

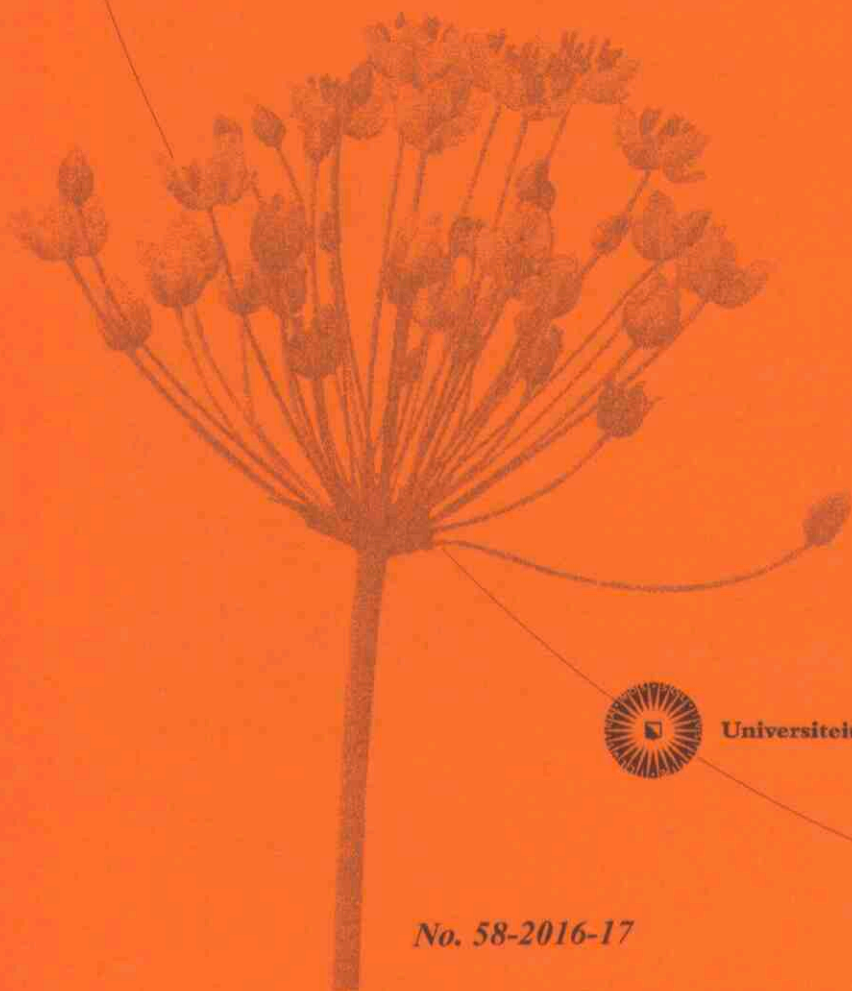


Index seminarum

<https://hdl.handle.net/1874/433806>

Index Seminum

*Utrecht University
Botanic Gardens
The Netherlands*



Universiteit Utrecht

No. 58-2016-17

UNIVERSITEITSBIBLIOTHEEK UTRECHT



4160 3105

Utrecht University
Botanic Gardens

P.O. Box 80.162
3508 TD Utrecht
The Netherlands

Index Seminum No. 58 - 2016-17

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, 2017**. 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:

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*

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*
Roel Vonk *R.Vonk@uu.nl*
Ton G. Werensteijn *A.G.Werensteijn@uu.nl*
Fred H.J. Siesling *F.H.J.Siesling@uu.nl*

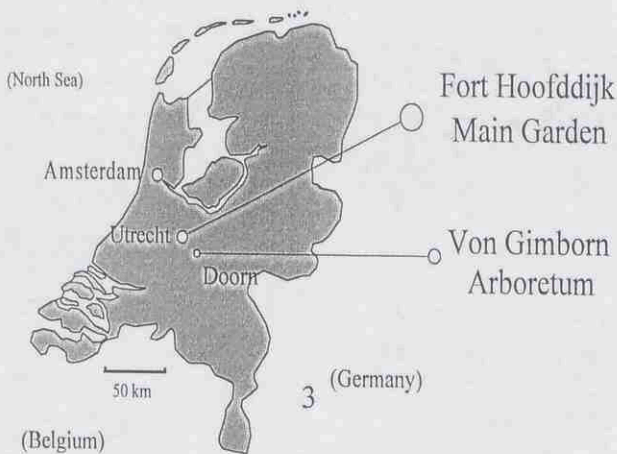
Garden location

Utrecht: Fort Hoofddijk (University Centre)

