



# Index seminarum

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# *Index Seminum*

*Utrecht University  
Botanic Gardens  
The Netherlands*



Universiteit Utrecht

*No. 48-2006*

UNIVERSITEITSBIBLIOTHEEK UTRECHT



4216 3596

# *Utrecht University*

## *Botanic Gardens*

P.O. Box 80.162  
3508 TD Utrecht  
The Netherlands

### *Index Seminum No. 48 - 2006*

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

The current IPEN-members are Listed at <http://www.biologie.uni-ulm.de/verband/cbd/list.html> and [http://www.bgci.org/files/2/795/ipen\\_gardenList12\\_05.doc](http://www.bgci.org/files/2/795/ipen_gardenList12_05.doc)

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.
- Only requests, with a maximum of 25 packets, reaching us before **March 1, 2007** will be handled in sequence of entry.
- **Order-forms which will reach us after that date will not be handled!**
- Our Fax no. is +31 30 2535177 (do not use e-mail).

## Staff

### General Department:

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

### Curators' Department:

Drs. Hans Persoon *H.Persoon@bio.uu.nl*  
Curator and Deputy Director  
Drs. Eric J. Gouda *E.J.Gouda@bio.uu.nl*  
Curator  
Mr. Lennart Everts *M.L.Everts.bio.uu.nl*  
Assistant  
Dr. Piet C. de Jong *PCdeJong@arbor.demon.nl*  
Guest Staff Member

### Educational Department:

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

### B.G.C.I. - The Netherlands

Drs. Bert J.W. van den Wollenberg  
*L.J.W.vandenWollenberg@bio.uu.nl*  
Web Site: <http://www.bio.uu.nl/bottuinen/natuurbescherming/home.html>



## Technical staff

Wiert Nieuman

*W.Nieuman@bio.uu.nl*

Hortulanus Utrecht

N.R. Stolwijk and W. Wildschut

Technical staff Doorn

## Gardens location

- Utrecht: Fort Hoofddijk (University Centre)
- Doorn: Von Gimborn Arboretum

## 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. **48-2006** 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 at Utrecht
- \* 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 analysed 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": 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

**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.

### Source of illustrations used:

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

This Index Seminum is printed on BIOTOP® (recycled, chlorine-free) paper.

Aceraceae

- |   |     |                  |  |
|---|-----|------------------|--|
| 1 | 2 G | xx0u-1900ZG00968 | <i>Acer maximowiczianum</i> Miq.       |
| 2 | 2 G | xx0u-1900ZG00997 | <i>Acer micranthum</i> Siebold & Zucc. |
| 3 | 2 G | xx0u-1978RD00724 | <i>Acer triflorum</i> Kom.             |

Agavaceae

- |   |     |                  |                                       |
|---|-----|------------------|---------------------------------------|
| 4 | 2 G | xx0u-1973GR00695 | <i>Phormium tenax</i> J.R. & G.Forst. |
|---|-----|------------------|---------------------------------------|

Annonaceae

- |   |     |                  |  |
|---|-----|------------------|--|
| 5 | 3 Z | us0u-1983GR00360 | <i>Annona glabra</i> L. United States: Florida ,<br>Sebastian River, 3 Km. W. of Wabasso.<br>Coll.: Stolze, R.G. |
| 6 | 3 G | xx0u-1976GR00116 | <i>Annona montana</i> Macfad.  |
| 7 | 3 G | bi0u-1983GR00169 | <i>Annona muricata</i> L. Burundi , Bujumbura.   |

Apiaceae

- |   |     |                  |  |
|---|-----|------------------|--|
| 8 | 2 G | xx0u-1969BL00242 | <i>Olymposciadium caespitosum</i> (J.E.Sm.)<br>Wolff |
|---|-----|------------------|--|

Aquifoliaceae

- |   |     |                  |  |
|---|-----|------------------|--|
| 9 | 2 G | xx0u-1961RD00653 | <i>Ilex pedunculosa</i> var. <i>pedunculosa</i> Miq. |
|---|-----|------------------|--|

Araceae

- |    |     |                  |  |
|----|-----|------------------|--|
| 10 | 2 G | xx0u-1974GR00662 | <i>Aglaonema commutatum</i> Schott var.<br><i>commutatum</i>   |
| 11 | 2 G | xx0u-1974GR00663 | <i>Aglaonema commutatum</i> var. <i>elegans</i><br>(Engl.) Nicolson  |
| 12 | 3 Z | cn0u-1989BL00077 | <i>Arisaema ciliatum</i> var. <i>liubaense</i> Gusman &<br>Gouda China: Sichuan , Liuba Alt.: 3600 m.<br>Coll.: Teune, C. 369 14/09/1981 |
| 13 | 2 Z | cn0u-2001BL00109 | <i>Arisaema consanguineum</i> Schott China ,<br>San-ba. Coll.: A Exp.-'94 China (A.G.S.)<br>2036   |
| 14 | 2 G | xx0u-1984BL00036 | <i>Arisaema flavum</i> subsp. <i>abbreviatum</i>   |
| 15 | 2 G | xx0u-1998BL00062 | <i>Arisaema jacquemontii</i> Blume   |

Araceae (cont.)

