



Index seminarum

<https://hdl.handle.net/1874/433802>

Index Seminum

*Utrecht University
Botanic Gardens
The Netherlands*



Universiteit Utrecht

No. 54-2012-13

UNIVERSITEITSBIBLIOTHEEK UTRECHT



4216 3588

Utrecht University
Botanic Gardens

P.O. Box 80.162
3508 TD Utrecht
The Netherlands

Index Seminum No. 54 - 2012-13

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, 2013**. 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.
- Our Fax no. is +31 30 2535177 (do not use e-mail).

Staff

General Department:

Ing. Arie Oudijk, *A.Oudijk@uu.nl*
General Director
Drs. Akkie J. Joosse, *A.J.Joosse@uu.nl*
Communications Officer
Mrs. Petra vanden Beemt *P.M.J.vandenbeemt@uu.nl*
Secretary

Curators' Department:

Drs. Hans Persoon *J.G.M.Persoon@uu.nl*
Curator and Deputy Director
Drs. Eric J. Gouda *E.J.Gouda@uu.nl*
Curator and Research
Mr. Lennart Everts *M.L.Everts@uu.nl*
Assistant

Educational Department:

Drs. Nick.A.J.Meijdam *N.A.J.Meijdam@uu.nl*
Education officer
Ir. Ruth C. de Visser-de Jonge, *R.C.deVisser@uu.nl*
Coordinator Theme Garden Project

Technical/collecting staff (Utrecht)

Gerard van Buiten *G.vanBuiten@uu.nl*
Hortulanus
Roel Vonk *R.Vonk@uu.nl*
Ton G. Werensteijn *A.G.Werensteijn@uu.nl*
Fred H.J. Siesling *F.H.J.Siesling@uu.nl*

Garden location

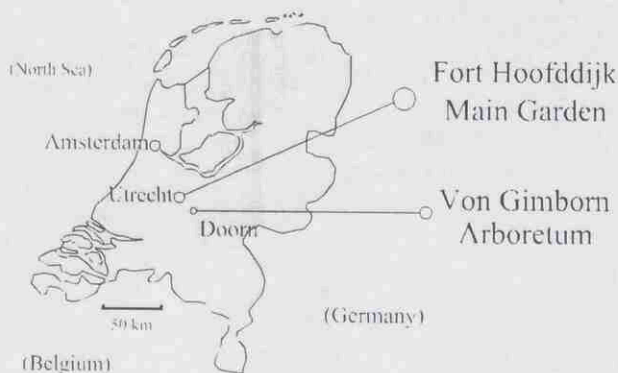
Utrecht: Fort Hoofddijk (University Centre)

Further (collecting) gardeners for Utrecht: G.E. Bruinenberg, I. van Capel, A. Jacobs, W. Jansen, A.A. Jongerius, R. Kooops, , 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
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. **54-2012-13** 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*
- *Amonaceae* (Research Collection) [EG]
- Alpines [EG]
- selected woodland plants (*Arisaema*, *Asarum* & *Trillium*) [EG]
- *Penstemon* [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.

Worth mentioning is that since 1 January 2010 the Von Gimborn Arboretum is no longer owned by the University of Utrecht. The Foundation Von Gimborn Arboretum is the new owner of the arboretum, including the NP-collections (all former [HP] collections). No seeds were harvested in the arboretum in the years 2010-2012. Some accessionnumber harvested in former years in the arboretum will be offered in this seedlist. This concerns the numbers: 1, 79, 80, 82 and 117.

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 & Equador) 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

1. 2G *Beschorneria pubescens* Berger
[IPEN xx0u-1973GR00580] *2012

Apocynaceae

2. 2G *Alyxia buxifolia* R.Br.
[IPEN xx0u-1974GR00732] *2012

Aquifoliaceae

3. 2G *Ilex pedunculosa* var. *pedunculosa* Miq.
[IPEN xx0u-1961RD00653] *2009

Araceae

4. 2G *Arisaema amurense* Maxim.
[IPEN xx0u-1986BL00211] *2012
5. 3W *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN cn0u-1989BL00077] China: Sichuan, Liuba Alt.:
3600 m. Coll.: Teune, C. 369 14/09/1981 *2012
6. 2G *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN xx0u-1987BL00172] *2010
7. 2G *Arisaema flavum* var. *flavum*
[IPEN xx0u-1996BL01189] *2012
8. 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 *2012
9. 2W *Arisaema triphyllum* (L.) Schott
[IPEN us0u-1998BL00681] United States: Massachusetts,
Hadley *2012

