



# HORTUS BOTANICUS

Журнал Совета ботанических садов СНГ при МААН

13 / 2018

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**Адрес редакции**

185910, Республика Карелия, г. Петрозаводск, ул. Анохина, 20, каб. 408.

E-mail: hortbot@gmail.com

<http://hb.karelia.ru>

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**На обложке:**

Гунибская экспериментальная база Горного ботанического сада Дагестанского НЦ РАН  
(фото Руслана Османова)

**Разработка и техническая поддержка**

Отдел объединенной редакции научных журналов ПетрГУ, РЦ НИТ ПетрГУ,  
Ботанический сад ПетрГУ

Петрозаводск

2018



## INDEX SPORARUM ET SEMINUM 2018. BOTANIC GARDEN OF PETROZAVODSK STATE UNIVERSITY

<b>PLATONOVA Elena</b>	<i>Petrozavodsk State university, пр. Ленина, 33, Петрозаводск, 185910, Россия meles@sampo.ru</i>
<b>ТИМОНИНА Tatjana</b>	<i>Petrozavodsk State University, пр.Ленина, 33, Петрозаводск, 185910, Россия garden@psu.karelia.ru</i>
<b>KABONEN Alexey</b>	<i>Petrozavodsk State University, пр.Ленина, 33, Петрозаводск, 185910, Россия alexkabonen@mail.ru</i>

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

**Аннотация:** Список семян дикорастущих и культивируемых растений, собранных в 2017-18 годах в Ботаническом саду ПетрГУ и Южной Карелии

**Получена:** 10 декабря 2018 года

**Подписана к печати:** 19 декабря 2018 года

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Seed Lists (Index Seminum) are the strong threads that link botanical gardens into a single network of people and organizations that are close in spirit, ideas and goals. Our common work solves the important tasks of plant conservation, investigation of various life forms and adaptive potentials of the plants and allows us to discover the beauty and uniqueness of flora for people in different parts of the world.

The [Botanic Garden of Petrozavodsk State University](#) has been exchanging seeds for more than half a century. Garden collections of plants are growing, and we are glad to send to our colleagues the collected seeds.

The total area of the Botanic Garden is 367 ha. Large nature zone (330 ha) occupied by forests (80%), meadows (15%), rocks and little swamps, where 400 species of vascular plants grow in-situ.

The nature monument of Karelia "Devil's Chair" (Chertov Stul), situated in the territory of Botanic Garden - one of the classical objects for studies of the development history of our planet. Active volcanic processes took place here 2 bln years ago. Slides and stone screens at the foot are traces of strong (up to 8-9 points) earthquakes that happened during the post-glacial period, which had started 12,000 years ago.

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.

### **Geographical data:**

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

### **Climate:**

Hardiness zone – 4



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### 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 2017-2018 by E.Platonova, A.Kabonen, T.Timohina, V.Timofeeva.

Family	№	Species	Locality	Year of collection
ADOXACEAE	1	<i>Sambucus racemosa</i> L.		2017
	3	<i>Viburnum lantana</i> L.		2017
	4	<i>Viburnum opulus</i> L.	Na	2017
	5	<i>Viburnum sargentii</i> Koehne		2018
	6	<i>Sagittaria sagittifolia</i> L.	Na*	2018
ALLIACEAE	7	<i>Allium schoenoprasum</i> L.		2017
APIACEAE	8	<i>Anthriscus sylvestris</i> (L.) Hoffm.	Na*	2017
	9	<i>Eryngium planum</i> L.		2018
	10	<i>Myrrhis odorata</i> (L.) Scop.	Na	2017
	11	<i>Myrrhis odorata</i> (L.) Scop.	Na	2018
ASPARAGACEAE	12	<i>Convallaria majalis</i> L.	Na	2017
	13	<i>Convallaria majalis</i> L.	Na	2018
	14	<i>Convallaria majalis</i> L.		2018
	15	<i>Hosta sieboldiana</i> (Hook.) Engl.		2018
	16	<i>Muscari latifolium</i> J.Kirk		2018
	17	<i>Muscari latifolium</i> 'Grape Ice'		2018
ASTERACEAE	18	<i>Arnica lanceolata</i> Nutt.		2018