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

Situation and climate:

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



From the Curator's Department

With the presentation of this Index Seminum No. 58-2016-17 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 & 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 *Doryanthes palmeri* A.W.Hill
[IPEN xx0u-1973GR00602] *2013

Apiaceae

2. 1W *Eryngium yuccifolium* Michx.
[IPEN us0u-2002BL00542] United States,
Michigan, Ingham county, MSU Prairie Planting,
naturalized area, dry., Alt.: 256 m. 04/10/2001
*2015
3. 2G *Olymposciadium caespitosum* (J.E.Sm.) Wolff
[IPEN xx0u-1969BL00242] *2016

Araceae

4. 3W *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN cn0u-1989BL00077] China, China South-
Central, Sichuan, Liuba, Alt.: 3600 m., Coll.:
Teune, C. 369 14/09/1981 *2014
5. 2G *Arisaema ciliatum* var. *liubaense* Gusman & Gouda
[IPEN xx0u-1987BL00172] *2015
6. 2Z *Arisaema consanguineum* Schott
[IPEN cn0u-2001BL00109] China, San-ba.,
Coll.: A Exp.-'94 China (A.G.S.) 2036 *2015
7. 2G *Arisaema tortuosum* (Wall.) Schott
[IPEN xx0u-1997BL00427] *2015
8. 2W *Pinellia ternata* (Thunb.) Breit.
[IPEN kr0u-1996BL00736] S Korea, Pilye
Medicinal Spring, Mt. Sorak, Inje-Gun, Kangwon-
Do. *2016

Arecaceae

9. 1G *Chamaerops humilis* var. *humilis*
[IPEN xx0u-1975GR00337] *2016

Aristolochiaceae

10. 2Z *Aristolochia littoralis* Parodi
[IPEN sv0u-1992GR00988] El Salvador ,
Acajutla. *2016
11. 2W *Aristolochia trilobata* L.
[IPEN gf0u-1992GR00904] French Guiana , Saül.
Coll.: Mori, S. 22351 *2016

Asclepiadaceae

12. 2W *Vincetoxicum hirundinaria* Medik.
[IPEN ch0u-1964BL00042] Switzerland , Tessin,
Val Verzasca. , Coll.: Kliphuis, Dr. E. s.n. 1964
*2016

Asteraceae

13. 1Z *Berkheya cirsiifolia* (DC.) Roessler
[IPEN ZA-0-IB-008865] South Africa *2015
14. 1Z *Berkheya purpurea* Benth., Hook.f. & Mast.
[IPEN za0u-2005BL01021] South Africa ,
Drakensberge *2013
15. 1W *Cynara cardunculus* L.
[IPEN it0u-2001BL00758] Italy, Sicilia 1994
*2015

Begoniaceae

16. 2W *Begonia glabra* Aubl.
[IPEN pa0u-2004GR00872] Panama , Fortuna ,
Alt.: 1000 m. , Coll.: Maas, P.J.M. et al. s.n.
25/05/2004 *2016

Betulaceae

17. 2W *Alnus viridis* subsp. *suaveolens* (Req.) P.W.Ball
[IPEN ch0u-1997BL00840] Switzerland ,
Groubunden, Morteratsch. , Alt.: 1920 m. *2016
18. 2W *Betula lenta* subsp. *lenta* L.
[IPEN ca0u-1986RD00002] Canada, Ontario ,
Niagara Reg., Louth Tp., only verified population
in Canada, steep slope above Lake Ontario; 1985.
Alt.: 88 m. *2015

Brassicaceae

19. 1W *Pachyphragma macrophyllum* (Hoffm.) N.Busch
[IPEN xx0u-1998BL00720] Caucasus , NW.
*2016

