Index seminum

INDEX SEMINUM

University Botanic Gardens
Utrecht,
The Netherlands

No. 32-1990

University Botanic Gardens

P.O. Box 80.162
3508 TD Utrecht
The Netherlands

Index Seminum No. 32 - 1990

Staff:

General Dept.:
V.P.A. Lukkien, M.Sc.,
General Director
A. Leijendekkers,
Curator of Gardens
A. Ligthart,
Secretary

Curators' Dept.:
J. Tolsma,
Curator of Collections
L.J.W. van den Wollenberg, M.Sc.,
Curator of Collections

Educational Dept.:
J. Vos, M.Sc.,
Education officer
A. Kühn,
Education officer

The gardens are located at:
- Utrecht: Fort Hoofddijk (University center)
- Doorn: Von Gimbornarboretum

Situation and climate:
52°06'N, 5°11'E
Alt.: 2m above sea level
Average rainfall: 796 mm
Mean annual maximum temperature: 31.8 °C
Mean annual minimum temperature: -11.5 °C

Introduction:

With the presentation of our Index Seminum 1990 we take the opportunity to inform you on the latest development concerning the University Botanic Gardens of the State University of Utrecht.

. Due to our activities for the celebration of the 350th anniversary in 1989, we were unable to produce an Index Seminum for that year. From now on we intend to issue one again every year.

. In the past two years the staff has been expanded with an Educational Department, consisting of Mrs. A. Kühn and Mr. J. Vos, both on a voluntary basis.

. In 1989 the Government supported the Utrecht University financially to build new greenhouses to accommodate the Utrecht half of the Willy Commelin Scholten Institute for Phytopathology, formerly located in Baarn (the Institute was a joint venture between the Universities of Amsterdam and Utrecht). In 1990 the building activities started.

. In 1991 the Utrecht University celebrates her 355th anniversary. To celebrate this, amongst others, an international congress on education for botanic gardens will be supported. This congress, "A Natural Environment for Learning", that will be held 13 - 16 May 1991, is organized by the "Botanic Gardens and Industrial Liaison Office Utrecht University", the "Dutch Botanic Gardens Foundation", the "Botanic Gardens Education Network (B.G.E.N.)", and the "Botanic Gardens Conservation Secretariat B.G.C.S.". The purpose of the congress is to inform the staff of botanic gardens about the possibilities that are open to them, and to forge co-operation between botanic gardens in the field of Education on Nature and Environment (E.N.E.).

The Botanic Gardens of Utrecht are developing specializations on the following groups and taxa:

-Alpinous plants
-selected woodland plants (Arisaema, Arisarum, Penstemon & Trillium)
-Annonaceae
-Conifers (esp. Tsuga)
-Flora of the Neotropics: Flora of the Guianas
Gesneriaceae
Orchidaceae
Zingiberaceae
-Lactiferous plants: Euphorbia
Hoya
-Broad-leaved hardy trees and shrubs:

Aceraceae	Betulaceae	Ericaceae
Euonymus	Laburnum	Magnolia
Oleaceae		

These specializations are given extra attention regarding verification, nomenclature etc.
We are especially interested in material from natural sources of the groups and taxa mentioned above. **We will be much obliged if (besides the material from your seedlist) you can supply us with other species from, or draw our attention to, special stocks in your collections.**
Furthermore, we intend a closer cooperation with Botanic Gardens with specializations on one or more of the taxa mentioned above. Enclosed you will find an inquiry about the specializations you hold from the taxa mentioned above. You are kindly requested to fill it out, and return it, even if you are not interested in co-operation, as the information thus gathered may also be useful to our Dutch colleagues.

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.

Explanation of provenance codes:

S=	Seeds derived from a plant in cultivation but from known natural source (not necessarily F1 generation).
G=	Seeds from a plant from other Botanical Garden or Institute; not from known natural source.

Explanation of abbreviated collector-names:

CYT	research-group Cytotaxonomy (P.E.B.)
EAM	E.A. Mennega
HAWK	J.G. Hawkes
HVDW	H. v.d. Werff
JVL	J.Chr. v. Loon
L&G	J.C. Lindeman & A.R.A. Görts
MAAS	P.J.M. Maas
MJJ	M.J. Jansen-Jacobs
PL	T. Plowman

Sources of illustrations used:

Fig. 1:	A.R. Clapham, T.G. Tutin & E.F. Warburg; drawings: S.J. Roles: Illustr. of the Fl. of the Brit. Isles vol. II, Cambridge Univ. Press, Cambridge, U.K., 1960.
Fig. 2:	idem, vol. IV, 1965.
Fig. 3:	R.H. Molenbrock (ed.): Illustr. Flora of Illinois, Southern Illinois Univ. Press, Carbondale & Edwardsville, Ill., U.S., 1981, ISBN 0-8093-0920-3
Fig. 5:	idem
Fig. 4:	F.K. Makins, Herb. Garden Fl., J.M. Dent & Sons Ltd., London, U.K., 1957.

