

**UNIVERSITY OF ZAGREB  
FACULTY OF SCIENCE – DIVISION OF BIOLOGY  
BOTANICAL DEPARTMENT AND BOTANICAL GARDEN**

# **The 115 Anniversary of the BOTANICAL GARDEN**

**✧ 1889 – 2004 ✧**

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## **DELECTUS SEMINUM 2004**

**E COLLECTIONE ANNI 2004**

**QUAE HORTUS BOTANICUS FACULTATIS SCIENTIARUM NATURALIUM  
UNIVERSITATIS ZAGRABIENSIS PRO MUTUA OFFERT COMMUTATIONE**



# BOTANICAL GARDEN of the Faculty of Science

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<http://public.srce.hr/botanic/biologija/biology/Delectus-Zagreb-2004.pdf>

## Director:

Professor Branka Pevalek-Kozlina

## Garden Manager:

Biserka Juretić, MSc

BSc

## Technical manager:

Katarina Senfner

BSc

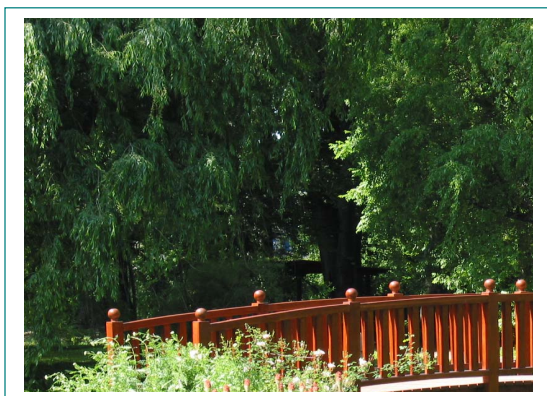


## Garden Assistants:

Sanja Kovačić, MSc  
Darko Mihelj, BSc  
Vanja Stamenković,

## Seed collector:

Dubravka Naumovski,



Renewed bridge

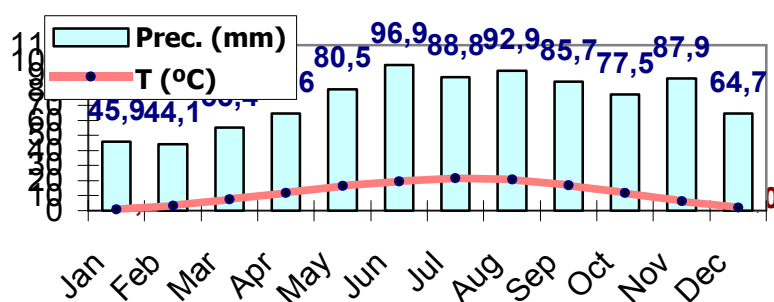


Renewed greenhouse

AREA OF THE GARDEN: 4.7 ha  
NUMBER OF TAXA: approx. 10 000  
CLIMATHOLOGICAL DATA (in course of 1960-1999):  
Abs max. annual temperature: 37.2 °C  
Abs min. annual temperature: -17.2 °C  
Mean annual precipitation: 889.9 mm  
Mean annual sunshine/hrs: 1832.5  
Mean annual days with snow ( $\geq 1$  cm): 32.5



The 115th Anniversary Exhibition



## **The 115 Anniversary of the Botanical Garden Faculty of Science, University of Zagreb**

The idea to found a botanical garden was mooted as far back as 1876 by Bohuslav Jiruš, then the first professor of botany at Zagreb University. However, the actual founder was Professor Antun Heinz DSc who, in 1889, together with head-gardener Viteslav Durchanek, drew up a plan for the Botanical Garden, this year thus being considered the year of its foundation. A year later the gardener's house (today the administration building) was constructed, the first works on the land began in 1891, and the first planting took place in 1892. From its very foundation, the Botanical Garden, together with the Botanical and Physiological Institute, belonged to the University, and later on became part of the Faculty of Philosophy, and then, in 1946, of the Faculty of Science of Zagreb University. At its beginnings, the Botanical Garden was used primarily for the purposes of teaching and scientific work, which has been its task down to the present day. Because of its great educational, cultural and historical as well as tourist value and its overall importance for the city of Zagreb and the Republic of Croatia, in 1971 the Botanical Garden was proclaimed a statutorily protected monument of nature and culture. The Botanical Garden lies today in the selfsame spot in which it came into being. In its foundations, the Garden has retained the original architecture, while over the course of years some of the details have changed, primarily in the western part of the Garden. The largest part of the Garden is occupied by the landscape garden and arboretum laid out in the landscape style. The flower parterre in the central part of the Garden is built in French style, with strictly symmetrical lines. Above the flower parterre are located the glasshouses. Many of the plants in them are placed outside in the summer (the palms, rubber plants, succulents, Mediterranean plants and so on). In the eastern part of the garden are two small ornamental lakes with water lilies. Wild flowers are allowed to grow in several groups defined according to plant geography. Lack of space for new plants, the mostly dilapidated buildings and the chronic shortage of money hamper the fulfilment of all our plans and our endeavours to enrich the contents and activities of the Garden. Nevertheless, in spite of all the difficulties, employees of the Garden, together with other professional and scientific institutions, vigorously devote themselves to research, the cultivation and protection of Croatian indigenous plants, and to providing information and ecological educational for students and schoolchildren and other visitors to the Garden. In the last few years considerable resources have been invested in the basic infrastructure of the Garden, the drawing-up of the documentation necessary for the renovation of certain facilities, the printing of educational and informative publications, etc.

**Ljerka Regula-Bevilacqua** and **Biserka Juretić**: Summary from the First Croatian Botanicay Symposium 2004. **More:** <http://hirc.botanic.hr/vrt/home.htm>

## SYMBOLS:

\* Seed and spores of native plant taxa, collected in their natural habitats.

Collectors: B. Juretić (1), S. Kovačić (2), D. Mihelj (3), Lj. Regula (4),  
D. Naumovski (5), A. Alegro (6).

☐ Seed and spores of known wild origin, cultivated in Botanical Garden

G Seed collected in greenhouses

! *Revid.*

## LITERATURE:

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## NOTIFICATION:

The seed for exchange is a result of open pollination, therefore we can not guarantee either its purity or germination. We invite our correspondents to kindly notify us with every mistake found, either in the name or in the dispatch of the species. Please, limit your order to **20 taxa** and send your *Desiderata* back by the **end of April 2005**.

We expect our colleagues to follow the principles of the Convention of Biological Diversity (Rio de Janeiro 1992) and CITES regulations, when using our plant material in horticultural, scientific or any other purpose.

**At its little more than 55.000 km<sup>2</sup>, Croatia has little less than 5500 taxa!**

## a. PTERIDOPHYTA

### a.1. FILICOPSIDA

#### ADIANTACEAE

- 1 **Adiantum** capillus-veneris L. G!
- 2 *Adiantum raddianum* C. Presl 'Gracillimum' G!
- 3 **Pellaea** atropurpurea (L.) Link G!
- 4 *Pellaea rotundifolia* (Forst.) Hook. G!

#### ASPIDIACEAE

- 5 **Blechnum** moorei C. Chr. G!
- 6 **Tectaria** cicutaria (L.) Copel !
- 7 **Thelypteris** palustris Schott !

#### ASPLENIACEAE

- 8 **Asplenium** adiantum-nigrum L. !
- 9 *Asplenium ceterach* L. □!
- 10 *Asplenium ceterach* L. f. *borbasiana* \*(6)!
- 11 *Asplenium fissum* Kit. et Willd. \*(2)!
- 12 *Asplenium ruta-muraria* L. \*(2)!
- 13 *Asplenium scolopendrium* L. □!
- 14 *Asplenium trichomanes* L. \*(2)!
- 15 *Asplenium trichomanes* L. !
- 16 *Asplenium trichomanes-ramosum* L. \*(2)!

#### DAVALLIACEAE

- 17 **Davallia** solida (G. Forst.) Sw. 'Superba' G!

#### DRYOPTERIDACEAE

- 18 **Cyrtomium** falcatum (L. f.) Presl G!
- 19 **Diacalpe** aspidioides Blume G!
- 20 **Dryopteris** filix-mas (L.) Schott. \*(2)!
- 21 *Dryopteris filix-mas* (L.) Schott. !
- 22 *Dryopteris villarii* (Bellardi) Woyнар ex Schinz et Thell. \*(2)!
- 23 **Polystichum** aculeatum (L.) Roth □!
- 24 *Polystichum lonchitis* (L.) Roth \*(2)!
- 25 *Polystichum setiferum* (Forssk.) Woyнар !

#### HYPOLEPIDACEAE

- 26 **Pteridium** aquilinum (L.) Kuhn. \*(2)!

#### NEPHROLEPIDACEAE

- 27 **Nephrolepis** exaltata (L.) Schott G!
- 28 *Nephrolepis exaltata* (L.) Schott var. *piersonii* F.R. Pierson G!
- 29 *Nephrolepis exaltata* (L.) Schott 'Selecta' G!
- 30 *Nephrolepis hirsutula* (G. Forst.) C. Presl G

OSMUNDACEAE

- 31 **Osmunda** regalis L. ☐!

POLYPODIACEAE

- 32 **Microsorium** punctatum (L.) Copel. G!  
33 **Niphidium** crassifolium (L.) Lellinger G!  
34 **Phlebodium** aureum (L.) J. Sm. G!  
35 *Phlebodium aureum* (L.) J. Sm. 'Umbellatum' G!  
36 **Polypodium** cambricum L. \*(3)!  
37 *Polypodium cambricum* L. ☐!  
38 *Polypodium longifolium* Mett. G  
39 *Polypodium polycarpon* Cav. G  
40 *Polypodium vulgare* L. \*(3)!  
41 *Polypodium vulgare* L. ☐!  
42 **Pyrrosia** nummularia (Swartz) Ching G!

PTERIDACEAE

- 43 **Pteris** biaurita L. G!  
44 *Pteris cretica* L. G!  
45 *Pteris cretica* L. 'Albo-Lineata' G!  
46 *Pteris cretica* L. 'Cristata' G!  
47 *Pteris cretica* L. 'Wimsettii' G!  
48 *Pteris multifida* Poir. G!  
49 *Pteris vittata* L. G!

WOODSIACEAE

- 50 **Cystopteris** fragilis (L.) Bernh. \*(2)  
51 *Cystopteris fragilis* (L.) Bernh. ☐!

b. MAGNOLIOPHYTA

b.1. CONIFEROPHYTINA

CEPHALOTAXACEAE

- 52 **Cephalotaxus** fortunei Hook !  
53 *Cephalotaxus harringtonia* (Knight ex J. Forbes) K. Koch  
54 *Cephalotaxus sinensis* (Rehder et Wilson) Li !

CUPRESSACEAE

- 55 **Calocedrus** decurrens (Toorey) Florin  
56 **Chamaecyparis** lawsoniana (A. Murray) Parl. 'Alumigold' !  
57 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Alumii' !  
58 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Columnaris' !  
59 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Fraseri' !  
60 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Globus' !

- 61 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Kelleris Gold'  
62 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Triumph  
van Boskoop' !  
63 *Chamaecyparis lawsoniana* (A. Murray) Parl. 'Versicolor' !  
64 *Chamaecyparis obtusa* (Siebold et Zucc.) Endlicher !  
65 *Chamaecyparis pisifera* (Siebold et Zucc.) Endlicher !  
66 *Chamaecyparis pisifera* (Siebold et Zucc.) Endlicher 'Filirea'  
67 **Cupressus sempervirens** L. \*(1)!  
68 *Cupressus sempervirens* L. 'Stricta' \*(2)!  
69 **Juniperus chinensis** L. 'Kaizuca' !  
70 *Juniperus communis* L. subsp. *nana* Syme \*(2)!  
71 *Juniperus excelsa* Bieb. !  
72 *Juniperus x media* Van Melle 'Heitzii'  
73 *Juniperus oxycedrus* L. \*(2)!  
74 *Juniperus oxycedrus* L. subsp. *macrocarpa* (Sibith. et Sm.) Ball \*(2)!  
75 *Juniperus phoenicea* L. \*(2)!  
76 *Juniperus virginiana* L. 'Glauca' !  
77 **Thuja occidentalis** L.  
78 *Thuja occidentalis* L. 'Compacta'  
79 *Thuja occidentalis* L. 'Holmstrup'  
80 *Thuja occidentalis* L. 'Malonyana'  
81 *Thuja orientalis* L.  
82 *Thuja orientalis* L. 'Aurea'  
83 *Thuja standishii* (Gordon) Carrière !

#### EPHEDRACEAE

- 84 **Ephedra fragilis** Desf. subsp. *campylopoda* (C.A. Mayer) Asch.  
et Graebn. \*(2)!

#### GINKGOACEAE

- 85 **Ginkgo biloba** L. !

#### PINACEAE

- 86 **Cedrus atlantica** (Endl.) Manetti ex Carr !  
87 **Larix decidua** Mill. !  
88 **Picea abies** (L.) H. Karst. 'Viminalis' !  
89 **Picea pungens** Engelm. !  
90 **Pinus mugo** Turra \*(2)!  
91 *Pinus peuce* Griseb. !  
92 *Pinus tabuliformis* Carrière  
93 *Pinus wallichiana* A.B. Jacks. !  
94 **Tsuga canadensis** (L.) Carrière

#### TAXACEAE

- 95 **Taxus baccata** L. !  
96 *Taxus baccata* L. 'Adpressa'  
97 *Taxus baccata* L. 'Fastigiata'

98 *Taxus cuspidata* Siebold et Zucc. 'Nana' !

#### TAXODIACEAE

- 99 **Cryptomeria japonica** (L. f.) D. Don. !  
100 **Cunninghamia lanceolata** (Lamb.) Hook. !  
101 **Taxodium distichum** (L.) Richard !

### b.2. MAGNOLIOPHYTINA

#### b.2.1. MAGNOLIOPSIDA

#### ACANTHACEAE

- 102 **Acanthus balcanicus** Heywood et I. Richardson ☐!  
103 *Acanthus mollis* L. !  
104 **Crossandra nilotica** Oliv. G!  
105 *Crossandra pungens* Lindau G!  
106 **Elytraria carolinensis** (Walter ex. F. Gmel.) Pers. G!  
107 *Elytraria virgata* Mchx. G!  
108 **Ruellia blumei** Steud. G!  
109 *Ruellia rosea* (Nees) Hemsl. G!

#### ACERACEAE

- 110 **Acer austriacum** Tratt. !  
111 *Acer buergerianum* Miq. !  
112 *Acer campestre* L. !  
113 *Acer cappadocicum* Gled. !  
114 *Acer carpinifolium* Siebold et Zucc. !  
115 *Acer davidii* Franch.  
116 *Acer diabolicum* Blume f. *purpurascens* (Franch. et Sav.) Rehder !  
117 *Acer heldreichii* Orph. subsp. *visianii* K. Maly !  
118 *Acer japonicum* Thunb. 'Aconitifolium' !  
119 *Acer monspessulanum* L.  
120 *Acer negundo* L. !  
121 *Acer negundo* L. 'Auratum' !  
122 *Acer palmatum* Thunb. ex Murray  
123 *Acer platanoides* L. !  
124 *Acer platanoides* L. 'Crimson King'  
125 *Acer platanoides* L. 'Leopoldii'  
126 *Acer pseudoplatanus* L. 'Purpurascens' !  
127 *Acer saccharinum* L. !  
128 *Acer tataricum* L. !

#### AIZOACEAE

- 129 **Aptenia cordifolia** (L. f.) N.E. Br.  
130 **Dicrocaulon spissum** N.E. Brown G  
131 **Glottiphyllum marlothii** Schwant. G



- 132 *Glottiphyllum salmii* (Haw.) N.E. Br. G  
 133 *Glottiphyllum fragrans* (Salm-Dyck) Schwant. G  
 134 **Machairophyllum** *albidum* (L.) Schwant. G  
 135 **Orthopterum** *waltoniae* L. Bolus G

#### AMARANTHACEAE

- 136 **Amaranthus** *caudatus* L. 'Red Tail' !  
 137 *Amaranthus* *cruentus* L. 'Hot Bisquits' !  
 138 *Amaranthus* *hypochondriacus* L.  
 139 *Amaranthus* *hypochondriacus* L. 'Black Leaved'  
 140 *Amaranthus* *paniculatus* L. 'Pigmy Torch'  
 141 *Amaranthus* *retroflexus* L. \*(2, 4)!  
 142 *Amaranthus* *tricolor* L. 'Hopi Red Dye' !  
 143 **Celosia** *argentea* L. var. *cristata* (L.) Kuntze 'Rubra' !  
 144 *Celosia* *argentea* L. *Plumosa* 'Feuerfeder' !  
 145 *Celosia* *argentea* L. *Plumosa* 'Goldfeder' !  
 146 *Celosia* *argentea* L. *Plumosa* 'Lutea' !  
 147 **Gomphrena** *globosa* L. 'Alba' !

#### ANACARDIACEAE

- 148 **Cotinus** *coggygria* Scop. ☐!  
 149 *Cotinus* *coggygria* Scop. 'Rubrifolius' !  
 150 **Pistacia** *lentiscus* L. \*(2)!

#### APIACEAE

- 151 **Ammi** *visnaga* (L.) Lam.  
 152 **Angelica** *sylvestris* L. \*(2)!  
 153 **Anthriscus** *sylvestris* (L.) Hoffm. !  
 154 **Astrantia** *carniolica* Jacq. ☐!  
 155 *Astrantia* *major* L. ☐!  
 156 *Astrantia* *major* L. var. *croatica* Tommasini \*(2)!  
 157 *Astrantia* *major* L. var. *illyrica* Borb. ☐!  
 158 **Carum** *carvi* L. !  
 159 **Chaerophyllum** *aromaticum* L.  
 160 *Chaerophyllum* *aureum* L. f. *glabriusculum* Koch !  
 161 *Chaerophyllum* *coloratum* L. \*(2)!  
 162 *Chaerophyllum* *hirsutum* L. ☐!  
 163 **Coriandrum** *sativum* L. !  
 164 **Crithmum** *maritimum* L. \*(2)!  
 165 **Daucus** *carota* L. \*(2)!  
 166 *Daucus* *carota* L. !  
 167 **Eryngium** *alpinum* L. \*(2)!  
 168 *Eryngium* *amethystinum* L. \*(2)!  
 169 *Eryngium* *amethystinum* L. !  
 170 *Eryngium* *caeruleum* M. B.  
 171 *Eryngium* *campestre* L. ☐!

- 172 *Eryngium giganteum* M.B. !  
 173 *Eryngium giganteum* M.B. 'Silver Ghost'  
 174 *Eryngium maritimum* L.  
 175 *Eryngium pandanifolium* Cham. et Schltldl.  
 176 *Eryngium yuccifolium* Michx. !  
 177 **Ferulago** campestris (Besser) Grec. ☐!  
 178 **Foeniculum** vulgare Mill. \*(2, 3)!  
 179 *Foeniculum vulgare* Mill. !  
 180 **Hacquetia** epipactis (Scop.) DC. ☐!  
 181 **Heracleum** sphondylium L. *s.l.* \*(2)!  
 182 **Laserpitium** latifolium L. \*(6)!  
 183 *Laserpitium peucedanoides* L. \*(6)!  
 184 *Laserpitium siler* L. \*(2)!  
 185 **Levisticum** officinale Koch !  
 186 **Oenanthe** aquatica (L.) Poir. \*(2)!  
 187 *Oenanthe pimpinelloides* L. ☐!  
 188 **Orlaya** grandiflora (L.) Hoffm. !  
 189 **Peucedanum** austriacum (Jacq.) Koch \*(2)!  
 190 *Peucedanum cervaria* (L.) Lapeyr. ☐!  
 191 **Pimpinella** saxifraga L. \*(2)!  
 192 **Portenschlagiella** ramosissima (Port.) Tutin \*(2)!  
 193 *Portenschlagiella ramosissima* (Port.) Tutin !  
 194 **Sanicula** europaea L. \*(3)!  
 195 *Sanicula europaea* L. ☐!  
 196 **Selinum** carvifolia (L.) L.  
 197 **Seseli** montanum L. \*(2)!  
 198 *Seseli montanum* L. subsp. *tommasinii* (Rchb.f.) Arcang. ☐!  
 199 **Smyrniium** olusatrum L. ☐!  
 200 *Smyrniium perfoliatum* L. ☐!  
 201 **Tordylium** apulum L. \*(1, 2, 3)!

