hypericum montbretii* Spach  
[IPEN GR-0-B-2409692] Greece , Thrakien, Nomos  
Evrou, Kallithea, Silikat, 900m, leg. , Alt.: 900 m. ,  
Coll.: Raus/Schiers 18706 \*2015
61. 2W *Hypericum olympicum* L.  
[IPEN gr0u-2010BL00863] Greece , Taygetosÿ mts. ,  
Alt.: 1500 m. 2008 \*2017

Crassulaceae

62. 2W *Sedum anacampseros* L.  
[IPEN ch0u-1965BL00396] Switzerland , no further  
details ! \*2016
63. 2Z *Sedum obtusifolium* C.A.Mey.  
[IPEN tr0u-1994BL00045] Turkey ,  
Sugusksu Kizilcaham, coll.: 1989. \*2017
64. 2W *Sedum stoloniferum* S.G.Gmel.  
[IPEN ge0u-1977BL00127] Georgia , Abkhazia  
(Caucasus), Awadchara. \*2017
65. 2W *Sempervivum tectorum* subsp. *tectorum*  
[IPEN fr0u-1987BL00178] France , Lautaret. 1986  
\*2016

Geraniaceae

66. 1W *Pelargonium alchemilloides* (L.) L'H,r.  
[IPEN za0u-2011ZS00378] South Africa , Balloch,  
Balloch Farm (near S border of Lesotho) \*2017

Gesneriaceae

67. 2W *Haberlea rhodopensis* Friv.  
[IPEN bg0u-1981BL00241] Bulgaria , Rodopen  
Mts., along road from Cudnite Metova to Cepelare ,  
Alt.: 1050 m. , Coll.: Cytotax 24905 13/08/1979  
\*2017

Globulariaceae

68. 2Z *Globularia cordifolia* L.  
[IPEN at0u-1995BL00195] Austria ,  
Niederösterreich, Eichkogel. , Alt.: 230 -350 m.  
\*2016

## Gunneraceae

69. 1G *Gunnera prorepens* Hook.f.  
[IPEN xx0u-2006BL00950] \*2015

## Haemodoraceae

70. 1G *Wachendorfia thyrsoflora* L.  
[IPEN xx0u-2009GR00739] \*2016

## Iridaceae

71. 2Z *Iris sintenisii* subsp. *sintenisii* Janka  
[IPEN bg0u-1995BL00180] Bulgaria , Eastern  
Sredna Gora Mts , Coll.: Sterz \*2017
72. 2W *Iris sintenisii* subsp. *sintenisii* Janka  
[IPEN bg0u-2003BL01006] Bulgaria , Black Sea  
coast, Perla N of Primorsko village. , Alt.: 2 m.  
\*2017

## Lamiaceae

73. 2W *Horminum pyrenaicum* L.  
[IPEN it0u-2002BL01250] Italy , Dolomites, Selva -  
Canazei, Passo di Sella. , Alt.: 1900 m. , Coll.:  
Gouda, E.J. 2002-12 04/08/2002 \*2016
74. 1Z *Nepeta sibthorpii* Benth.  
[IPEN gr0u-2000BL01105] Greece , Peloponnes,  
Nomos Arkadias, Mandinia, Kardara/ Mt.Menalon. ,  
Alt.: 820 m. M 5869 \*2014
75. 1G *Salvia apiana* Jeps.  
[IPEN xx0u-2012ZS00728] \*2015
76. 1Z *Salvia dichroantha* Stapf  
[IPEN tr0u-2006BL01620] Turkey KB 119 \*2017
77. 2Z *Salvia przewalskii* Maxim.  
[IPEN cn0u-2001BL00513] China, China  
South-Central, Yunnan , Zhongidian. , Alt.: 3240 m. ,  
Coll.: Edinburgh Yunnan Exped. 1990 247  
27/09/1990 \*2017