Areaceae

10. 2G *Caryota mitis* Lour.
[IPEN xx0u-1998GR00723] *2012

Asclepiadaceae

11. 2G *Asclepias curassavica* L.
[IPEN xx0u-1991GR01063] *2012

Asteraceae

12. 1Z *Berkheya purpurea* Benth., Hook.f. & Mast.
[IPEN za0u-2005BL01021] South Africa , Drakensberge
*2010
13. 2G *Leontopodium alpinum* subsp. *nivale* (Ten.) Tutin
[IPEN xx0u-1992BL00809] *2012

Begoniaceae

14. 2W *Begonia glabra* Aubl.
[IPEN pa0u-2004GR00872] Panama , Fortuna Alt.: 1000
m. Coll.: Maas, P.J.M. et al. s.n. 25/05/2004 *2012

Berberidaceae

15. 1W *Vancouveria hexandra* (Hook.) C.Morren & Decne.
[IPEN us0u-1996BL00784] United States: Oregon , Forest
Park/Hoyt Arboretum. Alt.: 240 m. *2012

Betulaceae

16. 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 "

Boraginaceae

17. 1G *Arnebia pulchra* (Willd. ex Roem. & Schult.) Edmondson
[IPEN xx0u-2007BL01668] *2012

Brassicaceae

18. 1W *Ptilotrichum spinosum* (L.) Boiss.
 [IPEN es0u-2004BL00061] Spain: Prov. Teruel , Sierra de Javelambre, Pico Javelambre Alt.: 2000 m. Coll.: Gouda, E.J. 03-56 22/07/2003 *2012
19. 1W *Pachyphragma macrophyllum* (Hoffm.) N.Busch
 [IPEN xx0u-1998BL00720] Caucasus , NW. *2012

Bromeliaceae

20. 3W *Aechmea angustifolia* Poepp. & Endl.
 [IPEN ec0u-2012GR00300] Ecuador , Alt.: 1154 m. Coll.: Jan Verkade *2012
21. 3W *Aechmea coelestis* var. *coelestis*
 [IPEN br0u-1997GR00639] Brazil: Rio de Janeiro , Teresopolis Coll.: Leme, E. 1922 *2012
22. 3Z *Aechmea coelestis* var. *coelestis*
 [IPEN br0b-1850397] Brazil: Santa Catarina , Joinville near Campo Alegre, Rio de Julio Alt.: 750 m. Coll.: Leme, E. 1650 *2012
- ~~23. 3W~~ *Aechmea coelestis* var. *coelestis*
 [IPEN br0u-1997GR00639] Brazil: Rio de Janeiro , Teresopolis Coll.: Leme, E. 1922 *
24. 3G *Aechmea dactylina* Baker
 [IPEN xx0B-1151283] *2012
25. 3G *Aechmea fraseri* Baker
 [IPEN xx0u-2006GR01609] *2012
26. 3G *Aechmea weberbaueri* Harms
 [IPEN xx0u-2006GR01088] *2012
27. 3G *Alcantarea geniculata* (Wawra) J.R.Grant
 [IPEN xx0u-2005GR01551] *2012
28. 2G *Billbergia brasiliensis* L.B.Sm.
 [IPEN xx0u-2007GR00347] *2012
29. 3G *Billbergia brasiliensis* L.B.Sm.
 [IPEN xx0u-2005GR00235] *2012
30. 3G *Billbergia velascana* C rdenas
 [IPEN xx0u-2003GR01722] *2011

Bromeliaceae (cont.)