#### APOCYNACEAE

- 202 **Amsonia** tabernaemontana Walt. !  
 203 **Carissa** carandas L. G  
 204 *Carissa macrocarpa* (Eckl.) A. DC. G  
 205 **Catharanthus** roseus (L.) G. Don G!  
 206 *Catharanthus roseus* (L.) G. Don *f. alba* G!

#### AQUIFOLIACEAE

- 207 **Ilex** aquifolium L. !  
 208 *Ilex latifolium* Thunb. !

#### ARALIACEAE

- 209 **Hedera** helix L. \*(2)!

## ARISTOLOCHIACEAE

- 210 **Aristolochia** clematitis L. !  
 211 Aristolochia littoralis Parodi G!  
 212 Asarum europeum L. ☐!

## ASCLEPIADACEAE

- 213 **Asclepias** currasavica L. G!  
 214 **Oxypetalum** caeruleum (D. Don) Decne  
 215 **Periploca** graeca L. ☐!  
 216 **Stephanotis** floribunda Brongn. G!  
 217 **Vincetoxicum** hirundinaria Medik. \*(3)!  
 218 Vincetoxicum hirundinaria Medik. !  
 219 Vincetoxicum hirundinaria Medik. subsp. adriaticum  
 (Beck) Markgr. \*(2)!

## ASTERACEAE

- 220 **Achillea** clavenae L. \*(2)!  
 221 Achillea distans Waldst. et Kit. ☐!  
 222 Achillea filipendulina Lam. !  
 223 Achillea filipendulina Lam. 'Cloth of Gold'  
 224 Achillea filipendulina Lam. 'Gold Plate' !  
 225 Achillea filipendulina Lam. 'Parker's Variety'  
 226 Achillea millefolium L. \*(2)!  
 227 Achillea millefolium L. !  
 228 Achillea ptarmica L. !  
 229 Achillea ptarmica L. 'Boule de Neige' !  
 230 Achillea serbica Nym. !  
 231 Achillea 'Summer Pastels' !  
 232 Achillea taygetea Boiss. et Heldr. !  
 233 **Adenostyles** alpina (L.) Bluff et Fingerh. \*(2)!  
 234 **Ageratum** houstonianum Mill. 'Blaue Kugel'  
 235 Ageratum houstonianum Mill. 'Blue Mink'  
 236 Ageratum houstonianum Mill. 'Nanum Compactum' !  
 237 **Ambrosia** artemisiifolia L. !  
 238 **Ammobium** alatum R. Br. !  
 239 **Anaphalis** margaritacea (L.) Benth. et Hook f. !  
 240 **Antennaria** dioica (L.) Gaertn. \*(2)!  
 241 Antennaria dioica (L.) Gaertn. 'Rubra' !  
 242 **Anthemis** segetalis Ten. \*(2)!  
 243 Anthemis tinctoria L. !  
 244 Anthemis tinctoria L. 'Wargrawe'  
 245 **Arctium** lappa L. !  
 246 **Arctotis** grandis Thunb.  
 247 **Arnica** chamissonis Less.  
 248 **Aster** alpinus L. ☐!  
 249 Aster alpinus L. 'Albus' !  
 250 Aster alpinus L. 'Dunkel Schöne'

- 251 *Aster alpinus* L. 'Dunkelscharlach'  
 252 *Aster alpinus* L. 'Roseus' !  
 253 *Aster amellus* L. 'Blütendecke'  
 254 *Aster bellidiastrum* (L.) Scop. \*(2)!  
 255 *Aster dumosus* L. 'Blue Bird'  
 256 *Aster dumosus* L. 'Lady in Blue'  
 257 *Aster dumosus* L. 'Lavanda'  
 258 *Aster dumosus* L. 'Prof. A. Kippenberg' !  
 259 *Aster farreri* W.W. Sm. et Jeffrey  
 260 *Aster linosyris* (L.) Benth. ☐!  
 261 *Aster novii-belgii* L. *hyb.* !  
 262 *Aster novae-angliae* L. 'Barr's Pink'  
 263 *Aster novae-angliae* L. 'Mount Everest'  
 264 *Aster novae-angliae* L. 'Rosette'  
 265 *Aster novae-angliae* L. 'Roter Stern'  
 266 *Aster novae-angliae* L. 'Roter Turm'  
 267 *Aster novae-angliae* L. 'Rubinschatz'  
 268 *Aster novi-belgii* L. 'Constance'  
 269 *Aster novi-belgii* L. 'Winston Churchill' !  
 270 *Aster pyrenaicus* Desf.  
 271 *Aster sedifolius* L. subsp. *illyricus* (Murb.) Merxm.  
 272 *Aster sibiricus* L.  
 273 *Aster tongolensis* Franch. !  
 274 *Aster umbellatus* L.  
 275 **Bellis** *perennis* L. ☐!  
 276 **Berkheya** *purpurea* (DC.) Mast.  
 277 **Bidens** *ferulifolia* (Jacq.) DC. !  
 278 *Bidens tripartita* L. \*(2)!  
 279 **Bracteantha** *bracteata* (Vent.) Anderb. et Haegi !  
 280 **Bupthalmum** *salicifolium* L. \*(2)!  
 281 *Bupthalmum salicifolium* L. ☐!  
 282 **Calendula** *arvensis* L. ☐!  
 283 *Calendula officinalis* L. 'Fiesta Gitana'  
 284 *Calendula officinalis* L. 'Red Tips'  
 285 **Callistephus** *chinensis* (L.) Nees *hyb.* !  
 286 *Callistephus chinensis* (L.) Nees 'Zwerg Wunder' !  
 287 **Carduus** *defloratus* L. subsp. *glaucus* Nyman ☐!  
 288 **Carthamus** 'Inermis' !  
 289 **Catananche** *caerulea* L. !  
 290 **Centaurea** *cyanus* L. !  
 291 *Centaurea fritschii* Hayek ☐ (2)!  
 292 *Centaurea fritschii* Hayek !  
 293 *Centaurea glaberrima* Tausch \*(2)!  
 294 *Centaurea jacea* L. *s.l.* ☐!  
 295 *Centaurea macrocephala* Puschk. ex Willd. !  
 296 *Centaurea montana* L.

- 297 *Centaurea nigra* L. !  
 298 *Centaurea pulcherrima* Willd. !  
 299 *Centaurea scabiosa* L.  
 300 *Centaurea solstitialis* L. \*(2)!  
 301 *Centaurea triumfetti* All. \*(2)!  
 302 **Chamomilla** *recutita* (L.) Rauchert \*(3)!  
 303 *Chamomilla recutita* (L.) Rauchert!  
 304 **Chrysanthemum** *carinatum* Schousb. 'Kokarde'  
 305 *Chrysanthemum frutescens* L.  
 306 *Chrysanthemum* × *spectabile* (Lilja) A. Nilsson 'Cecilia'  
 307 *Chrysanthemum tianschanicum* Krasch. ex Pavl.  
 308 **Chrysopsis** *villosa* (Pursh) Nutt. !  
 309 **Cirsium** *arvense* (L.) Scop. !  
 310 *Cirsium canum* (L.) All.  
 311 *Cirsium eriophorum* (L.) Scop. \*(2, 3)!  
 312 *Cirsium erisithales* (Jacq.) Scop. \*(2)  
 313 *Cirsium erisithales* (Jacq.) Scop. !  
 314 *Cirsium oleraceum* (L.) Scop. !  
 315 **Cnicus** *benedictus* L. !  
 316 **Conyza** *canadensis* (L.) Cronq. \*(2)!  
 317 **Coreopsis** *lanceolata* L. *fl. pleno* !  
 318 *Coreopsis pubescens* Elliot !  
 319 *Coreopsis* 'Sonnenkind'  
 320 **Cosmos** *bipinnatus* Cav. !  
 321 *Cosmos sulphureus* Cav.  
 322 *Cosmos sulphureus* Cav. 'Diabolo'  
 323 *Cosmos sulphureus* Cav. 'Orange Rable' !  
 324 *Cosmos sulphureus* Cav. 'Polidor Mixture' !  
 325 *Cosmos sulphureus* Cav. 'Sunny Red'  
 326 **Crepis** *rubra* L. \*(2)!  
 327 **Cynara** *scolymus* L. !  
 328 **Dimorphotheca** *pluvialis* (L.) Moench !  
 329 *Dimorphotheca sinuata* DC. !  
 330 **Dittrichia** *viscosa* (L.) W. Greuter \*(2)!  
 331 **Doronicum** *austriacum* Jacq. \*(3)!  
 332 *Doronicum austriacum* Jacq. !  
 333 *Doronicum orientale* Hoffm. !  
 334 **Echinacea** *purpurea* (L.) Moench 'Alba' !  
 335 *Echinacea purpurea* (L.) Moench 'Bright Star' !  
 336 *Echinacea purpurea* (L.) Moench *hyb.*  
 337 *Echinacea purpurea* (L.) Moench 'The King'  
 338 *Echinacea purpurea* (L.) Moench 'White Swan'  
 339 *Echinacea tennesseensis* (Beadle) Small  
 340 **Echinops** *ritro* L. ☐!  
 341 *Echinops ritro* L. subsp. *ruthenicus* (M.B.) Nyman  
 342 **Emilia** *coccinea* (Sims) G. Don

- 343 **Erigeron** annuus (L.) Pers. \*(2)!
- 344 Erigeron glabratus Hoppe et Hornsch. ex Bluff et Fing. \*(2)!
- 345 Erigeron karvinskianus DC. !
- 346 Erigeron 'Schönheit'
- 347 **Eupatorium** cannabinum L. \*(2, 3, 4)!
- 348 Eupatorium cannabinum L. !
- 349 Eupatorium vernale Vatke et Kurtz
- 350 **Felicia** amelloides (L.) Voss.
- 351 Felicia heterophylla (Cass.) Grau !
- 352 Felicia tenella (L.) Nees
- 353 **Gaillardia** aristata Pursh 'Flore Rubra'
- 354 Gaillardia aristata Pursh 'Kobold'
- 355 Gaillardia aristata Pursh 'Loueur de Torche' !
- 356 Gaillardia x grandiflora hort.
- 357 Gaillardia x grandiflora hort. (orange)
- 358 Gaillardia pulchella Foug. !
- 359 Gaillardia pulchella Foug. 'Plumot Rouge' !
- 360 **Grindelia** camporum Greene !
- 361 Grindelia integrifolia DC.
- 362 Grindelia nana Nutt. !
- 363 Grindelia squarosa (Pursh) Dunal
- 364 **Helenium** autumnale L. !
- 365 Helenium autumnale L. 'Clipperfeld Orange' !
- 366 Helenium 'Pumilum' !
- 367 **Helianthus** annuus L. !
- 368 Helianthus annuus L. 'Giganteus'
- 369 Helianthus annuus L. 'Kleinblütig'
- 370 Helianthus annuus L. 'Red Sun'
- 371 Helianthus decapetalus L.
- 372 Helianthus tuberosus L. \*(2)!
- 373 **Helichrysum** italicum (Roth) G. Don f. \*(2)!
- 374 **Heliopsis** scabra Dunal 'Zinniaeflora'
- 375 **Homogyne** sylvestris Cass. \*(2, 3)!
- 376 **Inula** chritmoides L. \*(2)!
- 377 Inula ensifolia L. !
- 378 Inula germanica L. □!
- 379 Inula hirta L.
- 380 Inula magnifica Lipsky !
- 381 Inula spiraefolia L.
- 382 Inula verbascifolia (Willd.) Hausskn. \*(2)!
- 383 Inula verbascifolia (Willd.) Hausskn. □
- 384 **Leibnitzia** anandria (L.) Turcz.
- 385 **Leontopodium** alpinum Cass. □!
- 386 Leontopodium souliei P. Beauv. 'Mignon' !
- 387 **Leucanthemum** adustum (Koch) Greml. \*(2)!
- 388 Leucanthemum adustum (Koch) Greml. !

- 389 *Leucanthemum maximum* (Ram.) DC. 'Beethoven'
- 390 *Leucanthemum maximum* (Ram.) DC. 'Giant'
- 391 *Leucanthemum maximum* (Ram.) DC. 'Mount Kosciuszko'
- 392 *Leucanthemum maximum* (Ram.) DC. 'Silberprincesschen' !
- 393 *Leucanthemum vulgare* Lam. !
- 394 *Leucanthemum vulgare* Lam. 'Maikönigin' !
- 395 ***Liatris elegans*** (L.) Willd. !
- 396 *Liatris punctata* Hook. !
- 397 *Liatris pycnostachya* Michx.
- 398 *Liatris scariosa* (L.) Willd. 'September Glory'
- 399 *Liatris spicata* (L.) Willd. 'Alba' !
- 400 ***Ligularia dentata*** (A. Gray) Hara !
- 401 *Ligularia sibirica* (L.) Cass. !
- 402 ***Madia elegans*** D. Don ex Lindl. !
- 403 ***Marshallia grandiflora*** Beadle et F.E. Boynton!
- 404 ***Onopordum illyricum*** L. ☐!
- 405 ***Pallenis spinosa*** (L.) Cass. \*(2)!
- 406 ***Petasites albus*** (L.) Gaertn. \*(5)!
- 407 ***Phagnalon rupestre*** (L.) DC. ☐!
- 408 ***Pulicaria vulgaris*** Gaertn. !
- 409 ***Rhodanthemum gayanum*** (Coss. et Durieu) Wilcox,  
K. Bremer et Humphries G!
- 410 ***Rudbeckia amplexicaulis*** (Vahl) Cass. !
- 411 *Rudbeckia fulgida* Ait. var. *sullivantii* (Boynton et Beadle)  
Cronq. 'Goldstrum' !
- 412 *Rudbeckia hirta* L. !
- 413 *Rudbeckia hirta* L. 'Herbstwald'
- 414 *Rudbeckia hirta* L. 'Indian Summer' !
- 415 *Rudbeckia hirta* L. 'Marmalade' !
- 416 *Rudbeckia hirta* L. 'Rustic Dwarf' !
- 417 *Rudbeckia laciniata* L. !
- 418 *Rudbeckia 'Tetragloriosa'* !
- 419 ***Santolina chamaecyparissus*** L. !
- 420 ***Sanvitalia procumbens*** Lam. !
- 421 ***Senecio doronicum*** (L.) L. \*(2, 3)!
- 422 *Senecio medley-woodii* Hutch. G
- 423 *Senecio ovatus* (P. Gaertn., B. Mey. et Scherb.) Willd. \*(2)!
- 424 *Senecio ovatus* (P. Gaertn., B. Mey. et Scherb.) Willd. ☐!
- 425 *Senecio vulgaris* L. \*(2)!
- 426 ***Serratula tinctoria*** L. \*(5)!
- 427 *Serratula tinctoria* L. ☐!
- 428 ***Silybum marianum*** (L.) Gaertn. !
- 429 ***Solidago canadensis*** L. \*(5)!
- 430 *Solidago canadensis* L. !
- 431 *Solidago 'Nana'* !
- 432 *Solidago rugosa* Mill. !

- 433 *Solidago uliginosa* Nutt.  
434 **Symphotrichum** firmum (L.) Á. Löve et D. Löve !  
435 **Stokesia** laevis (Hill) Greene !  
436 **Tagetes** erecta L. 'Alaska'  
437 *Tagetes erecta* L. 'Citron' !  
438 *Tagetes erecta* L. 'Pannonia'  
439 *Tagetes patula* L. 'Calico'  
440 *Tagetes patula* L. 'Disco Flame' !  
441 *Tagetes patula* L. 'Disco Orange'  
442 *Tagetes patula* L. 'Lemon Drop'  
443 *Tagetes patula* L. 'Petit Yellow'  
444 *Tagetes patula* L. 'Rubra Glow'  
445 *Tagetes patula* L. 'Safari Scarlet'  
446 *Tagetes patula* L. 'Sophi Red'  
447 **Tanacetum** balsamita L. !  
448 *Tanacetum cinerariifolium* (Trevir.) Sch. Bip. \*(2)!  
449 *Tanacetum coccineum* (Willd.) Grierson !  
450 *Tanacetum coccineum* (Willd.) Grierson 'Robinson's Red'  
451 *Tanacetum corymbosum* (L.) Sch. Bip. \*(2)!  
452 *Tanacetum corymbosum* (L.) Sch. Bip. □!  
453 *Tanacetum macrophyllum* (Waldst. et Kit.) Sch. Bip. !  
454 *Tanacetum parthenium* (L.) Sch. Bip. !  
455 *Tanacetum parthenium* (L.) Sch. Bip. 'Aureum' !  
456 *Tanacetum vulgare* L. \*(5)!  
457 **Taraxacum** officinale Weber *agg.* !  
458 **Telekia** speciosa (Schreb.) Baumg. !  
459 **Thymophylla** tenuiloba (DC.) Small 'Cascade' !  
460 **Tithonia** rotundifolia (Mill.) S. F. Blake !  
461 **Townsendia** exscapa (Richards.) Porter  
462 **Tragopogon** porrifolius L. \*(2)!  
463 *Tragopogon pratensis* L. !  
464 **Tussilago** farfara L. \*(1, 2)!  
465 *Tussilago farfara* L. !  
466 **Vernonia** noveboracensis (L.) Willd. !  
467 **Xanthium** strumarium L. !  
468 *Xanthium strumarium* L. subsp. *italicum* (Moretti) D.Löve (2)!  
469 **Zinnia** elegans *hyb.* Jacq. !  
470 *Zinnia elegans* Jacq. 'Persian Carpet' !  
471 *Zinnia elegans* Jacq. 'Profusion Orange'  
472 *Zinnia elegans* Jacq. 'Profusion Weiss'  
473 *Zinnia elegans* Jacq. 'Ruzova'

#### BALSAMINACEAE

- 474 **Impatiens** 'Accent Mixed'  
475 *Impatiens balsamina* L. 'Cameliaeflora' !



BASELLACEAE

- 476 **Basella** alba L. 'Rubra'

BEGONIACEAE

- 477 **Begonia** hirtella Link  
 478 *Begonia nelumbifolia* Cham. et Schlechtend. G!  
 479 *Begonia pearcei* Hook. f. G!  
 480 *Begonia palmaris* A.DC. G!  
 481 *Begonia* x *reichenheimii hort.* G  
 482 *Begonia schmidtiana* Regel G!  
 483 *Begonia Semperflorens* 'Carmen'  
 484 *Begonia Semperflorens* 'Feuermeer'  
 485 *Begonia Semperflorens* 'Flamingo' !  
 486 *Begonia Semperflorens* 'Indianerin'  
 487 *Begonia Semperflorens* 'Marche de Paris'  
 488 *Begonia Semperflorens* 'Papillon Rouge'  
 489 *Begonia Semperflorens* 'Rosa Perle'  
 490 *Begonia Semperflorens* 'Rote Perle'  
 491 *Begonia Semperflorens* 'Weisse Perle'

BERBERIDACEAE

- 492 **Berberis** aggregata C.K. Schneid. !  
 493 *Berberis amurensis* Rupr. !  
 494 *Berberis declinata* Schrad.  
 495 *Berberis diaphana* Maxim.  
 496 *Berberis edgeworthiana* C.K. Schneid. !  
 497 *Berberis emarginata* Willd. !  
 498 *Berberis francisci-ferdinandi* C.K. Schneid. !  
 499 *Berberis gagnepainii* C.K. Schneid. !  
 500 *Berberis heteropoda* Schrenk !  
 501 *Berberis jamesiana* Forrest et W.W. Smith !  
 502 *Berberis julianae* C.K. Schneid. !  
 503 *Berberis thunbergii* DC.  
 504 *Berberis thunbergii* DC. 'Atropurpurea' !  
 505 *Berberis thunbergii* DC. 'Atropurpurea Nana'  
 506 *Berberis* x *ottavensis* C.K. Schneid. 'Purpurea' !  
 507 *Berberis umbellata* D.Don.  
 508 *Berberis verna* C.K. Schneid.  
 509 *Berberis virgetorum* C.K. Schneid. !  
 510 *Berberis vulgaris* L. \*(2)!  
 511 *Berberis vulgaris* L. !  
 512 *Berberis wilsoniae* Hemsl. et E.H. Wilson !  
 513 *Berberis wilsoniae* Hemsl. var. *stapfiana* (C.K. Schneid.)  
 C.K. Schneid. !  
 514 **Nandina** domestica Thunb. ex Murray !

