



ESCAPE – UNIVERSITY OF HELSINKI, UNIVERSITY OF OULU

# Native plants in outdoor gardens exchanged C.4.

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## ESCAPE Deliverable report

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Photo: Paula Havas-Matilainen

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# Native plants in outdoor gardens exchanged C.4.

The numbers of ex-situ cultivated taxa of native threatened plants exchanged between Kumpula and Kaisaniemi Botanical gardens of UH in Helsinki (Fig. 1A, 1B) and Oulu Botanical garden of UO in Oulu (Fig. 1C) by end of the year 2014 are listed in this report.



A

B

C

Figure 1. A. Kumpula and B. Kaisaniemi Botanical gardens and C. Oulu Botanical garden

The list below contains notes on the exchange of taxa between the gardens mentioned. Additionally, information on the species, its origin, placement in outdoor collection section and/or in propagation house, and on success of the species in the botanical gardens are shown. Also, a list of misidentified taxa with corrected names, and taxa with unsure origins are given.

### Abbreviations:

HF = Hortus Fennicus;

HE = Hortus Europaeus (geographical collection 22x);

UH = Kumpula Botanic Garden, University of Helsinki;

UO = Botanical Garden, University of Oulu;

UT = Botanical Garden, University of Turku.

## Kumpula botanical garden; accessions from seed bank germination tests

During winter season 2014 several germination tests had been carried out in the ESCAPE seed bank in the Kumpula Botanic Garden, and the following 4 accessions from the germination tests have been shifted to the propagation house to grow in the seed bed, and sent for ex-situ cultivation in UO.

*Bromus benekenii*: Liperi -accession: 10 plants shifted to HF (section 228G) and one germinated seed bed were given on 22 July to UO.

*Agrimonia pilosa*: Padasjoki -accession: 20 plants shifted to the HF (section 228A) and 4 plants were given on 22 July to UO

*Carex arenaria*: Hanko -accession: 20 plants shifted to the HF (section 228H) and 7 potted seedlings were given to UO.

*Armeria maritima* subsp. *intermedia*: 14 plants shifted to the HF (section 228H) and 10 potted plants were given to UO.

## Four ESCAPE taxa were received from UO in summer 2014:

*Arctophila fulva* var. *pendulina*: Temmes -accession, micropropagated in UO, received 100 plantlets to UH. 10 plants shifted to HE (section 223, on the shore of the pond) and another 10 plants to HF (section 228H). 10 micropropagated plants are at the propagation house. One plant was given to UT.

*Rosa sherardii*: Jomala -accession, micropropagated in UO: 6 plants shifted to HF (section 228G) and 6 plants to HE (section 220, near pond).

*Dianthus superbus*: Kaavi -serpentine-accession, micropropagated in UO, received 100 plantlets to UH. Currently 24 plants at the propagation room and 14 plants were given on 22 July to UT.

*Viscaria alpina* var. *serpentinicola*: Kuhmo -accession: micropropagated in UO, received 100 plantlets to UH. 24 plants shifted to HE (section 227), 15 plants were given on 22 July to UT. Puolanka -accession: micropropagated in UO, received 100 plantlets to UH. 24 seedlings at the propagation room. 15 plants were given on 22 July to UT.

## Threatened taxa, 7 non-ESCAPE priority list but declined native plants, received from UO in summer 2014:

[OU data provided by Head gardener Tuomas Kauppila from the Oulu Botanical Garden. Data translated and sorted out by L. Junikka].



*Campanula cervicaria* -Seeds of the wild accession 2002-0248 (Lempäälä) sown and planted in the garden OU; seeds collected August 2013 from garden plants in OU, germinated and 12 seedlings planted in the garden on 13 June 2014.

On 22 July 2014 OU has given to UH 6 seedlings, which are waiting to be planted in the Kaisaniemi Botanical Garden.

*Euphrasia bottnica*: Seed of wild accession 2006-0494 (Simo) were sown and grown in the garden; seeds collected August 2013 from the garden, germinated and 12 seedlings planted in the garden on 13 June 2014.

On 22 July 2014 UO has given to UH 6 seedlings, which are waiting to be planted in the Kaisaniemi Botanical Garden.

*Geranium palustre*: Seeds from the wild accession 1998-0220 (Ala-Kieri) sown and grown in the garden; seeds collected on August 2013, germinated and 8 seedlings planted on 13 June 2014 in the garden.

On 22 July 2014 UO has given to UH 3 seedlings, which are waiting to be planted in the Kaisaniemi Botanical Garden.

*Rosa sherardii*: Seeds from the wild accession 1987-3660 (Jomala) plants sown and grown in the garden; micropropagation and cuttings on June 2013, rooted and seedlings was planted in the Kumpula Botanic garden, 6 plantlets in HF (228G) on 26 September 2014 and 6 plantlets in HE (220) on 1 October 2014..