- 16 2 Z in0u-1997BL00004 *Arisaema tortuosum* (Wall.) Schott India: Uttar Pradesh , Kumaon area, NE Himalaya Alt.: 1500 -2800 m. Coll.: Chadwell, Chris et al. CC-1760
- 17 2 Z us0u-1998BL00681 *Arisaema triphyllum* (L.) Schott United States: Massachusetts , Hadley
- 18 2 G xx0u-1973GR00134 *Culcasia striolata* Engl.

Aristolochiaceae

- 19 2 G xx0u-1992GR01149 *Aristolochia fimbriata* Cham.
- 20 2 Z sv0u-1992GR00988 *Aristolochia littoralis* Parodi El Salvador , Acajutla.
- 21 2 Z gf0u-1992GR00904 *Aristolochia trilobata* L. French Guiana , Saül. Coll.: Mori, S. 22351

Asclepiadaceae

- 22 2 G xx0u-1994GR01740 *Araujia sericifera* Brot.

Asteraceae

- 23 1 Z ma0u-1999BL00914 *Andryala agardhii* Haenseler ex DC. Morocco , C Atlas, road Midelt - Guercif, Jbel Gaberaal; 1988. Alt.: 2200 m.
- 24 2 Z fr0u-1962BL00274 *Aster alpinus* L. France , without locality.
- 25 1 Z ch0u-2002BL00283 *Aster amellus* L. Switzerland , Kanton Graubunden, Sagogn. Alt.: 750 m.
- 26 2 Z fr0u-2002BL00804 *Aster pyrenaeus* Desf. ex DC. France, Hautes-Pyrenees , Centre d'Ecologie, Montagnarde, Gabas Coll.: Ern,H. 7249
- 27 1 Z za0u-2005BL01021 *Berkheya purpurea* Benth., Hook.f. & Mast. South Africa , Drakensberge
- 28 2 G xx0u-2003BL00104 *Ericameria nauseosa* (Pall. ex Pursh) G.L.Nesom & G.I.Baird
- 29 2 Z it0u-2002BL01310 *Leontopodium alpinum* subsp. *alpinum* Cass. Italy: Dolomites , Canazei - Caprile, Mnt. Marmolada. Alt.: 2000 m. Coll.: Gouda,E.J. 2002-69 07/08/2002



*Aristolochia fimbriata* Cham. (Aristolochiaceae)

Asteraceae (cont.)

- 30 2 G xx0u-1992BL00809 *Leontopodium alpinum* subsp. *nivale* (Ten.) Tutin  
 31 2 G xx0u-1993BL00014 *Parthenium integrifolium* L.

Berberidaceae

- 32 1 Z us0u-2001BL00058 *Diphylleia cymosa* Michx. United States: North Carolina, Haywood County, Pisgah Nat. Forest, State Highway 215, shade. Alt.: 1000 m. 14/09/2000

Boraginaceae

- 33 2 Z it0u-2001BL00715 *Onosma echioides* L. Italy, Bosco di S. Antonio, Majella (Aq). Alt.: 1500 m.

Brassicaceae

- 34 2 Z ch0u-1964BL00214 *Alyssoides utriculata* (L.) Medik. Switzerland, near Martigny, during excursion; 1958.  
 35 0 Z fr0u-2002BL00663 *Biscutella laevigata* L. France, Dept. Hérault, Ferrières-les Verrières sur la D1E - Garrigue.  
 36 1 Z xx0u-1998BL00720 *Pachyphragma macrophyllum* (Hoffm.) N. Busch Caucasus, NW. Caucasus.

Bromeliaceae

- 37 2 Z sr1u-1999GR00107 *Aechmea aquilega* (Salisb.) Griseb. var. *aquilega* Suriname, Parimaribo (Suriname Riv.). Coll.: Gouda, E.J. 99-41  
 38 3 Z xx0u-1997gr00626 *Aechmea bromeliifolia* var. *albobracteata* Philcox  
 39 3 Z br0u-1997GR00639 *Aechmea coelestis* (K. Koch) E. Morren var. *coelestis* Brazil, Rio de Janeiro, Teresopolis. Coll.: Leme, E. 1922  
 40 0 Z br0u-2000GR00776 *Aechmea lingulata* (L.) Baker Brazil, Estado Bahia. Coll.: Leme, E. s.n.