	19	<i>Arnica montana</i> L.		2018
	20	<i>Eupatorium cannabinum</i> L.		2018
	21	<i>Gnaphalium sylvaticum</i> L.	Na	2018
	22	<i>Hieracium aurantiacum</i> L.		2017
	23	<i>Hieracium aurantiacum</i> L.		2018
	24	<i>Hieracium penduliforme</i> (Dahlst.) Johanss.	Na	2017
	25	<i>Hieracium vulgare</i> Tausch	Na	2017
	26	<i>Ligularia dentata</i> (A.Gray) Hara		2018
	27	<i>Ligularia sibirica</i> (L.) Cass.		2017
	28	<i>Ligularia sibirica</i> (L.) Cass.		2018
	29	<i>Pyrethrum corymbosum</i> (L.) Scop.		2018
	30	<i>Scorzoneroides autumnalis</i> (L.) Moench	Na	2017
	31	<i>Tanacetum vulgare</i> 'Crispum'		2018
BERBERIDACEAE	32	<i>Berberis vulgaris</i> L.		2017
	33	<i>Berberis vulgaris</i> 'Atropurpurea'		2018
BORAGINACEAE	34	<i>Symphytum officinale</i> L.		2017
BRASSICACEAE	35	<i>Thlaspi arvense</i> L.	Na	2017
CAMPANULACEAE	36	<i>Campanula alliarifolia</i> Willd.		2018
	37	<i>Campanula hofmannii</i> (Pantan.) Greuter & Burdet		2018
	38	<i>Campanula latifolia</i> L.		2017
	39	<i>Campanula latifolia</i> f. <i>alba</i> Voss		2017
	40	<i>Campanula patula</i> L.	Na	2018
	41	<i>Campanula punctata</i> Lam.		2018
	42	<i>Campanula thyrsoides</i> L.		2018
CAPRIFOLIACEAE	43	<i>Lonicera alpigena</i> L.		2017
	44	<i>Lonicera xylosteum</i> L.	Na	2017
	45	<i>Symphoricarpos albus</i> (L.) S.F.Blake		2018
CARYOPHYLLACEAE	46	<i>Dianthus arenarius</i> L.		2018
	47	<i>Dianthus chinensis</i> L.		2018
	48	<i>Dianthus deltoides</i> L.		2018
	49	<i>Dianthus hyssopifolius</i> subsp. <i>gallicus</i> (Pers.) M.Lainz & Muñoz Garm		2018
	50	<i>Dianthus giganteus</i> subsp. <i>banaticus</i> (Heuff.) Tutin		2017
	51	<i>Dianthus giganteus</i> subsp. <i>banaticus</i> (Heuff.) Tutin		2018
	52	<i>Minuartia loricifolia</i> (L.) Schinz & Thell.		2018
	53	<i>Silene alpestris</i> Jacq.		2018

	54	<i>Silene chalcedonica</i> (L.) E.H.L.Krause		2017
	55	<i>Silene chalcedonica</i> (L.) E.H.L.Krause		2018
	56	<i>Silene coronaria</i> (Desr.) Clairv. ex Rchb.		2017
	57	<i>Silene dioica</i> (L.) Clairv.	Na*	2017
	58	<i>Silene flos-jovis</i> 'Nana'		2018
	59	<i>Silene pusilla</i> Waldst. & Kit.		2017
	60	<i>Silene schafta</i> J.G.Gmel. ex Hohen.		2018
	61	<i>Silene viscaria</i> (L.) Jess.	Na	2017
CELASTRACEAE	62	<i>Euonymus europaeus</i> L.		2017
CISTACEAE	63	<i>Helianthemum arcticum</i> (Grosser) Janch.		2018
	64	<i>Helianthemum nummularium</i> (L.) Mill.		2017
CRASSULACEAE	65	<i>Phedimus selskianus</i> (Regel & Maack) 't Hart		2018
CUPRESSACEAE	66	<i>Juniperus communis</i> L.		2018
	67	<i>Juniperus squamata</i> Buch.- Ham. ex D.Don		2017
	68	<i>Thuja occidentalis</i> L.		2017
CYPERACEAE	69	<i>Carex muricata</i> L.		2017
	70	<i>Eriophorum angustifolium</i> Honck.	Na*	2017
DRYOPTERIDACEAE	71	<i>Dryopteris carthusiana</i> (Vill.) H.P. Fuchs	Na	2017
ERICACEAE	72	<i>Vaccinium myrtillus</i> L.	Na	2017
FABACEAE	73	<i>Caragana boisii</i> C.K.Schneid.		2017
	74	<i>Caragana boisii</i> C.K.Schneid.		2018
	75	<i>Chamaecytisus ruthenicus</i> (Fischer ex Woloszczak) Kláš.		2017
	76	<i>Lathyrus sylvestris</i> L.		2018
	77	<i>Lembotropis nigricans</i> (L.) Griseb.		2018
	78	<i>Lupinus polyphyllus</i> Lindl.		2017
GERANIACEAE	79	<i>Geranium pyrenaicum</i> Burm.f.		2017
	80	<i>Geranium sanguineum</i> L.		2017
	81	<i>Geranium sylvaticum</i> L.	Na	2017
	82	<i>Geranium thunbergii</i> Siebold ex Lindl. & Paxton		2018
IRIDACEAE	83	<i>Iris halophila</i> Pall.		2017
	84	<i>Iris halophila</i> Pall.		2018
	85	<i>Iris halophila</i> var. <i>sogdiana</i> (Bunge) Grubov		2018

