

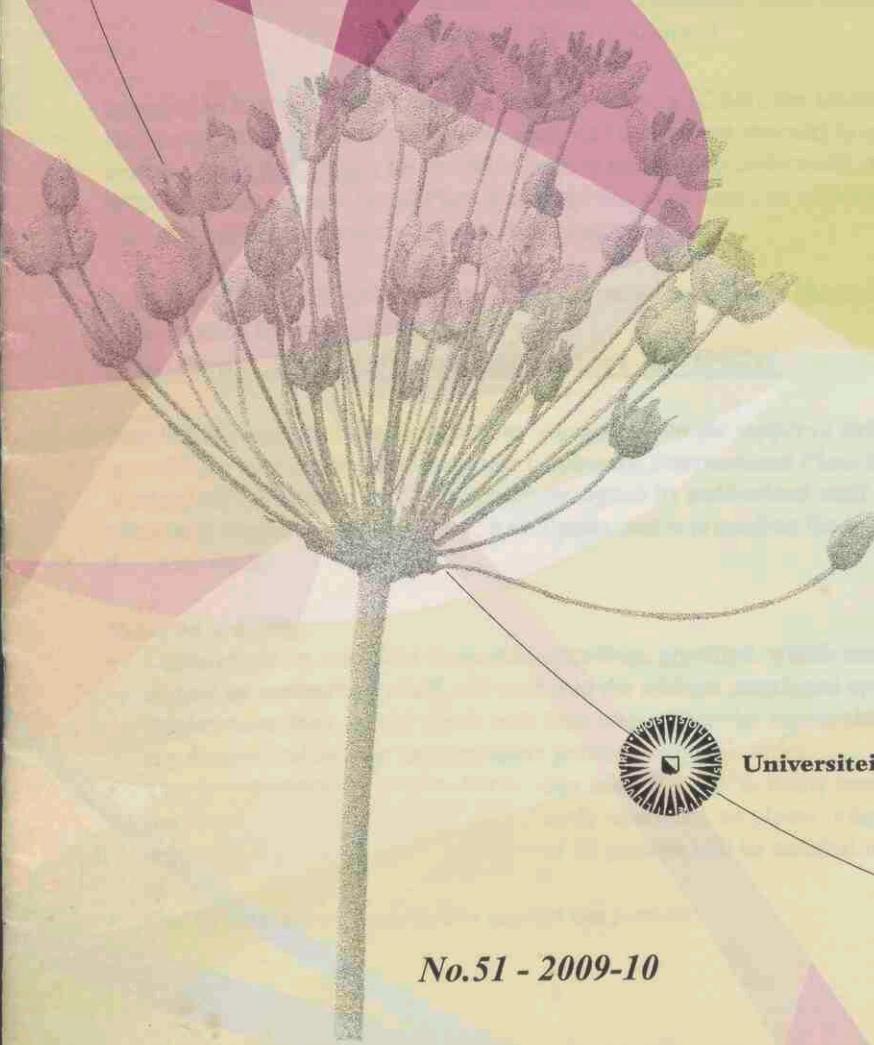


Index seminum

<https://hdl.handle.net/1874/433761>

Index Seminum

*Utrecht University
Botanic Gardens
The Netherlands*



Universiteit Utrecht

No.51 - 2009-10

UNIVERSITEITSBIBLIOTHEEK UTRECHT



4216 3703

Utrecht University Botanic Gardens

P.O. Box 80.162
3508 TD Utrecht
The Netherlands

Index Seminum No. 51 - 2009-10

Internet Orders: <http://botgard.bio.uu.nl/collection/>
(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, 2010**. 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

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Technical/collecting staff Doorn
Nico.R. Stolwijk and Wim Wildschut

Gardens location

Utrecht: Fort Hoofddijk (University Centre)

Doorn: Von Gimborn Arboretum

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

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. **51-2009-10** 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]: Arboretum, Systematic Garden, Theme Garden
- 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*
- Broad-leaved hardy trees and shrubs: [HP]
Aceraceae *Betulaceae* *Ericaceae*
Euonymus *Laburnum* *Magnolia*
Oleaceae (esp.: *Fraxinus* and *Syringa*)
- *Annonaceae* (Research Collection) [EG]
- Conifers (esp. *Tsuga*) [HP]
- 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.

Aceraceae:

The research within the *Aceraceae* Project will take place in a number of phases and we wish to thank the following organisations for their cooperation:

- * Dutch Botanic Gardens Foundation
- * The Maple Society
- * IUCN-SCC Temperate Broadleaved Trees Specialist Group
- * Botanic Gardens Conservation International (BGCI)
- * Regional Office of BGCI
- * Professional Growers of Aceraceae and the Keeper of the "Aceretum", Mr. D.M. v. Gelderen (Fa. C.Esveld) at Boskoop.

One of the goals will be the production of a survey of taxa of *Aceraceae*, currently considered threatened (IUCN Conservation Categories) present in the Western Botanic Gardens.

This list will be analised and completed with the threatened species native to Temperate Asia. Special emphasis will be put on specimens of recorded wild origin, In this respect we kindly request the help and support of our Chinese colleagues.

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.