515 *Nandina domestica* Thunb. ex Murray 'Alba'

BETULACEAE

- 516 **Alnus** glutinosa (L.) Gartn. !  
517 *Alnus incana* (L.) Moench.  
518 *Alnus incana* (L.) Moench. subsp. *tenuifolia* (Nutt.) Breitung  
519 *Alnus japonica* (Thunb.) Steud. !  
520 *Alnus viridis* (Chaix) DC.  
521 **Betula** ermanii Cham. !  
522 *Betula pendula* Roth !  
523 *Betula pendula* Roth 'Youngii' !

BIGNONIACEAE

- 524 **Catalpa** bignonioides Walter !  
525 *Catalpa ovata* D. Don. !  
526 **Incarvillea** delavayi Bureau et Franch. !  
527 *Incarvillea olgae* Regel !

BORAGINACEAE

- 528 **Anchusa** azurea Mill.  
529 **Cynoglossum** creticum Mill. \*(2)!  
530 *Cynoglossum creticum* Mill. ☐!  
531 *Cynoglossum officinale* L. !  
532 *Cynoglossum* 'Blue Shower'  
533 **Echium** candicans L. fil.  
534 *Echium plantagineum* L. 'Blue Bedder' !  
535 *Echium russicum* J. F. Gmelin !  
536 **Heliotropium** arborescens L. 'Marine' !  
537 **Lithospermum** officinale L. \*(2)!  
538 *Lithospermum officinale* L. !  
539 *Lithospermum purpureocaeruleum* L. !  
540 **Moltkia** petraea (Tratt.) Griseb. ☐!  
541 **Myosotis** 'Ultramarine' !  
542 **Omphalodes** linifolia (L.) Moench  
543 *Omphalodes verna* Moench  
544 **Onosma** javorkae Simonkai  
545 **Pulmonaria** officinalis L. !  
546 *Pulmonaria rubra* Schott !  
547 **Symphytum** officinale L. \*(2)!  
548 *Symphytum officinale* L. !

BRASSICACEAE

- 549 **Aethionema** grandiflorum Boiss. et Hohen.  
550 *Aethionema saxatile* (L.) R. Br. \*(2)!  
551 **Alliaria** petiolata (M. Bieb.) Cavara et Grande !  
552 **Alyssoides** utriculata (L.) Medik. \*(2)!

- 553 **Alyssum** wulfenianum Bernh.
- 554 **Arabis** alpina L. ☐!
- 555 Arabis alpina L. 'Snow Cap'
- 556 Arabis blepharophylla Hook. et Arn. !
- 557 Arabis ferdinandi-coburgi Kellerer et Suend.
- 558 Arabis hirsuta (L.) Scop. \*(2)!
- 559 Arabis x suendermannii Kell. ex Suenderm. !
- 560 **Aubrieta** 'Blue Emperor'
- 561 Aubrieta deltoidea (L.) DC. !
- 562 Aubrieta 'Dr Mules'
- 563 Aubrieta 'Gartenstadt Purpur' !
- 564 Aubrieta 'Gloriosa'
- 565 Aubrieta 'Kaskade Purpur'
- 566 Aubrieta 'Kaskadenfeuer'
- 567 Aubrieta 'Leuchtfunk'
- 568 Aubrieta 'Vesuv'
- 569 **Aurinia** saxatilis (L.) Desv. 'Citrina' !
- 570 Aurinia saxatilis (L.) Desv. 'Compacta' !
- 571 Aurinia saxatilis (L.) Desv. 'Goldkugel' !
- 572 Aurinia sinuata (L.) Griseb. \*(2)!
- 573 Aurinia sinuata (L.) Griseb. ☐!
- 574 **Barbarea** vulgaris R. Br. !
- 575 **Biscutella** laevigata L. \*(2)!
- 576 Biscutella laevigata L. ☐!
- 577 **Bunias** erucago L. !
- 578 Bunias orientalis L. !
- 579 **Capsella** bursa-pastoris (L.) Medik. !
- 580 **Cardamine** bulbifera (L.) Crantz \*(1, 3, 4)!
- 581 Cardamine bulbifera (L.) Crantz ☐!
- 582 **Cardaminopsis** croatica (Schott, Nym. et Kot.) Jav. \*(2)!
- 583 **Clypeola** jonthlaspi L. \*(4)!
- 584 **Degenia** velebitica (Degen) Hayek ☐! (see page 63)
- 585 **Diplotaxis** tenuifolia (L.) DC. !
- 586 **Draba** aizoides L.
- 587 **Eruca** vesicaria (L.) Cav. subsp. sativa (Mill.) Thell. !
- 588 **Erysimum** cheiri (L.) Crantz
- 589 Erysimum cheiri (L.) Crantz 'Golden Gem' !
- 590 Erysimum cheiri (L.) Crantz 'Tom Thumb' !
- 591 Erysimum pulchellum (Willd.) Gay.
- 592 **Hesperis** matronalis L.
- 593 **Iberis** sempervirens L. 'Garrexiana'
- 594 Iberis sempervirens L. 'Schneeflocke' !
- 595 **Isatis** tinctoria L. !
- 596 **Kernera** saxatilis (L.) Rchb. \*(6)!
- 597 **Lobularia** maritima (L.) Desv. 'Violet' !
- 598 **Lunaria** annua L.

- 599 *Lunaria annua* L. 'Albiflora'  
 600 *Lunaria rediviva* L. \* (3)!  
 601 *Lunaria rediviva* L. □!  
 602 **Matthiola** incana (L.) R. Br. !  
 603 **Peltaria** alliacea Jacq. \* (3)!  
 604 **Sinapis** arvensis L. !  
 605 **Thlaspi** macrophyllum Hoffm. !

#### BUXACEAE

- 606 **Buxus** sempervirens L. 'Bullata'  
 607 **Sarcococa** hookeriana Baill. var. humilis Rehder et E.H. Wilson  
 608 *Sarcococa saligna* (D. Don.) Muell.

#### CACTACEAE

- 609 **Cereus** peruvianus (L.) Mill. G!  
 610 *Cereus uruguayanus* Kiesling 'Monstrosus' G!  
 611 **Mammillaria** heyderi Muehlenpf. G!  
 612 *Mammillaria mendeliana* (H. Bravo) Werd. G!  
 613 *Mammillaria nana* Backeb. G!  
 614 *Mammillaria prolifera* (Mill.) Haw. G!  
 615 *Mammillaria prolifera* (Mill.) Haw. f. *texana* (Engelm.) Krainz G!  
 616 *Mammillaria prolifera* (Mill.) Haw. var. *haitensis* (K. Dch.) Krainz G!  
 617 *Mammillaria pulchella* Salm.-Dyck G!  
 618 *Mammillaria pygmaea* (Britt. et Rose) Berger G!  
 619 **Pfeiffera** ianthothele (Monv.) F.A.C. Weber !  
 620 **Selenicereus** nelsonii (Weing.) Britton et Rose

#### CAESALPINIACEAE

- 621 **Caesalpinia** gilliesii (Wall. ex Hook.) Benth. □!  
 622 **Ceratonia** siliqua L. \* (5)!  
 623 **Senna** alexandrina Mill. G!  
 624 *Senna x floribunda* (Cav.) Irwin et Barneby G!

#### CALYCANTHACEAE

- 625 **Calycanthus** fertilis Walt.  
 626 *Calycanthus floridus* L. !  
 627 **Chimonanthus** praecox (L.) Link !

#### CAMPANULACEAE

- 628 **Adenophora** triphylla (Thunb.) A.DC. var. *hakusanensis* Kitam.  
 629 **Asyneuma** limonifolium (L. Janch.) \* (6)!  
 630 **Campanula** alliariifolia Willd. !  
 631 *Campanula americana* L. !  
 632 *Campanula carpatica* Jacq. 'Isabel'  
 633 *Campanula carpatica* Jacq. 'Turbinata'  
 634 *Campanula grossekii* Heuff. !

- 635 *Campanula justiniana* Witasek \* (2)!  
 636 *Campanula lactiflora* M. Bieb. !  
 637 *Campanula lanata* Friv.  
 638 *Campanula lanata* Friv. *fl. albo*  
 639 *Campanula lingulata* Waldst. et Kit. \* (1, 2)!  
 640 *Campanula makaschvilii* E. Busch !  
 641 *Campanula medium* L. !  
 642 *Campanula ochroleuca* (Kem.-Nath.) Kem.-Nath.  
 643 *Campanula persicifolia* L. \* (3)!  
 644 *Campanula persicifolia* L. ☐!  
 645 *Campanula persicifolia* L. 'Alba' !  
 646 *Campanula poscharskyana* Deg. ☐!  
 647 *Campanula punctata* Lam. !  
 648 *Campanula rapunculoides* L. !  
 649 *Campanula takesimana* Nakai  
 650 **Edraianthus** *graminifolius* (L.) A. DC. !  
 651 **Jasione** *laevis* Lam. 'Blaulicht'  
 652 **Laurentia** *longiflora* L. !  
 653 **Legousia** *speculum-veneris* (L.) Chaix \* (2)!  
 654 **Phyteuma** *orbiculare* L. \* (2, 3)!  
 655 *Phyteuma spicatum* L. \* (2)!  
 656 *Phyteuma spicatum* L. ☐!  
 657 *Phyteuma spicatum* L. subsp. *coerulescens* Bogenh. ☐!  
 658 **Platycodon** *grandiflorus* (Jacq.) A. DC. 'Albus' !  
 659 *Platycodon grandiflorus* (Jacq.) A. DC. 'Apoyama' !  
 660 *Platycodon grandiflorus* (Jacq.) A. DC. 'Mariesii' !  
 661 *Platycodon grandiflorus* (Jacq.) A. DC. 'Neuzeelandzweg' !  
 662 *Platycodon grandiflorus* (Jacq.) A. DC. 'Roseus' !  
 663 *Platycodon grandiflorus* (Jacq.) A. DC. 'Shell Pink' !  
 664 *Platycodon grandiflorus* (Jacq.) A. DC. 'Semiplenus' !  
 665 *Platycodon grandiflorus* (Jacq.) A. DC. 'White Flowers' !  
 666 **Symphandra** *hofmannii* Pant. !  
 667 **Trachelium** *caeruleum* L. !

#### CANNABACEAE

- 668 **Humulus** *lupulus* L. \* (2)!  
 669 *Humulus lupulus* L. !

#### CAPPARIDACEAE

- 670 **Cleome** 'Helen Campbel' !  
 671 *Cleome* 'Reine des Cerises' !  
 672 *Cleome* 'Rosa Queen' !  
 673 *Cleome* 'Violet Königin' !

#### CAPRIFOLIACEAE

- 674 **Kolkwitzia** *amabilis* Graebn. !

- 675 **Leycesteria** formosa Wall.  
676 **Lonicera** alpigena L. \*(1, 2, 3)!  
677 *Lonicera* x bella Zabel 'Candida'  
678 *Lonicera* chrysantha Turcz. !  
679 *Lonicera* fragrantissima Lindl. et Paxt. !  
680 *Lonicera* implexa Aiton \*(2)!  
681 *Lonicera* korolkowii Stapf. !  
682 *Lonicera* korolkowii Stapf. 'Zabelii' !  
683 *Lonicera* maackii (Rupr.) f. podocarpa Franch. ex Rehder !  
684 *Lonicera* microphylla Willd. ex Roem. et Schult. !  
685 *Lonicera* morrowii Gray !  
686 *Lonicera* nigra L. \*(2)!  
687 *Lonicera* nitida E.H. Wilson 'Elegant' !  
688 *Lonicera* pileata Oliv. !  
689 *Lonicera* quinquelocularis Hardw. !  
690 *Lonicera* tatarica L. !  
691 *Lonicera* xylosteum L. \*(1, 4)!  
692 **Sambucus** ebulus L. \*(3)!  
693 *Sambucus* nigra L. !  
694 *Sambucus* nigra L. \*(2, 4)!  
695 *Sambucus* racemosa L. \*(2)!  
696 **Symphoricarpos** albus (L.) S.F. Blake !  
697 *Symphoricarpos* albus (L.) S.F. Blake 'White Hedge'  
698 *Symphoricarpos* x chenaultii Rehder !  
699 *Symphoricarpos* doorenbosii Krüssm. !  
700 *Symphoricarpos* orbiculatus Moench !  
701 **Viburnum** burejaeticum Regel et Herder !  
702 *Viburnum* x burkwoodii Burkwood et Skipw. !  
703 *Viburnum* glomeratum Maxim !  
704 *Viburnum* lantana L. !  
705 *Viburnum* lantana L. f. viride Ker-Gawl. □!  
706 *Viburnum* opulus L. !  
707 *Viburnum* rhytidophyllum Hemsl. !  
708 *Viburnum* sargentii Koehne !  
709 *Viburnum* tinus L. \*(2)!  
710 *Viburnum* tinus L. !  
711 *Viburnum* tinus L. 'Variegatum' !  
712 *Viburnum* trilobum Marshall !  
713 *Viburnum* veitchii C.H. Wright !  
714 **Weigela** japonica Thunb. !  
715 *Weigela* 'Le Printemps'

#### CARYOPHYLLACEAE

- 716 **Agrostemma** githago L. !  
717 **Cerastium** biebersteinii DC.  
718 *Cerastium* glomeratum Thuill.

- 719 **Cucubalus** baccifer L. \*(4)!
- 720 **Dianthus** x allwoodii 'Alpinus' !
- 721 Dianthus anatolicus Boiss.
- 722 Dianthus barbatus L.
- 723 Dianthus brevicaulis Fenzl.
- 724 Dianthus carthusianorum L. !
- 725 Dianthus caryophyllus L. !
- 726 Dianthus deltoides L.
- 727 Dianthus deltoides L. *fl. albo* !
- 728 Dianthus deltoides L. 'Brillant'
- 729 Dianthus deltoides L. 'Flashing Light'
- 730 Dianthus deltoides L. 'Vampir'
- 731 Dianthus giganteus D'Urv. subsp. banaticus (Heuff.) Tutin !
- 732 Dianthus giganteus D'Urv. subsp. croaticus (Borb.) Tutin !
- 733 Dianthus gratianopolitanus Vill. 'Lilarosa'
- 734 Dianthus gratianopolitanus Vill. 'Nordstern'
- 735 Dianthus integer Vis. \*(2)!
- 736 Dianthus integer Vis. ☐!
- 737 Dianthus integer Vis. var bebius ☐!
- 738 Dianthus japonicus Thunb.
- 739 Dianthus 'Milene'
- 740 Dianthus knappii (Pant.) Aschers. !
- 741 Dianthus pavonius Tausch
- 742 Dianthus petraeus Waldst. et Kit. *s.l.* \*(2)!
- 743 Dianthus petraeus Waldst. et Kit. *s.l.* ☐!
- 744 Dianthus plumarius L. subsp. praecox (Kit.) Hayek !
- 745 Dianthus pyrenaicus Pourret
- 746 Dianthus sylvestris Wulfen in Jacq. subsp. tergestinus  
(Reichenb.) Hayek ☐
- 747 Dianthus sternbergii Siebold ex Capelli
- 748 Dianthus tenuifolius Schur.
- 749 Dianthus uralensis Korsh.
- 750 Dianthus velebiticus Borbas ☐!
- 751 **Drypis** spinosa L. subsp. jacquiniana Murb. et Wettst.  
ex Murb. Lunds. \*(2)!
- 752 **Gypsophila** elegans Bieb. 'Covent Garden' !
- 753 Gypsophila paniculata L. !
- 754 Gypsophila paniculata L. 'Schneeflöcke' !
- 755 Gypsophila repens L. !
- 756 **Lychnis** 'Arkwrightii'
- 757 Lychnis chalcedonica L. !
- 758 Lychnis chalcedonica L. 'Alba' !
- 759 Lychnis coronaria (L.) Desr.
- 760 Lychnis coronaria (L.) Desr. 'Atropurpurea' !
- 761 Lychnis flos-cuculi L. !
- 762 Lychnis flos-jovis (L.) Desr. !

- 763 *Lychnis x hageana* Regel  
764 *Lychnis viscaria* L. !  
765 *Lychnis viscaria* L. subsp. *atropurpurea* (Griseb.) Chater !  
766 *Lychnis viscaria* L. 'Splendens Plena' !  
767 **Minuartia** *verna* (L.) Hiern *s.l.* \*(3)!  
768 *Minuartia verna* (L.) Hiern subsp. *collina* (Neilr.) Domin. \*(2)!  
769 **Paronychia** *kapela* (Hacq.) A. Kerner \*(2)!  
770 **Petrorhagia** *saxifraga* (L.) Link ☐!  
771 **Saponaria** *officinalis* L. !  
772 *Saponaria officinalis* L. *fl. pleno* !  
773 **Scleranthus** *annuus* L. ☐!  
774 **Silene** *alpestris* Jacq. ☐  
775 *Silene armeria* L. !  
776 *Silene colorata* Poir.  
777 *Silene latifolia* Poir.  
778 *Silene latifolia* Poir. subsp. *alba* (Mill.) Greuter et Burdet ☐!  
779 *Silene nutans* L. !  
780 *Silene nutans* L. subsp. *livida* (Will.) Jeanmond et Bocquet ☐!  
781 *Silene reichenbachii* Vis. \*(6)!  
782 *Silene schafta* S. G. Gmel. ex Hohen.  
783 *Silene viridiflora* L.  
784 *Silene vulgaris* (Moench.) Garcke \*(2)!  
785 *Silene vulgaris* (Moench.) Garcke ☐!  
786 *Silene zawadzki* Herbich !  
787 *Stellaria holostea* L. !  
788 **Vaccaria** *hispanica* (Mill.) Rausch. !

#### CELASTRACEAE

- 789 **Celastrus** *orbiculatus* Thunb. !  
790 *Celastrus scandens* L. !  
791 **Euonymus** *alatus* (Thunb.) Siebold !  
792 *Euonymus europaeus* L. \*(2, 4)!  
793 *Euonymus fortunei* (Turcz.) Hand.-Mazz. 'Kewensis' !  
794 *Euonymus grandiflorus* Wall.  
795 *Euonymus latifolius* (L.) Mill. ☐!  
796 *Euonymus latifolius* (L.) Mill. !

#### CHENOPODIACEAE

- 797 **Chenopodium** *bonus-henricus* L. !

#### CICHORIACEAE

- 798 **Aposeris** *foetida* (L.) Less. \*(1, 3)!  
799 **Cicerbita** *alpina* (L.) Wallr. !  
800 **Cichorium** *intybus* L. \*(2)!  
801 *Cichorium intybus* L. !  
802 **Hieracium** *murorum* L. \*(3)!