Bromeliaceae (cont.)

- 41 3 Z br0u-1997GR00638 *Aechmea lingulata* (L.) Baker Brazil, Bahia, near Milagres. Coll.: Helmut & Lieselotte Hromadnik (Kritzendorf, Austria)
- 42 3 G xx0u-1999GR00789 *Aechmea mexicana* Baker
- 43 2 Z br0u-1996GR00653 *Aechmea nudicaulis* (L.) Griseb. var. *nudicaulis* Brazil, Bahia, Mun. Camaca, Estrada BR101, 2 km S Camaca, mata higrofila with Cacao. Epiphyt Coll.: Leuenberger et al. 3096 23/04/1983
- 44 3 G xx0u-1997GR00056 *Aechmea strobilina* (Beurling) L.B.Sm. & read
- 45 3 Z gf0u-2001GR01168 *Araeococcus flagellifolius* Harms French Guiana, Montagne de Kaw, ca PK 35 Coll.: Moonen, J.(FG) 290 2001
- 46 0 G xx0y-1998GR01199 *Billbergia alfonsi-joannis* Reitz
- 47 3 G xx0u-1997GR00493 *Billbergia brasiliensis* L.B.Sm.
- 48 0 Z gf0u2005GR01542 *Billbergia violacea* Beer French Guiana, Coll.: Moonen, J.(FG) s.n.
- 49 3 Z br0u-1996GR01181 *Billbergia zebrina* (Hernert) Lindl. Brazil: Rio de Janeiro, Rio de Janeiro City, Tijuca National Park Alt.: 500 m. Coll.: Leme, E. 128 05/1981
- 50 0 G xx0u-1998GR00819 *Hohenbergia penduliflora* (A.Richard) Mez
- 51 3 Z br0u-2000GR00771 *Pitcairnia flammea* var. *roezlii* (E.Morr.) L.B.Sm. Brazil: Guanabara, Rio de Janeiro City Coll.: Leme, E. s.n.
- 52 3 G xx0u-2001GR00867 *Puya mirabilis* (Mez) L.B.Sm.
- 53 3 Z xx0u-2005GR01565 *Racinaea spiculosa* (Griseb.) Spencer & L.B.Sm. var. *spiculosa* Kazula mountains
- 54 3 G xx0u-2005GR01564 *Racinaea spiculosa* var. *ustulata* (Reitz) L.B.Sm.
- 55 3 Z mx0u-2004GR01125 *Tillandsia heterophylla* E.Morren Mexico, without further locality (Tropiflora 1992)
- 56 3 G xx0u-2004GR01126 *Tillandsia viridiflora* (Beer) Baker
- 57 3 G xx0u-1999GR00775 *Ursulaea macvaughii* (L.B.Sm.) R.W.Read & H.U.Baensch
- 58 0 Z hn1u-2005GR01420 *Werauhia gladioliflora* (Wendland) J.R.Grant Honduras, Coll.: Maas, P.J.M. et al. s.n.

Cactaceae

- 59 3 G xx0u-1980GR00414 *Rhipsalis baccifera* (J. Mill.) Stearn  
 60 0 Z ec0u-1996GR00807 *Rhipsalis micrantha* (Kunth) DC. Ecuador ,  
 without details.

Campanulaceae

- 61 2 Z gr0u-2000BL01032 *Campanula incurva* Aucher. ex A.DC.  
 Greece , Magnisia: Tsangarada.  
 62 2 Z pt0u-1995BL01040 *Campanula rapunculus* L. Portugal ,  
 Coimbra (Baleia, 93-07-15).  
 63 2 Z kr0u-1998BL00925 *Campanula takesimana* Nakai South Korea,  
 To-Dong, Ullung-Gun, Kyongsang Pukto.  
 Alt.: 150 m.  
 64 1 Z it0u-2004BL00944 *Campanula thyrsoides* L. Italy , Monte  
 Faverghe, Belluno (BL) Alt.: 1500 m.  
 65 2 Z de0u-1990BL00946 *Edraianthus graminifolius* (L.) A.DC.  
 Germany: E.Germany , Kröchtendorff  
 66 0 Z pr1u-2005GR01163 *Lobelia portoricensis* Urb. Puerto Rico ,  
 Coll.: Christenhusz, Maarten s.n.  
 67 1 G xx0u-2005BL00091 *Michauxia campanuloides* L'Hér. ex Aiton  
 68 2 G xx0u-1999BL00256 *Phyteuma scheuchzeri* All.