Bromeliaceae

20. 3W *Aechmea angustifolia* Poepp. & Endl.
[IPEN ec0u-2012GR00300] Ecuador , Alt.: 1154
m. , Coll.: Jan Verkade *2016
21. 3W *Aechmea aquilega* var. *aquilega*
[IPEN sr1u-1999GR00107] Suriname , Parimaribo
(Suriname Riv.) , Coll.: Gouda, E.J. 99-41 1999
*2016
22. 3Z *Aechmea bromeliifolia* (Rudge) Baker
[IPEN br0rott-20030214] Brazil *2016
23. 3Z *Aechmea coelestis* var. *coelestis*
[IPEN br0u-2004GR00485] Brazil , Coll.: Kuzma
*2016
24. 3G *Aechmea lueddemanniana* (K.Koch) Mez
[IPEN xx0b-1184074] *2016
25. 3Z *Aechmea recurvata* var. *recurvata*
[IPEN py0u-2009GR00781] Paraguay , Alto
Parana, Itabo *2016

Bromeliaceae (cont.)

26. 3Z *Aechmea recurvata* var. *recurvata*
 [IPEN py0u-2009GR00305] Paraguay , Alto
 Parana, Itabo *2016
27. 3W *Aechmea setigera* Martius ex Schultes f.
 [IPEN gf0u-1998GR00682] French Guiana,
 Mataroni (Timeberg); 98-03-23 , Coll.: Moonen,
 J.(FG) 201 *2016
28. 2G *Billbergia brasiliensis* L.B.Sm.
 [IPEN xx0u-2007GR00347] *2016
29. 3W *Goudea* aff. *chrysostachys* (E. Morren) W. Till & Barfuss
 [IPEN ec0u-2008GR01062] Ecuador, Prov.
 Morona-Santiago , N of Tres Ranchos, road to
 Paraiso , Alt.: 1140 m. , Coll.: E.J.Gouda,
 J.Manzanares & B.Patterson 08-43 01/04/2008
 *2016
30. 3W *Guzmania musaica* var. *musaica*
 [IPEN co0u-2013GR00780] Colombia, Dept.
 Cauca, Valle del Cauca , Buenaventura, El Valle
 del Chucheros, near Bahia Malaga , Alt.: 0 m. ,
 Coll.: Maas, P.J.M. et al. 10511 27/10/2013 *2016
31. 3W *Pitcairnia aureobrunnea* Rauh
 [IPEN EC-1-U-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 *2016
32. 3W *Pitcairnia caricifolia* Mart.ex Schult.f.
 [IPEN ve0u-2005GR01552] Venezuela , Ilu
 (weide) Tepui *2016
33. 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 *2016

Bromeliaceae (cont.)

34. 3Z *Pitcairnia hitchcockiana* L.B.Sm.
[IPEN EC-0-U--2006GR01008] Ecuador , Mera ,
Alt.: 1300 m. , Coll.: Fläschendräger, A. s.n.
20/04/1995 *2016
35. 3Z *Pitcairnia imbricata* (Brongn.) Regel
[IPEN gt0u-2005GR00894] Guatemala , 20 km
from Guatemala City towards el Rancho , Alt.:
800 m. , Coll.: Radtke/Moldenhauer 183 *2016
36. 3Z *Racinaea fraseri* (Baker) Spencer & L.B.Sm.
[IPEN ec0u-2011GR00563] Ecuador , Coll.: Elly
Bak (NL) 1990 *2016
37. 3W *Tillandsia caliginosa* W.Till
[IPEN bo0u-1998GR01073] Bolivia , near
Cochabamba or Sucre?; nov.1989. , Coll.: Gouda,
C.S. s.n. *2016
38. 3Z *Tillandsia chapalillaensis* Ehlers
[IPEN mx0u-1997GR00664] Mexico *2016
39. 3W *Tillandsia polystachia* (L.) L.
[IPEN mx0u-2007GR01372] Mexico , Cd. Valles
to Cd.Maute, Near Gustavo Garmendia 1985
*2016

Cactaceae

40. 3W *Rhipsalis baccifera* (J.Mill.) Stearn
[IPEN sr1u-1975GR00357] Suriname , no further
details! , Coll.: Lindeman,J.C. 09/1975 *2015
41. 1G *Rhipsalis baccifera* subsp. *horrida* (Baker) Barthlott
[IPEN xx0er-207-607] *2015

Campanulaceae

42. 2Z *Asyneuma canescens* (Waldst. & Kit.) Griseb. & Schenk
[IPEN gr0u-2008BL00486] Greece , Mt.
Timfrestos *2015
43. 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