Notes on ordering:

Correspondents are asked to use the order-form provided, 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. **Requests reaching us before March 1991 will be handled in sequence of entry.**

Aceraceae

1.	G	I	00ZG00987	Acer ginnala Maxim. var. ginnala
2.	G	I	00ZG00986	Acer lobelii Ten.
3.	G	I	00ZG00968	Acer maximowiczianum Miq. (syn.: A. nikoense Maxim.)
4.	G	I	00ZG00997	Acer micranthum Sieb. & Zucc.

Aizoaceae

5.	G	I	57ZE01007	Tetragonia tetragonioides (Pall.) O.Kuntze

Amaranthaceae

6.	S	I	74ZE02060	Achyranthes aspera L. f. purpurea Mair [JVL 14141] Tenerife
7.	S	I	74GR00319	Pleuropetalum darwinii J.D.Hook. [HVDW 178] Galapagos Islands.

Amaryllidaceae

8.	S	I	80GR00248	Bomarea edulis (Tussac) Herb. [L&G 455] Suriname, Kabelebo area, along Barieba Creek

Apiaceae

9.	G	I	72ZE02162	Coriandrum sativum L.

Apocynaceae

10.	S	I	85GR00108	Rauvolfia tetraphylla L. Cuba, grounds Calaba-zar,J.B.N.

Aquifoliaceae

11.	G	I	61RD00653	Ilex pedunculosa Miq. var. pedunculosa

Bignoniaceae

12.	G	I	71ZS00029	Eccremocarpus scaber Ruiz & Pav.

Boraginaceae

13.	G	I	55ZE00789	Lappula squarrosa (Retz.) Dumort.

Brassicaceae

14.	G	I	72BL00095	Fibigia eriocarpa (DC.) Boiss.

Calyceraceae

15.	G	I	55ZE01000	Acicarpha pinnatifida Miers

Campanulaceae

16.	S	I	83BL00283	Edraianthus tenuifolius (Waldst. & Kit.) A.DC. Eur. Alps. No further details.
17.	G	I	72ZE02170	Lobelia inflata L.

Cannaceae

18.	S	S	89GR00092	Canna indica L. [MJJ 1781] Guyana, Old Farm near Konashen
19.	S	I	75GR00189	Canna tuerckheimii Kraenzl. [PL 3767]

Capparaceae

20.	G	I	71ZE00309	Polanisia dodecandra (L.) DC. var. trachysperma (Torr. & A.Gray) Iltis

Caryophyllaceae

21.	G	I	83BL00090	Dianthus knappii (Pant.) Aschers. & Kanitz ex Borb.
22.	S	I	88ZS00031	Lychnis coronaria (L.) Desr. Bulgaria, no further details!

Celastraceae

23.	G	I	60RD00006	Euonymus planipes (Koehne) Koehne
24.	S	I	77RD00142	Tripterygium regelii Sprague & Takeda Korea, Sorok National Park, no further details!

