



Index seminum

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Index Seminum

*Utrecht University
Botanic Gardens
The Netherlands*



Universiteit Utrecht

No. 56-2014-15

UNIVERSITEITSBIBLIOTHEEK UTRECHT



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Index Seminum No. 56 - 2014-15

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/

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, 2015**. 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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Curators' 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, H.B. Spoor and B. Valstar.

Situation and climate:

Geographical position of the Main Garden	52° 06' N : 5°11' E
Altitude	2 m above sea level
Geopgraphical 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. **56-2014-15** 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.

Agavaceae

- 9 1. 2G *Doryanthes palmeri* A.W.Hill
[IPEN xx0u-1973GR00602] *2013
- 3 2. 2G *Phormium tenax* J.R. & G.Forst.
[IPEN xx0u-1973GR00695] *2013

Apiaceae

- 3 3. 2G *Olymposciadium caespitosum* (J.E.Sm.) Wolff
[IPEN xx0u-1969BL00242] *2013

Araceae

- 6 4. 2G *Arisaema amurense* Maxim.
[IPEN xx0u-1986BL00211] *2012
- 15 5. 3W *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN cn0u-1989BL00077] China, South-Central,
Sichuan , Liuba , Alt.: 3600 m. , Coll.: Teune, C. 369
14/09/1981 *2014
- 3 6. 2G *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN xx0u-1987BL00172] *2014
- 14 7. 2G *Arisaema exappendiculatum* Hara
[IPEN xx0u-2005BL00343] *2014

7 Aristolochiaceae

8. 2Z *Aristolochia littoralis* Parodi
[IPEN sv0u-1992GR00988] El Salvador , Acajutla.
*2013
- 8 9. 2W *Aristolochia trilobata* L.
[IPEN gf0u-1992GR00904] French Guiana , Sa I. ,
Coll.: Mori, S. 22351 *2013

Asteraceae

- 10 10. 2Z *Aster pyrenaeus* Desf. ex DC.
[IPEN fr0u-2002BL00804] France , Dept. Haut
Pyrenees, Centre d'Ecologie, Montagnarde, Gabas ,
Coll.: Ern,H. 7249 *2014
- 6 11. 1Z *Berkheya purpurea* Benth., Hook.f. & Mast.
[IPEN za0u-2005BL01021] South Africa ,
Drakensberge *2013
- 9 12. 2G *Leontopodium alpinum* subsp. *nivale* (Ten.) Tutin
[IPEN xx0u-1992BL00809] *2012

Berberidaceae

- 13 13. 1W *Diphylleia cymosa* Michx.
[IPEN us0u-2001BL00058] United States, North
Carolina , Haywood County, Pisgah Nat. Forest,
State Highway 215, shade. , Alt.: 1000 m. 14/09/2000
*2014

Betulaceae

- 7 14. 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. *2011

Brassicaceae

- 16 15. 1W *Pachyphragma macrophyllum* (Hoffm.) N.Busch
[IPEN xx0u-1998BL00720] Caucasus , NW. *2014

