Dracocephalum ruyschiana - 2014

2.1. Latinsk navn (Latin name)

Dracocephalum ruyschiana L.

As **individual** we treat a tuft (cluster, or – ecological term – ramet) with shoots growing visibly from one place.

Juvenile individual - if a lot of young plants are spread evenly without creating visible tufts we treat area of 25 cm² as an individual.

Old desintegrating tufts are counted as more than one individual if it covers more than 25 cm².

2.2 Rødlistestatus (redlist satus)

Sårbar. (Vulnerable)

2.3 Utbredelse (spreading/place)

The species is found from the Oslofjord to Gudbrandsdalen. Norway has the main population in north-western Europe. Eastern and Central Europe and western and central Asia, extending locally westwards to Norway and the Pyrenees.

2.4 Lokaliteter i Norge (locations in Norway)

2.4.1. Lokaliteter i Oslo (locations in Oslo)

Now 27 locations observed.

BAKKEHAUGEN - 2014

Location: Bakkehaugen

Individuals: ca. 35

Area: 5 x 10 m (potential area 20 x 100m)

Environment (habitat): Slope SE, W and top of the ridge. Its slopes and top are not mowed but the ridge is surrounded by lawns. Small ridge is covered by rich vegetation, there is rather meadow than vegetation, what is characteristic for Dracocephalum locations. For this reason it is difficult to see vegetative individuals. Trees and bushes: Ulmus (glabra?). Herbaceous plants: Agrostis capillaris, Allium oleraceum, Anthriscus sylvestris, Avenastrum pubescens, Campanula persicifolia, Campanula trachelium, Carex digitata, Dactylis glomerata, Daucus carota, Galium boreale, Galium verum, Geranium sanguineum, Knautia arvensis, Fragaria vesca, Festuca rubra, Plantago media, Polygonatum odoratum, Poa pratensis s. lato, Solidago virgaurea, Thymus pulegioides, Trifolium alpestre, Viscaria vulgaris, Rumex acetosa,

Condition: Dracocephalum grows only at the top of a small ridge growing among lush, low vegetation of a meadow character. Juvenile specimens < 5%, average number of shoots in a tuft -5, maximum -10; high about 20 cm. There is difficult to see vegetative individuals in very rich vegetation. Almost 100% were blooming. It is possible that because of the lush vegetation we found only flowering individuals.

Care:

Date of watch: 22nd 06. 2014.

Owner:

Photos: J. Potocka

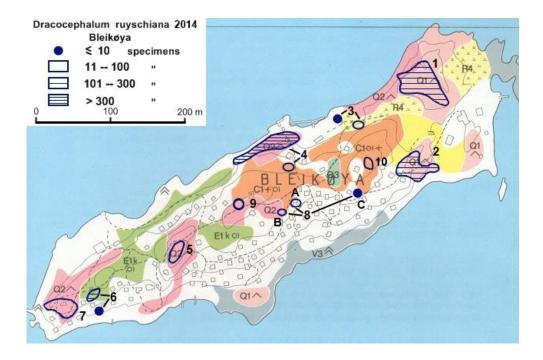


Photo.1. Bakkehaugen, small ridge with *Dracocephalum ruyschiana* habitat. 22nd 06. 2014. Phot. J. Potocka



Photo. 2. One of a few big cluster, in full flowering. 22nd 06. 2014. Phot. J. Potocka

BLEIKØYA - 2014



Location: Bleikøya 1

Individuals: 265

Area: 100 x 60m

Environment (habitat): Open top of a ridge and a slope facing South. Also in western very steep slope is a concentration of about 30 big tufts and a few other plants are spread around. With other species: Alchemilla sp., Allium vineale, Avenula pratensis cfr., Berberis vulgaris, Centaurea jacea, Centaurea scabiosa, Cotoneaster sp., Festuca rubra cfr., Filipendula vulgaris, Fragaria vesca, Fraxinus excelsior, Galium verum, Geranium sanguineum, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Hypericum perforatum, Pimpinella saxifraga, Polygonatum odoratum, Potentilla argentea, Rumex acetosella, Sedum album, Thymus pulegioides, Veronica spicata.

Condition: Habitat of the population transformed by the activity of the *Arvicola terestris* and nesting of geese – probably this is the reason of population declines in this site. About 50-60% of plants were blooming and fruiting. Blooming was almost finished at the moment of counting. Plants were grazed and dried-up.

Care: There was no cutting activity on this location.