Cannaceae

- 69 0 Z jm1u-2005GR01154 *Canna coccinea* Mill. Jamaica , Mandeville,  
 Marshall's Pen Coll.: Christenhusz, Maarten  
 s.n.  
 70 3 Z pe0u-1976GR00106 *Canna paniculata* Ruiz & Pav. Peru, dept.  
 Huanuco, Puente Durand, herb. 5 m, fls.  
 red/orange; 76-03-22 Alt.: 1000 m. Coll.:  
 Plowman, T. & Kennedy, H. 5700  
 71 2 Z ec0u-1980GR00287 *Canna tuerckheimii* F.Kränzl. 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



*Edraianthus graminifolius* (L.) A.DC. (Campanulaceae)



Capparaceae

- 72 0 Z gt0u-2006GR00839 *Cleome serrata* Jacq. Guatemala , Prov. Alta Verapaz, from Rocj Pontil along Rio Kixpur Alt.: 180 m.  
 73 2 G xx0u-1972GR00202 *Steriphoma cinnabarinum* Gilg. ex Briquet

Caprifoliaceae

- 74 2 G xx0u-1985RD00389 *Heptacodium miconioides* Rehder

Caricaceae

- 75 0 G xx0u-1990GR00584 *Carica goudotiana* (Tr. & Planch.) Solms-Laub.

Caryophyllaceae

- 76 2 Z at0u-1991BL01115 *Dianthus arenarius* subsp. *borussicus* Vierh. Austria , no other details available!  
 77 2 Z ro0u-1994BL00068 *Dianthus serotinus* Waldst. & Kit. Romania , Muntele Scarita- Belioara - Distr. Alba.  
 78 2 Z fr0u-1994BL01124 *Dianthus subacaulis* Vill. subsp. *subacaulis* France, Herault, Felines-Minervois  
 79 2 Z si0u-1998BL00808 *Drypis spinosa* L. Slovenia , Trnovski Gozd (Ternovner Wald), Adovscina, Aufstieg von der Zavetisce Bavcerja Zum M.Gora. Alt.: 1000 -1200 m. Coll.: Steffan, F. 09/1997  
 80 2 G xx0u-1971BL00245 *Saponaria caespitosa* DC.  
 81 2 Z si0u-1994BL00089 *Silene saxifraga* L. Slovenia , Steiner Alpe, Grintovec, ascent from Ceska Koca to Grintovec Alt.: 1500 -2200 m. Coll.: Steffan, F. & Th. Ster 08/1992

Celastraceae

- 82 2 Z jp0u-1991RD00617 *Euonymus alatus* (Thunb. ex Murray) Siebold var. *alatus* Japan , Gunma Pref., Tanbari-shitsugen, Minakami Town.
- 83 2 Z ca0u-1990RD00214 *Euonymus atropurpureus* Jacq. Canada: Ontario , Essex Co., Malden Tp., roadside. Alt.: 176 m.
- 84 2 Z se0u-1984RD00125 *Euonymus europaeus* L. Sweden , Ln. Lenstad, Öland.
- 85 2 Z jp0u-1986RD00034 *Euonymus macropterus* Rupr. Japan: Honshu , Yamanashi Prefecture, area around Oshino-Mura village, near Mt. Fuji. Alt.: 95 -1000 m.
- 86 2 G xx0u-1979RD00118 *Euonymus oxyphyllus* Miq.

Clusiaceae

- 87 2 G xx0u-2005BL01002 *Hypericum mitchellianum* Rydb.

Costaceae

- 88 3 G xx0u-1979GR00023 *Costus dubius* (Afzel.) K.Schum.
- 89 3 Z pe0u-1984GR00286 *Monocostus uniflorus* (Poepp. ex O.G.Peters.) Maas Peru , Dept. San Martin, Road Tarapoto - Chasuta, km 28, on calcarous rocks along the road, Alt.: 200 m. Coll.: Maas, P.J.M. et al. 6017

Crassulaceae

- 90 3 Z ma0u-1992HR32295 *Sedum dasyphyllum* L. Morocco , Coll.: H.'t Hart (also HTH) 50.107
- 91 3 Z tr0u-1993BL00010 *Sedum obtusifolium* C.A.Mey. Turkey , Prov. Bolu, 20 km S. of Gerede., W. of the road to Kizilcahaman. Alt.: 1350 m. Coll.: Alpinar,K. & H.'t Hart 33