31. 3W *Brocchinia tatei* L.B.Sm.
[IPEN ve0u-2005GR01567] Venezuela , *2010
32. 3W *Canistrum montanum* Leme
[IPEN br0u-2002GR01569] Brazil: Bahia , Mun. Una,
road Sao Jose - Una, km 9. Atlantic Rainforest. Coll.:
Leme, E. 3022 07/04/1995 *2011
33. 2G *Dyckia velascana* Mez
[IPEN xx0u-1990GR00444] *2010
34. 3G *Fosterella penduliflora* (C.H.Wright) L.B.Sm.
[IPEN xx0u-2007GR01025] *2010
35. 3G *Fosterella rojasii* (L.B.Sm.) L.B.Sm.
[IPEN xx0u-2007GR01026] *2010
36. 3W *Guzmania monostachia* (L.) Rusby ex Mez
[IPEN cr0u-2010GR00755] Costa Rica , Coll.: Leo
Dijkgraaf (BCG) s.n. *2012
37. 3G *Guzmania osyana* (E.Morren) Mez
[IPEN xx0u-2007GR00669] *2012
38. 3Z *Guzmania osyana* (E.Morren) Mez
[IPEN ec0u-2004GR01099] Ecuador , Hacienda Selva
negra, road to Quito Coll.: Rauh, W. 34472 *2010
39. 3U *Guzmania osyana* (E.Morren) Mez
[IPEN xx0u-2007GR01390] *2011
40. 2G *Guzmania wittmackii* (Andr.) Andr, ex Mez
[IPEN xx0u-1996GR01170] *2012
41. 3W *Pitcairnia altensteinii* (Link, Klotzsch & Otto) Lem.
[IPEN ve0u-2006GR01032] Venezuela , N.-Venezuela,
rancher station National Park Henri Pittier near Aragua and
Carabobo *2010
42. 3W *Pitcairnia caricifolia* Mart.ex Schult.f.
[IPEN ve0u-2005GR01552] Venezuela , Ilu (weide) Tepui
*2009
43. 3G *Pitcairnia echinata* Hook.f.
[IPEN xx0u-2004GR00680] *2010
44. 3Z *Pitcairnia flammea* var. *glabrior* L.B.Sm.
[IPEN br0u-2001GR00086] Brazil , Teresopolis *2012

Bromeliaceae (cont.)

45. 3W *Pitcairnia flammea* var. *roezlii* (E.Morr.) L.B.Sm.
[IPEN br0u-2000GR00771] Brazil: Guanabara , Rio de
Janeiro City Coll.: Leme, E. s.n. *2010
46. 3Z *Pitcairnia hitchcockiana* L.B.Sm.
[IPEN ec0u-2006GR01008] Ecuador , Mera Alt.: 1300 m.
Coll.: Fl.,schendr.,ger, A. s.n. 20/04/1995 *2011
47. 3Z *Pitcairnia imbricata* (Brongn.) Regel
[IPEN gt0u-2005GR00894] Guatemala , 20 km from
Guatemala City towards el Rancho Alt.: 800 m. Coll.:
Radtke/Moldenhauer 183 *2011
48. 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 *2012
49. 3W *Pitcairnia scepstrigera* Mez
[IPEN ec1u-2006GR00034] Ecuador: Prov. Azuay , Road
Cuenca - Passaje Alt.: 700 m. Coll.: E.J.Gouda &
J.Manzanares 05-24 22/11/2005 *2011
50. 3G *Pitcairnia scepstrigera* Mez
[IPEN xx0u-1998GR01183] *2010
51. 3W *Pitcairnia villetaensis* Rauh
[IPEN co0u-2000GR00646] Colombia , Bogota - Villeta
Alt.: 900 m. Coll.: Rauh, W. 37089 *2011
52. 3G *Pitcairnia xanthocalyx* Mart.
[IPEN xx0u-1997GR00501] *2012
53. 3W *Puya floccosa* (Linden) E.Morren
[IPEN ve0u-2008GR01403] *2010
54. 3G *Puya mirabilis* (Mez) L.B.Sm.
[IPEN xx0u-2005GR01069] *2012
55. 3G *Racinaea fraseri* (Baker) Spencer & L.B.Sm.
[IPEN xx0u-2007GR01052] *2011
56. 3Z *Racinaea fraseri* (Baker) Spencer & L.B.Sm.
[IPEN ec0u-2011GR00563] Ecuador , Coll.: Elly Bak
(NL) 1990 *2012
57. 3Z *Racinaea insularis* (Mez) M.A.Spencer & L.B.Sm.
[IPEN ec0u-2000GR00640] Ecuador: Gal pagos , Coll.:
Rauh, W. 34230 1979 *2011

Bromeliaceae (cont.)