Cannaceae

44. 3W *Canna paniculata* Ruiz & Pav.
[IPEN pe0u-1976GR00106] Peru , dept. Huanuco,
Puente Durand, herb. 5 m, fls. red/orange; 76-03-
22 , Alt.: 1000 m. , Coll.: Plowman, T. &
Kennedy, H. 5700 *2016
45. 2Z *Canna tuerckheimii* F.Kränzl.
[IPEN cr0u-1975GR-00189] Costa Rica , Costa
Rica, San Vito , Coll.: Plowman, T. 3767a *2016
46. 2W *Canna tuerckheimii* F.Kränzl.
[IPEN ec0u-1980GR00287] Ecuador , Alluriquin
area, between Sto. Domingo de los Colorados and
Quito, mountain forest; 80-10-00 , Alt.: 850 m. ,
Coll.: Maas, P.J.M. et al. 4796 *2016

Capparaceae

47. 2W *Cleome viridiflora* Schreb.
[IPEN bo1u-1999GR00209] Bolivia , Coll.: Maas,
P.J.M. et al. 8803 *2013

Caryophyllaceae

48. 1W *Drypis spinosa* L.
[IPEN hr0u-2005BL00106] Croatia , Velebit
Bot.Garden , Coll.: S. Kovačič et al. s.n. 10/09/2002
*2010

Cistaceae

49. 1Z Cistus albanicus E.F.Warb. ex Heywood
[IPEN al0u-2013BL00136] Albania , Burrel , Alt.:
1200 m. *2015 Clusiaceae
50. 1Z Hypericum montbretii Spach
[IPEN GR-0-B-2409692] Greece , Thrakien,
Nomos Evrou, Kallithea, Silikat, 900m, leg. , Alt.:
900 m. , Coll.: Raus/Schiers 18706 *2015

Crassulaceae

51. 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
52. 2W Sedum anacampseros L.
[IPEN ch0u-1965BL00396] Switzerland , no
further details ! *2016
53. 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 *2015
54. 2W Sedum stoloniferum S.G.Gmel.
[IPEN ge0u-1977BL00127] Georgia , Abkhazia
(Caucasus), Awadchara. *2015
55. 2W Sempervivum tectorum subsp. tectorum
[IPEN fr0u-1987BL00178] France , Lautaret.
1986 *2016

Cupressaceae

56. 2W Cupressus torulosa D.Don
[IPEN np0u-2002RD00103] Nepal , Himalaya.
Mustang, Tukuche area, Forest zone. , Coll.:
Chadwell, C. et al. 4046 2001 *2011

Fabaceae

57. 1W Dorycnium pentaphyllum subsp. pentaphyllum
[IPEN it0u-2001BL00098] Italy , Südtirol, Bozen
SE, Tiers N, Völsegg, Trockenhang. , Alt.: 1200
m. 06/2000 *2016

Geraniaceae

58. 1W Pelargonium alchemilloides (L.) L'Hér.
[IPEN za0u-2011ZS00378] South Africa ,
Balloch, Balloch Farm (near S border of Lesotho)
*2016

Globulariaceae

59. 2Z Globularia cordifolia L.
[IPEN at0u-1995BL00195] Austria ,
Niederösterreich, Eichkogel. , Alt.: 230 -350 m.
*2016

Gunneraceae

60. 1G Gunnera prorepens Hook.f.
[IPEN xx0u-2006BL00950] *2015

Haemodoraceae

61. 1G Wachendorfia thyrsiflora L.
[IPEN xx0u-2009GR00739] *2016

Iridaceae

62. 2Z *Gladiolus palustris* Gaud.
[IPEN es0u-1996BL01038] Spain , probably from
N.Spain, without details. , Coll.: Gouda, C.S. s.n.
*2016
63. 2Z *Iris orientalis* Mill.
[IPEN tr0u-1995BL00188] Turkey, Prov. Samsun,
near Ladik. *2015
64. 2Z *Iris sintenisii* subsp. *sintenisii* Janka
[IPEN bg0u-1995BL00180] Bulgaria , Eastern
Sredna Gora Mts , Coll.: Sterz *2015
65. 2W *Iris sintenisii* subsp. *sintenisii* Janka
[IPEN bg0u-2003BL01006] Bulgaria , Black Sea
coast, Perla N of Primorsko village. , Alt.: 2 m.
*2016