Source of illustrations used:

From colour illustrations made by the late Dr. C.D. Laros, Utrecht University Botanic Gardens

Aceraceae

- 10 1. 2G Acer maximowiczianum Miq.
[IPEN xx0u-1900ZG00968] *2009
10 2. 2G Acer micranthum Siebold & Zucc.
[IPEN xx0u-1978RD00987] *2009
2 3. 2G Acer tataricum subsp. ginnala (Maxim.) Wesm.
[IPEN xx0u-1900ZG00987] *2009
8 4. 2G Acer triflorum Kom.
[IPEN xx0u-1978RD00724] *2009

Apiaceae

- 2 5. 2G Astrantia trifida G.F.Hoffm.
[IPEN xx0u-1970BL00073] *2009

Aquifoliaceae

- 8 6. 2G Ilex pedunculosa var. pedunculosa Miq.
[IPEN xx0u-1961RD00653] *2009

Araceae

- 19 7. 3W Arisaema ciliatum var. liubaense Gusman & Gouda
[IPEN cn0u-1989BL00077] China: Sichuan , Liuba Alt.: 3600
m. Coll.: Teune, C. 369 14/09/1981 *2008
15 8. 2Z Arisaema flavum var. flavum
[IPEN in0u-2000BL01126] India: Himachal Pradesh , Upper
Kulu Valley (from Manali) Alt.: 2200 m. Coll.: Chadwell, C. et
al. 92/853 *2008

Aristolochiaceae

- 7 9. 2W Aristolochia trilobata L.
[IPEN gf0u-1992GR00904] French Guiana , Saül. Coll.: Mori,
S. 22351 *2007
9 10. 2G Saruma henryi Oliv.
[IPEN xx0u-1998ZS01035] *2009

Asteraceae

- 7 11. 2W Achillea odorata L.
[IPEN fr0u-1967BL00147] France , E.Pyrenees, Llo. Alt.:
1400 m. *2009
- 1 12. 2W Antennaria dioica var. dioica
[IPEN at0u-1984BL00074] Austria , S.Tirol, Ahrntal, Kasern,
Tal oberhalb Trinkstein, Alt.: 1850 m. *2009
- 1 13. 2W Aster alpinus L.
[IPEN fr0u-1962BL00274] France , without locality. *2009
- 9 14. 2Z Aster pyrenaeus Desf. ex DC.
[IPEN fr0u-2002BL00804] France, Dept. Haut Pyrenees ,
Centre d'Ecologie, Montagnarde, Gabas Coll.: Ern,H. 7249
*2009
- 6 15. 1Z Berkheya purpurea Benth., Hook.f. & Mast.
[IPEN za0u-2005BL01021] South Africa , Drakensberge
*2009
- 11 16. 2W Leontopodium alpinum subsp. alpinum Cass.
[IPEN it0u-2002BL01271] Italy, Alps , Dolomites, Canazei -
Arabba, Passo di Pordoi. Alt.: 2400 m. Coll.: Gouda, E.J.
2002-32 04/08/2002 *2009
- 1 17. 2W Leontopodium alpinum subsp. alpinum Cass.
[IPEN de0u-1965BL00167] Germany , without locality. *2009
- 11 18. 2G Raoulia subsericea J.D.Hook.
[IPEN xx0u-1978BL00425] *2008
- 1 19. 2W Solidago virgaurea subsp. virgaurea
[IPEN fi0u-1990BL00036] Finland , Koillismaa Taivalkoski,
Hanhela; coll.: 88-08-27 *2009
- 13 20. 2Z Townsendia incana Nutt.
[IPEN us0wurzb-02-47-K-10] United States: Utah, Emery Co. ,
San Rafael Swell Alt.: 2080 m. *2009

Berberidaceae

- 16 21. 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 *2009
- 13 22. 2G Jeffersonia diphylla (L.) Pers.
[IPEN xx0u-2000BL00886] *2009

Betulaceae

- 11 23. 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. *2007

Brassicaceae

- 9 24. 2W *Cardamine kitaibelii* Bech.
[IPEN at0u-1998BL00976] Austria , Coll.: Zetterlund, H.
(Göteborg) 90 *2009
- 3 25. 1W *Hesperis matronalis* L.
[IPEN at0u-2008BL00147] Austria: Salzburg(erland) , Puch
bei Hallein, Schloss Urstein S 200 m Alt.: 440 m. Coll.: Johann
Peter Gruber 06/2007 *2009
- 7 26. 1W *Pachyphragma macrophyllum* (Hoffm.) N.Busch
[IPEN xx0u-1998BL00720] Caucasus , NW. *2007

Bromeliaceae

- 3 27. 3Z *Aechmea aquilega* (Salisb.) Griseb.
[IPEN xx0u-1998GR00809] Dominican Republic , *2009
- 5 28. 2W *Aechmea aquilega* var. *aquilega*
[IPEN sr1u-1999GR00107] Suriname , Parimaribo (Suriname
Riv.). Coll.: Gouda, E.J. 99-41 1999 *2009
- 5 29. 3Z *Aechmea bromeliifolia* var. *albobracteata* Philcox
[IPEN xx0u-1997GR00626] *2009
- 7 30. 3Z *Aechmea caudata* cf. f. *albiflora* W. Weber & Röth
[IPEN br0u-2004GR00485] Brazil , Coll.: Kuzma *2009
- 5 31. 3W *Aechmea coelestis* var. *coelestis*
[IPEN br0u-1997GR00639] Brazil , Rio de Janeiro,
Teresopolis. Coll.: Leme, E. 1922 *2008
- 6 32. 3W *Aechmea distichantha* var. *schlumbergeri*
[IPEN ar0u-2005GR01554] Argentina , *2009
- 5 33. 3G *Aechmea fraseri* Baker
[IPEN xx0u-2006GR01609] *2008
- 4 34. 3G *Aechmea mexicana* Baker
[IPEN xx0u-1999GR00789] *2009
- 7 35. 3W *Aechmea nudicaulis* var. *nudicaulis*
[IPEN ve0u-2005GR01419] Venezuela , N. Venezuela Coll.:
Peter Bak s.n. 2003 *2009

Bromeliaceae (cont.)

