

HORTUS BOTANICUS

Журнал Совета ботанических садов СНГ при МААН

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INDEX SPORARUM ET SEMINUM 2019. BOTANIC GARDEN OF PETROZAVODSK STATE UNIVERSITY

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Ключевые слова:
in situ, ex situ, список семян, генетические ресурсы

Аннотация: Список семян дикорастущих и культивируемых растений, собранных в 2018-19 годах в Ботаническом саду ПетрГУ и Южной Карелии

Получена: 03 декабря 2019 года **Подписана к печати:** 19 декабря 2019 года

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Botanical Garden of Petrozavodsk State University is one of the northern gardens of Russia. It is located in the mid-taiga subzone of the European taiga and in climatic conditions that correspond to zone 4. Karelia's climate is temperate continental with some features of the marine influence. The climate is characterized by mild winters, short, cool summers, significant cloud cover, and unstable weather conditions during the entire year. The average air temperature is 3º C. The region is characterized by excessive humidity, its dampness due to relatively little incoming heat and well-developed cyclonic activity during the seasons. The precipitation is 750 mm per year.

The large area of the Botanical garden (367 hectares) allows both to contain collections of plants ex situ and to preserve plants in their natural habitats (in-situ). The garden is located in a picturesque ridge landscape, which is formed by the ancient rocks of the Proterozoic age of 2 bln years. The soils are thin, mainly sandy loam with an acid reaction. Large nature zone (330 ha) occupied by forests (80 %), meadows (15 %), rocks and little swamps, where 400 species of vascular plants grow in-situ.

Main collection departments of the Botanic Garden are arboretum, the collection of perennials and collection of fruit and berry plants. The present collections and exposures include more than 2200 species, subspecies, varieties, forms and cultivars growing ex-situ.

The Botanic Garden of Petrozavodsk State University has been exchanging seeds for more than half a century. Many plants of modern collections came to the garden thanks to the support of colleagues from various botanical organizations of the world. We take this opportunity to thank you for your cooperation and look forward to continuing our common work on the conservation, study of plants and environmental education.

Geographical data:

Longitude: 34° 24 " East; Latitude: 61 ° 50 " North; altitude about sea level: 34 - 122 m.

Climate:

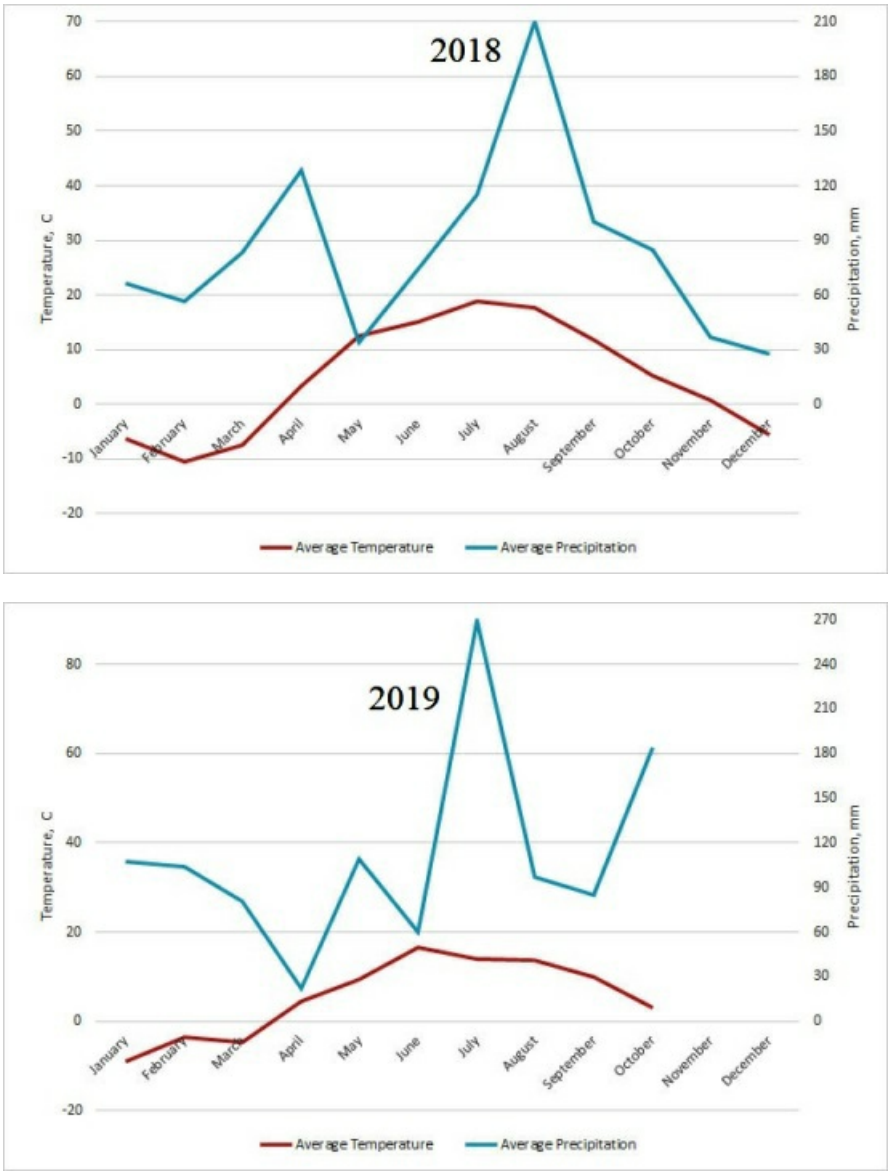

Fig.1. Climatic conditions of the Botanical Garden of PetrSU for the last two years when the seeds were collected.

Seeds:

The seeds from the garden have had open pollination, hybridization is therefore possible.

Na – spores and seeds collected from natural habitats.

Spores and seeds were collected in 2018-2019 by E.Platonova, A.Kabonen, T.Timohina.

**

№	Family	Species	Locality	Year of collection

1	ADOXACEAE	*Viburnum lantana* L.		2019
2		*Viburnum opulus* L.		2019
3		*Viburnum sargentii* Koehne		2019
4	ALISMATACEAE	*Sagittaria sagittifolia* L.	Na*	2018
5		*Sagittaria sagittifolia* L.	Na*	2019
6	APIACEAE	*Chaerophyllum aromaticum* L.		2019
7		*Eryngium planum* L.		2018
8		*Eryngium planum* L.		2019
9		*Myrrhis odorata* (L.) Scop.	Na	2018
10	ASPARAGACEAE	*Asparagus officinalis* L.		2019
11		*Convallaria majalis* L.	Na	2018
12		*Convallaria majalis* L.		2018
13		*Hosta sieboldiana* (Hook.) Engl.		2018
14		*Muscari latifolium* J.Kirk		2019
15		*Muscari latifolium* 'Grape Ice'		2019
16	ASPHODELACEAE	*Hemerocallis middendorffii* Trautv. & C.A.Mey.		2019
17	ASTERACEAE	*Arnica lanceolata* Nutt.		2019
18		*Buphthalmum salicifolium* L.		2019
19		*Cyanus cheiranthifolius* (Willd.) Soják		2019
20		*Cyanus montanus* (L.) Hill		2019
21		*Eupatorium cannabinum* L.		2018
22		*Eupatorium cannabinum* L.		2019
23		*Gnaphalium sylvaticum* L.	Na	2019
24		*Hieracium aurantiacum* L.		2018
25		*Hieracium penduliforme* (Dahlst.) Johanss.	Na	2019
26		*Hieracium vulgare* Tausch	Na*	2019
27		*Hieracium villosum* Jacq.		2019
28		*Ligularia dentata* (A.Gray) Hara		2018
29		*Ligularia sibirica* (L.) Cass.		2018
30		*Ligularia sibirica* (L.) Cass.		2019
31		*Pyrethrum corymbosum* (L.) Scop.		2018
32		*Pyrethrum corymbosum* (L.) Scop.		2019
33		*Solidago virgaurea* L.		2019
34		*Tanacetum vulgare* 'Crispum'		2018
35	BERBERIDACEAE	*Berberis canadensis* Mill.		2019
36		*Berberis integerrima* Bunge		2019
37		*Berberis vulgaris* 'Atropurpurea'		2018
38		*Berberis thunbergii* DC.		2019