Lamiaceae

66. 1Z *Nepeta sibthorpii* Benth.
[IPEN gr0u-2000BL01105] Greece , Peloponnes,
Nomos Arkadias, Mandinia, Kardara/
Mt.Menalon. , Alt.: 820 m. M 5869 *2014
67. 1G *Salvia apiana* Jeps.
[IPEN xx0u-2012ZS00728] *2015
68. 1Z *Salvia dichroantha* Stapf
[IPEN tr0u-2006BL01620] Turkey KB 119 *2015
69. 2Z *Sideritis syriaca* L.
[IPEN gr0u-2008BL00498] Greece , Euboea
*2014
70. 2W *Stachys pradica* (Zanted.) Greuter & Pignatti
[IPEN ch0u-1988BL00339] Switzerland ,
Switzerland, Valais, Gd. St. Bernard. , Alt.: 2300
m. *2014

Liliaceae

71. 1W *Allium altaicum* Pall.
 [IPEN ru0u-1979BL00323] Russian Federation,
 Altay , S.W.-Siberia, Altai Mts., South facing talus
 slope above desert steppe, near settlement of
 Kurai. , Alt.: 2000 -2200 m. *2016
72. 2Z *Allium angulosum* L.
 [IPEN fr0u-1995BL00214] France, Presvosges.
 *2016
73. 2W *Allium senescens* L.
 [IPEN at0u-1962BL00140] Alps *2016
74. 2W *Bomarea edulis* (Tussac) Herb.
 [IPEN sr0u-1980GR00248] Suriname , Kabelebo
 area, along Barieba Creek , Coll.: Lindeman, J.C.
 & A.R.A.G'rts 455 *2016
75. 1G *Helonias bullata* L.
 [IPEN xx0u-1998BL00254] *2015
76. 0G *Lilium monadelphum* M.Bieb.
 [IPEN xx0u-2013BL00790] *2013
77. 2W *Polygonatum multiflorum* var. *ramosum* (Döll) Geisenh.
 [IPEN be0u-2004BL01043] Belgium , Kortrijk, bij
 ondergronds kanaaluitgraving , Coll.: Prof. P. Van
 Der Veken s.n. 19/04/1979 *2016
78. 2W *Trillium flexipes* Raf.
 [IPEN us0u-2008BL01794] United States,
 Alabama *2015
79. 2U *Trillium grandiflorum* (Michx.) Salisb.
 [IPEN xx0u-2002BL00679] *2014
80. 2G *Trillium kurabayashii* Freeman
 [IPEN xx0u-2000BL00131] *2016
81. 2G *Veratrum nigrum* L.
 [IPEN xx0u-1965BL00271] *2016
82. 2Z *Veratrum oxyssepalum* Turcz.
 [IPEN cn0u-1997BL01048] China , S-Chekiang.
 *2016

Magnoliaceae

83. 1G *Magnolia wilsonii* (Finet & Gagnep.) Rehder
[IPEN xx0u-2010RD00433] *2016

Malvaceae

84. 1W *Lavatera thuringiaca* L.
[IPEN ro0u-2015ZS00183] Romania , Near Iasi
*2016

Mimosaceae

85. 2W *Leucaena leucocephala* (Lam.) de Wit
[IPEN vi0u-1988GR00056] Virgin Islands (U.S.),
Virgin Is. , St.Thomas Island, on top of mountain
near airlanding strip. 1967 *2016

Nartheciaceae

86. 2W *Narthecium ossifragum* (L.) Huds.
[IPEN nl0u-1964BL00700] Netherlands, Prov.
Drenthe , near Eelde 1964 *2016

Onagraceae

87. 1G *Fuchsia boliviana* var. *boliviana*
[IPEN xx0u-2007GR00871] *2013
88. 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

89. 2Z *Paeonia obovata* Maxim.
[IPEN cn0u-2009BL01134] China , Coll.: Chen
Yi P-114 *2016

Plantaginaceae

90. 2W *Veronica spicata* subsp. *spicata*
[IPEN fr0u-2008BL00643] France , Lautaret ,
Alt.: 2000 m. *2016

Plumbaginaceae

91. 2Z *Armeria maritima* subsp. *andina* (Poepp. ex Boiss.) Moore
& H.O. Yates
[IPEN ar0m-2002/0912] Argentina South, Santa
Cruz , Lago Argentina, Califate, Peninsula
Magellanes *2016
92. 2G *Limonium minutum* (L.) Fourr.
[IPEN xx0u-1984BL00199] *2011