58. 3W *Tillandsia aeranthos* (Loisel.) L.B.Sm.
[IPEN br0u-2008GR01719] Brazil , Santana *2011
59. 3W *Tillandsia aeranthos* (Loisel.) L.B.Sm.
[IPEN br0u-2003GR01849] Brazil , without locality *2012
60. 3G *Tillandsia baileyi* Rose ex Small
[IPEN xx0u-1997GR00760] *2011
61. 3W *Tillandsia bartramii* Elliott
[IPEN mx0u-2000GR00736] Mexico , (Ver.?), Cordoba.
Coll.: Ehlers, Renate EM79759 *2011
62. 3W *Tillandsia caliginosa* W.Till
[IPEN ar0u-1997GR00635] Argentina , without details;
1986 Leuenb. *2011
63. 3W *Tillandsia caliginosa* W.Till
[IPEN bo0u-1998GR01073] Bolivia , near Cochabamba or
Sucre?; nov.1989. Coll.: Gouda, C.S. s.n. *2011
64. 2W *Tillandsia disticha* Humb., Bonpl. & Kunth
[IPEN pe0u-1998GR01463] Peru , Peru, 1984. *2010
65. 3W *Tillandsia extensa* Mez
[IPEN pe1heid-130095] Peru , Valley de Rio Sauce,
Puente Popoyan Alt.: 500 m. Coll.: Rauh, W. 20242
07/1967 *2010
66. 3W *Tillandsia heterophylla* E.Morren
[IPEN mx0u-2004GR01125] *2011
67. 3G *Tillandsia rauhii* L.B.Sm.
[IPEN xx0x-1996GR00627] *2012
68. 3G *Tillandsia schiedeana* Steud.
[IPEN xx0u-1983GR00435] *2011
69. 3W *Tillandsia schiedeana* Steud.
[IPEN mx0u-1994GR02029] Mexico (?) Coll.:
Mulder-Roelfsema, Tineke *2011
70. 3W *Tillandsia spiraliflora* Rauh
[IPEN pe0u-2007GR01373] Peru , *2012
71. 3U *Tillandsia straminea* Humb., Bonpl. & Kunth
[IPEN xx0u-1998GR01215] *2012
72. 3G *Ursulaea macvaughii* (L.B.Sm.) R.W.Read & H.U.Baensch
[IPEN xx0u-1999GR00775] *2010

Bromeliaceae (cont.)

73. 3G *Vriesea rubra* (Ruiz & Pav.) Beer
[IPEN xx0u-2007GR01408] *2012
74. 3W *Werauhia notata* (L.B.Sm. & Pittendrigh) J.R.Grant
[IPEN cr0u-2006GR01545] Costa Rica , Monte Verde
Alt.: 1550 m. Coll.: Gouda, E.J. 06-11 15/07/2006 *2009

Cactaceae

75. 2G *Pereskia aculeata* Miller
[IPEN xx0u-1976GR00558] *2012
76. 3W *Rhipsalis baccifera* (J.Mill.) Stearn
[IPEN sr1u-1975GR00357] Suriname , no further details!
Coll.: Lindeman, J.C. 09/1975 *2012

Campanulaceae

77. 2Z *Campanula primulifolia* Brot.
[IPEN pt0u-1997BL00455] Portugal , Algarve, Serra de
Monchique, Perna de Negra; 94-08-00 *2009
78. 1W *Lobelia siphilitica* L.
[IPEN us0u-2006BL00742] United States: Michigan ,
Clinton county, S Shrub-Carr, Rose Lake Fen 2-track Alt.:
256 m. *2009

Caryophyllaceae

79. 2Z *Dianthus subacaulis* subsp. *subacaulis*
[IPEN fr0u-1994BL01124] France , Herault,
Felines-Minervois *2010
80. 1W *Drypis spinosa* L.
[IPEN hr0u-2005BL00106] Croatia , Velebit Bot.Garden
Coll.: S. Kovašić s.n. 10/09/2002 *2010