39	BETULACEAE	*Betula pendula* var. *carelica* (Merckl.) Hämet-Ahti		2019
40	BRASSICACEAE	*Alyssum wulfenianum* Benth. ex Willd.		2019
41	CAMPANULACEAE	*Campanula alliariifolia* Willd.		2018
42		*Campanula alliariifolia* Willd.		2019
43		*Campanula latifolia* f. *alba* Voss		2019
44		*Campanula patula* L.	Na	2018
45		*Campanula punctata* Lam.		2018
46		*Campanula punctata* Lam.		2019
47		*Campanula thyrsoides* L.		2018
48		*Campanula thyrsoides* L.		2019
49		*Jasione montana* L.		2019
50		*Phyteuma nigrum* F.W.Schmidt		2019
51		*Phyteuma sieberi* Spreng.		2019
52	CAPRIFOLIACEAE	*Lonicera alpigena* L.		2019
53		*Patrinia rupestris* (Pall.) Dufr.		2019
54		*Symphoricarpos albus* (L.) S.F.Blake		2018
55		*Scabiosa japonica* Miq.		2019
56	CARYOPHYLLACEAE	*Dianthus amurensis* Jacques		2019
57		*Dianthus amurensis* 'Imago'		2019
58		*Dianthus arenarius* L.		2018
59		*Dianthus barbatus* 'Holborn Glory'		2019
60		*Dianthus deltoides* L.		2018
61		*Dianthus giganteus* subsp. *banaticus* (Heuff.) Tutin		2018
62		*Dianthus giganteus* subsp. *banaticus* (Heuff.) Tutin		2019
63		*Dianthus petraeus* Waldst. & Kit.		2019
64		*Dianthus plumarius* L.		2019
65		*Minuartia laricifolia* (L.) Schinz&Thell.		2018
66		*Minuartia laricifolia* (L.) Schinz&Thell.		2019
67		*Silene alpestris* Jacq.		2018
68		*Silene chalcedonica* (L.) E.H.L.Krause		2018
69		*Silene flos-jovis* 'Nana'		2018
70		*Silene flos-jovis* 'Nana'		2019
71		*Silene viscaria* (L.) Jess.	Na	2019
72	CELASTRACEAE	*Euonymus europaeus* L.		2019
73		*Parnassia palustris* L.	Na*	2019
74	CISTACEAE	*Helianthemum arcticum* (Grosser) Janch.		2019
75		*Helianthemum nummularium* (L.) Mill.		2019