Polemoniaceae

93. 1W *Polemonium pauciflorum* S. Watson
[IPEN us0u-2009BL00514] United States,
Arizona , Cochise Co. , Alt.: 2073 m. , Coll.: Alan
Bradshaw (Alplains) 70095.17 *2014

Polygonaceae

94. 2W *Oxyria digyna* (L.) J. Hill
[IPEN it0u-2009BL00619] Italy, Valle Urtier , A.
Manda , Alt.: 2400 m. *2016

Ranunculaceae

95. 1G *Thalictrum rochebrunianum* Franch. & Sav.
[IPEN xx0u-2014BL00305] *2016
96. 1K *Trautvetteria caroliniensis* (Walter) Vail
[IPEN xx0u-2013ZS00595] *2016

Rosaceae

97. 2Z *Potentilla gracilis* var. *flabelliformis* (Lehm.) Nutt.
[IPEN us0u-1999BL00564] United States , Rocky
Mountains, (1930) without details. *2016
98. 1G *Tetraglochin alatum* (Gillies ex Hook. & Arn.) Kuntze
[IPEN xx0u-2012BL00026] *2015

Saxifragaceae

99. 1G *Peltoboykinia watanabei* (Yatabe) Hara
[IPEN xx0u-2002BL00017] *2014

Scrophulariaceae

100. 1W *Lophospermum erubescens* D.Don
[IPEN bo0u-2005GR01250] Bolivia, Prov. Santa
Cruz , direction of Samaipata, near Ayacucho ,
Coll.: Gouda, C.S. s.n. *2016
101. 2W *Digitalis ferruginea* L.
[IPEN gr0u-2006BL00502] Greece, Peloponesos ,
Mt. Killini *2012
102. 2Z *Digitalis ferruginea* subsp. *ferruginea*
[IPEN tr0u-2000BL00393] Turkey , N.-Anatolia,
Bithynia: Ala-Dag, Kartalkaya 10 km before ski
station. , Alt.: 1600 m. *2011
103. 2W *Digitalis viridiflora* Lindl.
[IPEN bg0u-2002BL01044] Bulgaria , Eastern
Rodopi. , Alt.: 1700 m. 25503 2002 *2012

Scrophulariaceae (cont.)

104. 1Z *Paulownia elongata* S.Y.Hu
[IPEN cn0u-2006RD00581] China , no further
details *2015
105. 1W *Penstemon cardwellii* T.J.Howell
[IPEN us0u-1991BL00700] United States, Oregon
Multnomah Co., no further details! , Alt.: 1080 m.
*2013
106. 2W *Penstemon digitalis* Nutt.
[IPEN us0u-1995BL01112] United States,
Michigan , Ingham county, roadbank above seep ,
Alt.: 259 m. *2015
107. 2W *Penstemon euglaucus* English
[IPEN us0u-1999BL01169] United States, Oregon
USA, Oregon, Santiam Pass. *2013
108. 2Z *Penstemon tubiflorus* Nutt.
[IPEN us0u-2011BL00995] United States,
Missouri , Rock Hill *2013