	86	<i>Iris sanguinea</i> Donn ex Hornem.		2017
	87	<i>Iris setosa</i> Pall. ex Link		2018
	88	<i>Iris sibirica</i> L.		2017
	89	<i>Iris sibirica</i> L.		2018
	90	<i>Iris sibirica</i> 'Purple Mere'		2018
	91	<i>Iris versicolor</i> L.		2017
	92	<i>Iris versicolor</i> L.		2018
	93	<i>Iris versicolor</i> 'Kermesina'		2017
	94	<i>Iris versicolor</i> 'Kermesina'		2018
JUGLANDACEAE	95	<i>Juglans mandshurica</i> Maxim.		2017
JUNCACEAE	96	<i>Luzula nivea</i> (Nathh.) DC.		2017
	97	<i>Luzula nivea</i> (Nathh.) DC.		2018
	98	<i>Luzula pilosa</i> (L.) Willd.	Na	2017
LAMIACEAE	99	<i>Clinopodium nepeta</i> (L.) Kuntze		2018
	100	<i>Clinopodium vulgare</i> L.	Na	2017
	101	<i>Hyssopus officinalis</i> L.		2018
	102	<i>Melissa officinalis</i> L.		2018
	103	<i>Origanum vulgare</i> L.		2018
	104	<i>Phlomoïdes tuberosa</i> (L.) Moench		2018
	105	<i>Physostegia virginiana</i> (L.) Benth.		2018
	106	<i>Prunella grandiflora</i> (L.) Scholler		2017
	107	<i>Prunella vulgaris</i> subsp. <i>asiatica</i> (Nakai) H.Hara		2018
	108	<i>Salvia glutinosa</i> L.		2017
	109	<i>Salvia glutinosa</i> L.		2018
	110	<i>Stachys byzantina</i> K.Koch		2017
	111	<i>Stachys byzantina</i> K.Koch		2018
	112	<i>Stachys macrantha</i> (K.Koch) Stearn		2018
	113	<i>Stachys officinalis</i> (L.) Trevis		2018
	114	<i>Thymus serpyllum</i> 'Purpurteppich'		2018
	115	<i>Ziziphora clinopodioides</i> Lam.		2018
MALVACEAE	116	<i>Lavatera thuringiaca</i> L.		2017
	117	<i>Lavatera thuringiaca</i> L.		2018
MELANTHIACEAE	118	<i>Paris quadrifolia</i> L.	Na	2017
MENYANTHACEAE	119	<i>Menyanthes trifoliata</i> L.	Na*	2017
PAEONIACEAE	120	<i>Paeonia anomala</i> L.		2017
	121	<i>Paeonia anomala</i> L.		2018
	122	<i>Paeonia lactiflora</i> Pall.		2017