- 843 *Hypericum* x *inodorum* Willd.  
 844 *Hypericum montanum* L. \*(2)!  
 845 *Hypericum* x *moserianum* André  
 846 *Hypericum olympicum* L. !  
 847 *Hypericum perforatum* L. \*(2)!  
 848 *Hypericum perforatum* L. □!

#### CONVOLVULACEAE

- 849 ***Calystegia*** *sepium* (L.) R. Br. \*(2)!  
 850 ***Convolvulus*** *sabatius* Viv. !  
 851 *Convolvulus tricolor* L. !  
 852 ***Ipomoea*** *coccinea* L. !  
 853 *Ipomoea lobata* (Cerv.) Thell. !  
 854 *Ipomoea* x *multifida* (Rafin) Shinnars !  
 855 *Ipomoea tricolor* Cav. 'Ciel Blue' !  
 856 *Ipomoea tricolor* Cav. 'Scarlet O'Hara' !

#### CORIARIACEAE

- 857 ***Coriaria*** *japonica* Gray  
 858 *Coriaria myrtifolia* L.

#### CORNACEAE

- 859 ***Aucuba*** *japonica* Thunb. ex Murray !  
 860 *Aucuba japonica* Thunb. ex Murray 'Variegata' !  
 861 ***Cornus*** *ericea* L. 'Baileyi' !  
 862 *Cornus florida* L. !  
 863 *Cornus kousa* Hance !  
 864 *Cornus mas* L. !  
 865 *Cornus paucinervis* Hance !  
 866 *Cornus sanguinea* L. \*(2, 3)!  
 867 *Cornus sericea* L. !  
 868 *Cornus sericea* L. 'Baileyi' !  
 869 *Cornus stolonifera* Michx.  
 870 *Cornus stricta* Lam. !

#### CORYLACEAE

- 871 ***Carpinus*** *betulus* L. !  
 872 *Carpinus orientalis* Mill. \*(2)!  
 873 *Carpinus orientalis* Mill. !  
 874 ***Corylus*** *avellana* L. \*(2)!  
 875 *Corylus colurna* L. !  
 876 *Corylus maxima* Mill. 'Purpurea' !  
 877 ***Ostrya*** *carpinifolia* Scop. !

#### CRASSULACEAE

- 878 ***Aeonium*** *tabuliforme* (Haw.) Webb et Berth. G!

- 879 **Aichryson** punctatum (C.A. Sm.) Webb et Barth. G  
880 **Chiastophyllum** oppositifolium (Ledeb. ex Nordm.) Berger !  
881 **Echeveria** pulvinata Rose  
882 **Greenovia** aurea (C.A. Sm.) Webb et Barth. G  
883 **Kalanchöe** blossfeldiana Poelln. G  
884 Kalanchöe flammea Stapf. G  
885 Kalanchöe tashiroi Yamam. G  
886 **Rhodiola** rosea L. ☐!  
887 **Sedum** album L. \*(2)!  
888 Sedum album L. ☐!  
889 Sedum floriferum Praeg. !  
890 Sedum hirsutum All. subsp. baeticum Rouy  
891 Sedum hispanicum L.  
892 Sedum kamtschaticum Fisch. et C. A. Mey.  
893 Sedum kamtschaticum subsp. ellacombianum  
(Praeg.) R.T. Clausen !  
894 Sedum ochroleucum Chaix \*(6)!  
895 Sedum rupestre L. !  
896 Sedum selskianum Regel et Maack  
897 Sedum spectabile Boreau  
898 Sedum spurium Bieb. !  
899 Sedum spurium Bieb. 'Schorbusser Blut' !  
900 Sedum telephium L. subsp. maximum (L.) Krockner !  
901 Sedum telephium L. var. purpureum (Link) Schinz. et Keller !  
902 **Sempervivum** tectorum L. !  
903 **Umbilicus** horizontalis (Guss.) DC. \*(2)!  
904 Umbilicus rupestris (Salisb.) Dandy G!

#### CUCURBITACEAE

- 905 **Bryonia** dioica Jacq. \*(4)!  
906 Bryonia dioica Jacq. !  
907 **Cucumis** africanus L. fil. !  
908 **Cucurbita** foetidissima Kunth !  
909 Cucurbita pepo L. subsp. pepo convar. giromantina  
'Early Prolific Straightneck'  
910 **Ecballium** elaterium (L.) A. Rich. \*(2)!  
911 Ecballium elaterium (L.) A. Rich. !  
912 **Echinocystis** lobata (Michx.) Torr. et Gray \*(2)!  
913 **Momordica** balsamina L.  
914 Momordica charantia L. !  
915 **Trichosanthes** cucumerina L. var. anguina (L.) Haines G!

#### DIPSACACEAE

- 916 **Cephalaria** gigantea (Lederb.) Bobrov !  
917 Cephalaria leucantha (L.) Roem. et Schult. \*(1)!  
918 Cephalaria leucantha (L.) Roem. et Schult. ☐!

- 919 *Cephalaria leucantha* (L.) Roem. et Schult. f. *scopoliana* \* (2)!
- 920 **Dipsacus** *fullonum* L. !
- 921 **Knautia** *arvensis* (L.) Coult. ☐!
- 922 *Knautia dipsacifolia* Kreutzer ☐!
- 923 **Lomelosia** *graminifolia* (L.) Greut. et Burd. \* (6)!
- 924 **Morina** *longifolia* Wall. !
- 925 **Scabiosa** *canescens* Waldst. et Kit.
- 926 *Scabiosa caucasica* M. Bieb. !
- 927 *Scabiosa caucasica* M. Bieb. 'Alba'
- 928 *Scabiosa columbaria* L. 'Alpina Nana' !

#### EBENACEAE

- 929 **Diospyros** *kaki* L. !
- 930 *Diospyros lotus* L. !

#### ELAEAGNACEAE

- 931 **Elaeagnus** *multiflora* Thunb. !
- 932 *Elaeagnus umbellata* Thunb. !
- 933 **Hippophaë** *rhamnoides* L.

#### ERICACEAE

- 934 **Arbutus** *unedo* L. ☐!
- 935 **Arctostaphylos** *uva-ursi* (L.) Spreng. \* (2)!
- 936 **Erica** *arborea* L. \* (2)!
- 937 *Erica manipuliflora* Salisb. \* (2)!
- 938 **Vaccinium** *myrtillus* L. \* (2)!

#### ERYTHROXYLACEAE

- 939 **Erythroxylum** *coca* Lam. G!

#### EUPHORBIACEAE

- 940 **Dalechampia** *scandens* L. G
- 941 **Euphorbia** *amygdaloides* L. !
- 942 *Euphorbia characias* L. subsp. *wulfenii* (Hoppe ex W.D.J.Koch) !
- 943 *Euphorbia cyparissias* L. !
- 944 *Euphorbia globosa* (Haw.) Sims. !
- 945 *Euphorbia marginata* Pursh !
- 946 **Glochidion** *wilsonii* Hutch. !
- 947 **Ricinus** *communis* L. !
- 948 *Ricinus communis* L. 'Carmencita' !
- 949 *Ricinus communis* L. 'Sanguineus' !
- 950 **Securinega** *suffruticosa* (Pall.) Rehder !

#### FABACEAE

- 951 **Albizia** *julibrissin* Durazz. !
- 952 **Amorpha** *californica* Nutt. ex Torr. et A. Gray !



- 998 **Leonurus** cardiaca L.
- 999 **Lespedeza** bicolor Turcz.
- 1000 **Lotus** corniculatus L.      \*(2)!
- 1001 **Lupinus** polyphyllus Lindl.      !
- 1002 **Lupinus** *hyb.* (white)
- 1003 **Lupinus** x *regalis* Bergmans 'Sundown'
- 1004 **Lupinus** 'Russel Hybrids'      !
- 1005 **Medicago** lupulina L.      ☐!
- 1006 **Medicago** minima (L.) L.      \*(2)!
- 1007 **Medicago** orbicularis (L.) Bartal.      \*(2)!
- 1008 **Medicago** sativa L.      !
- 1009 **Melilotus** officinalis (L.) Lam.      !
- 1010 **Mimosa** pudica L.      !
- 1011 **Onobrychis** montana DC.
- 1012 **Oxytropis** dinarica (Murb.) Wettst. subsp. *velebitica*  
Chrtek et Chrtková      \*(2)!
- 1013 **Petteria** ramentacea (Sieber) C. Presl      !
- 1014 **Phaseolus** coccineus L.      !
- 1015 **Phaseolus** coccineus L. 'Goliath'
- 1016 **Phaseolus** coccineus L. 'Stremline'
- 1017 **Phaseolus** coccineus L. 'Sunset' *fl. roseo*
- 1018 **Phaseolus** coccineus L. var. *rubronanus* 'Hammond's Dwarf Scarlett'
- 1019 **Psoralea** onobrychis Nutt.
- 1020 **Rhynchosia** densiflora DC.      G
- 1021 **Rhynchosia** phaseoloides DC.      G!
- 1022 **Rhynchosia** pyramidalis (Greek.) Urb.      G
- 1023 **Robinia** pseudacacia L.      \*(2, 5)!
- 1024 **Securigera** securidaca (L.) Degen et Dörfl.      ☐!
- 1025 **Spartium** junceum L.      \*(2)!
- 1026 **Tetragonolobus** maritimus (L.) Roth.      ☐!
- 1027 **Trifolium** alpestre L.      \*(2)!
- 1028 **Trifolium** angustifolium L.      \*(6)!
- 1029 **Trifolium** montanum L.      \*(2, 7)!
- 1030 **Trifolium** montanum L.      ☐!
- 1031 **Trifolium** pratense L.      !
- 1032 **Trifolium** rubens L.      !
- 1033 **Trifolium** stellatum L.      \*(4)!
- 1034 **Trigonella** foenum-graecum L.      !
- 1035 **Vicia** cracca L.      \*(2)!
- 1036 **Vicia** cracca L.      !
- 1037 **Vicia** ochroleuca Ten. subsp. *dinara* (K. Maly) Rohlena      \*(6)!
- 1038 **Vicia** oroboides Wulfen      \*(3)!
- 1039 **Vicia** sativa L.      !
- 1040 **Vicia** sepium L.      \*(3)!
- 1041 **Vigna** unguiculata (L.) Valp. subsp. *cylindrica* (L.) Van Eselt.

FAGACEAE

- 1042 **Fagus** sylvatica L. \*(2)!  
 1043 Fagus sylvatica L. ☐!

FUMARIACEAE

- 1044 **Capnoides** sempervirens (L.) Borkh. !  
 1045 **Corydalis** cava (L.) Schweigg. et Koerte !  
 1046 Corydalis cheilanthifolia Hemsl. !  
 1047 **Dicentra** spectabilis (L.) Lem. !  
 1048 Dicentra spectabilis (L.) Lem. 'Alba' !  
 1049 **Pseudofumaria** lutea (L.) Borkh. !

GENTIANACEAE

- 1050 **Gentiana** asclepiadea L. ☐!  
 1051 Gentiana clusii Perr. et Song. ☐!  
 1052 Gentiana cruciata L. \*(4)!  
 1053 Gentiana cruciata L. ☐!  
 1054 Gentiana cruciata L. !  
 1055 Gentiana lutea L. subsp. symphyandra (Murb.) Hayek \*(2)!  
 1056 Gentiana pneumonanthe L. \*(5)!  
 1057 Gentiana septemfida Pall. 'Grossheimii'  
 1058 Gentiana walujewii Regel et Schmalh. var. kesselringii (Regel) Kusn.

GERANIACEAE

- 1059 **Geranium** dalmaticum (Beck) Rech. f. ☐!  
 1060 Geranium himalayense Klotzsch  
 1061 Geranium macrorrhizum L. \*(7)!  
 1062 Geranium macrorrhizum L. ☐!  
 1063 Geranium pratense L. 'Album' !  
 1064 Geranium sanguineum L.  
 1065 Geranium sanguineum L. var. prostratum (Cav.) Pers.  
 1066 Geranium sylvaticum L. !  
 1067 Geranium thunbergii Siebold ex Lindl. et Paxton

GESNERIACEAE

- 1068 **Gloxinia** sylvatica (Humb., Bonpl. et Kunth) Wiehler G!  
 1069 **Ramonda** myconi (L.) Rchb.  
 1070 **Ramonda** serbica Pančić !  
 1071 **Streptocarpus** rexii Lindl. G

GLOBULARIACEAE

- 1072 **Globularia** cordifolia L. subsp. bellidifolia (Ten.) Wettst. \*(2, 3)!  
 1073 Globularia cordifolia L. subsp. bellidifolia (Ten.) Wettst. ☐!  
 1074 Globularia meridionalis (Podp.) Schwarz !

## GROSSULARIACEAE

- 1075 **Ribes** alpinum L. var. pallidigemum Simonkai \* (2)!  
 1076 **Ribes** fasciculata Siebold et Zucc. !

## HALORAGACEAE

- 1077 **Haloragis** erecta (Banks ex Murray) Eichler

## HAMAMELIDACEAE

- 1078 **Corylopsis** sinensis Hemsl. var. glandulifera Rehder et Wilson !  
 1079 **Corylopsis** spicata Siebold et Zucc. !

## JUGLANDACEAE

- 1080 **Carya** cordiformis (Wangenh.) K. Koch !  
 1081 **Carya** illinoensis (Wangenh.) K. Koch !  
 1082 **Juglans** ailantifolia Carriere !  
 1083 **Juglans** mandshurica Maxim. !  
 1084 **Juglans** nigra L. !  
 1085 **Juglans** regia L. !  
 1086 **Platycarya** strobilacea Siebold et Zucc. !  
 1087 **Pterocarya** fraxinifolia (Lam.) Spach  
 1088 **Pterocarya** x rehderiana C.K. Schneid. !  
 1089 **Pterocarya** stenoptera C. DC. !

## LAMIACEAE

- 1090 **Acinos** alpinus (L.) Moench \* (2)!  
 1091 **Acinos** alpinus (L.) Moench ☐!  
 1092 **Agastache** foeniculum (Pursh) Kuntze !  
 1093 **Ajuga** genevensis L. ☐!  
 1094 **Ajuga** reptans L. !  
 1095 **Ajuga** reptans L. 'Atropurpurea' !  
 1096 **Ballota** nigra L. !  
 1097 **Dracocephalum** argunense Fisch. ex Link  
 1098 **Dracocephalum** moldavica L. !  
 1099 **Dracocephalum** ruyschiana L. !  
 1100 **Horminum** pyrenaicum L. ☐!  
 1101 **Hyssopus** officinalis L. subsp. aristatus (Godron) Briq.  
 1102 **Lamium** album L. !  
 1103 **Lamium** orvala L. ☐!  
 1104 **Lavandula** angustifolia Mill. subsp. angustifolia !  
 1105 **Lavandula** angustifolia Mill. 'Rosea' !  
 1106 **Lavandula** angustifolia Mill. 'Hidcote Blue'  
 1107 **Lavandula** angustifolia Mill. 'Mundstead'  
 1108 **Lavandula** angustifolia Mill. subsp. pyrenaica (DC.) Guinea  
 1109 **Lavandula** latifolia Medik. !



- 1110 *Lavandula stoechas* L. subsp. *pedunculata* (Mill.) Samp.  
ex Rozeiera !
- 1111 **Leonotis** *leonurus* (L.) R. Br. !
- 1112 *Leonotis nepetifolia* (L.) R. Br.
- 1113 **Leonurus** *cardiaca* L. !
- 1114 **Lycopus** *europaeus* L. \*(2)!
- 1115 **Marrubium** *incanum* Desr. !
- 1116 *Marrubium peregrinum* L. !
- 1117 *Marrubium vulgare* L. ☐!
- 1118 **Melissa** *officinalis* L. \*(6)!
- 1119 *Melissa officinalis* L. ☐!
- 1120 *Melissa officinalis* L. !
- 1121 *Melissa officinalis* L. 'Aurea' !
- 1122 **Melittis** *melissophyllum* L. ☐!
- 1123 *Melittis melissophyllum* L. subsp. *albida* (Guss.) P.W. Ball ☐!
- 1124 **Mentha** *piperita* L.
- 1125 **Micromeria** *juliana* (L.) Rchb. \*(2)!
- 1126 **Monarda** *citriodora* Cerv. ex Lag. !
- 1127 *Monarda didyma* L. 'Salmonea'
- 1128 *Monarda didyma* L. 'Squaw'
- 1129 *Monarda didyma* L. 'Violacea'
- 1130 *Monarda fistulosa* L. !
- 1131 **Nepeta** *grandiflora* Bieb. !
- 1132 *Nepeta sibirica* L. 'Souvenir d' Andre Chaudron' !
- 1133 *Nepeta nuda* L. !
- 1134 **Ocimum** *basilicum* L. *cult.* !
- 1135 **Origanum** *vulgare* L. !
- 1136 **Perilla** *frutescens* (L.) Britt.
- 1137 **Phlomis** *fruticosa* L. \*(2, 4)!
- 1138 *Phlomis fruticosa* L. ☐!
- 1139 *Phlomis tuberosa* L. !
- 1140 **Physostegia** *virginiana* (L.) Benth. 'Alba' !
- 1141 *Physostegia virginiana* (L.) Benth. 'Summer Snow' !
- 1142 *Physostegia virginiana* (L.) Benth. 'Vivid' !
- 1143 **Prunella** *grandiflora* (L.) Scholler 'Rubra'
- 1144 *Prunella laciniata* (L.) L. ☐!
- 1145 *Prunella vulgaris* L. \*(2)!
- 1146 *Prunella vulgaris* L. ☐!
- 1147 **Salvia** *argentea* L. !
- 1148 *Salvia bertolonii* Vis. ☐!
- 1149 *Salvia coccinea* Buc'hoz ex Etl. 'Coral Nymph' !
- 1150 *Salvia coccinea* Buc'hoz ex Etl. 'Lady in Red'
- 1151 *Salvia farinacea* Benth. 'Blue Bedder'
- 1152 *Salvia farinacea* Benth. 'Victoria Blue'
- 1153 *Salvia forskahlei* L. !
- 1154 *Salvia glutinosa* L. \*(2)!

- 1155 *Salvia glutinosa* L.   ☐!  
 1156 *Salvia hians* Royle   !  
 1157 *Salvia macrosiphon* Boiss.  
 1158 *Salvia officinalis* L.   \*(3)!  
 1159 *Salvia officinalis* L.   ☐!  
 1160 *Salvia peloponnesiaca* Boiss. et Heldr.   !  
 1161 *Salvia pratensis* L.   \*(2)!  
 1162 *Salvia pratensis* L.   !  
 1163 *Salvia pratensis* L. *fl. albo*   !  
 1164 *Salvia pratensis* L. subsp. *vulgaris* (Rchb.) Briq. var.  
       *vulgaris* Rchb. f. *rubicunda* (Wend.) Voss-Vilmorin   ☐!  
 1165 *Salvia ringens* Sibth. et Sm.  
 1166 *Salvia splendens* Sello 'Scarlet Piccolo'   !  
 1167 *Salvia splendens* Sello *hyb.* (purple)  
 1168 *Salvia verbenaca* L.   ☐!  
 1169 *Salvia verticillata* L.   ☐!  
 1170 *Salvia verticillata* L. 'Purple Rain'  
 1171 *Salvia viridis* L. 'Pink Sunday'  
 1172 **Satureja** *montana* L.   \*(2)!  
 1173 *Satureja montana* L.   ☐!  
 1174 *Satureja montana* L. subsp. *illyrica* (Host.) Nym.   ☐!  
 1175 **Scutellaria** *alpina* L.   \*(1)!  
 1176 *Scutellaria alpina* L.   !  
 1177 *Scutellaria altissima* L.   ☐!  
 1178 *Scutellaria orientalis* L.   ☐!  
 1179 **Sideritis** *hyssopifolia* L.   !  
 1180 **Solenostemon** *scutellarioides* (L.) Codd *hyb.*   !  
 1181 **Stachys** *alopeucuros* (L.) Benth.   !  
 1182 *Stachys cretica* L. subsp. *salviaefolia* (Ten.) Rech. f.   ☐!  
 1183 *Stachys officinalis* (L.) Trevis *s.l.*   !  
 1184 *Stachys officinalis* (L.) Trevis subsp. *serotina* Host   !  
 1185 *Stachys subcrenata* (Vis.) Briq.   \*(2)  
 1186 *Stachys subcrenata* (Vis.) Briq.   ☐!  
 1187 *Stachys sylvatica* L.   \*(2, 3)!  
 1188 *Stachys sylvatica* L.   ☐!  
 1189 **Teucrium** *arduini* L.   !  
 1190 *Teucrium chamaedrys* L.   \*(2)!  
 1191 *Teucrium chamaedrys* L.   ☐!  
 1192 *Teucrium flavum* L.   \*(1)!  
 1193 *Teucrium polium* L.   \*(2)!  
 1194 **Thymus** *pulegioides* L.   ☐!  
 1195 **Thymus** *striatus* Vahl   \*(6)!