- 5 36. 2Z Aechmea nudicaulis var. nudicaulis
 [IPEN br0u-1996GR00653] Brazil: Bahia , Mun. Camaca,
 Estrada BR101, 2 km S Camaca, "mata higrofila" with Cacao.
 Epiphyt Coll.: Leuenberger et all. 3096 23/04/1983 *2009
- 1 37. 3Z Aechmea nudicaulis var. nudicaulis
 [IPEN ve0u-2005GR00895] Venezuela , *2009
- 10 38. 3G Aechmea strobilina (Beurling) L.B.Sm. & Read
 [IPEN xx0u-1997GR00056] *2009
- 3 39. 3G Billbergia brasiliensis L.B.Sm.
 [IPEN xx0u-1997GR00500] *2009
- 7 40. 3G Billbergia pallidiflora Liebm.
 [IPEN xx0u-1999GR00805] *2009
- 6 41. 3W Billbergia zebrina (Hernert) Lindl.
 [IPEN br0u-1996GR01181] Brazil: Rio de Janeiro , Rio de
 Janeiro City, Tijuca National Park Alt.: 500 m. Coll.: Leme, E.
 128 05/1981 *2009
- 13 42. 3W Dyckia ferox Mez
 [IPEN py0u-1997GR00647] Paraguay , Dept. Cordillera, hills
 W of Tobati Alt.: 450 m. Coll.: Till, W. 6050 09/02/1991
 *2009
- 3 43. 2G Dyckia velascana Mez
 [IPEN xx0u-1990GR00444] *2009
- 15 44. 3W Edmundoa lindenii var. rosea (E.Morren) Leme
 [IPEN br0u-2000GR00727] Brazil: Santa Catarina ,
 Municipality of Florianopolis, from Ilha de Santa Catarina.
 Buckup *2009
- 45. 3G Fosterella penduliflora (C.H.Wright) L.B.Sm.
 [IPEN xx0u-2007GR01025] *2009
- 6 46. 3G Fosterella rojasii (L.B.Sm.) L.B.Sm.
 [IPEN xx0u-2007GR01026] *2009
- 4 47. 3Z Fosterella rusbyi (Mez) L.B.Sm.
 [IPEN bo0u-2000GR01112] Bolivia , La Paz, Puente de
 Coripata Alt.: 1150 m. *2009
- 10 48. 3Z Guzmania fusispica Mez & Sodiro
 [IPEN ec0u-2004GR01099] Ecuador , Hacienda Selva negra,
 road to Quito Coll.: Rauh, W. 34472 *2009
- 3 49. 3G Guzmania monostachia var. alba Ariza-Julia
 [IPEN xx0frp-17793] *2009
- 6 50. 2G Guzmania wittmackii (André) André ex Mez
 [IPEN xx0u-1996GR01170] *2009

Bromeliaceae (cont.)

- 13 51. 3W Hechtia carlsoniae Burt-Utley & J.F.Utley
[IPEN mx0u-1996GR00536] Mexico , Guerrero, near Igvala
(type locality). *2009
- 8 52. 2G Orthophytum sanctum L.B.Sm.
[IPEN xx0u-1992GR01144] *2009
- 8 53. 3W Pitcairnia altensteinii (Link, Klotzsch & Otto) Lem.
[IPEN ve0u-2006GR01032] Venezuela , N.-Venezuela,
rancher station National Park Henri Pittier near Aragua and
Carabobo *2009
- 6 54. 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 *2009
- 6 55. 3W Pitcairnia caricifolia Mart.ex Schult.f.
[IPEN ve0u-2005GR01552] Venezuela , Ilu (weide) Tepui
*2009
- 2 56. 3G Pitcairnia echinata Hook.f.
[IPEN xx0u-2004GR00680] *2009
- 5 57. 3Z Pitcairnia flammea var. glabrior L.B.Sm.
[IPEN br0u-2001GR00086] Brazil , Teresopolis *2007
- 6 58. 3W Pitcairnia flammea var. roezlii (E.Morr.) L.B.Sm.
[IPEN br0u-2000GR00771] Brazil: Guanabara , Rio de Janeiro
City Coll.: Leme, E. s.n. *2008
- 6 59. 3W Pitcairnia grafii Rauh
[IPEN ve1heid-102579] Venezuela , E Tachira, SW of El
Capacho, down to San Antonio Alt.: 1000 m. Coll.: Graf, H.
Venezuela s.n. (R64680) 27/02/1993 *2009
- 3 60. 3Z Pitcairnia heterophylla (Lindl.) Beer
[IPEN ec0u-2001GR00065] Ecuador: Prov. Esmaraldas. ,
Lita-San Lorenzo *2008
- 10 61. 3Z Pitcairnia hitchcockiana L.B.Sm.
[IPEN ec0u-2006GR01008] Ecuador , Mera Alt.: 1300 m.
Coll.: Fläschenräger, A. s.n. 20/04/1995 *2009
- 3 62. 3Z Pitcairnia imbricata (Brongn.) Regel
[IPEN gt0u-2005GR00894] Guatemala , 20 km from
Guatemala City towards el Rancho Alt.: 800 m. Coll.:
Radtke/Moldenhauer 183 *2009
- 6 63. 3W Pitcairnia integrifolia Ker Gawl.
[IPEN tt1u-1993GR00746] Trinidad and Tobago: Trinidad,
Mt. Benedict, on sandy slope. Alt.: 250 m. Coll.: Maas, P.J.M.
et al. 8141 *2009

Bromeliaceae (cont.)