Sterculiaceae

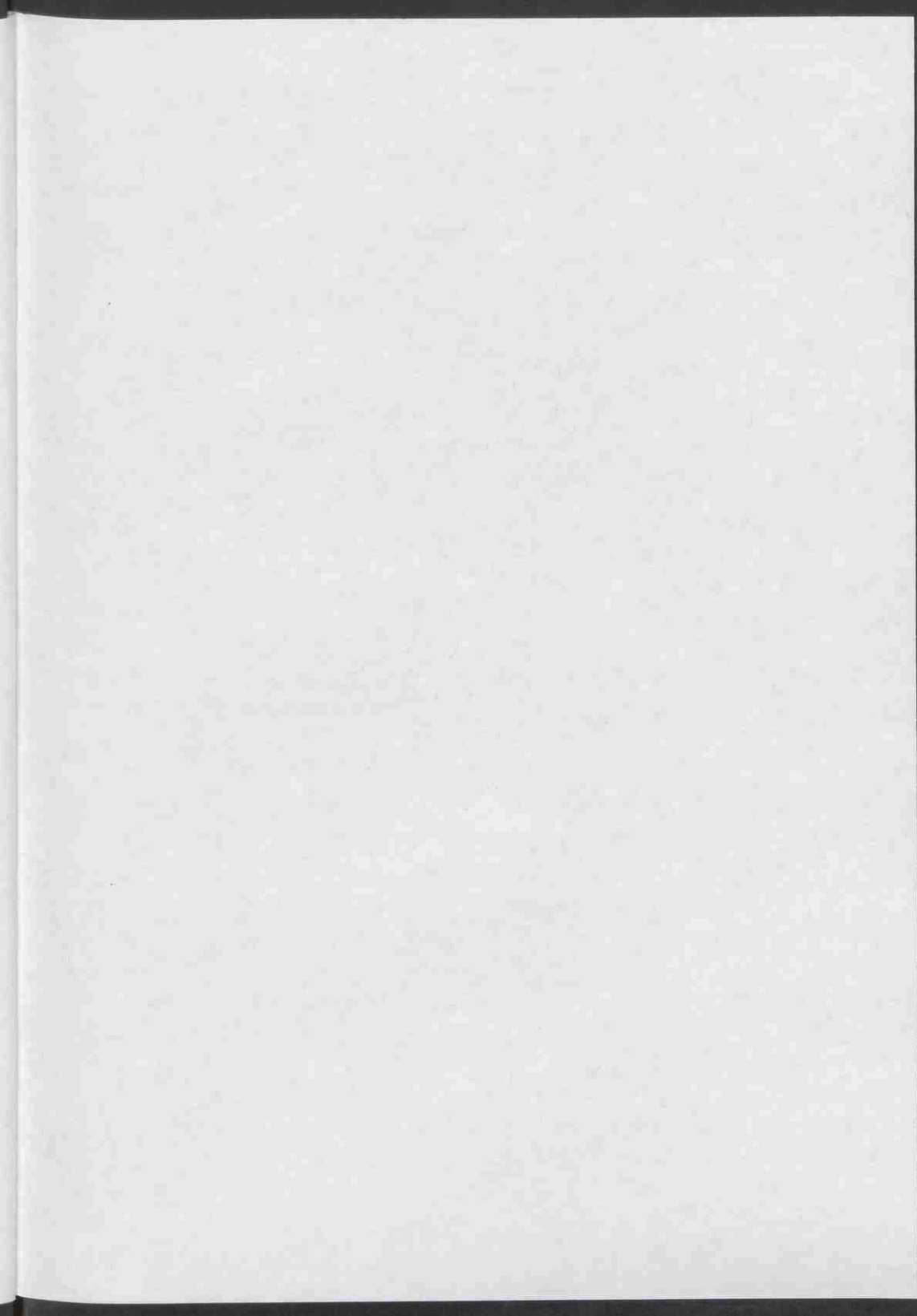
109. 1G *Abroma augusta* (L.) L.f.
[IPEN xx0u-1987GR00028] *2013