GPS-coordinates: 59°53'26.52"N 10°44'33.99"E Dracocephalum-Bleikoya1

Date of watch: 22nd 06. 2014.

Owner:

Photos: J. Potocka



Phot.1. Top and S hill slope on Bleikøya 1. 22^{nd} 06. 2014. Phot. J. Potocka



Phot.1. Most of Dracocephalum plants finished blooming on Bleikøya 1 at the time of observations. 22^{nd} 06. 2014. Phot. R. Gramsz

Individuals: ca. 300

Area: 40 x 30 m (potential area 40 x 40 m)

Environment (habitat): Open top of a hill and a slope facing NWN and lower terrace on the E of top. With other species: Acer platanoides, Alchemilla sp., Achillea millefoiulm, Allium vineale, Anthyllis vulneraria, Asplenium trichomanes, Avenula pratensis cfr., Berberis vulgaris, Centaurea jacea, Centaurea scabiosa, Cirsium vulgare, Convallaria majalis, Cotoneaster sp., Erysimum strictum cfr., Festuca ovina, Festuca rubra cfr., Filipendula ulmaria, Filipendula vulgaris, Fragaria vesca, Fragaria viridis, Fraxinus excelsior, Galium boreale, Galium verum, Geranium robertianum, Geranium sanguineum, Geum urbanum, Hepatica nobilis, Hieracium pilosella, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Hypericum perforatum, Leucanthemum vulgare, Lonicera xylosteum, Origanum vulgare, Phydimus spurius (Sedum spurium), Pimpinella saxifraga, Pastinaca sativa, Plantago media, Poa nemoralis, Polygonatum odoratum, Polypodium vulgare, Potentilla argentea, Rhamnus cathartica, Ribes alpinum cfr., Rosa sp., Rubus sp., Sedum album, Sorbus aucuparia, Sorbus domestica cfr., Syringa vulgaris, Thymus pulegioides, Trifolium alpestre, Verbascum sp., Veronica spicata, Viola tricolor, Viscaria vulgaris

Condition: Less specimens than year ago, about 60-70% blooming, but shoots with one to few flowers. Part of N fragment was buried under the debris coming from a nearby repaired house. Ca. 135 individuals on the main area, 30 on the part SE.

Care: There was cutting activity in August this year but only shouts of trees and bushes were cut.

Date of watch: 19th 06. 2014.

Owner:

Photos: J. Potocka



Phot.1. Top of a ridge – location Bleikøya 2. There is visible building rubbish, covering part of the location on the left side of of the frame is. 19th 06. 2014. Phot J. Potocka



Phot.2. Part of location Bleikøya 2 on SE side, below the main area. 19th 06. 2014. Phot J. Potocka

Bleikøya 3

Individuals: 24 (7 + 17 on rocky ledge)

Area: $6 \times 4 \text{ m} + 3 \times 4 \text{ m}$

Environment (habitat): Part of a beach used for boats storage and a rocky ledge about 50 m North from this already known location "3". With: *Rosa sp., Fragaria vesca, Fraxinus excelsior, Geranium sanguineum, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Thymus pulegioides, Polygonatum odoratum and the others.*

Condition: Bloomed nicely specimens growing on the ledge; individuals close to the footpath – looked poor.

Care:

GPS-coordinates: 59°53'24.40"N 10°44'26.22"E <u>Dracocephalum-Bleikoya3</u>

Under a footpath on the northern side of a place for boat storage in winter and a new concentration 50 m to the North.

Date of watch: 22nd 06. 2014.

Owner:

Photos: J. Potocka



Phot.1. Part of location Bleikøya 3 close to the boat storage place. 22nd 06. 2014. Phot. J. Potocka



Phot.3. Blooming plants of $Dracocephalum\ ruyschiana$. Bleikøya 3, on the rock. $22^{\rm nd}$ 06. 2014. Phot. J. Potocka



Phot.2. Part of location Bleikøya 3 on the rock. 22nd 06. 2014. Phot. J. Potocka

Individuals: ca. 335 (main area – 165)