- 9 64. 3Z Pitcairnia longissimiflora Ibisch, R.Vasquez & E.Gross
[IPEN bo0b-2890200] Bolivia: Dept Cochabamba , Prov.
Chapaie, Parque Nacional Carrusco Alt.: 300 m. Coll.:
T.Kromer 8664 *2009
- 5 65. 3W Pitcairnia paniculata (Ruiz & Pav.) Ruiz & Pav.
[IPEN xx0u-2005GR01560] Peru , Tarapoto - Moyobamba
Alt.: 700 m. Coll.: Peter Bak s.n. 09/2003 *2009
- 3 66. 3W Pitcairnia villetaeensis Rauh
[IPEN co0u-2000GR00646] Colombia , Bogota - Villeta Alt.:
900 m. Coll.: Rauh, W. 37089 *2009
- 1 67. 3G Pitcairnia xanthocalyx Mart.
[IPEN xx0u-1997GR00501] *2009
- 6 68. 3W Puya floccosa (Linden) E.Morren
[IPEN ve0u-2008GR01403] *2009
- 2 69. 3G Puya mirabilis (Mez) L.B.Sm.
[IPEN xx0u-2001GR00867] *2009
- 16 70. 2W Quesnelia quesneliana (Brongn.) L.B.Sm.
[IPEN br0u-1998GR01185] Brazil, Estado Rio de Janeiro,
Mun. Petropolis, along the BR-040 from Rio de Janeiro to
Petropolis, about 10 km SW of Petropolis, epiphytic; 22 Feb
1989. Alt.: 20 m. Coll.: Till, W. 4095 *2009
- 11 71. 3Z Racinaea insularis (Mez) M.A.Spencer & L.B.Sm.
[IPEN ec0u-2000GR00640] Ecuador: Galápagos , Coll.: Rauh,
W. 34230 1979 *2009
- 6 72. 3W Tillandsia caliginosa W.Till
[IPEN ar0u-1997GR00635] Argentina, without details; 1986
Leuenb. *2009
- 6 73. 3W Tillandsia caliginosa W.Till
[IPEN bo0u-1998GR01073] Bolivia, near Cochabamba or
Sucre?; nov.1989. Coll.: Gouda, C.S. s.n. *2009
- 8 74. 3W Tillandsia capillaris Ruiz & Pav.
[IPEN bo0u-1996GR01251] Bolivia: Prov. Tarija , S Tarija.
Alt.: 2000 m. Coll.: Gouda, C.S. 96-35 11/1996 *2009
- 5 75. 3W Tillandsia capillaris Ruiz & Pav.
[IPEN bo0u-1996GR00012] Bolivia: Prov. Santa Cruz , road
from Samaipata to Comarapa km 351, 70 km from Samaipata.
Coll.: Gouda, E.J. 95-52 12/1995 *2008

Bromeliaceae (cont.)

- 10 76. 3W Tillandsia complanata Bentham
[IPEN ve0u-2000GR00757] Venezuela, Merida. Alt.: 2300 m.
Coll.: Frank Hase (Bochum, Germany) s.n. *2009
- 14 77. 3W Tillandsia extensa Mez
[IPEN pe1heid-130109] Peru , Cochabamba, on the ground
Alt.: 3400 m. Coll.: Rauh, W. 20559 27/08/1967 *2009
- 9 78. 3W Tillandsia extensa Mez
[IPEN pe1heid-130095] Peru , Valley de Rio Sauce, Puente
Popoyan Alt.: 500 m. Coll.: Rauh, W. 20242 07/1967 *2009
- 15 79. 3G Tillandsia oerstediana L.B.Sm.
[IPEN xx0u-2005GR01563] *2009
- 8 80. 3W Tillandsia polystachia (L.) L.
[IPEN gt0u-1998GR00904] Guatemala , Zacatepequez, valley
of Antigua Alt.: 800 m. 1992 *2009
- 4 81. 3W Tillandsia polystachia (L.) L.
[IPEN mq0u-2006GR01059] Martinique , *2008
- 4 82. 3Z Tillandsia schiedeana Steud.
[IPEN mx0u-1996GR01215] Mexico, without locality. *2009
- 3 83. 2W Tillandsia schiedeana Steud.
[IPEN hn0u-1994GR02192] Honduras , without locality.
*2008
- 7 84. 3G Tillandsia viridiflora (Beer) Baker
[IPEN xx0u-2004GR01126] *2009
- 8 85. 3G Ursulaea macvaughii (L.B.Sm.) R.W.Read & H.U.Baensch
[IPEN xx0u-1999GR00775] *2007
- 7 86. 3G Vriesea saundersii (Carr.) E.Morr. ex Mez
[IPEN xx0u-2006GR01612] *2009
- 14 87. 3W Werauhia notata (L.B.Sm. & Pittendrigh) J.R.Grant
[IPEN cr0u-2006GR01558] Costa Rica , Coll.: Gouda, E.J.
06-25 05/08/2006 *2009