#### LARDIZABALACEAE

- 1196 **Akebia** *trifoliata* (Thunb.) Koidz.   !

LIMNANTHACEAE

- 1197 **Limnanthes douglasii** Brown !

LINACEAE

- 1198 **Linum flavum** L. 'Compactum'  
 1199 **Linum grandiflorum** Desf. 'Rubrum'  
 1200 **Linum perenne** L. !  
 1201 **Linum usitatissimum** L. !

LOASACEAE

- 1202 **Loasa tricolor** Ker-Gawl.

LOBELIACEAE

- 1203 **Lobelia** x **gerardii** Chab. et Goujon ex Saw.  
 1204 **Lobelia** x **gerardii** Chab. et Goujon ex Saw. 'Blauzauber' !  
 1205 **Lobelia splendens** Willd.

LYTHRACEAE

- 1206 **Lagerstroemia indica** L. f. **rubra** G!  
 1207 **Lythrum salicaria** L. !  
 1208 **Lythrum salicaria** L. 'Robert'

MAGNOLIACEAE

- 1209 **Liriodendron tulipifera** L. !  
 1210 **Magnolia kobus** DC. 'Borealis' !  
 1211 **Magnolia** x **soulangana** Soul.-Bod. 'Picture' !  
 1212 **Magnolia** x **soulangana** Soul.-Bod. 'Rustica Rubra' !  
 1213 **Magnolia tripetala** L. !

MALVACEAE

- 1214 **Abelmoschus manihot** (L.) Medik.  
 1215 **Abutilon arboreum** (L. f.) Sweet G  
 1216 **Abutilon grandifolium** (Willd.) Sweet G  
 1217 **Abutilon indicum** (L.) Sweet G  
 1218 **Althaea cannabina** L. ☐  
 1219 **Althaea officinalis** L. !  
 1220 **Hibiscus calyphyllus** Cav. G  
 1221 **Hibiscus syriacus** L. !  
 1222 **Hibiscus syriacus** L. 'Totus Albus'!  
 1223 **Hibiscus trionum** L. !  
 1224 **Kitaibela vitifolia** Willd. !  
 1225 **Lavatera thuringiaca** L. !  
 1226 **Lavatera trimestris** L. !  
 1227 **Lavatera trimestris** L. 'Mont Blanc'  
 1228 **Lavatera trimestris** L. 'Splendens'  
 1229 **Lavatera trimestris** L. 'Splendens Rosea'

- 1230 **Malva moschata** L. \*(2)!  
 1231 *Malva sylvestris* L.  
 1232 **Napaea dioica** L.  
 1233 **Sidalcea** 'Party Girl'

MARANTACEAE

- 1234 **Thalia dealbata** Fras. !

MARTYNIACEAE

- 1235 **Proboscidea louisianica** (Mill.) Thell. !

MORACEAE

- 1236 **Dorstenia contrajerva** L. G  
 1237 **Ficus carica** L. !  
 1238 *Ficus lepriurii* Miq. G!  
 1239 **Maclura pomifera** (Rafin.) C. K. Schneid. !

MYRSINACEAE

- 1240 **Myrsine africana** L. G!

MYRTACEAE

- 1241 **Callistemon citrinus** (Curtis) Sheels G!  
 1242 *Callistemon phoeniceus* Lindl.  
 1243 **Myrtus communis** L. \*(2)!  
 1244 *Myrtus communis* L. G!  
 1245 **Psidium guinense** Sw. G!  
 1246 **Syzygium jambos** (L.) Alston G!

NYCTAGINACEAE

- 1247 **Mirabilis jalapa** L. !

NYSSACEAE

- 1248 **Davidia involucrata** Baill. var. *vilmoriniana* (Dode) Wangerin !

OLEACEAE

- 1249 **Forsythia europaea** Degen et Bald. !  
 1250 *Forsythia giraldiana* Lingelsh. !  
 1251 *Forsythia x intermedia* Zab. 'Mertensiana' !  
 1252 *Forsythia ovata* Nakai  
 1253 *Forsythia suspensa* (Thunb.) Vahl  
 1254 *Forsythia viridissima* Lindl.  
 1255 **Fraxinus excelsior** L.  
 1256 *Fraxinus excelsior* L. 'Diversifolia' !  
 1257 *Fraxinus excelsior* L. var. *pendula* Ait. !  
 1258 *Fraxinus ornus* L. !  
 1259 *Jasminum nudiflorum* Lindl. !

- 1260 **Ligustrum** compactum Hook. f. et Thoms. ex Brandis !  
 1261 Ligustrum insulare Dcne. !  
 1262 Ligustrum japonicum Thunb. !  
 1263 Ligustrum japonicum Thunb. 'Rotundifolium'  
 1264 Ligustrum obtusifolium Siebold et Zucc. !  
 1265 Ligustrum ovalifolium Hausskn. 'Aureum' !  
 1266 Ligustrum sinense Lour. var. stauntonii (DC.) Rehder !  
 1267 Ligustrum tschonoskii Dcne. !  
 1268 Ligustrum vulgare L. \*(2, 4)!  
 1269 Ligustrum vulgare L. !  
 1270 **Phillyrea** angustifolia L. !  
 1271 Phillyrea latifolia L. !  
 1272 **Syringa** vulgaris L. ☐!  
 1273 Syringa vulgaris L. 'Paul Deschanel' !

#### ONAGRACEAE

- 1274 **Circaea** lutetiana L. \*(2)!  
 1275 **Epilobium** angustifolium L. \*(2)!  
 1276 Epilobium canum (Greene) Raven subsp. angustifolium  
 (Keck) Raven 'Dublin' !  
 1277 Epilobium hirsutum L. \*(2)!  
 1278 Epilobium hirsutum L. !  
 1279 Epilobium montanum L. \*(2)!  
 1280 **Fuchsia** magellanica Lam. var. gracilis Baill. !  
 1281 **Oenothera** biennis L. !  
 1282 Oenothera fruticosa L. !  
 1283 Oenothera fruticosa L. subsp. glauca (Michx.) Straley !  
 1284 Oenothera nocturna Jacq.  
 1285 Oenothera odorata Jacq.  
 1286 Oenothera odorata Jacq. 'Sulphurea' !  
 1287 Oenothera speciosa Nutt.

#### OROBANCHACEAE

- 1288 **Orobanche** gracilis Sm. \*(1)!

#### OXALIDACEAE

- 1289 **Oxalis** acetosella L. !

#### PAEONIACEAE

- 1290 **Paeonia** 'Guard & Honnorise'  
 1291 Paeonia mascula (L.) Mill. ☐!  
 1292 Paeonia officinalis L. ☐!

#### PAPAVERACEAE

- 1293 **Argemone** alba Lestib. !  
 1294 **Chelidonium** majus L. !



- 1330 *Plantago major* L. \*(2)!
- 1331 *Plantago major* L. !
- 1332 *Plantago major* L. 'Atropurpurea' !
- 1333 *Plantago major* L. 'Giant' !
- 1334 *Plantago media* L. \*(1)!
- 1335 *Plantago media* L. !

PLATANACEAE

- 1336 **Platanus** *orientalis* L. var. *cretica* Dode \*(4)!

PLUMBAGINACEAE

- 1337 **Armeria** *berlengensis* Daveau
- 1338 *Armeria japonica* Thunbg.
- 1339 *Armeria maritima* (Mill.) Willd. !
- 1340 *Armeria maritima* (Mill.) Willd. 'Rosea Compacta'
- 1341 *Armeria maritima* (Mill.) Willd. 'Rubra' !
- 1342 *Armeria rumelica* Boiss. f. *rhodopaea* (Vel.) Beck !
- 1343 **Ceratostigma** *plumbaginoides* Bunge !
- 1344 **Goniolimon** *tataricum* (L.) Boiss. !
- 1345 **Limonium** *anfractum* (Salmon) Salmon \*(2)!
- 1346 **Plumbago** *europaea* L. \*(2)!
- 1347 *Plumbago europaea* L. !
- 1348 *Plumbago scandens* L. G

PODOCARPACEAE

- 1349 *Podocarpus neriifolius* D. Don G

POLEMONIACEAE

- 1350 **Collomia** *grandiflora* Dougl. ex Lindl. !
- 1351 **Phlox** *drummondii* Hook.
- 1352 *Phlox paniculata* 'Alba' !
- 1353 *Phlox subulata* L. fl. *albo*
- 1354 **Polemonium** *pauciflorum* S. Wats.
- 1355 *Polemonium* x *richardsonii* *hyb.*

POLYGONACEAE

- 1356 **Fagopyrum** *esculentum* Moench !
- 1357 *Fagopyrum tataricum* (L.) Gaertn. !
- 1358 **Fallopia** *baldshuanica* (Regel) Holub
- 1359 **Polygonum** *bistorta* L. ☐!
- 1360 *Polygonum capitatum* Buch.-Ham. ex D. Don. !
- 1361 *Polygonum filiforme* Thunb. !
- 1362 *Polygonum persicaria* L. \*(2)!
- 1363 *Polygonum sieboldii* Reinw.
- 1364 **Rheum** *palmatum* L. !
- 1365 *Rheum palmatum* L. 'Bowles Crimson' !

- 1366 *Rheum rhabarbarum* L. !  
 1367 **Rumex** acetosa L. \*(3)!  
 1368 *Rumex acetosa* L. ☐!  
 1369 *Rumex acetosella* L. ☐!  
 1370 *Rumex aquaticus* L.  
 1371 *Rumex aquaticus* L. 'Maximus'  
 1372 *Rumex crispus* L. \*(2)!  
 1373 *Rumex obtusifolius* \*(6)!  
 1374 *Rumex pulcher* L. ☐!  
 1375 *Rumex pulcher* L. subsp. *woodsii* (De Not.) Arcangeli ☐!  
 1376 *Rumex scutatus* L. \*(2)!

#### PORTULACACEAE

- 1377 **Anacampseros** densifolia Dint. G  
 1378 *Anacampseros rufescens* DC. G  
 1379 *Anacampseros telephiastrum* DC. G  
 1380 **Calandrinia** grandiflora Lindl. !  
 1381 *Calandrinia umbellata* (Ruzi et Pav.) DC.  
 1382 **Portulaca** grandiflora Hooker !  
 1383 *Portulaca oleracea* L. !  
 1384 **Talinum** patens Willd. G

#### PRIMULACEAE

- 1385 **Dodecatheon** meadia L. !  
 1386 **Lysimachia** atropurpurea L. !  
 1387 *Lysimachia clethroides* Duby !  
 1388 *Lysimachia punctata* L. !  
 1389 *Lysimachia vulgaris* L. \*(5)!  
 1390 **Primula** denticulata Sm.  
 1391 *Primula denticulata* Sm. 'Rubra'  
 1392 *Primula farinosa* L.  
 1393 *Primula japonica* A. Gray 'Miller's Crimson' !  
 1394 *Primula* x *pubescens* Jacq. 'Harlow Car Hybrids' !  
 1395 *Primula veris* L. !  
 1396 *Primula veris* L. subsp. *columnae* (Ten.) Lüdi \*(2)!  
 1397 *Primula veris* L. subsp. *columnae* (Ten.) Lüdi ☐!  
 1398 *Primula vialii* Delavay ex Franch.  
 1399 *Primula vulgaris* Huds. \*(5)!  
 1400 *Primula vulgaris* Huds. !  
 1401 **Samolus** valerandi L. ☐!

#### PUNICACEAE

- 1402 **Punica** granatum L. 'Nana' !

#### PYROLACEAE

- 1403 **Pyrola** minor L. \*(6)!



RANUNCULACEAE

- 1404 **Aconitum** lycoctonum L. subsp. vulparia (Reich.) Nym. \*(2)!
- 1405 Aconitum lycoctonum L. subsp. vulparia (Reich.) Nym. ☐!
- 1406 Aconitum variegatum L.
- 1407 Aconitum variegatum L. subsp. paniculatum (Arcang.)  
Greut. et Bourd. !
- 1408 **Actaea** spicata L. \*(2)!
- 1409 **Adonis** vernalis L. !
- 1410 **Anemone** altaica Meyer
- 1411 Anemone apennina L. !
- 1412 Anemone baicalensis Turcz.
- 1413 Anemone baldensis L. !
- 1414 Anemone 'De Caen'
- 1415 Anemone 'Honorine Jobert'
- 1416 Anemone hupehensis Lem. var. japonica (Thunb.) Bowles et Stearn.
- 1417 Anemone 'Königin Charlotte' !
- 1418 Anemone mexicana H. B. K.
- 1419 Anemone nemorosa L. ☐!
- 1420 Anemone nemorosa L. !
- 1421 Anemone 'Prinz Heinrich' !
- 1422 Anemone speciosa Ad.
- 1423 Anemone sylvestris L. ☐!
- 1424 Anemone trifolia L. ☐
- 1425 **Anemonella** thalictroides (L.) Spach
- 1426 **Aquilegia** atrata Koch
- 1427 Aquilegia canadensis L.
- 1428 Aquilegia chrysantha A. Gray !
- 1429 Aquilegia clematiflora 'Fire Wheel'
- 1430 Aquilegia 'Dwarf Fairyland Mixed' !
- 1431 Aquilegia flabellata Siebold et Zucc. var. pumila Kudo !
- 1432 Aquilegia flabellata Siebold et Zucc. 'Nana Alba' !
- 1433 Aquilegia formosa Fisch. !
- 1434 Aquilegia *hyb.* (pink)
- 1435 Aquilegia longissima A. Gray ex S. Watson
- 1436 Aquilegia 'MacKana Giant' !
- 1437 Aquilegia 'Magpie'
- 1438 Aquilegia 'Melange Pygmaea' !
- 1439 Aquilegia nigricans Baumg. \*(2)!
- 1440 Aquilegia nigricans Baumg. ☐!
- 1441 Aquilegia 'Nora Barlow' !
- 1442 Aquilegia pyrenaica DC.
- 1443 Aquilegia vulgaris L. \*(2)!
- 1444 Aquilegia vulgaris L. ☐!
- 1445 Aquilegia vulgaris L.
- 1446 Aquilegia 'Woodside'

- 1447 **Caltha** palustris L. \* (2)!  
 1448 Caltha palustris L. ☐!  
 1449 Caltha palustris L. subsp. laeta (Schott, Nyman et Kotschy) Hayek ☐!  
 1450 **Clematis** alpina (L.) Miller \* (2)!  
 1451 Clematis campaniflora Brot. !  
 1452 Clematis flammula L. \* (2)!  
 1453 Clematis integrifolia L.  
 1454 Clematis integrifolia L. 'Hendersonii'  
 1455 Clematis x jackmanii T. Moore  
 1456 Clematis 'Nelly Moser'  
 1457 Clematis recta L. ☐!  
 1458 Clematis tangutica (Maxim.) Korsh. !  
 1459 Clematis vitalba L. \* (3)!  
 1460 **Delphinium** 'Berghimmel'  
 1461 Delphinium 'Finsteraarhorn' !  
 1462 Delphinium *hyb.*  
 1463 Delphinium 'Giant' !  
 1464 Delphinium 'Giant Pacific Mixed'  
 1465 Delphinium 'Gletscherwasser'  
 1466 Delphinium 'Ivonne'  
 1467 Delphinium 'Pacific'  
 1468 Delphinium 'Rittersporn Mix'  
 1469 Delphinium 'Simone'  
 1470 Delphinium 'Weisser König'  
 1471 **Eranthis** cilicica Schott et Kotschy !  
 1472 Eranthis hyemalis (L.) Salisb. ☐!  
 1473 **Helleborus** atrorubens Waldst. et Kit. ☐!  
 1474 Helleborus multifidus Vis. ☐!  
 1475 Helleborus multifidus Vis. subsp. istriacus (Schiffn.) Merxm. et Podl. !  
 1476 Helleborus niger L. ☐!  
 1477 Helleborus niger L. subsp. macranthus (Freyn) Schiffn. ☐!  
 1478 Helleborus odorus Waldst. et Kit. ☐!  
 1479 Helleborus odorus Waldst. et Kit. f. laceratus K. Maly  
 1480 **Hepatica** nobilis Schreber \* (5)!  
 1481 Hepatica nobilis Schreber ☐!  
 1482 Hepatica nobilis Schreber *fl. albo* !  
 1483 Hepatica nobilis Schreber *fl. roseo* !  
 1484 **Isopyrum** thalictroides L. !  
 1485 **Nigella** damascena L. ☐!  
 1486 Nigella damascena L. \* (5)!  
 1487 Nigella damascena L. 'Mrs. Jekyll'  
 1488 **Pulsatilla** alpina (L.) Delarbre \* (2, 3)!  
 1489 Pulsatilla alpina (L.) Delarbre !  
 1490 Pulsatilla halleri (All.) Willd. subsp. slavica (G. Reuss) Zamelis  
 1491 Pulsatilla montana (Hoppe) Reichenb. ☐!  
 1492 Pulsatilla montana (Hoppe) Reichenb. 'Rote Glocke'

- 1493 *Pulsatilla vulgaris* Mill. subsp. *grandis* (Wender.) Zamelis  
 1494 *Pulsatilla vulgaris* Mill. f. *coccinea*  
 1495 *Pulsatilla vulgaris* Mill. f. *rubra*  
 1496 **Ranunculus acris** L. \*(1, 3, 4)!  
 1497 *Ranunculus acris* L. !  
 1498 *Ranunculus carinthiacus* Hoppe ☐!  
 1499 *Ranunculus ficaria* L. (bulbs) !  
 1500 *Ranunculus lanuginosus* L. \*(2)!  
 1501 *Ranunculus lanuginosus* L. ☐!  
 1502 *Ranunculus neapolitanus* Ten.  
 1503 *Ranunculus repens* L. \*(4)!  
 1504 *Ranunculus repens* L. !  
 1505 *Ranunculus velutinus* Ten. ☐!  
 1506 **Semiaquilegia ecalcarata** (Maxim.) Sprague et Hutch.  
 1507 **Thalictrum aquilegifolium** L. \*(2, 3)!  
 1508 *Thalictrum aquilegifolium* L. !  
 1509 *Thalictrum aquilegifolium* L. f. *atropurpurea* ☐!  
 1510 *Thalictrum flavum* L. \*(2)!  
 1511 *Thalictrum minus* L. s.l. \*(2)!  
 1512 *Thalictrum minus* L. s.l. ☐!  
 1513 **Trollius europaeus** L. \*(1, 2)!  
 1514 *Trollius europaeus* L. ☐!