Bromeliaceae

- 4 16. 3W *Aechmea angustifolia* Poepp. & Endl.
[IPEN pe0u-2011GR00868] Peru , without locality ,
Coll.: Karel Knize (Peru) s.n. *2013
- 9 17. 3W *Aechmea angustifolia* Poepp. & Endl.
[IPEN ec0u-2012GR00300] Ecuador , Alt.: 1154 m. ,
Coll.: Jan Verkade *2013
- 15 18. 2W *Aechmea aquilega* var. *aquilega*
[IPEN sr1u-1999GR00107] Suriname , Parimaribo
(Suriname Riv.) , Coll.: Gouda, E.J. 99-41 1999
*2013
- 8 19. 3Z *Aechmea coelestis* var. *coelestis*
[IPEN br0b-1850397] Brazil, South, Santa Catarina ,
Joinville near Campo Alegre, Rio de Julio , Alt.: 750
m. , Coll.: Leme, E. 1650 *2014
- 4 20. 3Z *Aechmea coelestis* var. *coelestis*
[IPEN br0u-2006GR01066] Brazil, Southeast, Rio de
Janeiro , Teresopolis , Coll.: Leme, E. 1922 *2014
- 15 21. 3G *Aechmea dactylina* Baker
[IPEN xx0B-1151283] *2014
- 4 22. 3G *Aechmea lueddemanniana* (K.Koch) Mez
[IPEN xx0b-1184074] *2014
- 3 23. 2Z *Aechmea nudicaulis* var. *nudicaulis*
[IPEN br0u-1996GR00653] Brazil, Northeast, Bahia ,
Mun. Camaca, Estrada BR101, 2 km S Camaca,
"mata higrofila" with Cacao. , Coll.: Leuenberger et
all. 3096 23/04/1983 *2014
- 4 24. 3W *Aechmea nudicaulis* var. *nudicaulis*
[IPEN ve0u-2005GR01419] N. Venezuela , Coll.:
Peter Bak s..n. 2003 *2014
- 15 25. 3W *Aechmea setigera* Martius ex Schultes f.
[IPEN gf0u-1998GR00682] French Guiana, Mataroni
(Timeberg); 98-03-23 , Coll.: Moonen, J.(FG) 201
*2014
- 12 26. 3G *Aechmea weberbaueri* Harms
[IPEN xx0u-2006GR01088] *2012

Bromeliaceae (cont.)

- 5 27. 3G Araeococcus flagellifolius Harms
[IPEN J *2014]
- 26 28. 3W Brocchinia tatei L.B.Sm.
[IPEN ve0u-2005GR01567] Venezuela *2010
- 12 29. 3W Dyckia ferox Mez
[IPEN py0u-1997GR00647] Paraguay , Dept.
Cordillera, hills W of Tobati , Alt.: 450 m. , Coll.:
Till, W. 6050 09/02/1991 *2014
- 9 30. 3W Fosterella penduliflora (C.H.Wright) L.B.Sm.
[IPEN bo0u-1996GR00123] Bolivia , near
Lawuinillas, Monte Agudo. , Coll.: Gouda, C.S.
95-32b *2014
- 9 31. 3G Fosterella spectabilis H.Luther
[IPEN xx0b-2900800] *2012
- 11 32. 3W Guzmania monostachia (L.) Rusby ex Mez
[IPEN pe0u-2010GR00616] Peru, Reg. Junin , Road
S. of San Ramon to Uchabamba , Alt.: 1158 m. ,
Coll.: Gouda, E.J. & R. 10-14 19/07/2010 *2013
- 24 33. 3Z Guzmania osyana (E.Morren) Mez
[IPEN ec0u-2004GR01099] Ecuador , Hacienda
Selva negra, road to Quito , Coll.: Rauh, W. 34472
*2014
- 11 34. 3Z Guzmania roezlii (E.Morren) Mez
[IPEN xx0u-2004GR01095] Ecuador , Alt.: 500 m. ,
Coll.: Rauh, W. 34701 08/1973 *2014
- 5 35. 2G Guzmania wittmackii (Andr.) Andr, ex Mez
[IPEN xx0u-1996GR01170] *2013
- 0 36. 3W Pitcairnia altensteinii (Link, Klotzsch & Otto) Lem.
[IPEN ve0u-2006GR01032] N.-Venezuela, rancher
station National Park Henri Pittier near Aragua and
Carabobo *2013
- 5 37. 3W Pitcairnia aureobrunnea Rauh
[IPEN ec1u-2006GR00038] Ecuador, Prov. El Oro ,
Road Passaje - Catamayo (not main road) , Alt.: 1020
m. , Coll.: E.J.Gouda & J.Manzanares 05-29
23/11/2005 *2013

Bromeliaceae (cont.)