76	COLCHICACEAE	*Colchicum autumnale* L.		2019
77	CRASSULACEAE	*Phedimus selskianus* (Regel &Maack) 't Hart		2018
78		*Phedimus selskianus* (Regel &Maack) 't Hart		2019
79		*Rhodiola kirilowii* (Regel) Maxim.		2019
80		*Sedum kamtschaticum* Fisch.		2019
81		*Sedum spurium* 'Coccineum'		2019
82	CUPRESSACEAE	*Thuja occidentalis* L.		2019
83	CYPERACEAE	*Carex leporina* L.	Na	2019
84	DRYOPTERIDACEAE	*Dryopteris carthusiana* (Vill.) H.P. Fuchs	Na	2019
85		*Dryopteris filix-mas* (L.) Schott	Na	2019
86		*Polystichum setiferum* (Forssk.) Moore ex Woyn.		2019
87	FABACEAE	*Caragana arborescens* Lam.		2019
88		*Caragana boisii* C.K.Schneid.		2018
89		*Caragana frutex* (L.) K.Koch		2019
90		*Chamaecytisus ruthenicus* (Fischer ex Woloszczak) Klásk.		2019
91		*Lathyrus sylvestris* L.		2018
92		*Lathyrus vernus* (L.) Bernh.	Na	2019
93		*Lembotropis nigricans* (L.) Griseb.		2018
94		*Lupinus polyphyllus* Lindl.		2019
95	GERANIACEAE	*Geranium macrorrhizum* L.		2019
96		*Geranium sanguineum* L.		2019
97		*Geranium sylvaticum* L.	Na	2019
98	HYDRANGEACEAE	*Hydrangea cinerea* Small		2019
99	HYPERICACEAE	*Hypericum maculatum* Crantz		2019
100	IRIDACEAE	*Iris graminea* L.		2019
101		*Iris halophila* Pall.		2019
102		*Iris halophila* var. *sogdiana* (Bunge) Grubov		2018
103		*Iris ruthenica* Ker Gawl.		2019
104		*Iris setosa* Pall. ex Link		2018
105		*Iris sibirica* L.		2018
106		*Iris sibirica* L.		2019
107		*Iris versicolor* L.		2018
108		*Iris versicolor* 'Kermesina'		2018
109	JUNCACEAE	*Luzula nivea* (Nathh.) DC.		2018
110		*Luzula nivea* (Nathh.) DC.		2019
111	LAMIACEAE	*Clinopodium nepeta* (L.) Kuntze		2018
112		*Clinopodium nepeta* (L.) Kuntze		2019

113		*Hyssopus officinalis* L.		2018
114		*Hyssopus officinalis* L.		2019
115		*Lavandula angustifolia* Mill.		2019
116		*Origanum vulgare* L.		2018
117		*Phlomoides tuberosa* (L.) Moench		2018
118		*Phlomoides tuberosa* (L.) Moench		2019
119		*Physostegia virginiana* (L.) Benth.		2018
120		*Prunella vulgaris* subsp. *asiatica* (Nakai) H.Hara		2018
121		*Salvia glutinosa* L.		2018
122		*Stachys byzantina* K.Koch		2018
123		*Stachys macrantha* (K.Koch) Stearn		2018
124		*Stachys macrantha* (K.Koch) Stearn		2019
125		*Stachys officinalis* (L.) Trevis		2018
126	MALVACEAE	*Lavatera thuringiaca* L.		2018
127	NYMPHAEACEAE	*Nuphar lutea* (L.) Sm.	Na*	2019
128	ONOCLEACEAE	*Matteuccia struthiopteris* (L.) Tod.		2019
129	PAEONIACEAE	*Paeonia anomala* L.		2018
130		*Paeonia anomala* L.		2019
131		*Paeonia lactiflora* Pall.		2019
132		*Paeonia daurica* subsp. *macrophylla* (Albov) D.Y.Hong		2018
133		*Paeonia daurica* subsp. *macrophylla* (Albov) D.Y.Hong		2019
134	PAPAVERACEAE	*Chelidonium majus* L.	Na	2019
135	PHYTOLACCACEAE	*Phytolacca esculenta* Van Houtte		2018
136	PINACEAE	*Abies concolor* (Gordon) Lindl. ex Hildebr.		2019
137		*Picea abies* (L.) H.Karst.		2019
138		*Picea glauca* (Moench) Voss		2019
139		*Pinus pumila* (Pall.) Regel		2019
140		*Pseudotsuga menziesii* (Mirb.) Franco		2019
141	PLANTAGINACEAE	*Digitalis ciliata* Trautv.		2018
142		*Digitalis lanata* Ehrh.		2019
143		*Digitalis lutea* L.		2018
144		*Penstemon hirsutus* (L.) Willd.		2018
145		*Penstemon hirsutus* (L.) Willd.		2019
146		*Penstemon procerus* Douglas ex Graham		2019
147		*Plantago maritima* L.	Na	2019