Cistaceae

81. 2W *Helianthemum nummularium* subsp. *grandiflorum* (Scop.)
Schinz & Thell.
[IPEN it0u-2002BL01324] Dolomites, Canazei - Caprile,
Mnt. Marmolada. Alt.: 1750 m. Coll.: Gouda, E.J. 2002-82
09/08/2002 *2011

Crassulaceae

82. 3W *Aeonium haworthii* Salm-Dyck ex Webb & Berthel.
[IPEN es0u-1992HR31893] Spain: Tenerife , Teno region,
NE of Portela Alta, along the road Alt.: 690 m. Coll.:
Thiede 04/09/1989 *2012
83. 1W *Aeonium hierrense* (Murray) Pit. & Proust
[IPEN es0u-1992HR32414] Spain: La Palma , Coll.: R.P.
Labadie VP-1.1 28/04/1993 *2012
84. 3W *Aeonium arboreum* var. *rubrolineatum* (Svent.) H.-Y.Liu
[IPEN es0u-1992HR31856] Spain: Gomera , Barranco del
Agua, along the road from Las Hayas to El Cercado Alt.:
850 m. Coll.: Poppendieck 89-7 20/07/1989 *2012
85. 3W *Aeonium saundersii* Bolle
[IPEN es0u-1992HR31478] Spain: Canary Is. , Exact
provenience unknown *2012
86. 3W *Aeonium sedifolium* (Webb ex Bolle) Pitard & Proust
[IPEN esOu-1992HR31479] Spain: Tenerife , Teno region,
exact provenience unknown Coll.: H.'t Hart (also HTH)
HRT-31479 *2012
87. 3W *Aeonium simsii* (Sweet) Stearn
[IPEN es0u-1992HR30440] *2012
88. 3W *Aeonium lindleyi* var. *viscatum* (Bolle) H.-Y.Liu
[IPEN es0u-1992HR30479] Spain: Gomera , NW of San
Sebastian de la Gomera, along the road to Hermigua Coll.:
Loon, J.Chr.v. s.n. 24/10/1985 *2012
89. 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 *2012

Crassulaceae (cont.)

90. 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 *2010
91. 2W *Sedum stoloniferum* S.G.Gmel.
[IPEN ge0u-1977BL00127] Georgia , Abkhazia
(Caucasus), Awadchara. *2011

Cupressaceae

92. 2W *Cupressus torulosa* D.Don
[IPEN np0u-2002RD00103] Nepal , Himalaya. Mustang,
Tukuche area, Forest zone. Coll.: Chadwell, C. et al. 4046
2001 *2011

Dipsacaceae

93. 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

Ericaceae

94. 2G *Enkianthus cernuus* var. *rubens* (Maxim.) Makino
[IPEN xx0u-1900ZG00184] *2009
95. 2G *Kalmia latifolia* L.
[IPEN xx0u-1900ZG01222] *2009
96. 2W *Rhododendron hirsutum* L.
[IPEN at0u-2006RD00561] Austria , *2012
97. 2G *Zenobia pulverulenta* (W.Bartram ex Willd.) Pollard
[IPEN xx0u-1900ZG01146] *2008

Erythroxylaceae

98. 2G *Erythroxylum coca* Lam.
[IPEN xx0u-1968GR00714] *2012

Fabaceae

99. 1G *Abrus precatorius* L.
[IPEN xx-0-frp-16423] *2012
100. 1G *Cassia senna* L.
[IPEN xx0u-1994GR00355] *2012

Haemodoraceae

101. 1G *Wachendorfia thyrsiflora* L.
[IPEN xx0u-2009GR00739] *2012

Iridaceae

102. 1W *Iris foetidissima* L.
[IPEN fr0u-1999BL00576] France , Finistere,
Mouelan-sur-Mer, Pointe de Kerhermen. Alt.: 10 m. *2008
103. 1Z *Iris magnifica* Vved.
[IPEN uz0u-1998BL00395] Uzbekistan , Rusdakaigr.
*2011
104. 1Z *Iris spuria* subsp. *sogdiana* (Bunge) Mathews
[IPEN ru0u-1982BL00251] Russian Federation: Asiatic
Russia , exact location not known 1981 *2009