- 4 38. 3W *Pitcairnia caricifolia* Mart.ex Schult.f.
[IPEN ve0u-2005GR01552] Venezuela , Ilu (weide)
Tepui *2014
- 0 39. 3W *Pitcairnia echinata* Hook.f.
[IPEN ec0u-2008GR01065] Ecuador, Prov.
Morona-Santiago , N of Tres Ranchos, road to
Paraiso , Alt.: 1140 m. , Coll.: E.J.Gouda,
J.Manzanares & B.Patterson 08-46 01/04/2008 *2014
- 3 40. 3Z *Pitcairnia flammea* var. *glabrior* L.B.Sm.
[IPEN br0u-2001GR00086] Brazil , Teresopolis
*2014
- 6 41. 3W *Pitcairnia flammea* var. *roezlii* (E.Morr.) L.B.Sm.
[IPEN br0u-2000GR00771] Brazil, Southeast,
Guanabara , Rio de Janeiro City , Coll.: Leme, E. s.n.
*2013
- 9 42. 3Z *Pitcairnia hitchcockiana* L.B.Sm.
[IPEN ec0u-2006GR01008] Ecuador , Mera , Alt.:
1300 m. , Coll.: Fl.,schandr,,ger, A. s.n. 20/04/1995
*2014
- 5 43. 3W *Pitcairnia imbricata* (Brongn.) Regel
[IPEN gt0b-2794993] Guatemala , dept. Guatemala,
CA9 to El Rancho, 24 km behind ciudad de
Guatemala , Alt.: 750 m. , Coll.: Radtke &
Moldenhauer 167 *2014
- 8 44. 3W *Pitcairnia megasepala* Baker
[IPEN co0u-2012GR00707] Colombia , Dagua , Alt.:
1000 m. , Coll.: Piet van Beest (BCG) *2013
- 4 45. 3W *Pitcairnia sceptrigera* Mez
[IPEN ec0u-2009GR01341] Ecuador , Magdalena ,
Alt.: 1000 m. , Coll.: Doug Binns (Aus) 11/2008
*2012
- 5 46. 3W *Pitcairnia villetensis* Rauh
[IPEN co0u-2000GR00646] Colombia , Bogota -
Villeta , Alt.: 900 m. , Coll.: Rauh, W. 37089 *2013
- 25 47. 3Z *Racinaea fraseri* (Baker) Spencer & L.B.Sm.
[IPEN ec0u-2011GR00563] Ecuador , Coll.: Elly
Bak (NL) 1990 *2014

Bromeliaceae (cont.)

- 13 48. 3W *Racinaea rothschuhiana* (Mez) M.A.Spencer & L.B.Sm.
[IPEN cr0u-2012GR00292] Costa Rica *2013
- 12 49. 3W *Tillandsia bartramii* Elliott
[IPEN mx0u-2000GR00736] Mexico , (Ver.?),
Cordoba. , Coll.: Ehlers, Renate EM79759 *2014
- 7 50. 3W *Tillandsia butzii* var. *roseiflora* Ehlers
[IPEN gt0u-2007GR01047] Guatemala , Parramos ,
Alt.: 2100 m. , Coll.: E. Bludau (K"ln) s.n. *2014
- 8 51. 3W *Tillandsia caliginosa* W.Till
[IPEN bo0u-1998GR01073] Bolivia , near
Cochabamba or Sucre?; nov.1989. , Coll.: Gouda,
C.S. s.n. *2014
- 6 52. 3W *Tillandsia capillaris* Ruiz & Pav.
[IPEN bo0u-1996GR00136] Bolivia , 12 km Tarja to
Potosi. , Alt.: 2400 m. , Coll.: Gouda, C.S. 95-15b
28/12/1995 *2014
- 4 53. 3W *Tillandsia capillaris* Ruiz & Pav.
[IPEN bo0u-1996GR01249] Bolivia , Bolivia, prov.
Tarija, Mnt. Tarija. , Coll.: Gouda, C.S. 96-33
11/1996 *2014
- 6 54. 3Z *Tillandsia chapalillaensis* Ehlers
[IPEN mx0u-1997GR00664] Mexico *2014
- 10 55. 3W *Tillandsia chapalillaensis* Ehlers
[IPEN mx0u-2004GR00599] Mexico Southwest,
Nayarit , near Chapallila, South of Tepic 15, km
18/19 , Coll.: Ehlers, Renate EM041501 18/02/2004
*2014
- 17 56. 3W *Tillandsia complanata* Benth.
[IPEN pe0u-2010GR00363] Peru 09/2003 *2014
- 19 57. 3W *Tillandsia extensa* Mez
[IPEN pe1heid-130109] Peru , Cochabamba, on the
ground , Alt.: 3400 m. , Coll.: Rauh, W. 20559
27/08/1967 *2014
- 11 58. 3W *Tillandsia heterophylla* E.Morren
[IPEN mx0u-2004GR01125] *2011

Bromeliaceae (cont.)