#### RESEDACEAE

- 1515 **Reseda lutea** L. \*(3)!  
 1516 *Reseda lutea* L. !

#### RHAMNACEAE

- 1517 **Ceanothus coeruleus** Lag. !  
 1518 *Ceanothus x delilianus* Spach 'Gloire de Versailles'  
 1519 *Ceanothus x pallidus* Lindl. 'Marie Simon' !  
 1520 **Hovenia dulcis** Thunb. !  
 1521 **Paliurus spina-christi** Mill. \*(1, 2)!  
 1522 *Paliurus spina-christi* Mill. !  
 1523 **Rhamnus alaternus** L. ☐!  
 1524 *Rhamnus alpinus* L. subsp. *fallax* (Boiss.) Maire et Petitm. \*(2)!  
 1525 *Rhamnus infectorius* L. !  
 1526 **Ziziphus jujuba** Mill. !

#### ROSACEAE

- 1527 **Acaena 'Blue Haze'** !  
 1528 *Acaena caesiiglauca* (Bitter) Bergmans  
 1529 *Acaena 'Purple Carpet'*  
 1530 **Agrimonia eupatoria** L. ☐!  
 1531 **Alchemilla cinerea** Buser !  
 1532 *Alchemilla glaucescens* Wallr.

- 1533 *Alchemilla hyb.*  
1534 *Alchemilla* 'Parker's Variety'  
1535 *Alchemilla xanthochlora* Rothm. *s.l.* \*(2)  
1536 **Amelanchier** *alnifolia* Nutt. (Nutt.) !  
1537 *Amelanchier lamarckii* F.G. Schraed. !  
1538 *Amelanchier ovalis* Medik. f. !  
1539 **Aremonia** *agrimonioides* (L.) DC. ☐!  
1540 **Aruncus** *dioicus* (Walter) Fernald \*(2)!  
1541 *Aruncus* 'Zweiweltenkind'  
1542 *Chaenomeles japonica* (Thunb.) Lindl. ex Pach  
1543 *Chaenomeles japonica* Spach var. *albo-rosea* Spaeth  
1544 *Chaenomeles japonica* Spach 'Gaujardii' !  
1545 *Chaenomeles* x *superba* (Frahm) Rehder !  
1546 *Chaenomeles* x *superba* (Frahm) Rehder 'Wakaba'  
1547 **Cotoneaster** *acutifolius* Turcz. !  
1548 *Cotoneaster dammeri* C.K. Schneid. var. *radicans* Dammer  
1549 *Cotoneaster horizontalis* Recne.  
1550 *Cotoneaster integerrimus* Medik. \*(2)!  
1551 *Cotoneaster integerrimus* Medik. ☐!  
1552 *Cotoneaster melanocarpus* Lodd. var. *laxiflorus* (Lindl.) Schneid. !  
1553 *Cotoneaster microphyllus* Wall. ex Lindl.  
1554 *Cotoneaster microphyllus* Wall. ex Lindl. var.  
*cochleatus* (Franch.) Rehder et Willd.  
1555 *Cotoneaster nebrodensis* (Guss.) K. Koch ☐!  
1556 *Cotoneaster nitens* Rehder et Wils. !  
1557 *Cotoneaster racemiflorus* (Desf.) K. Koch  
1558 *Cotoneaster racemiflorus* (Desf.) K. Koch var. *nummularius* Dipp.  
1559 *Cotoneaster rhytidophyllus* Rehder et E.H. Wilson  
1560 *Cotoneaster rotundifolius* Wall. ex Lindl. !  
1561 *Cotoneaster salicifolius* Franch.  
1562 **Crataegus** *ambigua* C. A. Mey. ex A. Beck.  
1563 *Crataegus chrysocarpa* Ashe f. *rubescens* E. J. Palm.  
1564 *Crataegus collina* Chapm. !  
1565 *Crataegus crus-galli* L. !  
1566 *Crataegus monogyna* Jacq. \*(2)!  
1567 *Crataegus laevigata* (Poir.) DC.  
1568 *Crataegus punctata* Jacq. !  
1569 *Crataegus turkestanica* A. Pojark. !  
1570 **Cydonia** *oblonga* Mill. !  
1571 **Duchesnea** *indica* (Andrews) Focke !  
1572 **Eriobotrya** *japonica* (Thunb.) Lindl. G!  
1573 **Exochorda** *giraldii* Hesse !  
1574 *Exochorda* x *macrantha* (Lemoine) Schneid. !  
1575 **Filipendula** *rubra* (Hill) Robinson!  
1576 *Filipendula ulmaria* (L.) Maxim. \*(2)!  
1577 *Filipendula ulmaria* (L.) Maxim. !

- 1578 *Filipendula vulgaris* Moench      □!  
 1579 *Filipendula vulgaris* Moench      !  
 1580 **Fragaria** *moschata* Duchesne  
 1581 *Fragaria vesca* L.      \*(4, 5)!  
 1582 *Fragaria vesca* L.      □!  
 1583 **Geum** *chiloense* Balb. 'Lady Stratheden'  
 1584 *Geum chiloense* Balb. 'Mrs. J. Bradshaw'      !  
 1585 *Geum coccineum* Sibth. et Sm.      !  
 1586 *Geum* x *heldreichii* hort.  
 1587 *Geum molle* Vis. et Panč.      □!  
 1588 *Geum* 'Princess Juliana'  
 1589 *Geum pyrenaicum* Mill.  
 1590 *Geum reptans* L.  
 1591 *Geum rivale* L.      □!  
 1592 *Geum urbanum* L.      \*(4)!  
 1593 *Geum urbanum* L.      □!  
 1594 **Kerria** *japonica* (L.) DC. 'Picta'  
 1595 **Malus** *floribunda* Siebold ex Van Houtte      !  
 1596 *Malus hupehensis* (Pamp.) Rehder      !  
 1597 *Malus prunifolia* (Willd.) Borkh. var. *rinki* (Koidz.) Rehder !  
 1598 *Malus pumila* Mill.  
 1599 *Malus pumila* Mill. 'Niedzewetzkyana'  
 1600 *Malus* x *purpurea* (Barbier) Rehder      !  
 1601 *Malus* x *purpurea* (Barbier) Rehder 'Aldenhamensis'      !  
 1602 *Malus* x *purpurea* (Barbier) Rehder var. *eleyi* (Bean) Rehder !  
 1603 *Malus sylvestris* (L.) Mill.  
 1604 **Mespilus** *germanica* L.      !  
 1605 **Osteomeles** *schweriniae* C. K. Schneid. !  
 1606 **Photinia** *daavidiana* (Decne.) Cardot      !  
 1607 *Photinia daavidiana* (Decne.) Cardot var. *undulata* (Decne) Cardot !  
 1608 **Physocarpus** *amurensis* (Maxim.) Maxim.  
 1609 *Physocarpus opulifolius* (L.) Maxim.      !  
 1610 **Potentilla** *alchemilloides* Lapeyr. !  
 1611 *Potentilla argentea* L.  
 1612 *Potentilla atrosanguinea* Lodd. ex D. Don      !  
 1613 *Potentilla canescens* Bess.  
 1614 *Potentilla cinerea* Chaix ex Vill.      !  
 1615 *Potentilla* 'Etna'  
 1616 *Potentilla fruticosa* L. f. *obscura*  
 1617 *Potentilla incana* P. Gaertn., B. Mey. et Scherb.  
 1618 *Potentilla inclinata* Vill.  
 1619 *Potentilla nepalensis* Hook.  
 1620 *Potentilla nivea* L.  
 1621 *Potentilla pyrenaica* Ramond  
 1622 *Potentilla recta* L.      \*(2)!  
 1623 *Potentilla recta* L.      □!

- 1624 *Potentilla rupestris* L. !  
 1625 *Potentilla* 'White Beauty' !  
 1626 **Prunus** *avium* L. !  
 1627 *Prunus cerasifera* Ehrh. 'Pissardii' !  
 1628 *Prunus cerasifera* Ehrh. var. *divaricata* (Ledeb.) C.K. Schneid.  
 1629 *Prunus cerasus* L.  
 1630 *Prunus laurocerasus* L. !  
 1631 *Prunus laurocerasus* L. var. *schipkaënsis* Spaeth  
 1632 *Prunus laurocerasus* L. 'Zabeliana'  
 1633 *Prunus lusitanica* L.  
 1634 *Prunus mahaleb* L. !  
 1635 *Prunus spinosa* L. \*(3)!  
 1636 **Pyracantha** *angustifolia* (Franchet) C.K. Schneid.  
 1637 *Pyracantha coccinea* M. J. Roem. !  
 1638 **Pyrus** *pyraster* Burgsd. \*(3)!  
 1639 **Rhodotypos** *scandens* (Thunb.) Makino !  
 1640 **Rosa** *canina* L. \*(2)!  
 1641 *Rosa canina* L. ☐!  
 1642 *Rosa gallica* L. ☐!  
 1643 *Rosa multiflora* Thunb. ex Murray !  
 1644 *Rosa pendulina* L. \*(2)!  
 1645 *Rosa pendulina* L. ☐!  
 1646 *Rosa rugosa* Thunb. !  
 1647 *Rosa rugosa* Thunb. 'Plena'  
 1648 *Rosa spinosissima* L. \*(3)!  
 1649 *Rosa tomentosa* Sm. !  
 1650 *Rosa xanthina* Lindl. f. *hugonis* (Hemsl.) A.V. Roberts !  
 1651 **Rubus** *caesius* L. \*(2, 4)!  
 1652 *Rubus idaeus* L. \*(4)!  
 1653 *Rubus odoratus* L.  
 1654 *Rubus occidentalis* L. !  
 1655 *Rubus saxatilis* L. \*(2)!  
 1656 *Rubus saxatilis* L.  
 1657 **Sanguisorba** *minor* Scop. ☐!  
 1658 *Sanguisorba minor* Scop. subsp. *muricata* (Gremli) Briq. ☐!  
 1659 **Sibiraea** *altaiensis* (Laxm.) C. K. Schneid. subsp. *croatica* Degen ☐(2)!  
 1660 **Sorbaria** *arborea* C.K. Schneid. !  
 1661 **Sorbus** *aria* (L.) Crantz \*(2)!  
 1662 *Sorbus aria* (L.) Crantz ☐!  
 1663 *Sorbus aucuparia* L. \*(1, 2)!  
 1664 *Sorbus domestica* L. !  
 1665 *Sorbus intermedia* (Ehrh.) Pers. !  
 1666 *Sorbus mougeotii* Soy-Will.  
 1667 *Sorbus rufoferruginea* (Schneid.) Schneid.  
 1668 *Spiraea chamaedryfolia* L.  
 1669 **Spiraea** *japonica* L. f.

- 1670 *Spiraea japonica* L. f. 'Albiflora' !  
 1671 *Spiraea japonica* L. f. 'Bumalda' !  
 1672 *Spiraea* x *margaritae* Zabel  
 1673 *Spiraea nipponica* Maxim. !  
 1674 *Spiraea sargentiana* Rehder  
 1675 *Spiraea thunbergii* Sieb. ex Blume

#### RUBIACEAE

- 1676 **Asperula** *arvensis* L. !  
 1677 **Coffea** *stenophylla* G. Don G!  
 1678 **Cruciata** *glabra* (L.) Ehrend. □!  
 1679 **Crucianella** *latifolia* L. \*(2)!  
 1680 **Galium** *anisophyllum* Vill. \*(1, 2)!  
 1681 *Galium aparine* L. \*(4)!  
 1682 *Galium rubioides* L. !  
 1683 *Galium verum* L.  
 1684 **Phuopsis** *stylosa* (Trin.) Jacks. !  
 1685 **Sherardia** *arvensis* L. □!

#### RUTACEAE

- 1686 **Dictamnus** *albus* L. !  
 1687 **Phelodendron** *amurense* Rupr. !  
 1688 **Poncirus** *trifoliata* (L.) Raf. !  
 1689 **Ptelea** *trifoliata* L. !  
 1690 **Ruta** *chalepensis* \*(2)!  
 1691 *Ruta graveolens* L. !  
 1692 *Ruta graveolens* L. 'Variegata' !  
 1693 **Zanthoxylum** *simulans* Hance !

#### SALICACEAE

- 1694 *Salix grandifolia* Ser. \*(2)!

#### SANTALACEAE

- 1695 **Osyris** *alba* L. \*(2, 4)!

#### SAPINDACEAE

- 1696 **Cardiospermum** *halicacabum* L. !  
 1697 **Koelreuteria** *paniculata* Laxm. var. *apiculata* (Rehder  
 et E.H. Wilson) Rehder !

#### SAURURACEAE

- 1698 **Houttuynia** *cordata* Thunb.

#### SAXIFRAGACEAE

- 1699 **Astilbe** x *arendsii* Arends 'Ceres'  
 1700 *Astilbe* x *arendsii* Arends 'Deutschland' !  
 1701 *Astilbe* x *arendsii* Arends 'Gertrude Brix'

- 1702 *Astilbe x arendsii* Arends 'Gloria'  
 1703 *Astilbe chinensis* (Maxim.) Franch. et Sav.  
 1704 *Astilbe chinensis* (Maxim.) Franch. et Sav. var. *taquetii* (Lev.) Vilm.  
 1705 *Astilbe chinensis* (Maxim.) Franch. et Sav. 'Pumila'  
 1706 *Astilbe rubra* Hook et Thoms.  
 1707 *Astilbe thunbergii* (Siebold et Zucc.) Miq.  
 1708 *Astilbe thunbergii* (Siebold et Zucc.) Miq. var. *fujisanensis* (Nakai) Ohwi  
 1709 **Astilboides** *tabularis* (Hemsl.) Engl. !  
 1710 **Bergenia** *crassifolia* (L.) Fritsch !  
 1711 *Bergenia purpurascens* (Hook.f. et Thomson) Engl. !  
 1712 **Carpenteria** *californica* Torr.  
 1713 **Deutzia** *coreana* Lev.  
 1714 *Deutzia grandiflora* Bunge !  
 1715 *Deutzia scabra* Thunb. !  
 1716 *Deutzia scabra* Thunb. var. *plena* (Maxim.) Rehder !  
 1717 *Deutzia scabra* Thunb. 'Pride of Rochester'  
 1718 **Heuchera** *americana* L.  
 1719 *Heuchera americana* L. 'Palace Purple' !  
 1720 *Heuchera cylindrica* Dougl.  
 1721 *Heuchera sanguinea* Engelm. !  
 1722 *Heuchera sanguinea* Engelm. 'Purpurglockchen'  
 1723 *Heuchera sanguinea* Engelm. 'Splendens'  
 1724 **Hydrangea** *arborescens* L. subsp. *discolor* (Ser.) McClintock  
 1725 *Hydrangea aspera* D. Don. !  
 1726 *Hydrangea bretschneideri* Dipp. !  
 1727 *Hydrangea quercifolia* Bartram !  
 1728 **Philadelphus** *coronarius* L.  
 1729 *Philadelphus coronarius* L. 'Salicifolius'  
 1730 *Philadelphus floridus* Beadle !  
 1731 *Philadelphus x lemoinei* Lemoine 'Virginal'  
 1732 *Philadelphus purpurascens* (Koehne) Rehder !  
 1733 *Philadelphus schrenkii* Rupr.  
 1734 *Philadelphus subcanus* Koehne var. *magdalenae* (Koehne) S. Y. Hu  
 1735 **Saxifraga** *x arendsii* Engl.  
 1736 *Saxifraga x arendsii* Engl. 'Schneeteppich'  
 1737 *Saxifraga pseudo-fosteri* Suend.  
 1738 *Saxifraga rotundifolia* L. \*(2)!  
 1739 *Saxifraga rotundifolia* L. □!  
 1740 *Saxifraga umbrosa* L. □!

#### SCROPHULARIACEAE

- 1741 **Alonsoa** *meridionalis* (L. f.) O. Kuntze  
 1742 **Antirrhinum** *majus* L. !  
 1743 *Antirrhinum majus* L. 'Dunkle Granat' !  
 1744 *Antirrhinum majus* L. 'Magic Carpet Mix' !  
 1745 **Asarina** *antirrhinifolia* (Humb. et Bonpl. ex Willd.) Pennell !





- 1791 *Veronica austriaca* L. subsp. *orbiculata* var. *emarginata* □!  
 1792 *Veronica chamaedrys* L. □!  
 1793 *Veronica fruticans* Jacq.  
 1794 *Veronica urticifolia* Jacq. \*(2)!

#### SOLANACEAE

- 1795 ***Atropa*** *bella-donna* L. \*(3)!  
 1796 *Atropa bella-donna* L.  
 1797 ***Brunfelsia*** *americana* L. G  
 1798 *Brunfelsia nitida* Benth. G  
 1799 ***Capsicum*** *annuum* L. 'Mexican Negro' !  
 1800 *Capsicum baccatum* L. var. *pendulum* (Willd.) Eshbaugh  
 1801 *Capsicum frutescens* L. 'Jalapero' !  
 1802 ***Cestrum*** *purpureum* Standl.  
 1803 ***Cyphomandra*** *betacea* (Cav.) Sendtn. G  
 1804 ***Datura*** *innoxia* Mill. 'Inka'  
 1805 *Datura stramonium* L. \*(2)!  
 1806 *Datura stramonium* L. !  
 1807 ***Hyoscyamus*** *albus* L. \*(2)!  
 1808 ***Lycium*** *chinense* Mill. !  
 1809 *Lycium halimifolium* Mill.  
 1810 ***Nicandra*** *physalodes* (L.) Gaertn. !  
 1811 *Nicandra physalodes* (L.) Gaertn. 'Violacea' !  
 1812 ***Nicotiana*** x *sanderiae* Sander ex Wats. !  
 1813 ***Petunia*** 'Kremfeher'  
 1814 ***Physalis*** *alkekengi* L. \*(4)!  
 1815 *Physalis alkekengi* L. !  
 1816 *Physalis alkekengi* L. var. *franchetii* (Mast.) Makino !  
 1817 ***Scopolia*** *carniolica* Jacq. \*(1, 3)!  
 1818 *Scopolia carniolica* Jacq. !  
 1819 ***Solanum*** *dulcamara* L. \*(1)!  
 1820 *Solanum lycopersicum* L. 'Humboldtii'  
 1821 *Solanum nigrum* L. !  
 1822 *Solanum pseudocapsicum* L.  
 1823 *Solanum sisymbriifolium* Lam. !

#### STAPHYLEACEAE

- 1824 ***Staphylea*** *colchica* Steven !  
 1825 *Staphylea emodi* Wall. !  
 1826 *Staphylea pinnata* L. \*(2)!  
 1827 *Staphylea pinnata* L. !  
 1828 *Staphylea trifoliata* West. !

#### STERCULIACEAE

- 1829 ***Abroma*** *augustum* (L.) L.f. G  
 1830 ***Firmiana*** *simplex* (L.) W. Wight G

STYRACACEAE

1831 **Styrax officinalis** L. !

TAMARICACEAE

1832 **Myricaria germanica** (L.) Desv.

THYMELAEACEAE

1833 **Daphne mezereum** L. \*(2)!

TILIACEAE

1834 **Grewia similis** K. Schum.

1835 **Sparmannia africana** L. f.

1836 **Tilia americana** L. !

1837 *Tilia cordata* Mill. !

1838 *Tilia tomentosa* Moench 'Petiolaris'

1839 *Tilia platyphyllos* Scop. !

TRAPACEAE

1840 *Trapa natans* L. !

TROPAEOLACEAE

1841 *Tropaeolum 'Peach Melba'* !

TURNERACEAE

1842 *Turnera ulmifolia* L. G!

ULMACEAE

1843 **Celtis bungeana** Blume

1844 *Celtis occidentalis* L. !

1845 *Celtis occidentalis* L. var. *pumila* (Muhl.) Pursh

URTICACEAE

1846 **Parietaria officinalis** L. !