	123	<i>Paeonia daurica</i> subsp. <i>macrophylla</i> (Albov) D.Y.Hong		2018
PAPAVERACEAE	124	<i>Chelidonium majus</i> L.	Na	2017
PHYTOLACCACEAE	125	<i>Phytolacca esculenta</i> Van Houtte		2018
PINACEAE	126	<i>Abies fraseri</i> (Pursh) Poir.		2018
	127	<i>Picea glauca</i> (Moench) Voss		2018
	128	<i>Pinus pumila</i> (Pall.) Regel		2017
	129	<i>Pinus pumila</i> (Pall.) Regel		2018
	130	<i>Pseudotsuga menziesii</i> (Mirb.) Franco		2017
PLANTAGINACEAE	131	<i>Digitalis ciliata</i> Trautv.		2018
	132	<i>Digitalis lutea</i> L.		2018
	133	<i>Penstemon hirsutus</i> (L.) Willd.		2017
	134	<i>Penstemon hirsutus</i> (L.) Willd.		2018
	135	<i>Penstemon serrulatus</i> Menzies ex Sm.		2017
	136	<i>Penstemon serrulatus</i> Menzies ex Sm.		2018
	137	<i>Veronica austriaca</i> subsp. <i>teucrium</i> (L.) D.A.Webb		2018
	138	<i>Veronica spicata</i> subsp. <i>incana</i> (L.) Walters		2018
	139	<i>Veronicastrum virginicum</i> (L.) Farw.		2018
POACEAE	140	<i>Anthoxanthum odoratum</i> L.	Na	2018
	141	<i>Melica nutans</i> L.	Na	2017
	142	<i>Melica nutans</i> L.	Na	2018
	143	<i>Milium effusum</i> L.	Na	2017
POLEMONIACEAE	144	<i>Polemonium caeruleum</i> L.	Na	2017
PRIMULACEAE	145	<i>Lysimachia punctata</i> L.		2017
	146	<i>Lysimachia punctata</i> L.		2018
	147	<i>Primula denticulata</i> Sm.		2018
	148	<i>Primula matthioli</i> (L.) K.Richt.		2018
	149	<i>Primula veris</i> L.		2017
RANUNCULACEAE	150	<i>Aconitum napellus</i> L.		2017
	151	<i>Aconitum napellus</i> L.		2018
	152	<i>Clematis recta</i> 'Purpurea'		2017
	153	<i>Clematis recta</i> 'Purpurea'		2018
	154	<i>Thalictrum aquilegifolium</i> L.		2017
	155	<i>Thalictrum aquilegifolium</i> L.		2018
	156	<i>Thalictrum minus</i> L.		2017
	157	<i>Thalictrum simplex</i> L.		2018
RHAMNACEAE	158	<i>Frangula alnus</i> Mill.		2017

	159	<i>Rhamnus cathartica</i> L.		2017
	160	<i>Rhamnus cathartica</i> L.		2018
ROSACEAE	161	<i>Alchemilla alpina</i> L.		2017
	162	<i>Alchemilla alpina</i> L.		2018
	163	<i>Alchemilla mollis</i> (Buser) Rothm.		2017
	164	<i>Alchemilla mollis</i> (Buser) Rothm.		2018
	165	<i>Cotoneaster nebrodensis</i> Koch		2017
	166	<i>Crataegus punctata</i> Jacq.		2017
	167	<i>Crataegus punctata</i> Jacq.		2018
	168	<i>Filipendula ulmaria</i> (L.) Maxim.	Na	2017
	169	<i>Filipendula ulmaria</i> (L.) Maxim.	Na	2018
	170	<i>Filipendula vulgaris</i> Moench		2018
	171	<i>Fragaria vesca</i> L.	Na	2017
	172	<i>Physocarpus opulifolius</i> (L.) Maxim.		2018
	173	<i>Physocarpus opulifolius</i> 'Diabolo'		2018
	174	<i>Potentilla argentea</i> L.	Na	2017
	175	<i>Potentilla argyrophylla</i> 'Zolotisto-Oranzhevaya'		2018
	176	<i>Potentilla atosanguinea</i> G.Lodd. ex D.Don		2018
	177	<i>Potentilla crantzii</i> (Crantz) Beck ex Fritsch		2017
	178	<i>Potentilla drummondii</i> subsp. <i>breweri</i> (S.Watson) Ertter		2018
	179	<i>Potentilla sterilis</i> (L.) Garcke		2018
	180	<i>Potentilla</i> × <i>hopwoodiana</i> Sweet		2018
	181	<i>Potentilla nivea</i> L.		2017
	182	<i>Potentilla thurberi</i> 'Monarch's Velvet'		2018
	183	<i>Prunus virginiana</i> L.		2017
	184	<i>Rosa arkansana</i> Porter		2018
	185	<i>Rosa davurica</i> Pall.		2017
	186	<i>Rosa amblyotis</i> C.A.Mey.		2017
	187	<i>Rosa rugosa</i> Thunb.		2017
	188	<i>Sanguisorba canadensis</i> L.		2018
	189	<i>Sanguisorba minor</i> Scop.		2017
	190	<i>Sanguisorba minor</i> Scop.		2018
	191	<i>Sibbaldia procumbens</i> L.		2018
	192	<i>Sibbaldia tridentata</i> (Sol.) Paule & Soj k		2018