- 14 59. 3W *Tillandsia incarnata* Humb., Bonpl. & Kunth
[IPEN ec0u-2008GR01323] Ecuador , Jahuarcocha ,
Alt.: 2200 m. , Coll.: Herr. Schwerdtfeger
(G"ttingen) 0909044 1996 *2014
- 5 60. 3W *Tillandsia juncea* (Ruiz & Pav.) Poir.
[IPEN pe0u-2013GR00755] Peru , Tarona Nini
Pampa , Alt.: 2750 m. , Coll.: Peter Bak tispc187
09/2003 *2014
- 5 61. 3W *Tillandsia polystachia* (L.) L.
[IPEN mx0u-2007GR01372] Mexico , Cd. Valles to
Cd.Maute, Near Gustavo Garmendia 1985 *2013
- 13 62. 3G *Tillandsia rauhii* L.B.Sm.
[IPEN xx0x-1996GR00627] *2012
- 3 63. 2W *Tillandsia schiedeana* Steud.
[IPEN hn0u-1994GR02192] Honduras , without
locality. *2014
- 14 64. 3W *Tillandsia spiralisflora* Rauh
[IPEN pe0u-2007GR01373] Peru *2012
- 12 65. 3W *Tillandsia straminea* Humb., Bonpl. & Kunth
[IPEN ec0u-1999GR01331] Ecuador, without
locality. *2014
- 12 66. 3W *Vriesea tuerckheimii* (Mez) L.B.Sm.
[IPEN do0u-2001GR00562] Hispaniola , Prov. La
Vega, km 8 along the road from Jarabacoa to El Rjo,
large, epilithic. , Alt.: 1000 m. , Coll.: Till, W. 17021
*2014
- 11 67. 3W *Werauhia aff. gladioliflora* (Wendland) J.R.Grant
[IPEN pa0u-2007GR00364] Panama , Coll.: Chester
Skotak (CR) *2014

Campanulaceae

- 8 68. 2Z *Asyneuma canescens* (Waldst. & Kit.) Griseb. & Schenk
[IPEN gr0u-2008BL00486] Greece , Mt. Timfrestos
*2014
- 7 69. 1W *Laurentia longiflora* (L.) Endl.
[IPEN cu0u-2004GR00447] Cuba , above Trinidad ,
Coll.: Peter Bak s.n. *2013
- 2 70. 1W *Lobelia siphilitica* L.
[IPEN us0u-2006BL00742] United States, Michigan ,
Clinton county, S Shrub-Carr, Rose Lake Fen 2-track
Alt.: 256 m. *2009
- 13 71. 2W *Lobelia thapsoides* Schott
[IPEN br1u-2009GR01315] Brazil, Southeast,
Espirito Santo , Santa Teresa , Coll.: Maas, P.J.M. et
al. s.n. 04/05/2009 *2013

Capparaceae

- 9 72. 2W *Cleome viridiflora* Schreb.
[IPEN bo1u-1999GR00209] Bolivia , Coll.: Maas,
P.J.M. et al. 8803 *2013

Caprifoliaceae

- 6 73. 2Z *Scabiosa argentea* L.
[IPEN ro0u-1999BL00569] Romania , Cistr.
Constanza, Vama Veche (1997). *2014
- 5 74. 2W *Scabiosa cinerea* subsp. *cinerea* Lapeyr. ex Lam.
[IPEN it0u-1994BL00090] Italy , Puglia,
Promontorio del Gargano, NE Coast, ca. 2 km. ESE
Coppo dei Fossi, Macchie , Alt.: 150 -200 m. , Coll.:
Gigerl, P. 09/1992 *2009

Caryophyllaceae

- 9 75. 2Z *Dianthus gallicus* Pers.
[IPEN fr0u-1992BL01341] France , Morbihan.
*2014
- 7 76. 1W *Dianthus japonicus* Thunb.
[IPEN jp0u-2008BL00360] Japan , Tsukuba, Ibaraki
2006 *2013
- 7 77. 1W *Drypis spinosa* L.
[IPEN hr0u-2005BL00106] Croatia , Velebit
Bot.Garden , Coll.: S. Kovašić s.n. 10/09/2002 *2010