VALERIANACEAE

1847 **Centranthus ruber** (L.) DC. !

1848 *Centranthus ruber* (L.) DC. 'Albus' !

1849 *Centranthus ruber* (L.) DC. 'Coccineus' !

1850 **Valeriana montana** L. \*(1, 2)!

1851 *Valeriana tripteris* L. ☐!

VERBENACEAE

1852 **Callicarpa americana** L.

1853 *Callicarpa bodinieri* Lev. var. *giraldii* (Hesse ex Rehder) Rehder

1854 *Callicarpa dichotoma* (Lour.) K. Koch !

- 1855 *Callicarpa japonica* Thunb. !  
 1856 *Callicarpa japonica* Thunb. 'Leucocarpa' !  
 1857 *Callicarpa mollis* Siebold et Zucc. !  
 1858 **Caryopteris** x *clandonensis* N.W. Simmonds ex Rehder  
 1859 *Caryopteris incana* (Thunb. ex Houtt.) Miq.  
 1860 **Clerodendrum** *philppinum* Schauer 'Pleniflorum' G!  
 1861 *Clerodendrum speciosissimum* Van Geert G!  
 1862 *Clerodendrum trichotomum* Thunb. !  
 1863 **Duranta** *repens* L. G!  
 1864 **Lantana** *camara* L. G!  
 1865 *Lantana camara* L. 'Rosea' G!  
 1866 *Lantana lilacina* Desf. G  
 1867 *Lantana montevidensis* (Spreng.) Briq. G!  
 1868 **Verbena** *officinalis* L. \*(4)!  
 1869 *Verbena officinalis* L. !  
 1870 *Verbena rigida* Spreng. !  
 1871 **Vitex** *agnus-castus* L. \*(2)!

#### VIOLACEAE

- 1872 **Viola** *alba* Besser subsp. *dehnhardtii* (Ten.) W. Becker ☐!  
 1873 *Viola arvensis* Murray \*(2)!  
 1874 *Viola arvensis* Murray !  
 1875 *Viola cornuta* L. 'Funny Face'  
 1876 *Viola odorata* L. !  
 1877 *Viola riviniana* Rchb. ☐!  
 1878 *Viola tricolor* L. *cult.* !

#### VITACEAE

- 1879 **Parthenocissus** *quinquefolia* (L.) Planch. !  
 1880 *Parthenocissus tricuspidata* (S. et Z.) Planch. !

#### ZYGOPHYLLACEAE

- 1881 **Peganum** *harmala* L.

### b.2.2. LILIOPSIDA

#### AGAVACEAE

- 1882 **Cordyline** *rubra* Heugel ex Kunth  
 1883 *Cordyline stricta* Hook fil.

#### ALISMATACEAE

- 1884 **Alisma** *plantago-aquatica* L. \*(7)!  
 1885 *Alisma plantago-aquatica* L. !

#### ALLIACEAE

- 1886 **Agapanthus** *campanulatus* Leight. subsp. *patens* (Leight.) Leight. !

- 1887 **Allium** altaicum Pallas  
1888 *Allium amethystinum* Tausch !  
1889 *Allium ampeloprasum* L. ☐!  
1890 *Allium caeruleum* Pall.  
1891 *Allium cepa* L. !  
1892 *Allium cernuum* Roth !  
1893 *Allium cyaneum* Regel var. *brachystemon* Regel  
1894 *Allium cyatophorum* Bur. et Franch. !  
1895 *Allium flavum* L. !  
1896 *Allium guttatum* Steven subsp. *dalmaticum* (A. Kern.  
ex Janch.) Stearn \*(2)!
- 1897 *Allium karataviense* Regel !  
1898 *Allium ledebourianum* Roem. et Schult. !  
1899 *Allium narcissiflorum* Vill.  
1900 *Allium oreophilum* C.A. Mey.  
1901 *Allium paniculatum* L.  
1902 *Allium ramosum* L.  
1903 *Allium roseum* L.  
1904 *Allium rotundum* L. ☐!  
1905 *Allium rubellum* Bieb.  
1906 *Allium schoenoprasum* L. !  
1907 *Allium scorodoprasum* L. subsp. *rotundum* (L.) Stearn ☐!  
1908 *Allium senescens* L. ☐!  
1909 *Allium spaerocephalon* L. \*(2)!  
1910 *Allium stellatum* Ker-Gawl. !  
1911 *Allium ursinum* L. !  
1912 *Allium victorialis* L. \*(2)!  
1913 *Allium victorialis* L. ☐!  
1914 **Nothoscordum** gracile (Ait.) Stearn !  
1915 **Tulbaghia** simmleri P. Beauv. G  
1916 *Tulbaghia violacea* Harv. !

#### ALOACEAE

- 1917 **Gasteria** obliqua (DC.) Duval G  
1918 *Gasteria pseudonigricans* (Salm-Dyck) Haw. G  
1919 **Haworthia** attenuata Haw. var. *argyrostigma* G  
1920 *Haworthia attenuata* Haw. var. *argyrostigma* f. *typica* G  
1921 *Haworthia icosiphylla* Baker G  
1922 *Haworthia pumila* (L.) Duval G  
1923 *Haworthia subulata* Baker G  
1924 *Haworthia x tortuosa* (Haw.) Haw. var. *curta* G

#### AMARYLLIDACEAE

- 1925 **Amaryllis** bella-donna L. G!  
1926 **Clivia** miniata (Lindl.) Bosse G!  
1927 **Crinum** asiaticum L.

- 1928 **Galanthus** nivalis L. !  
 1929 Galanthus plicatus M. Bieb.  
 1930 **Hippeastrum** brachyandrum Baker G  
 1931 **Leucojum** vernum L. !  
 1932 **Narcissus** papyraceus Ker-Gawl subsp. panizzianus (Parl.) Arc. !  
 1933 Narcissus jonquilla L. !  
 1934 **Pancratium** maritimum L. □!  
 1935 **Zephyranthes** andersonii (Herb.) Bak. G!  
 1936 Zephyranthes aurea Bak. G!  
 1937 Zephyranthes rosea (Spreng.) Lindl. G!

#### ANTHERICACEAE

- 1938 **Anthericum** liliago L. !  
 1939 Anthericum ramosum L. □!  
 1940 **Arthropodium** cirrhatum (G. Forst.) R. Br. G!  
 1941 **Chlorophytum** comosum (Thunberg) Jacques G!  
 1942 Chlorophytum macrophyllum (A. Rich.) Aschers. G  
 1943 Chlorophytum orchidiastrum Lindl. G

#### ARACEAE

- 1944 **Acorus** calamus L. !  
 1945 **Arum** italicum Mill. □!  
 1946 Arum maculatum L. \*(4)!  
 1947 Arum maculatum L. !

#### ARECACEAE

- 1948 **Chamaerops** humilis L. G!  
 1949 **Phoenix** canariensis Chabaud G!  
 1950 **Sabal** havanensis Lodd. G!

#### ASPARAGACEAE

- 1951 **Asparagus** densiflorus Jessop. G!  
 1952 Asparagus densiflorus Jessop. 'Myersii' G!  
 1953 Asparagus tenuifolius Lam. !

#### ASPHODELACEAE

- 1954 **Asphodeline** liburnica (Scop.) Rchb. !  
 1955 Asphodeline lutea (L.) Rchb. \*(2)!  
 1956 Asphodeline lutea (L.) Rchb. □!  
 1957 **Asphodelus** aestivus Brot.  
 1958 Asphodelus albus Mill. □!  
 1959 Asphodelus fistulosus L. \*(2)!  
 1960 **Kniphofia** 'Elegans'  
 1961 Kniphofia ensifolia Bak.  
 1962 Kniphofia 'Red Hot Poker' !  
 1963 Kniphofia tuckii Leichtl ex Bak.

1964 *Kniphofia uvaria* (L.) Hooker

BROMELIACEAE

- 1965 **Acanthostachys** strobilacea Klotsch G!  
1966 **Aechmea** bracteata (Sw.) Griseb. G!  
1967 *Aechmea bromeliifolia* (Rudge) Bak. G!  
1968 *Aechmea lueddemanniana* (K. Koch) Mez G!  
1969 *Aechmea mariae-reginae* Wendl G!  
1970 *Aechmea mexicana* Baker G  
1971 *Aechmea sphaerocephala* Baker G!  
1972 **Billbergia** brasiliensis L. B. Smith G  
1973 *Billbergia porteana* Brong. ex Beer G!  
1974 **Dyckia** brevifolia Baker G  
1975 *Dyckia rariflora* Schult. G  
1976 **Fascicularia** pitcairniifolia (hort. ex Verl.) Mez. G!  
1977 **Puya** mirabilis (Mez) L. B. Smith G!  
1978 *Puya spathacea* (Grieseb.) Mez G!

COMMELINACEAE

- 1979 **Pollia** condensata C.B. Clarke G!  
1980 **Tradescantia** virginiana L. !  
1981 *Tradescantia virginiana* L. 'Coelstis' !

COSTACEAE

- 1982 **Costus** dubius (Afzel) K. Schum. G!

CONVALLARIACEAE

- 1983 **Convallaria** majalis L. \*(2, 4)!  
1984 *Convallaria majalis* L. !  
1985 *Convallaria majalis* L. 'Rosea' !  
1986 **Liriope** spicata (Thunb.) Loureiro G  
1987 **Maianthemum** racemosum (L.) Desf. □!  
1988 **Polygonatum** multiflorum (L.) Allioni !  
1989 *Polygonatum odoratum* (Mill.) Druce □  
1990 *Polygonatum verticillatum* (L.) Allioni \*(2)!

CYPERACEAE

- 1991 **Carex** commans Berggr. !  
1992 *Carex digitata* L. \*(2)!  
1993 *Carex dipsacea* Berggr.  
1994 *Carex divulsa* Stokes □!  
1995 *Carex flacca* Schreb.  
1996 *Carex flacca* Schreb. subsp. *serrulata* (Biv.) Greuter □!  
1997 *Carex grayi* Carey !  
1998 *Carex hallerana* Asso □!  
1999 *Carex morrowii* Boott

- 2000 *Carex muskingumensis* Schweinitz !  
 2001 *Carex pendula* Huds. \*(2)!  
 2002 *Carex pendula* Huds. ☐!  
 2003 *Carex remota* L. \*(6)!  
 2004 *Carex riparia* Curtis  
 2005 *Carex spicata* Huds. \*(6)!  
 2006 *Carex stellulata* Gooden. \*(6)!  
 2007 *Carex sylvatica* Huds. ☐!  
 2008 **Cladium** *mariscus* (L.) Pohl. \*(2)!  
 2009 **Eleocharis** *carniolica* W.D.J. Koch  
 2010 *Eleocharis ovata* R. Br. \*(5)!  
 2011 **Eriophorum** *latifolium* Hoppe \*(1, 2)!  
 2012 **Holoschoenus** *romanus* (L.) Fritsch  
 2013 **Schoenus** *nigricans* L. ☐!  
 2014 **Cyperus** *alternifolius* L.

#### DIOSCOREACEAE

- 2015 **Tamus** *communis* L. \*(3)!  
 2016 *Tamus communis* L. ☐!

#### DRACAENACEAE

- 2017 **Sansevieria** *cylindrica* Boj. G!  
 2018 *Sansevieria stuckyi* God.-Leb. G  
 2019 *Sansevieria grandicuspis* Haw. G  
 2020 *Sansevieria parva* N. E. Br. G!

#### HEMEROCALLIDACEAE

- 2021 **Hemerocallis** *aurantiaca* Baker  
 2022 *Hemerocallis citrina* Baroni !  
 2023 *Hemerocallis esculenta* Koidz.  
 2024 *Hemerocallis lilioasphodelus* L. ☐!  
 2025 *Hemerocallis minor* Mill. !

#### HOSTACEAE

- 2026 **Hosta** *fluctuans* Maekawa  
 2027 **Hosta** 'Elata' !  
 2028 *Hosta* 'Fortunei' !  
 2029 *Hosta* 'Fortunei Gigantea' !  
 2030 *Hosta plantaginea* (Lam.) Aschers. !  
 2031 *Hosta sieboldiana* Engl.  
 2032 *Hosta ventricosa* Stearn !

#### HYACINTHACEAE

- 2033 **Bowiea** *kilimandcharica* Mildbr. G  
 2034 *Bowiea volubilis* Hooker G!  
 2035 **Chionodoxa** *forbesii* Bak. !



- 2036 **Dipcadi** serotinum (L.) Medik. G  
 2037 **Eucomis** bicolor Baker G  
 2038 **Galtonia** candicans Decne !  
 2039 **Hyacinthella** dalmatica (Baker) Cho \*(2)!  
 2040 **Hyacinthoides** hispanica (Mill.) Rothm. !  
 2041 *Hyacinthoides hispanica* (Mill.) Rothm. 'Alba' !  
 2042 *Hyacinthoides italica* (L.) Rothm.  
 2043 **Hyacinthus** orientalis L. !  
 2044 **Lachenalia** pallida Soland. G!  
 2045 **Ledebouria** cooperi (Hook.f.) Jessop  
 2046 **Muscari** armeniacum Leichtlin ex Baker  
 2047 *Muscari armeniacum* Leichtlin ex Baker 'Blue Spike' !  
 2048 *Muscari azureum* Fenzl !  
 2049 *Muscari botryoides* (L.) Mill. ☐!  
 2050 *Muscari comosum* (L.) Mill. ☐!  
 2051 *Muscari comosum* (L.) Mill. f. *holzmanni* (Heldr.) Hal. ☐!  
 2052 *Muscari neglectum* Guss. ex Ten. ☐!  
 2053 *Muscari tenuiflorum* Tausch  
 2054 **Ornithogalum** arabicum L.  
 2055 *Ornithogalum longibracteatum* Jacq.  
 2056 *Ornithogalum pyramidale* L. !  
 2057 **Puschkinia** scilloides Adams !  
 2058 **Scilla** autumnalis L. ☐!  
 2059 *Scilla bifolia* L. !  
 2060 *Scilla peruviana* L.  
 2061 **Veltheimia** bracteata Baker G

#### IRIDACEAE

- 2062 **Anomatheca** laxa (Thunb.) Goldblatt G!  
 2063 **Babiana** macrantha Mac-Owan G!  
 2064 **Belamcanda** chinensis !  
 2065 **Crocsmia** x *crocsmiiflora* (Burbidge et Dean) N. E. Brown !  
 2066 *Crocsmia* 'Lucifer' !  
 2067 *Crocsmia* (L. Bolus) N.E. Br.  
 2068 **Crocus** dalmaticus Vis. ☐!  
 2069 *Crocus imperatus* Ten.  
 2070 *Crocus pulchellus* Herb.  
 2071 *Crocus sieberi* J. Gay  
 2072 *Crocus vernus* (L.) Hill ☐!  
 2073 *Crocus vernus* (L.) Hill subsp. *albiflorus* (Kit.) Asch. et Grabn. ☐!  
 2074 **Cypella** coelestis (Lehmann) Diels G  
 2075 **Dietes** iridioides (L.) Sweet ex Klatt G!  
 2076 **Freesia** refracta (Jacq.) Eckl. ex Klatt G!  
 2077 **Gladiolus** x *gandavensis* 'Blue Night'  
 2078 *Gladiolus* x *gandavensis* 'Early Rose'  
 2079 *Gladiolus* x *gandavensis* 'Holland's Glory' !

- 2080 *Gladiolus x gandavensis* 'Perun'
- 2081 *Gladiolus x gandavensis* 'Red Sea'
- 2082 *Gladiolus x gandavensis* 'Silver Wedding'
- 2083 *Gladiolus illyricus* Koch \* (2)!
- 2084 ***Hermodactylus tuberosus*** (L.) Mill. ☐!
- 2085 *Iris Barbata Elatior* 'Blue Ensign' !
- 2086 *Iris Barbata Elatior* 'Blue Sapphire' !
- 2087 *Iris Barbata Elatior* 'Canadian Northland' !
- 2088 *Iris Barbata Elatior* 'Eleanor's Pride' !
- 2089 *Iris Barbata Elatior* 'Elisabeth'
- 2090 *Iris Barbata Elatior* 'Galilee' !
- 2091 *Iris Barbata Elatior* 'Gay Lord'
- 2092 *Iris Barbata Elatior* 'Gold Fackel' !
- 2093 *Iris Barbata Elatior* 'Ice Cream Castle' !
- 2094 *Iris Barbata Elatior* 'Inka Chief' !
- 2095 *Iris Barbata Elatior* 'Jane Phillips'
- 2096 *Iris Barbata Elatior* 'Maori King'
- 2097 *Iris Barbata Elatior* 'Mod Mode' !
- 2098 *Iris Barbata Elatior* 'Pagan' !
- 2099 *Iris Barbata Elatior* 'Persian Berry' !
- 2100 *Iris Barbata Elatior* 'Pink Plume' !
- 2101 *Iris Barbata Elatior* 'Space Odysey' !
- 2102 *Iris Barbata Elatior* 'Sweet Musette' !
- 2103 *Iris Barbata Elatior* 'Tournament Queen'
- 2104 *Iris Barbata Elatior* 'Whoop'em Up' !
- 2105 *Iris bucharica* M. Foster !
- 2106 *Iris crocea* Jacquem. ex R. Foster
- 2107 *Iris ensata* Thunb. !
- 2108 *Iris foetidissima* L. !
- 2109 *Iris graminea* L. ☐!
- 2110 *Iris graminea* L. !
- 2111 *Iris illyrica* Tommas. ☐!
- 2112 *Iris japonica* Thunb.
- 2113 *Iris orientalis* Mill. L. !
- 2114 *Iris pallida* Lamarck ☐!
- 2115 *Iris polakii* Stapf
- 2116 *Iris pseudacorus* L. \* (2, 5)!
- 2117 *Iris pseudacorus* L. ☐!
- 2118 *Iris pseudacorus* L. !
- 2119 *Iris pseudacorus* L. var. *pallidiflora* Sims. !
- 2120 *Iris pseudopallida* Trinajstić \* (1)!
- 2121 *Iris pseudopallida* Trinajstić ☐!
- 2122 *Iris sanguinea* Donn
- 2123 *Iris sanguinea* Donn ex Hornem. 'Snow Queen' !
- 2124 *Iris sibirica* L. !
- 2125 *Iris sibirica* L. 'Phosphor' !

- 2126 *Iris spuria* L. subsp. *halophila* (Pallas) D. A. Webb et Chater !  
 2127 *Iris spuria* L. subsp. *musulmanica* (Fomin) Takhtadjan  
 2128 *Iris unguicularis* Poir.  
 2129 *Iris variegata* L.      □(2)!  
 2130 *Iris versicolor* L.      !  
 2131 *Iris xiphium* L.  
 2132 **Neomarica** *gracilis* (Herb. ex Hook.) Sprague G!  
 2133 **Sisyrinchium** *bermudianum* L.  
 2134 *Sisyrinchium graminifolium* Lindl.  
 2135 *Sisyrinchium littorale* Greene

#### JUNCACEAE

- 2136 **Juncus** *articulatus* L.      \*(2)!  
 2137 *Juncus effusus* L.      \*(2)!  
 2138 *Juncus glomeratus* Thunb. \*(6)!  
 2139 *Juncus inflexus* L.      \*(6)!  
 2140 *Juncus subnodulosus* Schrank      \*(2)!  
 2141 **Luzula** *campestris* (L.) DC.      \*(3)!  
 2142 *Luzula campestris* (L.) DC.      !  
 2143 *Luzula luzuloides* (Lem.) Dandy et Wilmott      □!  
 2144 *Luzula sylvatica* (Huds.) Gaudin      !