On 22 July 2014 UO has given to UH a few micropropagated plants.

*Silene tatarica*: Seeds from the wild accession 2012-1073 (Kuusamo) sown and germinated in the UO. Five seedlings were planted the Kumpula Botanic garden, HF (228B) on 30 September 2014.

On 22 July 2014 UO has given to UH 5 seedlings, which has been planted to HF.

*Thalictrum minus* subsp. *kemense*: Seeds from the wild accession 1998-1721 (origin Jyväskylä Botanical Garden) received from the Jyväskylä University Botanic Garden; germinated and planted 12 seedlings to the outdoor collections on 13 June 2014.

On 22 July 2014 UO has given to UH 6 seedlings, which are waiting to be planted in the Kaisaniemi Botanical Garden.

*Trifolium aureum*: Seeds from the wild accession 2003-0021 (Elimäki) received from the Botanic Garden of the UH, sown and grown in the garden; seeds collected on September 2013, germinated and 9 seedlings planted in the garden on 12 June 2014.

On 22 July 2014 UO has given to UH 5 seedlings, which are waiting to be planted in the Kaisaniemi Botanical Garden.

One Pre-ESCAPE threatened native plant taxon sent from UH to micropropagation in UO:

*Oxytropis lapponica*: Taatsavaara -accession: 24 plants at the propagation house; seeds shifted from germination trials from agar to the nursery; rest of the seeds sent to micropropagation to UO.



**Figure 2.** *Rubus humulifolius* in Kumpula Botanical Garden. Photo: Paula Havas-Matilainen.

4 taxa and accessions of native plant species, identification of which has been corrected, or taxa with unsure origin have been removed from ESCAPE collections

*Dianthus arenarius* subsp. *borussicus* (correct name: *Dianthus superbis*): Kouvola-accession (79 potted seedlings) received from UO was misidentified, and seeds were actually collected from the UO garden – 13 plants waiting to be shifted to Kaisaniemi.

*Ranunculus sulphureus* (correct name: *Ranunculus acris* ssp. *pumilus*): Kilpijärvi-accession, micropropagated in UO, received 100 plantlets to UH: 12 plants were shifted to HF (section 228C) and another 12 plants to HE (section 222, near pond). 12 plants were given to the Botanical Garden, University of Turku (UT). Misidentified.

*Silene tatarica* (correct name: *Dianthus superbis*): Kuusamo -accession: Seeds received from UO. 5 plants shifted 13 June to HF (section 228B). Misidentified.

*Dianthus deltoides*: two accessions (Toppilansaari + Jokioinen) from the Oulu Botanic Gardens: potted 31 + 39 plants. Seeds were collected from UO garden from wild oriented accessions and therefore discarded on 30 July.

*Primula nutans* var. *jokelae*: accession -UO: 23 plants in the pots, but discarded, because of unsure origin.

*Rosa canina*: Seeds from the arboretum accession 1980-0079 (Suitia, Siuntio) sown and grown in the garden; cuttings were taken on June 2013, rooted and c. 50 rooted cuttings will be planted in the garden on July 2014. On 22 July 2014 UO has given to UH 5 rooted cuttings, which are discarded, because the taxon grows as wild only in Åland and therefore accession must be escaped from the garden.



## SUMMARY OF ESCAPE AND RELATED TAXON EXCHANGE BETWEEN BOTANICAL GARDENS BY 31.12.2014

Altogether 16 native plant taxa, including 9 ESCAPE priority list taxa and 7 non-priority list taxa, have been exchanged between botanical gardens by 31.12.2014. Additionally, 6 taxa have been in exchange program, but removed on the basis of corrected identification or unacceptable or unsure origin, thus resulting 22 taxa in exchange program.

### a. FROM UH

Five taxa have been given to UO & four to UT.

Taxa to UO are: *Armeria maritime* ssp. *intermedia*, *Bromus benekenii*, *Agrimonia pilosa*, *Carex arenaria* and *Oxytropis lapponica*.

Taxa to UT are: *Arctophila fulva* var. *pendulina*, *Dianthus superbus*, *Ranunculus sulphureus*, *Viscaria alpina* var. *serpentinicola* (two accessions)

### b. FROM UO

Six ESCAPE priority list taxa have been received to UH from UO, with additional 7 non-ESCAPE taxa.

Taxa to UH are *Dianthus arenarius* subsp. *borussicus*, *Primula nutans* var. *jokelae*, *Arctophila fulva* var. *pendulina*, *Dianthus superbus*, *Rosa sherardii*, *Viscaria alpina* var. *serpentinicola* (two accessions)