Crassulaceae

- 5 78. 3W *Aeonium haworthii* Salm-Dyck ex Webb & Berthel.
[IPEN es0u-1992HR31893] Spain, Canary Is.,
Tenerife , Teno region, NE of Portela Alta, along the
road , Alt.: 690 m. , Coll.: Thiede 04/09/1989 *2012
- 7 79. 3W *Aeonium arboreum* var. *rubrolineatum* (Svent.) H.-Y.Liu
[IPEN es0u-1992HR31856] Spain, Canary Is.,
Gomera , Barranco del Agua, along the road from
Las Hayas to El Cercado , Alt.: 850 m. , Coll.:
Poppendieck 89-7 20/07/1989 *2012
- 5 80. 3W *Aeonium sedifolium* (Webb ex Bolle) Pitard & Proust
[IPEN es0u-1992HR31479] Spain, Canary Is.,
Tenerife , Teno region, exact proveniance unknown ,
Coll.: H.'t Hart (also HTH) HRT-31479 *2012
- 8 81. 1W *Sedum ewersii* Ledeb.
[IPEN in0u-2006BL00191] India, Himachal Pradesh
Borderlands of W.Tibet (from Lahoul), Chandra
Valley , Alt.: 4450 m. , Coll.: Chadwell, C. et al.
5288 2005 *2013
- 9 82. 3W *Sedum obtusifolium* C.A.Mey.
[IPEN tr0u-1993BL00010] Turkey , Prov. Bolu, 20
km S. of Gerede,, W. of the road to Kizilcahaman. ,
Alt.: 1350 m. , Coll.: Alpinar, K. & H.'t Hart 33
*2014

Crassulaceae (cont.)

83. 2W *Sedum telephium* subsp. *maximum* (L.) Krock.
[IPEN no0u-2001BL00546] Norway , Oppland,
Lillehamer, Faberg, S of Gruva. , Alt.: 300 m.
17/08/2000 *2014

Cupressaceae

- 16 84. 2W *Cupressus torulosa* D.Don
[IPEN np0u-2002RD00103] Nepal , Himalaya.
Mustang, Tukuche area, Forest zone. , Coll.:
Chadwell, C. et al. 4046 2001 *2011

Geraniaceae

- 6 85. 2Z *Geranium swatense* Schonbeck-Temesy
[IPEN pk0u-1998BL00788] Pakistan , without
details. *2014
- 6 86. 1W *Pelargonium alchemilloides* (L.) L'H,r.
[IPEN za0u-2011ZS00378] South Africa , Balloch,
Balloch Farm (near S border of Lesotho) *2014

Gesneriaceae

- 11 87. 2G *Paliavana prasinata* (Ker-Gawl.) Benth. & J.D.Hook.
[IPEN xx0u-1966GR01547] *2013

Iridaceae

- 1 88. 1W *Iris foetidissima* L.
[IPEN pt0u-2000BL00594] Portugal , Coimbra (data
asked). *2013
- 18 89. 2W *Iris hartwegii* Baker
[IPEN us0u-1996BL00959] United States, California
Humbold Co., N of Eureka, Prairie Creek Redwoods
State Park, Fern Canyon. , Alt.: 40 m. *2014

Iridaceae (cont.)

- 14 90. 2Z Iris sintenisii subsp. sintenisii Janka
[IPEN bg0u-1995BL00180] Bulgaria , Eastern
Sredna Gora Mts , Coll.: Sterz *2014
- 10 91. 2W Iris sintenisii subsp. sintenisii Janka
[IPEN bg0u-2003BL01006] Bulgaria , Black Sea
coast, Perla N of Primorsko village. , Alt.: 2 m.
*2013
- 10 92. 1Z Iris spuria subsp. sogdiana (Bunge) Mathews
[IPEN ru0u-1982BL00251] Russian Federation,
Asiatic Russia , exact location not known 1981
*2009