148		*Veronica austriaca* subsp. *teucrium* (L.) D.A.Webb		2018
149		*Veronica austriaca* subsp. *teucrium* (L.) D.A.Webb		2019
150		*Veronica spicata* subsp. *incana* (L.) Walters		2018
151		*Veronicastrum virginicum* (L.) Farw.		2018
152	POACEAE	*Anthoxanthum odoratum* L.	Na	2018
153		*Melica ciliata* L.		2019
154		*Melica nutans* L.	Na	2019
155		*Milium effusum* L.	Na*	2019
156	PRIMULACEAE	*Lysimachia punctata* L.		2018
157		*Primula auricula* L.		2019
158		*Primula matthioli* (L.) K.Richt.		2018
159		*Primula matthioli* (L.) K.Richt.		2019
160	PTERIDACEAE	*Adiantum pedatum* L.		2019
161	RANUNCULACEAE	*Aconitum napellus* L.		2018
162		*Aconitum napellus* L.		2019
163		*Caltha palustris* L.	Na	2019
164		*Clematis recta* 'Purpurea'		2018
165		*Ranunculus acris* L.	Na*	2019
166		*Ranunculus montanus* Willd.		2019
167		*Thalictrum aquilegiifolium* L.		2018
168		*Thalictrum aquilegiifolium* L.		2019
169		*Thalictrum simplex* L.		2018
170		*Trollius europaeus* L.	Na*	2019
171	RHAMNACEAE	*Rhamnus cathartica* L.		2018
172		*Rhamnus cathartica* L.		2019
173	ROSACEAE	*Alchemilla alpina* L.		2018
174		*Alchemilla alpina* L.		2019
175		*Alchemilla mollis* (Buser) Rothm.		2018
176		*Aruncus dioicus* 'Zweiweltenkind'		2019
177		*Comarum palustre* L.	Na*	2019
178		*Crataegus punctata* Jacq.		2018
179		*Crataegus punctata* Jacq.		2019
180		*Crataegus submollis* Sarg.		2019
181		*Drymocallis rupestris* (L.) Soj k		2019
182		*Filipendula ulmaria* (L.) Maxim.	Na	2018
183		*Filipendula ulmaria* (L.) Maxim.	Na	2019
184		*Filipendula vulgaris* Moench		2018

185		*Filipendula vulgaris* Moench		2019
186		*Fragaria vesca* L.	Na	2019
187		*Physocarpus opulifolius* 'Diabolo'		2018
188		*Potentilla argyrophylla* 'Zolotisto-Oranzhevaya'		2018
189		*Potentilla atrosanguinea* G.Lodd. ex D.Don		2018
190		*Potentilla atrosanguinea* G.Lodd. ex D.Don		2019
191		*Potentilla crantzii* (Crantz) Beck ex Fritsch		2019
192		*Potentilla drummondii* subsp. *breweri* (S.Watson) Ertter		2018
193		*Potentilla fragarioides* L.		2019
194		*Potentilla* × *hopwoodiana* Sweet		2019
195		*Potentilla thurberi* 'Monarch's Velvet'		2019
196		*Rosa glauca* Pourr.		2019
197		*Rosa multiflora* Thunb.		2019
198		*Sanguisorba canadensis* L.		2018
199		*Sanguisorba minor* Scop.		2018
200		*Sanguisorba minor* Scop.		2019
201		*Sanguisorba parviflora* (Maxim.) Takeda		2019
202		*Sibbaldia tridentata* (Sol.) Paule&Soj k		2019
203	SAPINDACEAE	*Acer platanoides* L.		2019
204		*Acer tataricum* subsp. *semenovii* (Regel & Herder) A.E.Murray		2019
205	SAXIFRAGACEAE	*Bergenia purpurascens* (Hook.f. & Thomson) Engl.		2019
206		*Heuchera cylindrica* Douglas		2018
207		*Heuchera micrantha* 'Palace Purple'		2018
208		*Heuchera micrantha* 'Palace Purple'		2019
209		*Heuchera sanguinea* Engelm.		2019
210		*Heuchera* 'Apple Crisp'		2019
211		*Heuchera* 'Can-can'		2019
212		*Heuchera* 'Chocolate Ruffles'		2019
213		*Heuchera* 'Electric Lime'		2019
214		*Heuchera* 'Marmalade'		2019
215		*Rodgersia podophylla* A.Gray		2018
216		*Rodgersia podophylla* A.Gray		2019
217		*Saxifraga* × *arendsii*		2019
218		*Tiarella wherryi* Lakela		2019
219	SCROPHULARIACEAE	*Scrophularia nodosa* L.	Na	2018