#### LILIACEAE

- 2145 **Albuca** *bainesii* Baker  
 2146 **Erythronium** *dens-canis* L.      □!  
 2147 **Fritillaria** *degeniana* J. Wagn.      !  
 2148 *Fritillaria meleagris* L.      !  
 2149 *Fritillaria messanensis* Raf. subsp. *gracilis* (Ebel) Rix  
 2150 **Lilium** 'Bright Dragon'      !  
 2151 *Lilium* 'Bright Star'      !  
 2152 *Lilium carnolicum* Bernh. ex Koch      \*(2)!  
 2153 *Lilium japonicum* Thunb.  
 2154 *Lilium martagon* L.      \*(5)!  
 2155 *Lilium martagon* L.      □!  
 2156 *Lilium martagon* L.      !  
 2157 *Lilium martagon* L. 'Album'      !  
 2158 *Lilium regale* Wils.      !  
 2159 **Smilax** *aspera* L.      \*(2)!  
 2160 **Tulipa** *sylvestris* L.      !  
 2161 *Tulipa tarda* Stapf      !

#### MELANTHIACEAE

- 2162 **Tofieldia** *calyculata* (L.) Wahlenb.      □!  
 2163 **Veratrum** *album* L.      \*(2)!  
 2164 *Veratrum nigrum* L.      !

ORCHIDACEAE

- 2165 **Epipactis** atrorubens (Hoffm.) Besser \* (2)!  
 2166 **Dactylorhiza** sambucina (L.) Soó \* (2)!

POACEAE

- 2167 **Achnatherum** calamagrostis (L.) P. Beauv. ☐  
 2168 **Aegilops** geniculata Roth !  
 2169 **Aira** caryophylla L. !  
 2170 **Alopecurus** pratensis L. !  
 2171 **Anthoxanthum** odoratum L. !  
 2172 **Arrhenatherum** elatius (L.) P. Beauv. ex J. Presl et C. Presl !  
 2173 **Avena** barbata Pott ex Link !  
 2174 *Avena sativa* L. !  
 2175 **Brachypodium** distachyon (L.) P. Beauv. ☐!  
 2176 *Brachypodium pinnatum* (L.) P. Beauv. !  
 2177 *Brachypodium retusum* (Pers.) P. Beauv. ☐!  
 2178 **Briza** maxima L. \* (2)!  
 2179 *Briza media* L. \* (1)!  
 2180 *Briza media* L. ☐!  
 2181 **Bromus** erectus Huds. ☐!  
 2182 *Bromus hordeaceus* L. !  
 2183 **Chionochloa** rigida (Raoul) Zotov  
 2184 **Chrysopogon** gryllus (L.) Trin.  
 2185 **Cortaderia** selloana (Schult. et Schult.) Asch. et Graeb. !  
 2186 **Cynodon** dactylon (L.) Pers.  
 2187 **Dactylis** glomerata L. \* (2)!  
 2188 *Dactylis glomerata* L. !  
 2189 *Dactylis glomerata* L. subsp. *aschersoniana* (Graebn.) Thell. ☐!  
 2190 **Danthonia** decumbens (L.) DC.  
 2191 **Dasypyrum** villosum (L.) P. Candargy  
 2192 **Deschampsia** cespitosa (L.) P. Beauv. \* (1, 2)!  
 2193 *Deschampsia cespitosa* (L.) P. Beauv. !  
 2194 **Digitaria** sanguinalis (L.) Scop. \* (2)!  
 2195 **Echinochloa** crus-galli (L.) P. Beauv. !  
 2196 **Festuca** altissima All. ☐  
 2197 *Festuca altissima* All. subsp. *sylvatica* (Pollich.) Vill. ☐  
 2198 *Festuca amethystina* L.  
 2199 *Festuca drymeia* Mert. et W.D.J. Koch ☐!  
 2200 *Festuca gigantea* (L.) Vill.  
 2201 *Festuca glauca* Vill.  
 2202 *Festuca glauca* Vill. 'Eliach Blue' !  
 2203 *Festuca heterophylla* Lam. ☐  
 2204 *Festuca ovina* L. 'Eliach Blue'  
 2205 *Festuca pratensis* Huds. !  
 2206 *Festuca rubra* L. ☐!

- 2207 *Festuca tenuifolia* Sibth. 'Herms'
- 2208 *Festuca valesiaca* Schleich. ex Willd.   ▣!
- 2209 **Hakonechloa** *macra* Mak. ex Honda
- 2210 **Helictotrichon** *sempervirens* (Vill.) Pilg.
- 2211 **Heteropogon** *contortus* (L.) P. Beauv. ex Roem. et Schult.   \*(2)!
- 2212 **Holcus** *lanatus* L.   \*(1, 3, 4)!
- 2213 *Holcus lanatus* L.   ▣!
- 2214 **Hordelymus** *europaeus* (L.) Harz.   \*(4)!
- 2215 **Hordeum** *murinum* L. subsp. *leporinum* (Link) Arcangeli   ▣!
- 2216 **Hyparrhenia** *hirta* (L.) Stapf   !
- 2217 **Koeleria** *splendens* C. Presl.   ▣!
- 2218 **Lagurus** *ovatus* L.   !
- 2219 **Lolium** *perenne* L.
- 2220 *Lolium temulentum* L.   !
- 2221 **Melica** *altissima* L. 'Atropurpurea'
- 2222 *Melica ciliata* L.   \*(2)!
- 2223 *Melica ciliata* L.   ▣!
- 2224 *Melica nutans* L.   \*(2)!
- 2225 *Melica uniflora* Retz.   \*(1)!
- 2226 *Melica uniflora* Retz.   ▣!
- 2227 **Pennisetum** *alopecuroides* (L.) Spreng.
- 2228 *Pennisetum alopecuroides* (L.) Spreng. 'Compressum'   !
- 2229 *Pennisetum incomptum* Nees
- 2230 *Pennisetum orientale* L. C. Rich.
- 2231 **Phleum** *pratense* L.   !
- 2232 **Phyllostachys** *aureosulcata* McClure   !
- 2233 **Piptatherum** *miliaceum* (L.) Coss.   \*(2)!
- 2234 *Piptatherum miliaceum* (L.) Coss.   !
- 2235 **Poa** *alpina* L. var. *vivipara* L.   ▣!
- 2236 *Poa alpina* L. var. *vivipara* L.   !
- 2237 *Poa bulbosa* L.   !
- 2238 *Poa nemoralis* L.   \*(2)!
- 2239 *Poa nemoralis* L.   !
- 2240 **Sesleria** *tenuifolia* Schrader   ▣!
- 2241 *Sesleria tenuifolia* Schrader subsp. *kalnikiensis* (Jav.) Deyl   ▣!
- 2242 **Setaria** *pumila* (Poir.) Schult.   \*(2)!
- 2243 **Sorghum** *bicolor* (L.) Moench   !
- 2244 **Stipa** *bromoides* (L.) Dörfl.   !
- 2245 *Stipa pennata* L.   !
- 2246 **Trisetum** *flavescens* (L.) P. Beauv.   !
- 2247 **Zea** *mays* L. *cult.*   !
- 2248 *Zea mays* L. var. *gracillima* Körn.
- 2249 *Zea mays* L. convar. *microsperma* Koern 'Popcorn'   !
- 2250 *Zea mays* L. convar. *saccharata* Koern 'Aranjmaszola'

RUSCACEAE

- 2251 **Danaë** racemosa (L.) Moench !  
2252 **Ruscus** aculeatus L. \*(2)!  
2253 Ruscus aculeatus L. □!  
2254 Ruscus hypoglossum L. \*(2, 3)!  
2255 Ruscus hypoglossum L. □!

TRILLIACEAE

- 2256 **Paris** quadrifolia L. \*(2)!

TYPHACEAE

- 2257 **Typha** angustifolia L. \*(2)!  
2258 Typha angustifolia L. !  
2259 Typha latifolia L. !

ZINGIBERACEAE

- 2260 **Alpinia** zerumbet (Pers.) B.L. Burtt et R.M. Sm. G!  
2261 **Hedychium** coccineum Sm. G!  
2262 Hedychium horsfieldii (R. Br. ex Wall.) Petersen G!

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## **Germination ecology of endemic species *Degenia velebitica* (Degen) Hayek (Brassicaceae)**

*Degenia velebitica* (Degen) Hayek (Brassicaceae) was discovered by Hungarian botanist Arpad Degen in July 17th, 1907, but it was already in fruit, so without any flowers Degen could not find the right genus. Next year he came back in June, but it was also too late for flowering. Finally, in May 9<sup>th</sup>, 1909, his colleague Kummerle found the new taxon in full blossom and Hayek placed in the right genus: ***Degenia***, after its discoverer. *Degenia velebitica* is the only species in its monotypic genus, famous, very rare (the rarest in the Velebit Mt), endemic, endangered, and protected by law (in Croatia since 1964, in the world since 1978). *Degenia velebitica* is today on the list of 45 most endangered species in Europe, and 250 in the world.

The small population of degenia grows only on calcareous rocks in geographically limited area of central and southern part of Velebit Mt. Few years ago mountain climbers found new habitat on mountain Mala Kapela, near Bile locality. Since there is a huge risk of destruction of the natural habitats (especially on Velebit) all botanists in Croatia have to make huge efforts in protection, cultivation and micropropagation of *D. velebitica* (PEVALEK-KOZLINA & al. 1999). Therefore, the aim of this study was to learn more about degenia phenology - flowering, maturing and seed dispersing - and to test the differences in seeds germination response to different temperatures. Seeds used in this experiment were collected in natural habitat near Bile, and in Botanical Garden, Faculty of Science, of the University of Zagreb. This study investigated the details of temperature control on germination, using: (1) constant temperature (room temp. 24°C and 21°C), (2) alternate temperature (hot greenhouse 22/31°C, and outside temperature 16/28°C), (3) various length of cold stratification (3, 6, 9, 12 weeks), (4) period of dry storage at room temperature (12 weeks), (4) difference between percentage germination in dark and in light conditions, (5) difference between percentage germination depending on habitat where seeds were collected.

In all experimentations Petri plates with seeds were examined twice a week for at least 28 days, some of them until germination finished (70 days). Seven days old seedlings were removed from plates and counted. Seeds morphology and morphometry were also studied. For morphological studies seeds were coloured in 1% solution of 2,3,5-triphenyl-2H-tetrazolium chloride (TTC) imbibe for two hours (COTTRELL, 1947). For morphometrical studies the T-test was used as method to evaluate the differences in means between two groups. The longest part of seeds were measured in Coral program, 500 seeds were measured for every of two different habitats.

First part of research dealt with flowers and seeds phenology of *Degenia velebitica*. *Degenia* blossoms from beginning of April until middle of May (or after snow melted), what means for about 45 days. First fruit appear 25 days after the first flower and need 45 days to mature (first dispersing begin). Also, this is the time when seeds maturing begins and lasts at



least 70 days, because 90 days after the first flower appear all seeds are matured. Time when first flower appears until last seed is dispersed is 100 days. Species from the same family Brassicaceae have different dispersing time: *Arabis leavigata* variety *leavigata* needs more than 2.5 year for all seeds to be dispersed. (BLOOM, BASKIN and BASKIN, 2002).

According to studies of MARTIN (1946) there are 12 different types of seeds and embryo position, size and shape. *Degenia* is characterized by its curved or bent embryo with cotyledons folded back along the hypocotyls / radicle and has large sized seeds and embryo and small endosperm.

Light and darkness affected germination differently. Light is not required for germination, but seeds germinated much better in light than in darkness (Fig.1). This light-requirement for higher percentage of germination is not unusual, while many species germinate much better in light than in darkness (GRIME et al., 1981; BASKIN AND BASKIN, 1988).

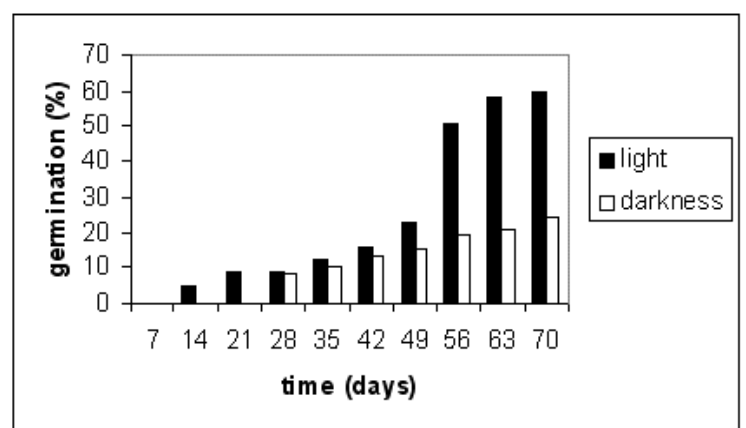


Fig. 1

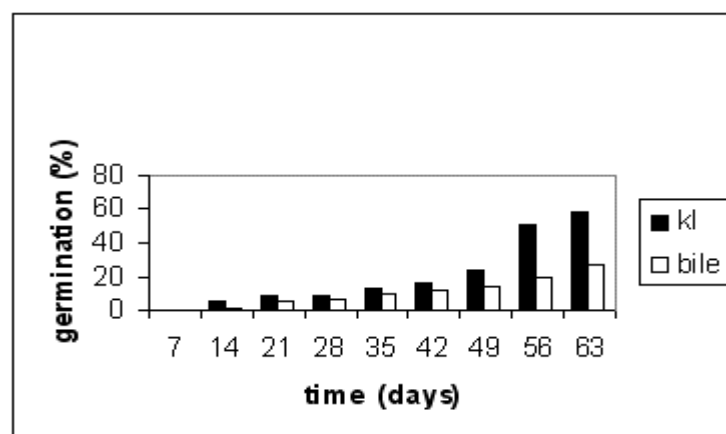


Fig. 2

The seeds collected in Botanical Garden (kl), Faculty of Science, germinated to higher percentages than those collected in natural habitat near Bile (bile) at all temperatures (Fig. 2). There are at least two possible reasons for these germination differences. Seeds from natural habitat near Bile grow in much harder conditions and in soil with low percentage of nutrients and water compared to seeds collected in Botanical Garden. The second is that plants in Botanical Garden are hybrids from few habitats so genetic studies should be made.

According to the T-test analysis, there are no statistically significant differences of morphometry between seeds from these two habitats.

As duration of cold stratification increase seeds germinated to higher percentages for 13% after 6 weeks, and 12% after 9 and 12 weeks of cold stratification, after 42 days of germination at 22/31°C for seeds collected in Botanical Garden (Fig. 3). After 12 weeks of keeping seeds in dry room (kl 12) at temperature of 24°C seeds germinated at the highest percentage (41,4%) what is 6% more that after 12 weeks of cold stratification (Fig. 3). This behaviour of *Degenia velebitica* seeds is different than usuall requirement. The time required for seeds to afterripen usually is much longer than that required for dormancy loss during cold stratification (TOOLE AND TOOLE, 1941).

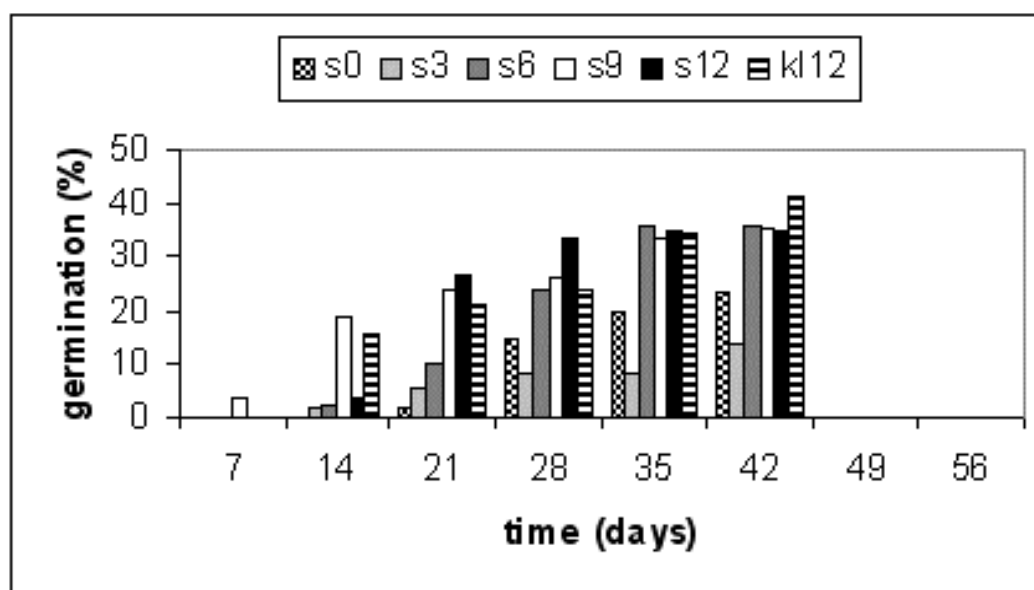


Fig. 3

When maximum germination percentages at various temperatures were compared, it showed that seeds germinated to the highest percentage at alternating 22/31°C temperature at all different regimes (length of stratification, lightness, habitat, storing at dry room temperature). Minimum germination percentage was at constant temperature 21°C that bring us to conclusion that seeds of *Degenia velebitica* do not germinate in late autumn or spring.

Seeds germinate most probably in late summer and early autumn the same year when matured (Fig. 4).

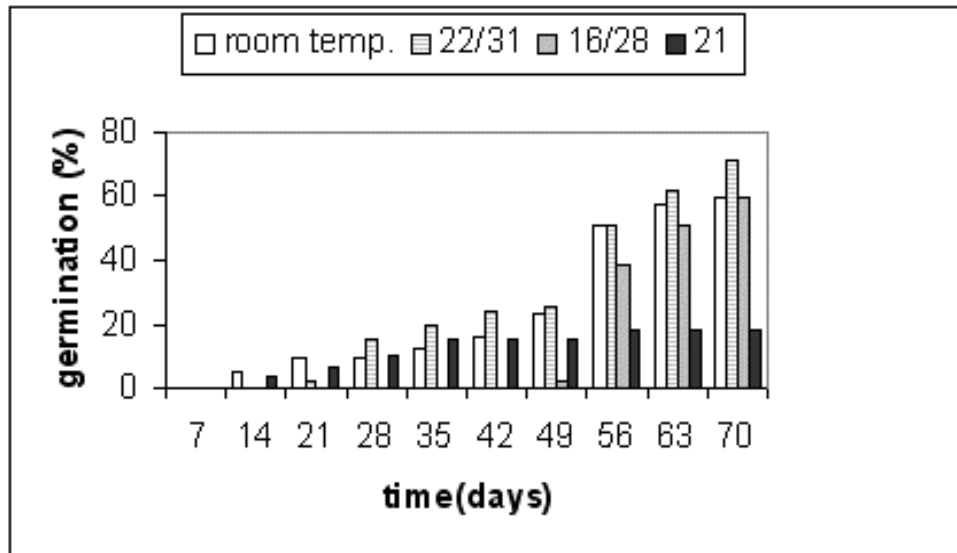


Fig. 4

Freshly collected seeds did not germinated to higher percentage after 28 days at moist filter paper: 8.77% at room temperature (24°C), 6.66% at 21°C, 14.55% at 22/31°C and 0% at 16/28°C, but germination increased after 50 days (Fig. 4). That gets as to the conclusion that *Degenia velebitica* seeds have **non-deep physiological dormancy** that can be broken by cold stratification or by keeping seeds in dry place at room temperature (after-ripening).

The studies about *Degenia velebitica* seeds germination should be continued. *Degenia* rareness and very small amount of seed that can be collected every year has limited this research, but first thoughts should be not to endanger *degenia* in its natural habitat, just to learn more about its biology and germination ecology.



*Degenia*

*velebitica*

From: **Dubravka Naumovski, 1 st Croatian Botanical Symposium, Zagreb 2004**

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