Lamiaceae

- 8 93. 1Z Nepeta sibthorpii Benth.
[IPEN gr0u-2000BL01105] Greece , Peloponnes,
Nomos Arkadias, Mandinia, Kardara/ Mt.Menalon. ,
Alt.: 820 m. M 5869 *2014
- 10 94. 2W Scutellaria californica A.Gray
[IPEN us0u-2010BL00078] United States, California,
Lake Co. , North Coast Ranges , Alt.: 747 m. *2014
- 7 95. 2Z Sideritis syriaca L.
[IPEN gr0u-2008BL00498] Greece , Euboea *2014
- 9 96. 2W Stachys pradica (Zanted.) Greuter & Pignatti
[IPEN ch0u-1988BL00339] Switzerland , Valais, Gd.
St. Bernard. , Alt.: 2300 m. *2014

Liliaceae

- 5 97. 2Z Allium angulosum L.
[IPEN fr0u-1995BL00214] France , Presvosges.
*2014
- 2 98. 2G Arthropodium cirratum (G.Forst.) R.Br.
[IPEN xx0u-1972GR00215] *2013
- 10 99. 1W Camassia scilloides (Raf.) Cory
[IPEN us0u-1987BL00430] United States,
Pennsylvania , Wildflower Preserve. *2013

Liliaceae (cont.)

- 14 100. 1G *Helonias bullata* L.
[IPEN xx0u-1998BL00254] *2013
- 8 101. 0G *Lilium monadelphum* M.Bieb.
[IPEN xx0u-2013BL00790] *2013
- 5 102. 2W *Maianthemum racemosum* (L.) Link
[IPEN us0u-1999BL00238] United States, Michigan ,
Ingham County, Mesic S Forest; 98-09-23. , Alt.: 265
m. *2014
- 3 103. 2W *Polygonatum verticillatum* (L.) All.
[IPEN nl0u-1967BL00288] Netherlands, Prov.
Limburg *2014
- 25 104. 2G *Trillium albidum* Freeman
[IPEN xx0u-1990BL01147] *2014
- 32 105. 2G *Trillium chloropetalum* var. *giganteum* (Hook. & Arn.)
A.E.Murray
[IPEN xx0u-2007BL01368] *2014
- 24 106. 2G *Trillium cuneatum* Raf.
[IPEN xx0u-1985BL00105] *2014
- 30 107. 2W *Trillium flexipes* Raf.
[IPEN us0u-2008BL01795] United States, Tennessee
*2014
- 16 108. 2U *Trillium grandiflorum* (Michx.) Salisb.
[IPEN xx0u-2002BL00679] *2014
- 28 109. 2W *Trillium grandiflorum* (Michx.) Salisb.
[IPEN us0u-1997BL00184] United States, Michigan ,
Ingham County, Mesic Southern Forest, sitename:
Bear lake Dunkel Roadbank South. , Alt.: 250 m.
*2014

Menispermaceae

- 7 110. 2W *Menispermum canadense* L.
[IPEN us0u-1997RD00161] United States, Michigan
Ingham County, Mesic Southern Forest, Sitename:
Sanford Woodlot, coll.: 96-10-16. , Alt.: 253 m.
*2010

Onagraceae

- 10 111. 1G *Fuchsia boliviana* var. *boliviana*
[IPEN xx0u-2007GR00871] *2013
- 20 112. 3W *Fuchsia paniculata* Lindl.
[IPEN pa0u-1980GR00318] Panama , 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

Paeoniaceae

- 12 113. 2Z *Paeonia mlokosewitschii* Lomakin
[IPEN ge0u-2005BL00955] Georgia , Tbilisi 1983
*2014

Papaveraceae

- 11 114. 2G *Meconopsis betonicifolia* Franch.
[IPEN xx0u-1964BL00209] *2011
- 5 115. 2Z *Papaver spicatum* var. *spicatum*
[IPEN tr0u-1977BL00058] Turkey , no further
details ! *2014

Plumbaginaceae

- 9 116. 2G *Limonium minutum* (L.) Fourr.
[IPEN xx0u-1984BL00199] *2011

Polemoniaceae

- 13 117. 1W *Polemonium pauciflorum* S.Watson
[IPEN us0u-2009BL00514] United States, Arizona ,
Cochise Co. , Alt.: 2073 m. , Coll.: Alan Bradshaw
(Alplains) 70095.17 *2014