220	*Scrophularia nodosa* L.	Na	2019

* Detailed location:

4, 5, 127, 177 — Karelia, Prionezhskiy Distr., outskirts near the village Nizovje, shore of river Shuja. Collector T.Timohina.

26 — Kondopozhskiy Distr., outskirts near the village Yershi. Bushes near lake Sandal. Collector E.Platonova.

73 — Kondopozhskiy Distr., outskirts near the village Yershi. Wet meadow. Collector E.Platonova.

155 — Kondopozhskiy Distr., outskirts near the village Yershi. Deciduous forest. Collector E.Platonova.

165, 170 — Kondopozhskiy Distr., outskirts near the village Yershi. Herbaceous meadow. Collector E.Platonova.

Other numbers of spores and seeds marked «Na» were collected in the nature zone of Botanic Garden of PetrSU.

Fig.2. *Dianthus giganteus* subsp. *banaticus* (Heuff.) Tutin

Fig.3. *Sanguisorba canadensis* L.

Fig.4. *Arnica lanceolata* Nutt.

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Agreement on the supply of plant material by the Botanic Garden of Petrozavodsk State University (BGPSU)

Since the Convention on Biological Diversity (CBD, Rio de Janeiro 1992) entered into force, it has become necessary for botanic gardens to comply in particular with Article 15 (Access to genetic resources), especially in connection with the exchange of plant material. Accordingly, the BGPSU only passes on plant material under the condition that the user acts in the spirit of the Convention on Biological Diversity. The BGPSU is dedicated to the conservation, sustainable use and research of biological diversity. With regard to the acquisition, maintenance and supply of plant material, the BGPSU therefore expects its partners to act in a manner that is consistent to the letter and the spirit of the Biodiversity Convention, the Convention on International Trade in Endangered Species (CITES) and in compliance with all relevant conventions and laws relating to the protection of biological diversity. As a consequence, plant material from the collections of the BGPSU is supplied only to those persons and institutions who accept the following conditions:

1. On the basis of this agreement, the material is intended to serve the common good, particularly scientific study, education and the interests of environmental protection.

2. The recipient is obliged to document and preserve information relating to the material appropriately.

3. In the event that scientific publications on the plant material provided are produced, the origin of the material is to be cited. In addition, copies of such publications are expected to be sent to the BGPSU without request.

4. Commercial use is not covered by this agreement but is object of a separate agreement with the country of origin. Such agreement underlies the provisions of the CBD, i. e. the user is obliged to share benefits with the country of origin. In this context, the user has to forward all relevant information to the authorities instructed with the implementation of the CBD. On request, the BGPSU will provide such information to these authorities.

5. The recipient is allowed to supply plant material derived from the BGPSU to others only on the basis and under the conditions of this or corresponding agreements.

By ordering plant material from the BGPSU, the recipient accepts the conditions listed above

_____

Sign and Stamp of seeds recipient

(if it outside of Russia, Belarus, Kazakhstan)

Desiderata

Please send the desiderata to

garden@psu.karelia.ru

till April 15, 2020

Your Address:

Address:

Seed curator: Tatiana Timohina, Botanic Garden of Petrozavodsk State University, Lenina av., 33, Petrozavodsk, Karelia, Russia, 185910

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1st January). (дата обращения 15.10.2019).

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Key words: in situ, ex situ, seed list, genetic resources

Summary: Seed list of wild and cultivated plants collected in 2018-19 in the Botanic Garden of Petrozavodsk State University and South Karelia.

Is received: 03 december 2019 year **Is passed for the press:** 19 december 2019 year

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