	<b>193</b>	<i>Sorbus americana</i> Marshall		2017
	<b>194</b>	<i>Sorbus aucuparia</i> L.	Na	2017
	<b>195</b>	<i>Sorbus aucuparia</i> subsp. <i>sibirica</i> (Hedl.) Krylov		2017
	<b>196</b>	<i>Sorbus intermedia</i> (Ehrh.) Pers.		2017
RUBIACEAE	<b>197</b>	<i>Galium odoratum</i> (L.) Scop.		2017
SAPINDACEAE	<b>198</b>	<i>Acer tataricum</i> L.		2017
SAXIFRAGACEAE	<b>199</b>	<i>Heuchera cylindrica</i> Douglas		2018
	<b>200</b>	<i>Heuchera micrantha</i> 'Palace Purple'		2018
	<b>201</b>	<i>Heuchera sanguinea</i> Engelm.		2018
	<b>202</b>	<i>Rodgersia podophylla</i> A.Gray		2018
	<b>203</b>	<i>Saxifraga exarata</i> subsp. <i>moschata</i> (Wulfen) Cavill.		2018
	<b>204</b>	<i>Saxifraga umbrosa</i> 'Variegata'		2018
	<b>205</b>	<i>Tiarella wherryi</i> Lakela		2018
SCROPHULARIACEAE	<b>206</b>	<i>Scrophularia nodosa</i> L.	Na	2018

\* Detailed location:

6 — Karelia, Prionezhskiy Distr., outskirts near the village Nizovje, shore of river Shuja. Collector T.Timohina.

8 — Karelia, Medvezh'egorskiy Distr., neighborhood of the Velikaya Guba settlement, herbaceous meadow. Collector V.Timofeeva.

57 — Karelia, Kondopozhskiy Distr., outskirts near the village Vokhtozero. Collector V.Timofeeva.

70, 119 — Karelia, Kondopozhskiy Distr., bog near the lake Cheranga. Collector E.Platonova.

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

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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 are 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](mailto:GARDEN@PSU.KARELIA.RU)

TILL APRIL 15, 2019

**YOUR ADDRESS:**

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



*Minuartia laricifolia* (L.) Schinz & Thell.



*Geranium thunbergii* Siebold ex Lindl. & Paxton.

## References

The Plant List (2013). Version 1.1. Published on the Internet; <http://www.theplantlist.org/> (accessed 1st January). <http://www.theplantlist.org/> (дата обращения 1.12.2018).

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<b>PLATONOVA Elena</b>	Petrozavodsk State university, Lenina av., 33, Petrozavodsk, 185910, Russia meles@sampo.ru
<b>TIMOHINA Tatjana</b>	Petrozavodsk State University, Lenina av., 33, Petrozavodsk, 185910, Russia garden@psu.karelia.ru
<b>KABONEN Alexey</b>	Petrozavodsk State University, Lenina av., 33, Petrozavodsk, 185910, Russia alexkabonen@mail.ru

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

**Summary:** Seed list of wild and cultivated plants collected in 2017-18 in the  
Botanic Garden of Petrozavodsk State University and South Karelia.

**Is received:** 10 december 2018 year

**Is passed for the press:** 19 december 2018 year

### References

The Plant List (2013). Version 1.1. Published on the Internet; <http://www.theplantlist.org/> (accessed 1st January). <http://www.theplantlist.org/> (data obratsheniya 1.12.2018).

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