## Ericaceae

- 92 2 G xx0u-1900ZG00184 *Enkianthus cernuus* var. *rubens* (Maxim.) Makino  
 93 2 G xx0u-1900ZG00034 *Kalmia angustifolia* L.  
 94 2 G xx0u-1900ZG01222 *Kalmia latifolia* L.  
 95 2 G xx0u-1900ZG00097 *Rhododendron canadense* (L.) Torr.  
 96 2 G xx0u-1900ZG01146 *Zenobia pulverulenta* (W.Bartram ex Willd.) Pollard

## Fabaceae

- 97 2 Z gr0u-1997BL00716 *Anthyllis hermanniae* L. Greece: Kriti , Akrotiri Peninsula, Stavros, near the beach.  
 98 1 Z it0u-2003BL01367 *Dorycnium hirsutum* (L.) Ser. Italy , Altopiano delle Manie (SV). Alt.: 300 m. 14/07/1999  
 99 1 Z fr0u-1991BL00416 *Hippocrepis comosa* L. France , Torpes, talus de route, sol cacaire. Alt.: 250 m.  
 100 0 G xx0u-2002GR00521 *Kennedia rubicunda* (Schneev.) Vent.  
 101 2 Z fr0u-1972ZE02110 *Lathyrus clymenum* L. France: Pyrenees , East part, Roussillon, Corniche catalane: Port-Vendres, Banyuls, Cerbère, on coastal cliffs.

## Gentianaceae

- 102 2 Z us0u-1983BL00287 *Gentiana affinis* Griseb. United States: Oregon , no other details available! 1982  
 103 2 Z at0u-1995BL00118 *Gentiana asclepiadea* L. Austria , Tirol, Steinberg near Achensee, Guffert, zw. Stubachalm und der Strasse. Alt.: 1200 m. 05/10/1994

## Geraniaceae

- 104 2 Z jp0u1987BL00423 *Geranium soboliferum* Kom. Japan , Oshino-muro, near Mt. Fuji Alt.: 95 -1000 m.  
 105 0 Z tr0u-1984BL00082 *Pelargonium endlicherianum* Fenzl Turkey: Turkey-in-Europe , SE Denizli, Kazikbeli, Alt.: 1200 m. 1972

Gesneriaceae

- 106 2 G xx0u-1965BL00453 *Ramonda myconi* (L.) Rehb.  
 107 2 Z mk0u-1982BL00132 *Ramonda nathaliae* Pancic & Petrovic  
 Macedonia , Titov Veles Alt.: 230 m. 1981  
 108 2 G xx0u-2005BL00376 *Rehmannia piasezkii* Maxim.  
 109 0 G xx0u-1986GR00050 *Rhynchoglossum notonianum* (Wall.)  
 B.L.Burt

Hydrangeaceae

- 110 2 U xx0u-2000BL00755 *Deinathe bifida* Maxim.

Iridaceae

- 111 2 Z us0u-1996BL00959 *Iris hartwegii* Baker United States:  
 California , Humboldt Co., N of Eureka,  
 Prairie Creek Redwoods State Park, Fern  
 Canyon. Alt.: 40 m.  
 112 2 Z bg0u-1995BL00180 *Iris sintenisii* subsp. *sintenisii* Janka  
 Bulgaria , Eastern Sredna Gora Mts Coll.:  
 Sterz  
 113 2 Z cs0u-1964BL00020 *Iris spuria* L. subsp. *spuria* Czechoslovakia ,  
 without details.  
 114 1 G xx0u-2001BL00988 *Iris tectorum* Maxim.  
 115 2 G xx0u-1991GR00557 x *Pardancanda norrisii* L.W.Lenz

Lamiaceae

- 116 1 G xx0u-2001BL00442 *Dracocephalum renati* Emb.  
 117 2 Z bg0u-2002BL01040 *Micromeria dalmatica* subsp. *bulgarica*  
 (Velen.) Guinea Bulgaria , Western Rodopi.  
 Alt.: 1250 m. 2002  
 118 2 Z pk0u-2001BL00511 *Nepeta clarkei* Hook.f. Pakistan , NW  
 Frontier Prov., Swat Divis., Ushu-valley.  
 Alt.: 3200 m.  
 119 1 Z fr0u-2004BL01518 *Nepeta nepetella* L. France , Lautaret Alt.:  
 1600 m.  
 120 1 Z gr0u-2000BL01105 *Nepeta sibthorpii* Benth. Greece ,  
 Peloponnes, Nomos Arkadias, Mandinia,  
 Kardara/ Mt.Menalon. Alt.: 820 m.