Chenopodiaceae

25.	G	I	53ZE00962	Chenopodium ambrosioides L. var. ambrosioides
26.	G	I	53ZE00824	Chenopodium polyspermum L.

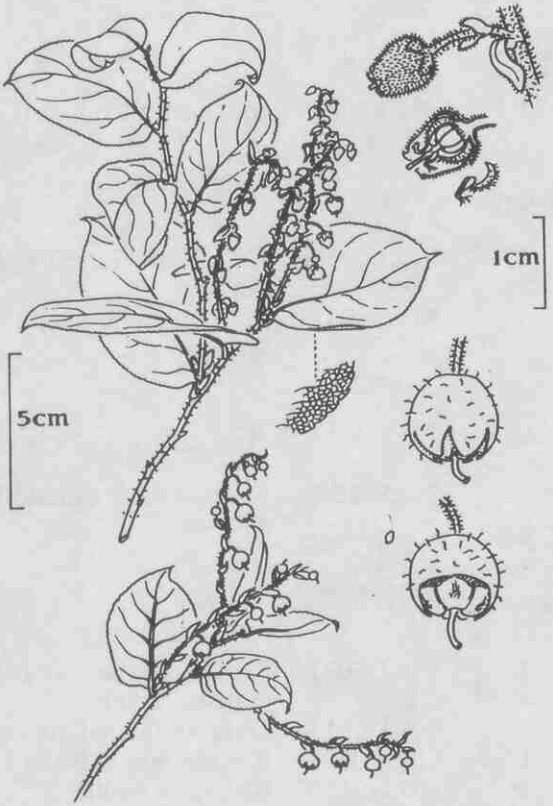

Fig. 1: Gaultheria shallon Pursh

Cistaceae

27.	S	I	62ZE02137	Helianthemum ledifolium (L.) P.Mill. [EAM] Spain, Prov. Malaga, near Estepona, along roadside.

Convolvulaceae

28.	G	I	53ZE00838	Ipomoea purpurea (L.) Roth

Cucurbitaceae

29.	G	I	54ZE02380	Ecballium elaterium (L.) A.Rich.
30.	G	I	81ZE00337	Echinopepon wrightii (A.-Gray) Wats.

Dipsacaceae

31.	G	V	71ZS00069	Cephalaria gigantea (Ledeb.) Bobrov

Ericaceae

32.	G	I	64RD00374	Bruckenthalia spiculifolia (Salisb.) Rchb.
33.	G	I	76RD00148	Gaultheria shallon Pursh
34.	G	I	00ZG00034	Kalmia angustifolia L.
35.	G	I	00ZG01222	Kalmia latifolia L.
36.	G	I	00ZG00883	Leucothoe walteri (Willd.) Melvin
37.	G	I	00ZG00037	Pieris floribunda (Pursh ex Sims) Benth. & J.D.Hook.
38.	G	I	00ZG00036	Pieris japonica (Thunb.) D.Don ex G.Don
39.	G	I	00ZG00097	Rhododendron canadense (L.) Torr.

40.	G	I	00ZG01148	Zenobia pulverulenta (Bartr. ex Willd.) C.Pollard
	Euphorbiaceae			
41.	S	I	82ZE02120	Mercurialis annua L. Germany, Rhein-Main area, near Frankfurt.
42.	G	I	78GR00256	Phyllanthus juglandifolius Willd.
	Fabaceae			
43.	S	I	72ZE02110	Lathyrus clymenum L. Mediterranean
44.	S	I	71ZE00834	Lathyrus odoratus L. Italy, Sicily
45.	S	I	88ZS00002	Lathyrus pratensis L. Belgium, Bousse en Fagne, limy slope, no further details!
46.	S	I	87ZS00040	Lathyrus tuberosus L. U.S.S.R., Tauria, no further details!
47.	G	I	79ZE00331	Ornithopus sativus Brot. subsp. sativus
48.	G	I	56ZE02112	Tetragonolobus purpureus Moench
49.	G	I	73ZE00883	Trifolium incarnatum L.
	Gentianaceae			
50.	S	I	57ZE00818	Centaurium erythraea Raf. subsp. erythraea Czechoslovakia, S. Bohemia, Sobeolav Alt.: 500m.
51.	U		89BL00138	Gentiana lutea L. subsp. lutea

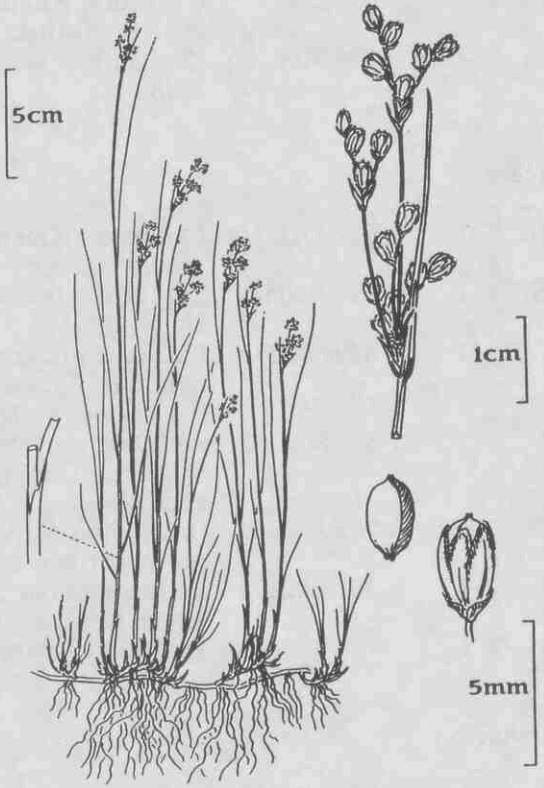

Fig. 2: Juncus gerardi Loisel.