Area: $100 (120) \times 30m + 5 \times 5m$

Environment (habitat): The slope facing NW mostly overgrown by high bushes and trees (covering ca 60%). Dracocephalum grows rather sparsely both in the open area and under the bushes. Open area in "winter boat storage place" is included to the main location but another concentration, some 50 m apart is showed separately on the map. Bushes and low trees: Fraxinus excelsior, Cotoneaster sp., Rosa sp., Juniperus communis, Crataegus sp., Pinus sylvestris (several), Rhamnus cathartica, Rosa sp., Sorbus aucuparia, Syringa vulgaris (several); herbs: Anthyllis vulneraria, Asplenium trichomanes, Avenula pratensis cfr., Berberis vulgaris, Briza media, Carex pallescens, Campanula rotundifolia, Centaurea jacea, Filipendula ulmaria, Filipendula vulgaris, Fragaria vesca, Galium verum, Geranium sanguineum, Hepatica nobilis, Inula salicina, Melilotus officinalis cfr., Origanum vulgare, Phydimus spurius (Sedum spurium), Pimpinella saxifraga, Plantago media, Polygonatum odoratum, Polypodium vulgare, Potentilla argentea, Prunella vulgaris, Sedum album, Solidago virgaurea, Thymus pulegioides, Veronica spicata

Condition: 80-90% individuals were blooming. Plants on this location were in full bloom at the moment of counting. This site is more shaded and this is the reason of good condition of plants during dry and very warm spring than in other locations.

Care: Only shoots on the same area as last year have been cut once – in August.

Date of watch: 22nd 06, 2014.

Owner:

Photos: R. Gramsz, J. Potocka



Phot.1. The main part of location Bleikøya $\,4.\,\,22^{nd}\,06.\,\,2014.$ Phot. J. Potocka



Phot.2. The main part of location Bleikøya 4 – blooming individuals. 22^{nd} 06. 2014. Phot. J. Potocka



Phot.3. Separate concentration, East from main location Bleikøya 4. 22nd 06. 2014. Phot. J. Potocka



Phot.3. Site on very steep Western slope of location Bleikøya 4. 22^{nd} 06. 2014. Phot R. Gramsz

Individuals: ca. 90

Area: 10 x 30 m

Environment (habitat): Open ridge and a SE slope sparsely overgrown by bushes. With other species: Achillea millefolium, Artemisia campestris, Berberis vulgaris, Centaurea jacea, Cotoneaster sp., Festuca rubra cfr., Fragaria vesca, Fragaria viridis, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium ssp. maximum (Sedum telephium = S. maximum), Origanum vulgare, Phydimus spurius (Sedum spurium), Plantago media, Polygonatum odoratum, Prunus spinosa, Rosa sp., Thymus pulegioides, Trifolium arvense, Trifolium pratense, Veronica spicata

Condition: This year, in contrast to the previous year, more of plants were found on the top of ridge, not on the slope. Spring this year was very dry but on this location plants were flowering surprisingly well: 60-70% of individulas. Some of shoots were picked but it is rather often on this location.

Care: This site can be treated as a little "bushy" one. *Dracocephalum* plants are growing quite well here, so let it be a "bushy" site on SE slope on Bleikoya. Another "bushy" site is no 4 but on NW slope. That treatment gives a better diversity of habitats in all locations on Bleikøya.

Top of the hill with the war monument and S and SE slope

Date of watch: 19th 06. 2014

Owner:

Photos: J. Potocka



Phot.1. Top of a hill with war monument. 19th 06. 2014



Phot.2. SE facing slope on location Bleikøya 5. 19th 06. 2014. Phot. J. Potocka

Bleikøya 6 A

Individuals: Ca. 210

Area: 5 x 15 m

Environment (habitat): On the open slope facing South, on shallow stony soil. With other species: Allium vineale, Anthyllis vulneraria, Artemisia campestris, Avenula pratensis cfr., Centaurea jacea, Cotoneaster sp., Festuca ovina, Filipendula vulgaris, Fragaria viridis, Galium verum, Geranium sanguineum, Hepatica nobilis, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Hypericum perforatum, Hypochoeris maculata cfr., Jovibarba sobolifera, Origanum vulgare, Pimpinella saxifraga, Polygonatum odoratum, Potentilla argentea, Sedum album, Solidago virgaurea, Syringa vulgaris, Thymus pulegioides, Trifolium arvense, Veronica spicata, Viscaria vulgaris

Condition: Only ca. 30% of blooming plants. Many ramets with only 1 shoot.

Care: Cutting of lilac shouts were done this year once in August.

GPS-coordinates: 59°53'16.97"N 10°44'5.59"E Dracocephalum-Bleikoya6

Date of watch: 19th 06. 2014

Owner:

Photos: J. Potocka



Phot.1. View over location Bleikøya 6a. 19th 06. 2014. Phot. J. Potocka

Location: Bleikøya 6 B

Individuals: 1

Area: 1 m²

Environment (habitat): On the edge of the bushes

Condition: Only 1 big ramet (cluster).