*x Pardancanda norrisii* L.W. Lenz (Iridaceae)

Lamiaceae (cont.)

- 121 1 G xx0u-2003BL01044 *Pycnanthemum pilosum* Nutt.  
 122 2 Z it0u-2006BL00414 *Salvia forskaohlei* L. Italy: Prov. Trieste ,  
 C.O.B. Alt.: 80 m. 12/07/2004

Liliaceae

- 123 2 G xx0u-1974GR00709 *Clivia miniata* Regel  
 124 0 Z ec0u-1991GR00305 *Eucharis mastersii* Baker Ecuador , Chical  
 125 0 G xx0u-2006GR00839 *Gloriosa verschuurii* Hoog  
 126 1 G xx0u-1998BL00254 *Helonias bullata* L.  
 127 1 Z hr0u-1978BL00091 *Lilium martagon* var. *cattaniae* Vis. Croatia ,  
 Brokovo 1962  
 128 2 Z nl0u-1964BL00700 *Narthecium ossifragum* (L.) Huds.  
 Netherlands: Prov. Drenthe , near Eelde  
 129 2 G xx0u-1968GR01546 *Ophiopogon jaburan* (Siebold) Lodd.  
 130 2 Z pt0u-1968BL00134 *Paradisea lusitanica* (Cout.) Samp. Portugal  
 no further details ! Coll.: Smidt,J.de 1269  
 131 2 G xx0u-1965BL00228 *Veratrum album* L.  
 132 2 G xx0u-1998BL00774 *Veratrum maackii* var. *japonicum* Regel  
 133 2 G xx0u-1965BL00271 *Veratrum nigrum* L.  
 134 2 Z cn0u-1997BL01048 *Veratrum oxysepalum* Turcz. China,  
 S-Chekiang.

Magnoliaceae

- 135 2 G xx0u-1900ZG00099 *Liriodendron tulipifera* L.  
 136 2 G xx0u-1900ZG03460 *Magnolia kobus* DC. var. *kobus*  
 137 2 Z kr0u-1985RD00188 *Magnolia sieboldii* K.Koch South Korea ,  
 Suweon, Mt. Kwanak. 1984  
 138 2 G xx0u-1965RD00047 *Magnolia tripetala* (L.) L.  
 139 2 G xx0u-1900ZG01144 *Magnolia virginiana* L.

Menispermaceae

- 140 2 Z tw0u-1980GR00388 *Cocculus trilobus* (Thunb.) DC. Taiwan,  
 approx. S top (Coast) Coll.: Kramer, K.U.  
 7928 1980

Mimosaceae

- 141 2 Z vi0u-1988GR00056 *Leucaena leucocephala* (Lam.) de Wit  
 Virgin Islands (U.S.): St. Thomas Island, on  
 top of mountain near airlanding strip. 1967

Musaceae

142 1 U xx0u-1991GR01701 *Musa mannii* H.Wendl. ex Baker

Myrsinaceae

143 2 G xx0u-1974GR00008 *Ardisia solanacea* Roxb.

Myrtaceae

144 2 Z br01-1966GR01501 *Eugenia selloi* O.Berg Brazil , no further details ! Coll.: Lindeman,J.C. s.n. 1965

Paeoniaceae

145 2 G xx0u-1978BL00200 *Paeonia mascula* (L.) Mill. subsp. mascula

Passifloraceae

146 0 Z cr0u-2005GR01066 *Passiflora foetida* L. Costa Rica ,  
Puntarenas, Savegre, *Tectona grandis*  
Plantage bei Cooperativa El Silencio