## Lamiaceae (cont.)

78. 1W *Scutellaria alpina* L.  
[IPEN fr0u-2016BL00113] France , Le Lauzet , Alt.:  
1700 m. \*2017
79. 2W *Scutellaria californica* A.Gray  
[IPEN us0u-2010BL00078] United States, California,  
Lake Co. , North Coast Ranges , Alt.: 747 m. \*2017
80. 2W *Stachys pradica* (Zanted.) Greuter & Pignatti  
[IPEN ch0u-1988BL00339] Switzerland , Valais,  
Gd. St. Bernard. , Alt.: 2300 m.  
\*2017
81. 2W *Teucrium halacsyanum* Heldr.  
[IPEN gr0u-2008BL00349] Greece , Attiki: Mt.  
Imittos \*2017

## Lardizabalaceae

82. 2G *Stauntonia hexaphylla* (Thunb. ex Murray) Decne.  
[IPEN XX-0-U-2003BL00495] \*2017

## Liliaceae

83. 1W *Allium altaicum* Pall.  
[IPEN ru0u-1979BL00323] Russian Federation,  
Altay , S.W.-Siberia, Altai Mts., South facing talus  
slope above desert steppe, near settlement of Kurai. ,  
Alt.: 2000 -2200 m. \*2017
84. 2Z *Allium flavum* subsp. *flavum* L.  
[IPEN bg0u-1989BL00114] Bulgaria , Coll.: Cytotax  
24913 \*2017
85. 2G *Camassia leichtlinii* subsp. *suksdorfii* (Greenm.) Gould  
[IPEN xx0u-1965BL00309] \*2017
86. 1G *Helonias bullata* L.  
[IPEN xx0u-1998BL00254] \*2015
87. 0G *Lilium monadelphum* M.Bieb.  
[IPEN xx0u-2013BL00790] \*2013
88. 2G *Trillium albidum* Freeman  
[IPEN xx0u-1990BL01147] \*2017



Liliaceae (cont.)

89. 2W *Trillium flexipes* Raf.  
[IPEN us0u-2008BL01795] United States, Tennessee  
\*2017
90. 2G *Trillium kurabayashii* Freeman  
[IPEN xx0u-2000BL00131] \*2017

Magnoliaceae

91. 1G *Magnolia wilsonii* (Finet & Gagnep.) Rehder  
[IPEN xx0u-2010RD00433] \*2016

Malvaceae

92. 1W *Lavatera thuringiaca* L.  
[IPEN ro0u-2015ZS00183] Romania , Near Iasi  
\*2016

Myrtaceae

93. 2G *Callistemon rigidus* R.Br.  
[IPEN xx0u-2006BL00421] \*2017

Nartheciaceae

94. 2W *Narthecium ossifragum* (L.) Huds.  
[IPEN nl0u-1964BL00700] Netherlands, Prov.  
Drenthe near Eelde 1964 \*2016

Onagraceae

95. 1G *Fuchsia boliviana* var. *boliviana*  
[IPEN xx0u-2007GR00871] \*2013
96. 3W *Fuchsia paniculata* Lindl.  
[IPEN pa0u-1980GR00318] Panama, Panam,  
Chiriqui Mt.wood near Guadeloupe, 2 km N of  
Cerro Punta. , Alt.: 1800 m. , Coll.: Maas, P.J.M. et  
al. 4985 21/10/1980 \*2014

Poaceae

97. 1W *Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths  
[IPEN us0u-2002BL00753] United States, South  
Dakota \*2017

Polemoniaceae

98. 1W *Polemonium pauciflorum* S.Watson  
[IPEN us0u-2009BL00514] United States, Arizona ,  
Cochise Co. , Alt.: 2073 m. , Coll.: Alan Bradshaw  
(Alplains) 70095.17 \*2014

Polygonaceae

99. 2W *Oxyria digyna* (L.) J.Hill  
[IPEN it0u-2009BL00619] Italy, Valle Urtier , A.  
Manda , Alt.: 2400 m. \*2017

Primulaceae

100. 1Z *Primula beesiana* Forrest  
[IPEN cn0u-2005BL01426] China, China  
South-Central, Yunnan , Lijiang, Yulong Shan, Ha  
Lan Gon Lake , Alt.: 3170 m. , Coll.: Edinburgh  
Yunnan Exped. 1990. 1018 09/10/1990 \*2017