Polygonaceae

- 26 118. 1W *Eriogonum umbellatum* var. *umbellatum*
[IPEN us0u-1994BL01273] United States, Colorado ,
Jefferson County, South Table Mtn. , Alt.: 1859 m.
*2014

Primulaceae

- 12 119. 2W *Dodecatheon pulchellum* subsp. *pulchellum* (Raf.) Merr.
[IPEN us0u-1983BL00281] United States, Oregon ,
N.W. 1982 *2013

Ranunculaceae

- 6 120. 2W *Clematis songorica* var. *songorica* Hook. & Arn.
[IPEN mn0u-2010BL00552] China, Inner Mongolia
*2012
- 4 121. 2W *Trollius europaeus* subsp. *europaeus*
[IPEN fr0u-1979BL00236] France , (Hautes
Pyrenees) Gavarnie, on humid meadow. *2014

Rosaceae

- 3 122. 2Z *Potentilla arguta* Pursh
[IPEN ca0u-2008BL00500] Canada, British
Columbia *2014
- 4 123. 2W *Rosa arvensis* Huds.
[IPEN nl0u-1994RD00736] Netherlands, Prov.
Limburg , Epen, 'onderste bos' , Coll.: Kruit,
Leonieke *2014

Sapindaceae

- 14 124. 1G *Paullinia pinnata* L.
[IPEN xx0u-1993GR00241] *2014

Saxifragaceae

- 8 125. 1G *Peltoboykinia watanabei* (Yatabe) Hara
[IPEN xx0u-2002BL00017] *2014

Scrophulariaceae

- 4 126. 2W *Antirrhinum majus* subsp. *majus*
[IPEN it0u-2006BL00424] Italy , Mesina, Taormina
07/2001 *2011
- 7 127. 1W *Asarina erubescens* (D.Don) Pennell
[IPEN bo0u-2005GR01250] Bolivia, Prov. Santa
Cruz , direction of Samaipata, near Ayacucho , Coll.:
Gouda, C.S. s.n. *2009
- 8 128. 2W *Digitalis ferruginea* L.
[IPEN gr0u-2006BL00502] Greece, Peloponesos ,
Mt. Killini *2012
- 5 129. 2Z *Digitalis ferruginea* subsp. *ferruginea*
[IPEN tr0u-2000BL00393] Turkey , N.-Anatolia,
Bithynia: Ala-Dag, Kartalkaya 10 km before ski
station. , Alt.: 1600 m. *2011
- 8 130. 2W *Digitalis viridiflora* Lindl.
[IPEN bg0u-2002BL01044] Bulgaria , Eastern
Rodopi. , Alt.: 1700 m. 25503 2002 *2012
- 10 131. 1W *Penstemon cardwellii* T.J.Howell
[IPEN us0u-1991BL00700] United States, Oregon ,
Multnomah Co., no further details! , Alt.: 1080 m.
*2013
- 9 132. 2W *Penstemon digitalis* Nutt.
[IPEN us0u-1995BL01112] United States, Michigan ,
Ingham county, roadbank above seep , Alt.: 259 m.
*2014
- 13 133. 2W *Penstemon euglaucus* English
[IPEN us0u-1999BL01169] United States, Oregon ,
Santiam Pass. *2013
- 11 134. 2Z *Penstemon tubiflorus* Nutt.
[IPEN us0u-2011BL00995] United States, Missouri ,
Rock Hill *2013

Scrophulariaceae (cont.)

g 135. 1Z Phygelius aequalis Harv. ex Hiern

[IPEN za0u-2004BL01363] South Africa, Free State ,
Mt. Aux-Sources, Witsiehoek Mt. Resort , Alt.: 2300
m. , Coll.: Lesotho-Edinburgh-Gothenburg Botanical
Expedition 315 *2011

Sterculiaceae

5 136. 1G Abroma augusta (L.) L.f.

[IPEN xx0u-1987GR00028] *2013

Verbenaceae

f 137. 2G Phyla nodiflora (Kunth) Green

[IPEN xx0u-2008BL01557] *2013