Lamiaceae

105. 1W *Leonurus cardiaca* L.
[IPEN de0u-1992ZS00163] Berlin, no further details !
*2012
106. 2W *Prunella grandiflora* subsp. *pyrenaica* (Gren. & Godr.) A. &
O.Bolos
[IPEN fr0u-1987BL00368] France , Aude, Laprade. 1986
*2012
107. 2W *Teucrium scorodonia* L.
[IPEN be0u-1975BL00208] Belgium , no further details !
*2012

Liliaceae

108. 2G *Allium cyathophorum* var. *farreri* (Stearn) Stearn
[IPEN xx0u-1991BL01250] *2012
109. 2W *Bomarea edulis* (Tussac) Herb.
[IPEN sr0u-1980GR00248] Suriname , Kabelebo area,
along Barieba Creek Coll.: Lindeman, J.C. & A.R.A. Görts
455 *2012
110. 1G *Bulbine annua* Willd.
[IPEN xx0u-2005BL01367] *2012
111. 1W *Camassia scilloides* (Raf.) Cory
[IPEN us0u-1987BL00430] United States: Pennsylvania ,
Wildflower Preserve. *2012
112. 1G *Chlorophytum sparsiflorum* Baker
[IPEN xx0u-2007GR00505] *2012
113. 1G *Gloriosa superba* L.
[IPEN xx0u-1977GR00234] *2012
114. 2U *Paris quadrifolia* L.
[IPEN xx0u-2007BL00933] *2010
115. 1G *Scadoxus multiflorus* subsp. *katherinae* (Baker) Friis & Nordal
[IPEN xx0u-2006GR01519] *2012
116. 2G *Trillium albidum* Freeman
[IPEN xx0u-1990BL01147] *2012
117. 2Z *Trillium angustipetalum* (Torrey) Freeman
[IPEN us0u-2007BL01615] Northern America , *2012
118. 2G *Trillium chloropetalum* var. *giganteum* (Hook. & Arn.)
A.E.Murray
[IPEN xx0u-2007BL01368] *2012
119. 2W *Trillium flexipes* Raf.
[IPEN us0u-2008BL01794] United States: Alabama ,
*2012
120. 2G *Trillium flexipes* Raf.
[IPEN xx0u-2009BL01174] *2012
121. 2W *Trillium grandiflorum* (Michx.) Salisb.
[IPEN ca0u-2002BL00632] Canada: Quebec , Vudreuil
co., Ile Perrot. 14/07/2001 *2012

Liliaceae (cont.)

122. 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. *2012
123. 2U *Trillium grandiflorum* (Michx.) Salisb.
[IPEN xx0u-2002BL00679] *2012
124. 2G *Trillium kurabayashii* Freeman
[IPEN xx0u-2000BL00131] *2012
125. 2W *Trillium sulcatum* Patrick
[IPEN us0u-2008BL01795] United States: Tennessee ,
*2012
126. 2G *Trillium x erectum 'hybride'* L.
[IPEN xx0u-1986BL00072] *2012

Menispermaceae

127. 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

Nyctaginaceae

128. 1W *Mirabilis jalapa* L.
[IPEN in0u-1992GR00036] India: Sikkim , along
border-river, near (military) check-point. Alt.: 2000 m.
Coll.: Wollenberg, L.J.W. v.d. 91-002 *2012

Onagraceae

129. 1G *Fuchsia boliviana* var. *boliviana*
[IPEN xx0u-2007GR00871] *2012
130. 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 *2012

Paeoniaceae

131. 1G *Paeonia japonica* (Makino) Miyabe & Takeda
[IPEN xx0u-2006BL01459] *2012
132. 2Z *Paeonia mascula* subsp. *mascula*
[IPEN ge0u-2005BL01090] Georgia , Gruzia Alt.: 2600 m.
Coll.: Halda,J.J. 9309156 *2012
133. 2Z *Paeonia mlokosewitschii* Lomakin
[IPEN ge0u-2005BL00955] Georgia , Tbilisi 1983 *2012

Papaveraceae

134. 1W *Macleaya cordata* (Willd.) R.Br.
[IPEN jp0u-2007BL00823] Japan: Shizuoka Pref. ,
Fujinomiya-shi 26/10/2006 *2011
135. 2G *Meconopsis betonicifolia* Franch.
[IPEN xx0u-1964BL00209] *2011