Campanulaceae

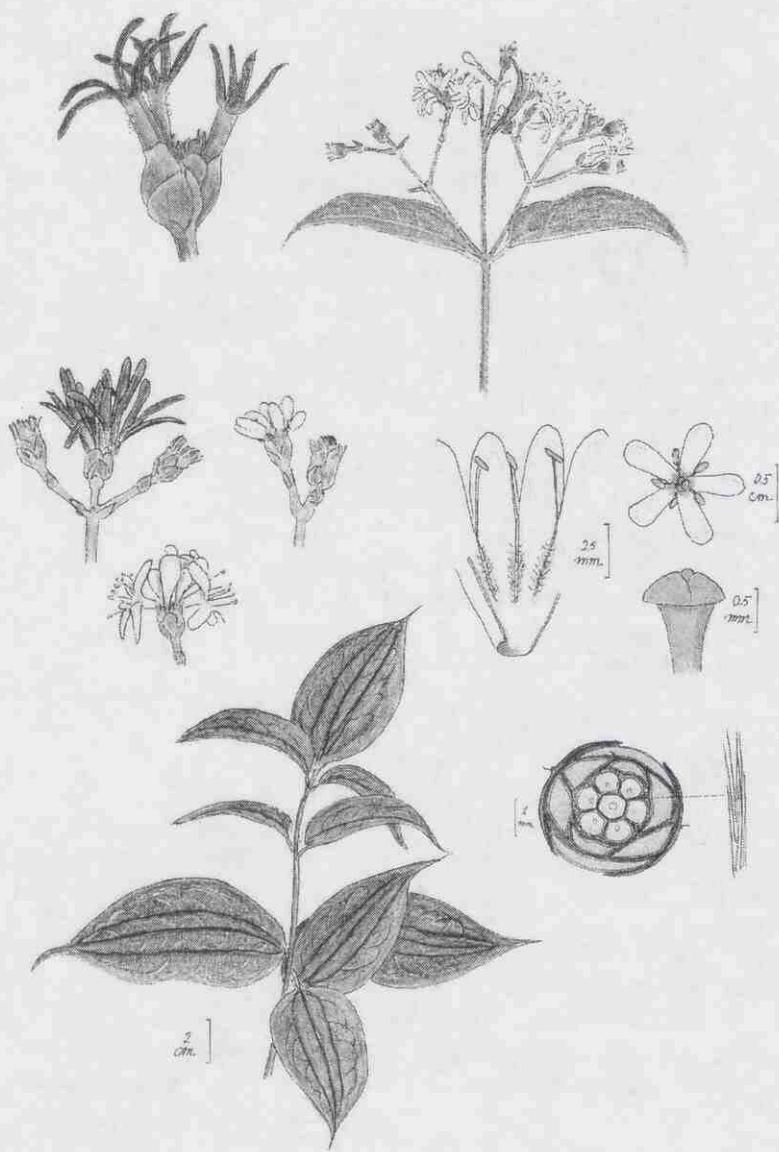
- 4 88. 2W Campanula barbata L.
[IPEN it0u-2008BL00377] Italy , Timelsjoch pass on border
with Austria Alt.: 2150 m. Coll.: Gouda, E.J. 07-13 11/08/2007
*2009

Campanulaceae (cont.)

- 15 89. 2W Campanula incurva Aucher. ex A.DC.
[IPEN gr0u-2000BL01032] Greece , Magnisia: Tsangarada.
*2007
- 7 90. 2Z Campanula primulifolia Brot.
[IPEN pt0u-1997BL00455] Portugal , Algarve, Serra de
Monchique, Perna de Negra; 94-08-00 *2009
- 6 91. 2Z Campanula sibirica L.
[IPEN ru0bern-2001/228] Armenia , Caucasus *2009
- 10 92. 2W Campanula takesimana Nakai
[IPEN kr0u-1992BL01300] South Korea , Ullung Isl.,
Chonbu-ri *2009
- 6 93. 2W Campanula takesimana Nakai
[IPEN kr0u-1998BL00925] South Korea , To-Dong,
Ullung-Gun, Kyongsang Pukto. Alt.: 150 m. *2009
- 8 94. 1W Campanula thrysoides L.
[IPEN it0u-2004BL00944] Italy , Monte Faverghera, Belluno
(BL) Alt.: 1500 m. *2007
- 1 95. 1G Campanula thrysoides L.
[IPEN xx0ramb-206925] *2009
- 15 96. 1W Campanula versicolor Andr.
[IPEN gr0u-2007BL01006] Greece: Peloponesos , Mt Menalo,
Alt.: 1600 m. Coll.: Marijn vd Brink en KeesJan van Zwienen
s.n. 2006 *2009
- 3 97. 2G Edraianthus tenuifolius (Waldst. & Kit.) A.DC.
[IPEN xx0u-1998BL01370] *2009
- 8 98. 1W Lobelia cardinalis L.
[IPEN us0u-2006ZE01427] United States: New Jersey , Sussex
Co. Sparta Turnpike, Sparta Mountain 20/09/2005 *2008
- 5 99. 1W Lobelia siphilitica L.
[IPEN us0u-2006BL00742] United States: Michigan, Clinton
county , S Shrub-Carr, Rose Lake Fen 2-track Alt.: 256 m.
*2009
- 3 100. 2G Phyteuma scheuchzeri All.
[IPEN xx0u-1999BL00256] *2009

Caprifoliaceae

- 7 101. 2G Heptacodium miconioides Rehder
[IPEN xx0u-1985RD00389] *2009



Heptacodium miconioides Rehder (Caprifoliaceae)