Pinaceae

147 2 G xx0u-1900ZG00915 *Pseudolarix amabilis* (A.Nelson) Rehder

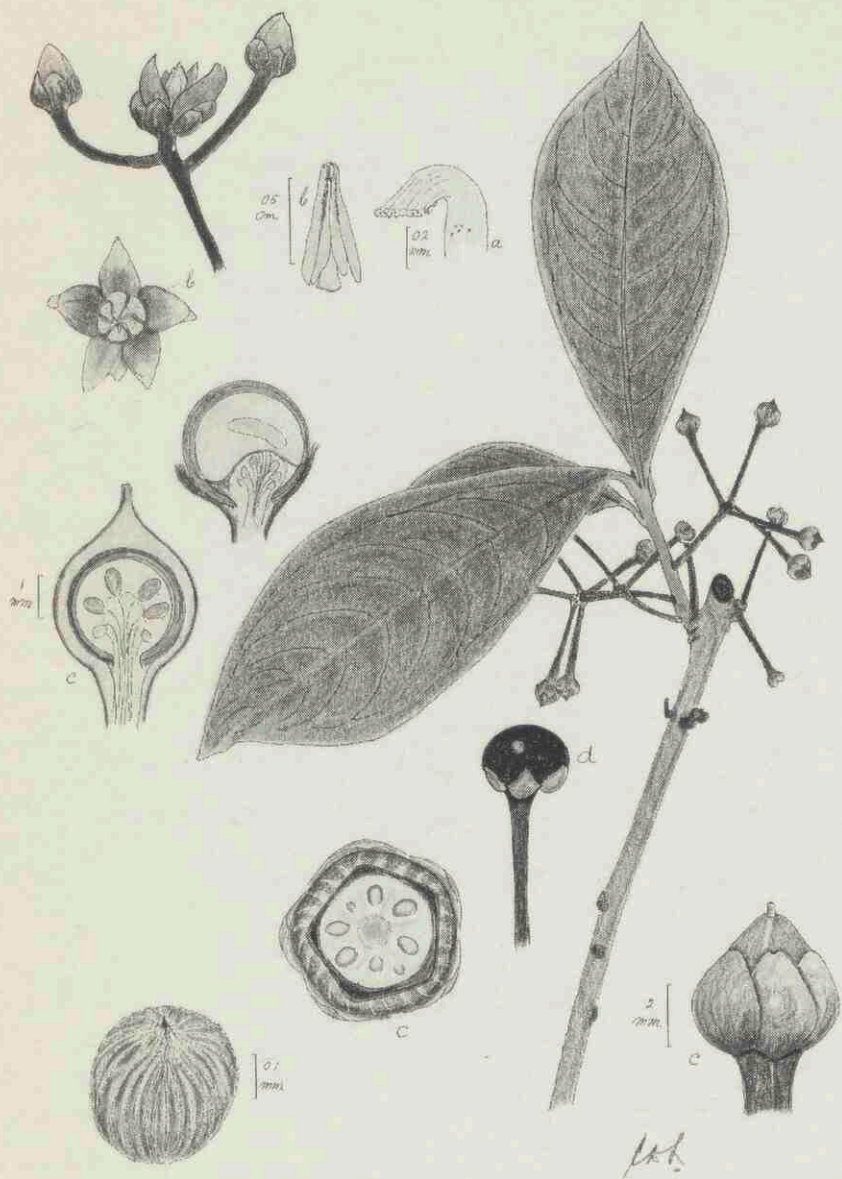
Plantaginaceae

148 2 Z es0u-2004BL00064 *Plantago monosperma* Pourr. Spain: Prov.  
Gerona , Pyrenees, near Núria Alt.: 1400 m.  
Coll.: Gouda,E.J. 03-59 22/07/2003

149 2 Z es0u-2004BL00059 *Plantago sempervirens* Crantz Spain , Sierra  
de Javelambre, near Torrijas Alt.: 1800 m.  
Coll.: Gouda,E.J. 03-54 22/07/2003

Plumbaginaceae

150 2 G xx0u-1964BL00364 *Acantholimon glumaceum* (Jaub. & Spach)  
Boiss.



*Ardisia solanacea* Roxb. (Myrsinaceae)



Plumbaginaceae (cont.)

- 151 2 Z fr0u-1977BL00177 *Armeria alliacea* (Cav.) Hoffing. & Link  
France, Hautes Alpes, Serre Chevalier, (on  
sand). Alt.: 1550 m.
- 152 1 Z pk0u-1987BL00526 *Bukiniczia cabulica* (Boiss.) Lincz. Pakistan  
Gilgit, Hunza, Batura Glacier, N. side Alt.:  
2920 -3000 m. Coll.: Swedish Exp.to  
Pakistan 18

Poaceae

- 153 2 G xx0u-1968GR01530 *Setaria palmifolia* (J.G.Koenig) Stapf

Polygonaceae

- 154 2 G xx0u-2003BL00559 *Eriogonum arborescens* Greene
- 155 1 Z jp0u-2002BL01354 *Polygonum filiforme* Thunb. Japan: Honshu  
Tsukuba Medical Plants Research Station.  
Alt.: 26 m.

Ranunculaceae

- 156 2 Z fr0u-1995BL00209 *Aquilegia vulgaris* L. subsp. *vulgaris*  
France, Basses-Pyrenees., Pic du Ger.
- 157 2 Z fr0u-1979BL00236 *Trollius europaeus* L. subsp. *europaeus*  
France, (Hautes Pirenees) Gavarnie, on  
humid meadow.
- 158 2 G xx0u-2001BL00225 *Trollius pumilus* D.Don.