Ranunculaceae

101. 1W *Aquilegia atrata* W.D.J.Koch  
[IPEN at0u-2015BL00272] Austria, Salzburg(erland)  
Tennengau, Adnet, Seefeldm hle N, Almbach,  
Stausee , Alt.: 470 m. , Coll.: Mayr, A. (Apollonia)  
08/2014 \*2017
102. 2W *Aquilegia vulgaris* subsp. *vulgaris*  
[IPEN ch0u-2000BL01193] Switzerland ,  
Kärnten, Obir, lime. , Alt.: 1600 -2000 m. \*2017

## Rosaceae

103. 2W *Acaena inermis* Hook.f.  
[IPEN nz0o-1992BL00081] New Zealand. \*2017
104. 2Z *Acaena pallida* (T.Kirk) J.W.Dawson  
[IPEN NZ-0-TUEB-4674] New Zealand \*2017
105. 2Z *Potentilla arguta* Pursh  
[IPEN us0u-2008BL00502] United States, Idaho \*2017
106. 2W *Potentilla rupestris* var. *rupestris*  
[IPEN fr0u-1965BL00505] France , Savoie, Bonneval-sur-Arc , Alt.: 2000 m. \*2017

## Saxifragaceae

107. 2Z *Heuchera chlorantha* Piper  
[IPEN ca-0-mb-1990/367] Canada, British Columbia , Lillooet R.50 \*2017
108. 2Z *Heuchera cylindrica* Douglas  
[IPEN US-0-RAMB-51094] United States, Wyoming \*2017
109. 1G *Peltoboykinia watanabei* (Yatabe) Hara  
[IPEN xx0u-2002BL00017] \*2014
110. 2W *Saxifraga cherlerioides* var. *rebunshirensis* (Engl. & Irmsch.) Hara  
[IPEN jp0u-1997BL00485] Japan , Hokkaido, Mt. Nishi-kumaneschiri-dake, Katoh-gun. \*2017
111. 2W *Saxifraga hypnoides* var. *hypnoides*  
[IPEN ie0u-1978BL00054] Ireland , Burren, Clare E.C.N 1978 \*2017
112. 2Z *Saxifraga umbrosa* L.  
[IPEN es0u-1992BL01333] Spain , Picos de Europa. \*2017

## Scrophulariaceae

113. 1W *Lophospermum erubescens* D.Don  
[IPEN bo0u-2005GR01250] Bolivia, Prov. Santa Cruz direction of Samaipata, near Ayacucho , Coll.: Gouda, C.S. s.n. \*2016
114. 2W *Penstemon barbatus* var. *barbatus*  
[IPEN us0u-1996BL00222] United States, Oregon \*2017
115. 1W *Penstemon cardwellii* T.J.Howell  
[IPEN us0u-1991BL00700] United States, Oregon , Multnomah Co., no further details! , Alt.: 1080 m. \*2013
116. 2W *Penstemon digitalis* Nutt.  
[IPEN us0u-1995BL01112] United States, Michigan , Ingham county, roadbank above seep , Alt.: 259 m. \*2017
117. 2W *Penstemon euglaucus* English  
[IPEN us0u-1999BL01169] United States, Oregon , USA, Oregon, Santiam Pass. \*2013
118. 2Z *Penstemon tubiflorus* Nutt.  
[IPEN us0u-2011BL00995] United States, Missouri , Rock Hill \*2013
119. 1Z *Verbascum phoeniceum* L.  
[IPEN RO-0-BERN-1980/93] Romania, Distr. Sibiu , Slimnie \*2017

## Solanaceae

120. 2Z *Solandra longiflora* Tussac  
[IPEN ec0u-1990GR00176] Ecuador , Guayaquil 1983 \*2017

Valerianaceae

121. 1Z *Patrinia heterophylla* Bunge  
[IPEN cn0u-2015BL00536] China, China  
North-Central, Shaanxi , Qin Ling tnountains,  
Kaizeping , Alt.: 1800 m. HeHeHe 298 \*2016
122. 1Z *Patrinia scabiosifolia* Fisch. ex Link  
[IPEN jp0u-2014BL00144] Japan, Hokkaido ,  
Shiraoi-machi, Shiraoi-gun , Coll.: H. Takahashi ea..  
27/07/2000 \*2016