Caryophyllaceae

- 4 102. 2W *Dianthus plumarius* L.
[IPEN sk0u-1977BL00186] Slovakia, Montes Malá
Fatra-Slovacia Septentrionalis, Alt.: 600 -1700 m. *2009
- 4 103. 1W *Dianthus superbus* subsp. *superbus*
[IPEN at0u-2008BL00148] Austria: Salzburg(erland) , Grödig,
Fürstenbrunn E, Glaneigg casle NW Alt.: 435 m. Coll.: Günter
08/2007 *2009
- 10 104. 2W *Drypis spinosa* L.
[IPEN sl0u-1998BL00808] Slovenia , Trnovski Gozd
(Ternovaner Wald), Adovscina, Aufstieg von der Zavetisce
Bavcerja Zum M.Gora. Alt.: 1000 -1200 m. Coll.: Steffan, F.
09/1997 *2007
- 1 105. 1W *Gypsophila repens* L.
[IPEN it0u-2002BL01316] Italy, Alps , Dolomites, Canazei -
Caprile, Mnt. Marmolada. Alt.: 1650 m. Coll.: Gouda, E.J.
2002-75 09/08/2002 *2009
- 1 106. 2W *Gypsophila repens* L.
[IPEN it0u-2002BL01308] Italy, Alps , Dolomites, Canazei -
Caprile, Mnt. Marmolada. Alt.: 1850 m. Coll.: Gouda, E.J.
2002-67 07/08/2002 *2009
- 2 107. 1W *Lychnis flos-jovis* (L.) Desr.
[IPEN it0u-2007BL00773] Italy , Epinel, Lessert Alt.: 1300 m.
*2008
- 2 108. 2W *Silene saxifraga* L.
[IPEN si0u-1994BL00089] Slovenia , Steiner Alpe, Grintovec,
ascent from Ceska Koca to Grintovec Alt.: 1500 -2200 m.
Coll.: Steffan, F. & Th. Ster 08/1992 *2009

Celastraceae

- 4 109. 2W *Euonymus alatus* var. *alatus*
[IPEN jp0u-1991RD00617] Japan , Gunma Pref.,
Tanbari-shitsugen, Minakami Town. *2009
- 5 110. 3W *Euonymus atropurpureus* Jacq.
[IPEN us0u-1980RD00469] United States: Kentucky , Union
County. Coll.: Shacklette, H.T. 1979 *2009
- 7 111. 2G *Euonymus cornutus* var. *quinquecornutus* (Comber) Blakelock
[IPEN xx0u-2003RD01696] *2009
- 3 112. 3G *Euonymus hamiltonianus* var. *sieboldianus* (Blume) Kom.
[IPEN xx0u-1978RD00258] *2009

Celastraceae (cont.)

- 13 113. 2W Euonymus macropterus Rupr.
[IPEN jp0u-1986RD00034] Japan: Honshu , Yamanashi
Prefecture, area around Oshino-Mura village, near Mt. Fuji.
Alt.: 95 -1000 m. *2009
- 6 114. 2W Euonymus oxyphyllus Miq.
[IPEN jp0u-1986RD00213] Japan: Honshu , Kuriyama Mura,
Fukushima Prefecture, roadside verge, Alt.: 500 m. *2009
- 7 115. 2G Euonymus sachalinensis (F.Schmidt) Maxim.
[IPEN xx0u-1991RD01554] *2009

Crassulaceae

- 11 116. 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 *2009
- 9 117. 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 *2009
- 4 118. 2W Sempervivum tectorum subsp. alpinum (Griseb. & Sch.) Wettst.
[IPEN xx0u-1962BL00246] *2009
- 14 119. 2W Sempervivum zeleborii Schott
[IPEN bg0u-1978BL00340] Bulgaria , Rila Mts. *2009

Cyclanthaceae

- 4 120. 2G Carludovica palmata Ruiz & Pav.
[IPEN xx0u-1968GR00859] *2009

Dipsacaceae

- 4 121. 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
- 1 122. 1W Succisa pratensis Moench
[IPEN at0u-2008BL00149] Austria: Salzburg(erland) , Wals S,
Untere Langwiesen, Latschenwirt NE, Krüzersberg W Alt.:
570 m. Coll.: Günter 08/2007 *2009

Ericaceae

- 11 123. 2G *Enkianthus cernuus* var. *rubens* (Maxim.) Makino
[IPEN xx0u-1900ZG00184] *2009
- 4 124. 2G *Kalmia latifolia* L.
[IPEN xx0u-1900ZG01222] *2009

Fabaceae

- 2 125. 1W *Dorycnium hirsutum* (L.) Ser.
[IPEN it0u-2003BL01367] Italy , Altopiano delle Manie (SV).
Alt.: 300 m. 14/07/1999 *2009
- 3 126. 1W *Dorycnium pentaphyllum* subsp. *pentaphyllum*
[IPEN it0u-2001BL00098] Italy , Südtirol, Bozen SE, Tiers N,
Völsegg, Trockenhang. Alt.: 1200 m. 06/2000 *2009
- 2 127. 1Z *Tetragonolobus maritimus* (L.) Roth
[IPEN hu0u-1999BL00727A] Hungary , Magyarorszag,
Kishunsag between Duna R. and Tisza R. near
Tatatszentgyorgy and Orgovany *2009

Gentianaceae

- 6 128. 2G *Gentiana triflora* Pall.
[IPEN xx0u-1996BL00905] *2008

Geraniaceae

- 13 129. 1Z *Geranium swatense* Schonbeck-Temesy
[IPEN pk0u-1999BL00369] Pakistan, NW Frontier Prov. Swat
Div., Gabral-Tal. Alt.: 2600 m. *2009
- 5 130. 2Z *Geranium swatense* Schonbeck-Temesy
[IPEN pk0u-1998BL00788] Pakistan, without details. *2009
- 24 131. 1Z *Pelargonium endlicherianum* Fenzl
[IPEN tr0u-1984BL00082] Turkey: Turkey-in-Europe , SE
Denizli, Kazikbeli, Alt.: 1200 m. 1972 *2009

Gesneriaceae

- 16 132. 2G *Haberlea rhodopensis* Friv.
[IPEN xx0u-1966BL00054] *2009

Globulariaceae

- 2 133. 2Z *Globularia cordifolia* L.
[IPEN at0u-1995BL00195] Austria , Niederösterreich,
Eichkogel. Alt.: 230 -350 m. *2009