Geraniaceae

52.	S	I	72ZE02194	Geranium robertianum L. The Netherlands

Gesneriaceae

53.	G	I	65BL00453	Ramonda myconi (L.) Rchb.

Globulariaceae

54.	G	I	77ZE00304	Hebenstretia dentata L.

Hydrophyllaceae

55.	G	I	71ZE00310	Phacelia congesta W.J.Hook.

Juncaceae

56.	G	I	75ZS00037	Juncus gerardi Loisel.

Lamiaceae

57.	G	I	72ZE02143	Salvia coccinea Buc'hoz ex Etling.
58.	S	I	84GR00273	Scutellaria speciosa Epling [MAAS 5962] Peru, Dept. San Martin, road Tarapoto-Juanjui, Km. 25, dry forest, collected from type location.

Limnanthaceae

59.	G	I	53ZE00858	Limnanthes douglasii R.Br.

Fig. 3: Liriodendron tulipifera L. a. Flowering branch, x $^3/_8$, b. Fruiting "cone", x $^1/_2$.

Loasaceae

60.	G	I	53ZE00859	Blumenbachia hieronymi Urb.
61.	S	I	71ZE00830	Caiophora hibiscifolia (Griseb.) Urb. & Gilg [HAWK 3692] Argentina, Prov. Salta, Dept. Capital/Quebrada de San Lorenzo, rainforest Alt.: 1500m.
62.	G	I	54ZE02173	Caiophora lateritia (W.J.Hook.) Klotzsch
63.	G	I	53ZE00862	Loasa triphylla Juss. var. vulcanica (Andre) Urb. & Gilg

Magnoliaceae

64.	G	I	00ZG00099	Liriodendron tulipifera L.
65.	G	I	00ZG01142	Magnolia hypoleuca Sieb. & Zucc.
66.	G	I	65RD00047	Magnolia tripetala (L.) L.
67.	G	I	00ZG01144	Magnolia virginiana L.

Malvaceae

68.	G	I	63ZE00846	Anoda cristata (L.) Schlechtend.
69.	S	I	80ZS00010	Malva moschata L. France, Chaffois (Doubs), bord de route sol calcaire, expo ensoleille, Alt.: 850m.
70.	G	I	73ZS00033	Sidalcea neomexicana A.Gray var. parviflora (Greene) Roush

Myrtaceae

71.	G	I	75GR00144	Syzygium paniculatum Banks ex Gaertn.

Onagraceae

72.	G	I	53ZE00879	Godetia purpurea (Curt.) G.Don

Paeoniaceae

73.	G	I	67BL00273	Paeonia mlokosewitschii Lomak.

Papaveraceae

74.	G	I	68ZE02407	Dicranostigma leptopodum (Maxim.) Fedde
75.	G	I	64BL00209	Meconopsis betonicifolia Franch.

Phytolaccaceae

76.	G	I	72ZS00029	Phytolacca clavigera W.W.Sm.

Pinaceae

77.	G	I	00ZG00916	Pseudolarix amabilis (A.Nels.) Rehd.

Plumbaginaceae

78.	S	I	77ZS00007	Armeria maritima (Mill.) Willd. s.l. Sweden, Hallands Vdero, Skne.
79.	G	I	75ZE00620	Psylliostachys suvorovii (Regel) Roshk.

Polemoniaceae

80.	G	I	55ZE00770	Navarretia squarrosa (Eschsch.) W.J.Hook. & Arn.

Polygonaceae

81.	G	I	72ZS00035	Polygonum capitatum Buch.-Ham. ex D.Don
82.	G	I	65ZE00319	Polygonum orientale L.

Primulaceae

83.	G	I	64BL00221	Primula florindae F.K.Ward

Ranunculaceae

84.	G	I	75ZE00311	Adonis aestivalis L.
85.	G	I	61RD00973	Clematis rehderiana Craib
86.	G	I	53ZE00658	Myosurus minimus L.

Rosaceae

87.	S	I	78ZS00010	Filipendula kamtschatica (Pall.) Maxim. USSR, Sachalin, Juzhnosachalinsk
88.	G	I	71RD00024	Spiraea japonica L.f. var. fortunei (Planch.) Rehd.