Care:

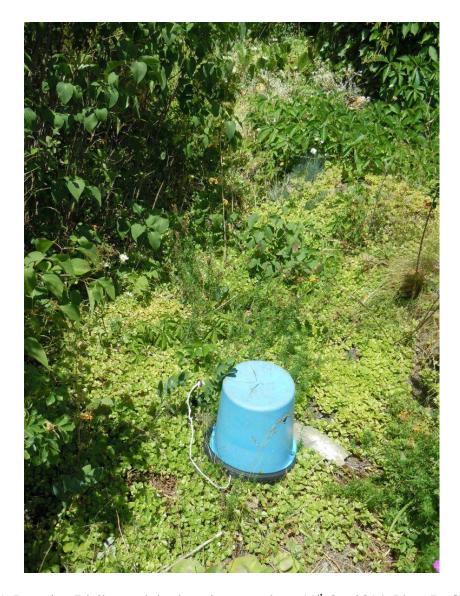
GPS-coordinates: 0597083/6640195

Under the cottage no 88 (blue), towards the sea, ca. 30 m S from location 6a.

Date of watch: 19th 06. 2014

Owner:

Photos: R. Gramsz



Phot.1. Location Bleikøya 6b in the private garden. 19th 06. 2014. Phot. R. Gramsz

Individuals: Ca. 100

(about 55 on the main concentration -5×10 m)

Area: 30 x 40m

Environment (habitat): On the open ridge and slope facing south, on shallow stony soil. With other species: Alchemilla sp., Allium vineale, Anthyllis vulneraria, Artemisia campestris, Astragallus gliciphyllos, Campanula rotundifolia, Cerastium sp., Centaurea jacea, Centaurea scabiosa, Erysimum strictum cfr., Festuca ovina, Filipendula vulgaris, Fragaria vesca, Fraxinus excelsior, Galium verum, Geranium sanguineum, Hieracium pilosella, Inula salicina, Origanum vulgare, Phydimus spurius (Sedum spurium), Pimpinella saxifraga, Plantago media, Polygonatum odoratum, Rhamnus cathartica, Rosa sp., Sedum album, Solidago virgaurea, Sorbus hybrida, Syringa vulgaris, Thymus pulegioides

Condition: Dry habitat, many ramets only with single shoot, 30-40% individuals were blooming.

Care: Cutting of bushes shoots were done in August this year only on the NW facing rocky ledge. Small area of lilac shoots was hand picked by local people.

Date of watch: 19th 06. 2014

Owner:

Photos: R. Gramsz, J. Potocka



Phot.1. Location Phot.1. Location Bleikøya 7 with main concentration of Dracocephalum. 19^{th} 06. 2014. Phot. J. Potocka



Phot.1. View over location Bleikøya 7. 19th 06. 2014. Phot. R. Gramsz

Individuals: ca. 90 (68+20+1)

Area: $4 \times 6 \text{ m} + 2 \times 4 \text{ m} + (\text{new from } 2013) 2 \times 3 \text{ m}$

Environment (habitat): In a line of bushes aside foot path – 3 places. With other species: Anthyllis vulneraria, Avenula pratensis cfr., Berberis vulgaris, Cotoneaster sp., Festuca ovina, Filipendula vulgaris, Fragaria vesca, Galium verum, Geranium sanguineum, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Juniperus communis, Plantago media, Rhamnus cathartica, Syringa vulgaris, Thymus pulegioides

Condition: Plants were in Bleikøya 8A (bigger patch -68 specimens) in quite good condition, and 60% were flowering. Plants on location Bleikøya 8B (smaller patch -20 specimens) were wilting, many ramets with single shoot, poorly blooming. 8C -1 individual.

Care: Some branches and shoots of trees and bushes were cut – in August.

Between houses no. 40 and 42, and the toilet.