Iridaceae

- 5 134. 2W *Iris ensata* Thunb.
[IPEN kr0u-1994BL00073] Korea, Republic of: Cheju Do
(Quelpaert Isl.) , Mt. Halla. Alt.: 1100 m. *2008
- 6 135. 1W *Iris foetidissima* L.
[IPEN fr0u-1999BL00576] France , Finistere,
Mouelan-sur-Mer, Pointe de Kerhermen. Alt.: 10 m. *2008
- 4 136. 2W *Iris lutescens* Lam.
[IPEN at0u-1964BL00083] Austria , *2009
- 8 137. 2Z *Iris sintenisii* subsp. *sintenisii* Janka
[IPEN bg0u-1995BL00180] Bulgaria , Eastern Sredna Gora
Mts Coll.: Sterz *2009
- 2 138. 2W *Iris spuria* subsp. *spuria*
[IPEN cs0u-1964BL00020] Czechoslovakia , without details.
*2009
- 6 139. 1Z *Iris spuria* subsp. *sogdiana* (Bunge) Mathew
[IPEN ru0u-1982BL00251] Russian Federation: Asiatic Russia
exact location not known 1981 *2009

Juncaceae

- 2 140. 1W *Luzula nivea* (L.) DC.
[IPEN it0u-2003BL02015] Italy: Toscana , Monti Pisani,
Santallago (PI) Alt.: 800 m. *2009

Lamiaceae

- 8 141. 1W *Horminum pyrenaicum* L.
[IPEN it0u-2005BL01310] Italy: Dolomites , Marmolada Alt.:
1500 m. Coll.: Gouda, E.J. 05-04 09/07/2005 *2009
- 2 142. 1W *Nepeta nuda* L.
[IPEN hu0u-2000BL00489] Hungary, Magyarország, Csobánc
(Volcanic hill). *2009

Lamiaceae (cont.)

- 10 143. 2Z *Nepeta podostachys* Benth.
[IPEN pk0b--2607983] Pakistan , NW frontier Province, Swat
Division, Ushu valey Alt.: 3000 m. Coll.: Em/Prelaz 7579
*2009
- 3 144. 1W *Prunella laciniata* (L.) L.
[IPEN fr0u-2007BL00907] France , Curley N04/0473 2004
*2009
- 145. 1W *Salvia pratensis* L.
[IPEN it0u-2002BL01298] Italy, Alps , Dolomites, Canazei -
Caprile, Mnt. Marmolada. Alt.: 1600 m. Coll.: Gouda, E.J.
2002-57 07/08/2002 *2009
- 10 146. 2W *Scutellaria indica* var. *parvifolia* (Mak.) Mak.
[IPEN jp0u-2006BL00251] Japan , Hayama Kanagawa pref.
Alt.: 170 m. Coll.: Michael Guess, Setagaya, Tokyo JP s.n.
2005 *2009
- 1 147. 2W *Thymus pulegioides* L.
[IPEN ch0u-1964BL00054] Switzerland , no further details !
Coll.: Kliphuis, Dr. E. 1963 *2009

Liliaceae

- 148. 1W *Asphodelus ramosus* L.
[IPEN fr0u-2001BL00156] France , Sèvres (Deux),
Saint-Maurice La Fougerouse, 'Bois d'Anjou'. *2009
- 7 149. 1W *Camassia scilloides* (Raf.) Cory
[IPEN us0u-1987BL00430] United States: Pennsylvania ,
Pennsylvania, Wildflower Preserve. *2009
- 17 150. 1W *Lilium sargentiae* E.H.Wilson
[IPEN cn0u-2002BL01491] China: Yunnan , *2008
- 3 151. 2W *Maianthemum racemosum* (L.) Link
[IPEN us0u-1999BL00238] United States: Michigan , Ingham
County, Mesic S Forest; 98-09-23. Alt.: 265 m. *2009
- 6 152. 2U *Paris quadrifolia* L.
[IPEN xx0u-2007BL00933] *2009
- 2 153. 2G *Veratrum nigrum* L.
[IPEN xx0u-1965BL00271] *2008
- 12 154. 2Z *Veratrum oxysepalum* Turcz.
[IPEN cn0u-1997BL01048] China , S-Chekiang. *2008

Magnoliaceae

- 4 155. 2G *Magnolia kobus* var. *kobus*
[IPEN xx0u-1985RD00237] South Korea , Chollipo Arb., from
exceptionally heavy flowered and fruited tree *2009
- 11 156. 2W *Magnolia sieboldii* K.Koch
[IPEN kr0u-1985RD00188] South Korea , Suweon, Mt.
Kwanak. 1984 *2009
- 7 157. 2G *Magnolia tripetala* (L.) L.
[IPEN xx0u-1965RD00047] *2009
- 9 158. 2G *Magnolia virginiana* L.
[IPEN xx0u-1900ZG01144] *2009

Menispermaceae

- 7 159. 2W *Cocculus trilobus* (Thunb.) DC.
[IPEN tw0u-1980GR00388] Taiwan , approx. S top (Coast)
Coll.: Kramer, K.U. 7928 1980 *2008

Papaveraceae

- 6 160. 1G *Meconopsis betonicifolia* 'Alba' Franch.
[IPEN xx0u-2003BL01541] *2008
- 5 161. 2G *Meconopsis betonicifolia* Franch.
[IPEN xx0u-1964BL00209] *2009

Pinaceae

- 13 162. 2G *Pseudolarix amabilis* (A.Nelson) Rehder
[IPEN xx0u-1900ZG00915] *2009

Plumbaginaceae

- 14 163. 1G *Acantholimon ulicinum* subsp. *ulicinum*
[IPEN xx0u-1990BL01181] *2009
- 7 164. 2G *Limonium minutum* (L.) Fourr.
[IPEN xx0u-1984BL00199] *2009