Passifloraceae

136. 1G *Passiflora morifolia* Mast.
[IPEN xx0u-2008GR00801] *2012

Plumbaginaceae

137. 2G *Limonium minutum* (L.) Fourn.
[IPEN xx0u-1984BL00199] *2012

Polemoniaceae

138. 1W *Polemonium pauciflorum* S.Watson
[IPEN us0u-2009BL00514] United States: Arizona ,
Cochise Co. Alt.: 2073 m. Coll.: Alan Bradshaw (Alplains)
70095.17 *2012

Primulaceae

139. 1Z *Primula beesiana* Forrest
[IPEN cn0u-2005BL01426] China: Yunnan , Lijiang,
Yulong Shan, Ha Lan Gon Lake Alt.: 3170 m. Coll.:
Edinburgh Yunnan Exped. 1990 1018 09/10/1990 *2012

Ranunculaceae

140. 2W *Clematis songorica* var. *songorica* Hook. & Arn.
[IPEN mn0u-2010BL00552] China: Inner Mongolia ,
*2011

Rosaceae

141. 2W *Potentilla eriocarpa* Wall. ex Lehm.
[IPEN xx0u-2004BL00305] Himalaya , NW. Coll.:
Chadwell, C. et al. 4627 2003 *2012

Rubiaceae

142. 1G *Psychotria hirtella* Oliv.
[IPEN xx0u-1993GR00238] *2012

Saxifragaceae

143. 2Z *Heuchera chlorantha* Piper
[IPEN ca-0-mb-1990/367] Canada: British Columbia ,
Lillooet R.50 *2011
144. 2W *Saxifraga cherlerioides* var. *rebunshirensis* (Engl. & Irmsch.)
Hara
[IPEN jp0u-1997BL00485] Japan , Hokkaido, Mt.
Nishi-kumaneschiri-dake, Katoh-gun. *2011

Sciadopityaceae

145. 2G *Sciadopitys verticillata* (Thunb. ex Murray) Siebold & Zucc.
[IPEN xx0u-1900ZG01861] *2009

Scrophulariaceae

146. 2W *Antirrhinum majus* subsp. *majus*
 [IPEN it0u-2006BL00424] Italy , Mesina, Taormina
 07/2001 *2011
147. 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
148. 2W *Digitalis ferruginea* L.
 [IPEN gr0u-2006BL00502] Greece: Peloponesos , Mt.
 Killini *2012
149. 2Z *Digitalis ferruginea* subsp. *ferruginea*
 [IPEN tr0u-2000BL00393] Turkey , N.-Anatolia, Bithynia:
 Ala-Dag, Kartalkaya 10 km before ski station. Alt.: 1600
 m. *2011
150. 2W *Digitalis obscura* L.
 [IPEN es0u-2008BL00641] Spain , Sierra Nevada Alt.:
 1700 m. *2011
151. 2W *Digitalis viridiflora* Lindl.
 [IPEN bg0u-2002BL01044] Bulgaria , Eastern Rodopi.
 Alt.: 1700 m. 25503 2002 *2012
152. 1W *Penstemon cardwellii* T.J.Howell
 [IPEN us0u-1991BL00700] United States: Oregon ,
 Multnomah Co., no further details! Alt.: 1080 m. *2010
153. 2G *Penstemon pinifolius* E.Greene
 [IPEN xx0u-1969BL00346] *2010
154. 2G *Penstemon smallii* A.A.Heller
 [IPEN xx0u-2007BL01697] *2010
155. 1W *Penstemon whippleanus* A.Gray
 [IPEN us0u-2008BL01665] United States: California ,
 Mineral Co. Alt.: 3311 m. *2011
156. 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
157. 1G *Tetranema roseum* (Mart. & Gal.) Standl. & Steyerm.
 [IPEN xx0u-2007GR00360] *2012

Zamiaceae

158. 2G *Encephalartos villosus* Lem.
[IPEN xx0u-1975GR00125] *2012

Campanulaceae

159. 2W *Lobelia thapsoidea* Schott

[IPEN br1u-2009GR01315] Brazil: Espirito Santo , Santa
Teresa Coll.: Maas, P.J.M. et al. s.n. 04/05/2009 *2012