Rutaceae

89.	U	I	72RD00278	Zanthoxylum simulans Hance

Saxifragaceae

90.	S	I	78BL00473	Saxifraga fernandi-coburgii Kellerer & Suenderm. [CYT 20379] Greece, Gamila Mts., near Prissochori, August 2, 1976. Alt.: 1600m

Scrophulariaceae

91.	G	I	53ZE00754	Misopates orontium (l.) Raf.
92.	G	I	73ZS00019	Penstemon serrulatus Menz. ex J.E.Sm.
93.	G	I	71ZE00811	Zaluzianskya capensis (Benth.) Walp.

Sterculiaceae

94.	G	I	86GR00046	Abroma augusta (L.) L.f.

Styracaceae

95.	G	I	00ZG00121	Halesia carolina L. var. mollis (Lange) Perk.

Symplocaceae

96.	G	I	00ZG00909	Symplocos paniculata (Thunb.) Miq.

Taxodiaceae

97.	G	I	00ZG01861	Sciadopitys verticillata (Thunb.) Sieb. & Zucc.

Urticaceae

98.	G	I	54ZE02481	Urtica pilulifera L.

Verbenaceae

99.	G	I	76GR00299	Clerodendrum speciosissimum Van Geert

Zingiberaceae

100.	G	I	68GR00016	Globba marantina L. (syn.: G. schomburgkii J.D.Hook.) (bulbils)

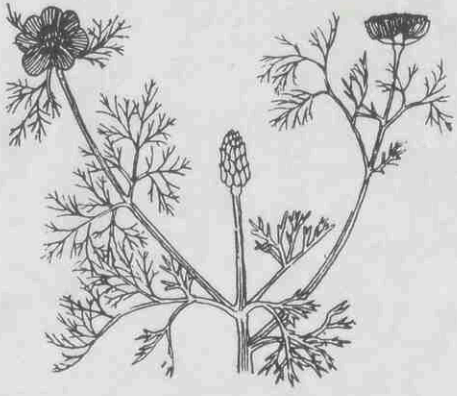

Fig. 4: Adonis aestivalis L.

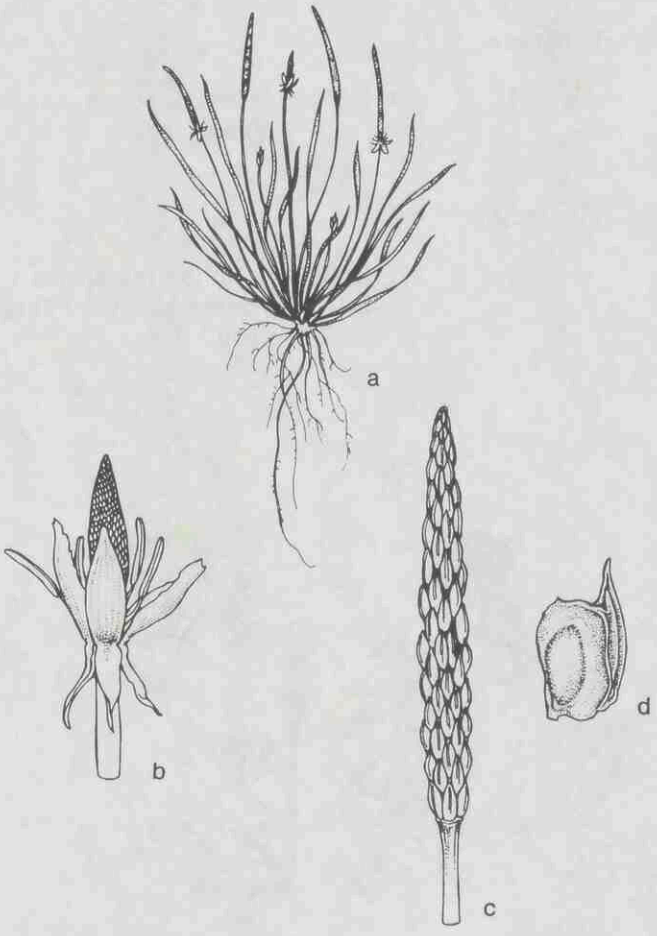

Fig. 5: Myosurus minimus L.; a. Habit, x½, b. Flower, x4, c. Fruiting head, x2½, d. Achene, x12½.