Poaceae

- 8 165. 1W *Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths
[IPEN us0u-2002BL00753] United States: South Dakota ,
*2008

Primulaceae

- 12 166. 2G *Dodecatheon conjugens* E.Greene
[IPEN xx0u-1990BL00120] *2008
- 11 167. 2W *Dodecatheon pulchellum* subsp. *pulchellum* (Raf.) Merr.
[IPEN us0u-1983BL00281] United States: Oregon , N.W. 1982
*2009
- 9 168. 2G *Primula vialii* Delavay ex Franch.
[IPEN xx0u-2001BL00060] *2009

Ranunculaceae

- 3 169. 2W *Aconitum lycoctonum* subsp. *vulparia* (Rchb.) Nyman
[IPEN fr0u-1979BL00015] France , Ain mountains (Praffion - Jura Francais), 78-11-01. Alt.: 1350 m. *2009
- 1 170. 2Z *Aquilegia vulgaris* subsp. *vulgaris*
[IPEN fr0u-1995BL00209] France , Basses-Pyrenees., Pic du Ger. *2009
- 3 171. 2W *Trollius europaeus* subsp. *europaeus*
[IPEN fr0u-1979BL00236] France , (Hautes Pirenees) Gavarnie, on humid meadow. *2009

Rhamnaceae

- 11 172. 2W *Rhamnella franguloides* (Maxim.) Weberb.
[IPEN kr0u-1983RD00218] South Korea , Cholla-Namdo, Mt. Paegyang, near White Sheet Temple *2009

Rosaceae

- 2 173. 2W *Geum coccineum* Sibth. & Sm.
[IPEN bg0u-1976BL00116] Bulgaria , Vitoscha Mts. *2009
- 174. 2Z *Geum pyrenaicum* Mill.
[IPEN fr0u-1997BL01115] Pyrenees, without details. *2009
- 175. 2W *Potentilla recta* L.
[IPEN yu0u-1977BL00298] Servia, Lovac, mountain meadow Alt.: 1100 m. Coll.: Cytotax. coll.in Yug. 17398 1975 *2009

Sciadopityaceae

- 10 176. 2G Sciadopitys verticillata (Thunb. ex Murray) Siebold & Zucc.
[IPEN xx0u-1900ZG01861] *2009

Scrophulariaceae

- 3 177. 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
- 6 178. 2W Digitalis ferruginea L.
[IPEN gr0u-2006BL00502] Greece: Peloponesos , Mt. Killini
*2009
- 6 179. 2Z Digitalis ferruginea subsp. ferruginea
[IPEN tr0u-2000BL00393] Turkey , N.-Anatolia, Bithynia:
Ala-Dag, Kartalkaya 10 km before ski station. Alt.: 1600 m.
*2009
- 1 180. 1W Digitalis grandiflora Mill.
[IPEN fr0u-1999BL00255] France, Jura, Chateau vilain;
98-09-04. Alt.: 650 m. *2009
- 2 181. 2G Digitalis parviflora Jacq.
[IPEN xx0u-2000BL00573] *2008
- 7 182. 2W Digitalis viridiflora Lindl.
[IPEN bg0u-2002BL01044] Bulgaria , Eastern Rodopi. Alt.:
1700 m. 25503 2002 *2009
- 3 183. 2G Mimulus cardinalis Douglas
[IPEN xx0u-1977BL00141] *2009
- 5 184. 2W Penstemon alpinus Torr.
[IPEN us0u-1996BL00291] United States: Colorado , Jefferson
County. Alt.: 2300 m. *2009
- 4 185. 1W Penstemon barbatus (Cav.) Roth
[IPEN us0u-1996BL00222] United States: Oregon , *2009
- 12 186. 2W Penstemon campanulatus Willd.
[IPEN mx0u-2005BL00272] Mexico , just below the summit
of Cerro Potosi Alt.: 3800 m. pcha 148 *2009
- 2 187. 2W Penstemon digitalis Nutt.
[IPEN us0u-1995BL01112] United States: Michigan, Ingham
county , roadbank above seep Alt.: 259 m. *2009
- 10 188. 2Z Penstemon linarioides subsp. coloradoensis (A.Nelson) Keck
[IPEN us0u-2006BL00852] United States: Colorado , La Plata
County *2009

Scrophulariaceae (cont.)

- 6 189. 2G *Penstemon pinifolius* E.Greene
[IPEN xx0u-1969BL00346] *2009
- 10 190. 2Z *Penstemon strictiformis* Rydb.
[IPEN us0u-1997BL00959] United States: Colorado, Kenosha
Pass, Park County. Alt.: 3110 m. *2008
- 10 191. 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
*2009

Sterculiaceae

- 2 192. 1G *Abroma augusta* (L.) L.f.
[IPEN xx0u-1987GR00028] *2009

Taxaceae

- 8 193. 2G *Torreya nucifera* var. *nucifera* (L.) Siebold & Zucc.
[IPEN xx0u-1900ZG01293] *2009

Taxodiaceae

- 6 194. 2G *Cunninghamia lanceolata* (Lamb.) Hook.
[IPEN xx0u-1900ZG00035] *2009

Valerianaceae

- 1 195. 1G *Patrinia villosa* (Thunb.) Juss.
[IPEN xx0u-2005BL01368] *2008

Zamiaceae

- 14 196. 2G *Encephalartos villosus* Lem.
[IPEN xx0u-1975GR00125] *2009

Zingiberaceae

- 10 197. 1G *Roscoea humeana* f. *lutea* Cowley
[IPEN xx0u-2005BL00506] *2009