New place along main path: 59°53'21.4"N 10°44'28.7"E

<u>Dracocephalum-Bleikoya8c</u>

Date of watch: 19th 06. 2014

Owner:

Photos: R. Gramsz, J. Potocka



Phot.1. Location Bleikøya 8a - bigger place, close to toilet. 19th 06. 2014. Phot. J. Potocka



Phot.2. One of big individuals on Bleikøya 8a. 19th 06. 2014. Phot. J. Potocka



Phot.3. Location Bleikøya 8b - smaller place. 19^{th} 06. 2014. Phot. J. Potocka



Phot.4. Location Bleikøya 8c. 19th 06. 2014. Phot. R. Gramsz

Individuals: 14

Area: 5 x 30 m

Environment (habitat): Open and partly overgrown by bushes ridge in the highest part of Bleikoya over the house no 104. With other species: Achillea millefolium, Artemisia campestris, Berberis vulgaris, Centaurea jacea, Cotoneaster sp., Festuca rubra cfr., Fragaria vesca, Fragaria viridis, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium ssp. maximum (Sedum telephium = S. maximum), Origanum vulgare, Phydimus spurius (Sedum spurium), Plantago media, Polygonatum odoratum, Prunus spinosa, Rosa sp., Thymus pulegioides, Trifolium arvense, Trifolium pratense, Veronica spicata

Condition: Most of them are growing among bushes on the ridge starting in the garden of house No 104: 12 specimens – with big clusters, abundantly flowering. Two small specimens on the top in open area close to the footpath.

Care: Light clearing of bushes needed (nothing has been done yet).

Top of the hill on the highest part of Bleikøya, close to main footpath.

Date of watch: 19th 06.2014

Owner:

Photos: J. Potocka



Phot.1. Location Bleikøya 9, view from the building to top of the hill. 19th 06. 2014. Phot. J. Potocka

Location: Bleikøya 10 (new found in 2013)

Individuals: 150

Area: 5 x 20m

Environment (habitat): Small, dry clearing on the top of a hill surrounded by a small forest and thicket with trees: *Pinus silvestris, Fraxinus excelsior and Acer platanoides*. This clearing itself is partly overgrown by bushes: *Rhamnus cathartica, Berberis vulgaris, Cotoneaster sp., Rosa sp.* And other species: *Achillea millefolium, Agrostis capillaris cfr., Avenastrum pratensis, Calamagrostis arundinacea cfr., Centaurea jacea, Daucus carota, Festuca ovina, Festuca rubra cfr., Fragaria vesca, Fragaria viridis, Filipendula vulgaris, Galium boreale, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium ssp. maximum (Sedum telephium = S. maximum), Hypericum perforatum, Lotus corniculatus, Melica nutansn Origanum vulgare, Phydimus spurius (Sedum spurium), Plantago media, Polygonatum odoratum, Prunus spinosa, Thymus pulegioides, Trifolium arvense, Trifolium pratense, Veronica spicata.*

Height of sward about 30 cm. There is only few places to germination within the patch of *Dracocephalum*, more places to germination are on the slope, where *Dracocephalum* does not grow but there's also more rocky debris, less stable ground which *Dracocephalum* avoids.

Condition: Plants are in good condition and 80% were blooming. They were growing in quite dense concentration in a small area (5 \times 10 m). There were some big clumps in the open part of stand.

Care: Light clearing of bushes and cutting of few big pine and ash trees is necessary.

GPS-coordinates: 59°53'22.70"N 10°44'30.00"E Dracocephalum-Bleikoya10

Date of watch: 19th 06.2014.

Owner:

Photos: J. Potocka

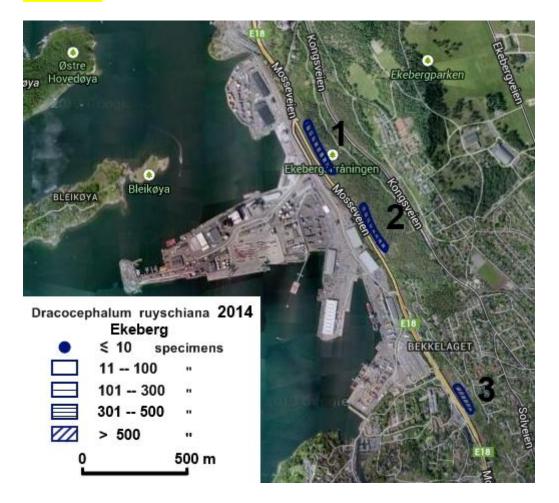


Phot.1. Location Bleikøya 10, new found in 2013. 19th 06.2014. Phot. J. Potocka



Phot.2. Fruiting branches of $Dracocephalum\ ruyschiana$ on location Bleikøya 10. 19^{th} 06.2014. Phot. J. Potocka

EKEBERG - 2014



Location: Ekeberg 1 (A)