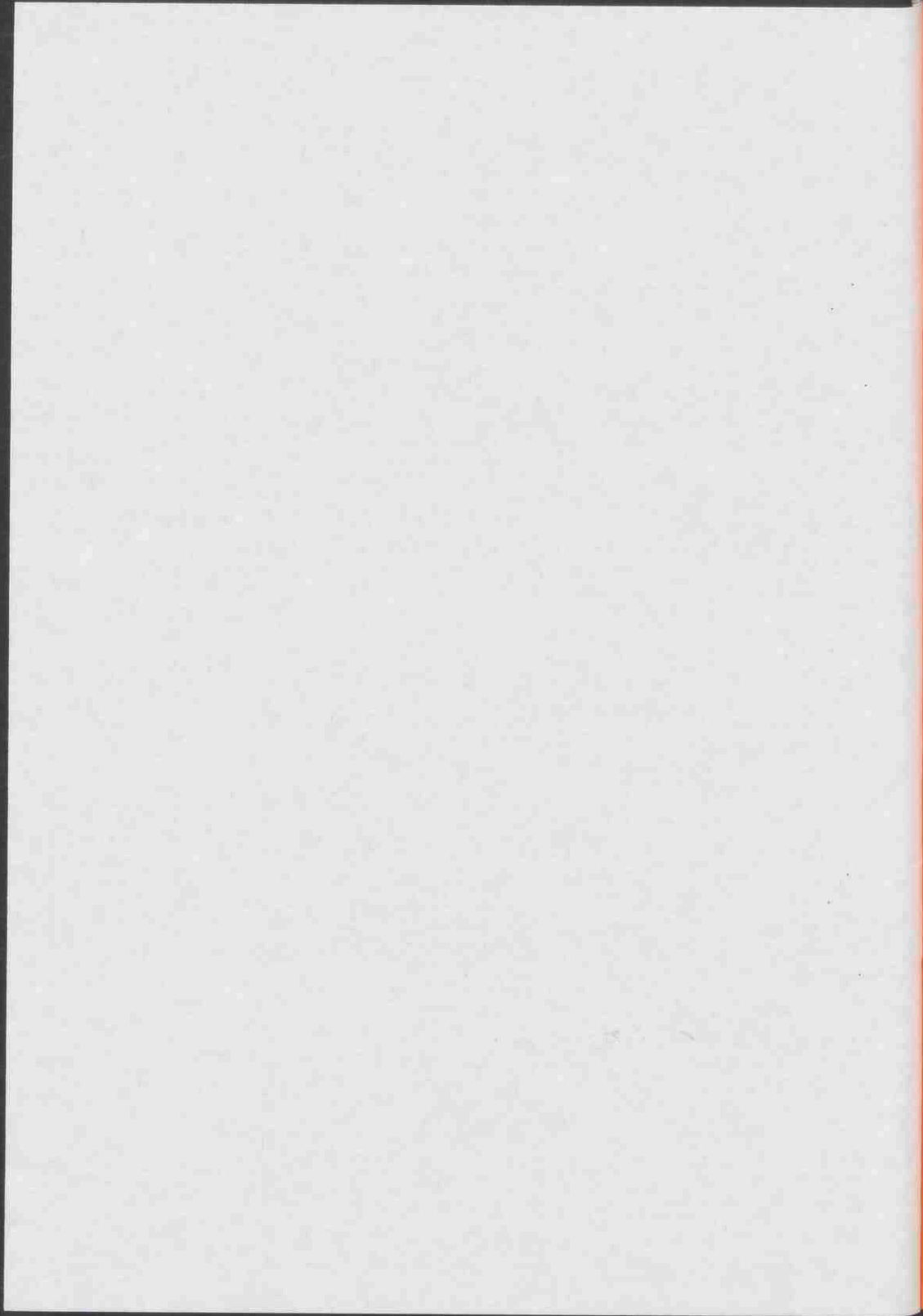
Valerianaceae

110. 1Z *Patrinia heterophylla* Bunge
[IPEN cn0u-2015BL00536] China, China North-
Central, Shaanxi , Qin Ling tnountains, Kaizeping
Alt.: 1800 m. HeHeHe 298 *2016
111. 1Z *Patrinia scabiosifolia* Fisch. ex Link
[IPEN jp0u-2014BL00144] Japan, Hokkaido ,
Shiraoi-machi, Shiraoi-gun , Coll.: H. Takahashi
ea.. 27/07/2000 *2016

Verbenaceae

112. 1G *Petrea volubilis* L.
 [IPEN xx0u-1992GR01111] *2016
113. 2G *Phyla nodiflora* (Kunth) Green
 [IPEN xx0u-2008BL01557] *2013





The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial data. This includes not only sales and purchases but also expenses and income. The text suggests that a systematic approach to record-keeping is essential for identifying trends and making informed decisions.

In the second section, the author addresses the challenges of budgeting and financial planning. It notes that many businesses struggle to stick to their budgets due to unforeseen circumstances or poor planning. The text offers practical advice on how to create a realistic budget that accounts for potential risks and opportunities. It also discusses the importance of regularly reviewing and adjusting the budget as needed.

The third part of the document focuses on the role of technology in modern accounting. It highlights how software solutions can streamline processes, reduce errors, and provide real-time insights into financial performance. The text explores various accounting software options and discusses the benefits of cloud-based systems. It also touches upon the importance of data security and compliance in the digital age.

Finally, the document concludes with a discussion on the future of accounting. It predicts that automation and artificial intelligence will continue to transform the industry, freeing up accountants to focus on more strategic and advisory roles. The text encourages professionals to stay updated on the latest trends and technologies to remain competitive in the market.