Rhamnaceae

- 159 2 Z kr0u-1983RD00218 *Rhamnella franguloides* (Maxim.) Weberb.  
South Korea, Cholla-Namdo, Mt.  
Paegyang, near White Sheet Temple

Rosaceae

- 160 2 Z xx0u-2004BL00305 *Potentilla eriocarpa* Wall. ex Lehm.  
Himalaya, NW. Himalaya Coll.: Chadwell,  
Chris et al. 4627 2003
- 161 2 Z nl0u-1994RD00736 *Rosa arvensis* Huds. Netherlands: Prov.  
Limburg, Epen, 'onderste bos' Coll.: Kruit,  
Leonieke

Rubiaceae

162 0 G xx0u-1993GR00238 *Psychotria hirtella* Oliv.

Rutaceae

163 1 G xx0u-1980RD00287 *Zanthoxylum piperitum* DC.

Saxifragaceae

164 2 Z jp0u-1997BL00485 *Saxifraga cherlerioides* var. *rebunshirensis* (Engl. & Irmsch.) Hara Japan, Hokkaido, Mt. Nishi-kumaneschiri-dake, Katoh-gun.

165 2 Z si0u-1994BL00098 *Saxifraga hostii* Tausch subsp. *hostii* Slovenia, Jalovec, ascent from Vrsic-Pass. Alt.: 1600 -1750 m.

166 1 G xx0u-1987BL00402 *Saxifraga mutata* L.

Sciadopityaceae

167 2 G xx0u-1900ZG01861 *Sciadopitys verticillata* (Thunb. ex Murray) Siebold & Zucc.

Scrophulariaceae

168 1 Z bo0u-2005GR00521 *Asarina erubescens* (D. Don) Pennell Bolivia: Prov. Santa Cruz, direction of Samaipata, near Ayacucho Coll.: Gouda, C.S. s.n.

169 1 Z us0u-2001BL00590 *Mimulus cardinalis* Dougl. United States: California, Lake Co., E of Mt. St. Helena, S of Middletown, Hwy. 29 at W Mine Rd., 4 km N of the Lake Co. line Alt.: 400 m. Coll.: Raiche, R. (Berkeley, USA) 015 09/09/1999

170 2 Z us0u-1996BL00291 *Penstemon alpinus* Torr. United States: Colorado, Jefferson County. Alt.: 2300 m.

171 2 Z mx0u-2005BL00272 *Penstemon campanulatus* Willd. Mexico, just below the summit of Cerro Potosi Alt.: 3800 m.

172 2 Z us0u-1995BL01112 *Penstemon digitalis* Nutt. United States: Ingham county, roadbank above seep Alt.: 259 m.

Scrophulariaceae (cont.)

- 173 2 G xx0u-1969BL00346 *Penstemon pinifolius* E. Greene  
 174 2 Z ca0u-1987BL00414 *Penstemon procerus* Douglas ex  
 R. Grahams. lat. Canada: Alberta, Foothills,  
 1986  
 175 2 Z ro0u-2000BL01251 *Veronica bachofenii* Heuff. Romania, NW  
 Romania, Apuseni Mts., Podisul Padesului,  
 valley of the Galbena r. near Poiana Florilor;  
 1995.  
 176 2 Z jp0u-1991ZS00771 *Veronicastrum sibiricum* (L.) Pennell Japan  
 Tokyo Pref. Sakamotoenchi, Okutama town  
 177 2 G xx0u-1966BL00018 *Wulfenia carinthiaca* Jacq.

Solanaceae

- 178 2 G xx0u-1991GR01060 *Cyphomandra betacea* (Cav.) Sendtn.

Sterculiaceae

- 179 1 G xx0u-1987GR00028 *Abroma augusta* (L.) L.f.

Styracaceae

- 180 2 G xx0u-1964RD00305 *Halesia carolina* L.  
 181 2 G xx0u-1900ZG01006 *Styrax japonica* Siebold & Zucc.

Symplocaceae

- 182 2 G xx0u-1900ZG00909 *Symplocos paniculata* (Thunb. ex Murray)  
 Miq.

Taxaceae

- 183 1 G xx0u-1972RD00060 *Torreya nucifera* var. *nucifera* (L.) Siebold  
 & Zucc.

Taxodiaceae

- 184 2 G xx0u-1900ZG01396 *Cunninghamia lanceolata* (Lamb.) Hook.

Valerianaceae

- 185 2 G xx0u-1966BL00455 *Patrinia gibbosa* Maxim.