INQUIRY ABOUT THE SPECIALIZATIONS OF BOTANIC GARDENS

With this inquiry we hope to establish a co-operation with fellow botanic gardens to further develop our current expertise. Such a co-operation can be mutually advantageous (exchange of expertise, quality material, etc.), and can also be instrumental on reducing unnecessary duplication.
A specialization in the sense used here is a (taxonomic) group, which is given extra attention regarding verification, nomenclature, literature gathered, etc.

We intend a close co-operation with Botanic Gardens with specializations on one or more of the taxa mentioned on the next page. You are kindly requested to fill it out, and return it, even if you are not interested in co-operation, as the information thus gathered is also useful for dutch scientists and scientific institutes. If you indicated that you are interested in co-operation, you will be contacted subsequently.

On the next page you will find a survey of the Utrecht specializations. Other specializations are also of importance, as other Dutch Botanic Gardens may also be interested in such a co-operation. You can keep page 2 of this questionnaire for your own information.

QUESTIONNAIRE

Please circle the correct answer, and return this form only to:
Utrecht Botanic Gardens
P.O. Box 80.162
3508 TD Utrecht
The Netherlands

Name and full address of your institute:

Y/N Does your garden specialize in certain taxa

Y/N Are you interested in co-operation in this field?

List your specializations below, and characterize these according to the definitions on the next page (optional).

SPECIALIZATION	CHARACTERIZATION
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.	.
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The Botanic Gardens of Utrecht are developing the following specializations:

Research collections:

-Annonaceae (rsc,ib)
-Flora of the Guianas (rsc)
-Lactiferous plants: (rsc)
    -Euphorbia (id)
    -Hoya (id)

Garden specializations:

-Alpinous plants (ib,fp)
-selected woodland plants (Arisaema, Arisarum, Penstemon & Trillium (id,fi))
-Flora of the Guianas
    -Gesneriaceae (ib,fp)
    -Orchidaceae (ib,fp)
    -Zingiberaceae (ib,ref)
-Conifers (ib,fp)
    -Tsuga (id,fi)
-Broad-leaved hardy trees and shrubs:
    -Aceraceae (ib,fi)
    -Betulaceae (ib,fi)
        -Betula (id,fi)
    -Ericaceae (ib,fp)
    -Euonymus (id,fi)
    -Laburnum (id,fi)
    -Magnolia (ib,fi)
    -Oleaceae p.p.:
        -Fraxinus (ib,fi)
        -Syringa (ib,fi)

Definitions:

research collections

research collections are scientifically supported by the scientists working on that group, therefor the composition of this collection is not (solely) determined by Garden policy.

rsc	research collection:	collection for scientific (usually taxonomic) purposes. Such a collection can turn into a reference collection after the (taxonomic) research has been terminated.
ref	reference collection:	a well-documented specialization to which scientific publications preferably refer. Practically all material has been identified and the nomenclature is correct.

Garden specializations

These specialisations are given two qualifications, one stating the stage of development which the collection has reached so far, and one stating the nature of the specialization:

-stage of development:

fi	field of interest:	phase of building up, implicating a strong accent on introduction and study.
fp	Focal-point collection:	phase of maturity, implicating a strong accent on maintenance and publication.

-nature of the specialization:

ib	in-breadth specialization:	collection covering a relatively large group, e.g. a family, xerophytes, conifers, being a representative collection of such a group.
id	in-depth specialization:	collection covering a small, sharply defined group, such as a genus or part of one, aimed at reaching a large amount of completeness, including diversity within the species. Such a specialization can result in a reference collection.

----------DEVELOPMENT IN TIME---------->

in-breadth specialization (fi) -----> in-breadth specialization (fp)
in-depth specialization (fi) -----> in-depth specialization (fp) -----> reference collection

Please return this list, not the catalogue with the numbers you wish to receive duly marked to:

University Botanic Gardens
P.O. Box 80.162
3508 TD Utrecht
The Netherlands
tel.: 030 - 531826

(Your address)

1	21	41	61	81	101	121
2	22	42	62	82	102	122
3	23	43	63	83	103	123
4	24	44	64	84	104	124
5	25	45	65	85	105	125
6	26	46	66	86	106	126
7	27	47	67	87	107	127
8	28	48	68	88	108	128
9	29	49	69	89	109	129
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12	32	52	72	92	112	132
13	33	53	73	93	113	133
14	34	54	74	94	114	134
15	35	55	75	95	115	135
16	36	56	76	96	116	136
17	37	57	77	97	117	137
18	38	58	78	98	118	138
19	39	59	79	99	119	139
20	40	60	80	100	120	140

In 1991 the Utrecht University celebrates her 355th anniversary.