Individuals: ca. 510

Area: 300 x 50 m

Environment (habitat): SW and W rocky slop in lower (below Kongsveien) part of Ekebergskråningen Naturreservat. Inclination of slope is between 10° to 50°. There is very shallow soil and bare rock on most of area. Cover of trees and bushes is about 30% so, the location is quite open and sunny. Trees and bushes layers: Berberis vulgaris, Frangula alnus, Fraxinus excelsior, Juniperus communis, Pinus silvatica, Populus tremula, Prunus spinosa, Rhamnus cathartica, Rosa sp. Sorbus sp. div. Other plants: Achillea millefolium, Alium sp., Artemisia campestris, Asplenium trichomanes, Asplenium septentrionale, Asplenium septentrionale x trichomanes, Calluna vulgaris, Campanula rotundifolia, Filipendula vulgaris, Fragaria vesca, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium, Hypericum perforatum, Inula salicina, Lotus corniculatus, Origanum vulgare, Polypodium vulgare, Sedum album, Trifolium alpestre, Polygonatum odoratum, Woodsia ilvensis, Viscaria vulgaris.

Condition: Very abundant location with several different size concentrations. Unexpectedly *Dracocephalum* plants earlier finished blooming this year (2-3 weeks earlier than last year)!

Generally plants are smaller (30cm), with fewer blooming shoots (10 -20). They were more difficult to notice than last year.

Care:

GPS-coordinates:

Central part of location 59°53'30.50"N 10°45'41.40"E <u>Dracocephalum-Ekeberg1</u>

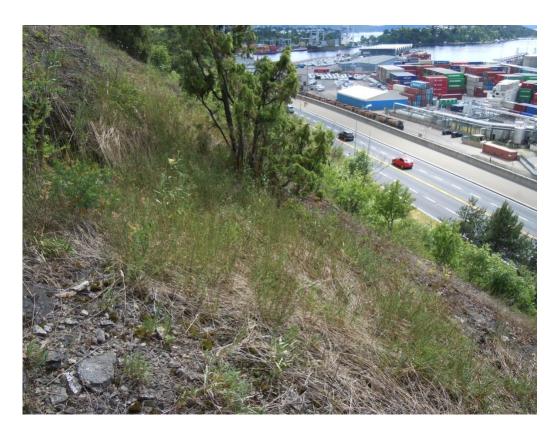
North edge of location 59°53'35.20"N 10°45'35.50"E <u>Dracocephalum-Ekeberg1(N)</u>

South edge of location 59°53'26.70"N 10°45'46.30"E <u>Dracocephalum-Ekeberg1(S)</u>

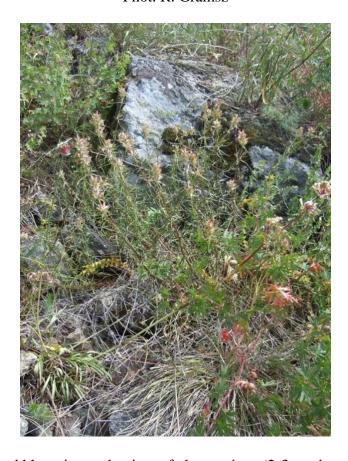
Date of watch: 20.06.2014

Owner:

Photos: R. Gramsz



Phot.1. Central part of location with biggest concentrations of Dracocehpalum. 20th 06.2014. Phot. R. Gramsz



Phot.2. Plants finished blooming at the time of observations (2-3 weeks earlier than last year). 20^{th} 06.2014. Phot. R. Gramsz.

Location: Ekeberg 2 (B) Jomfrubråten

Individuals: ca. 680

Area: 250 x 80 m

Environment (habitat): SW and W rocky slop in lower part of Ekebergskråningen Naturreservat(Jomfrubråten, below Kongsveien). Inclination of slope is between 10° to 50°. There is very shallow soil and bare rock on most of area. Trees and bushes cover varies between 30 and 50% so, the location is quite open and sunny, but comparing with location Ekeberg 1 habitat on this site seams more acid. Dominant in tree layer is pine *Pinus sylvestris* and in undergrowth: *Caluna vulgaris* and *Arctostaphylos uwa-ursi*. The rest of plants are similar as in Ekeberg 1.Trees and bushes layers: *Berberis vulgaris, Frangula alnus, Fraxinus excelsior, Juniperus communis, Pinus sylvestris, Populus tremula, Prunus spinosa, Rhamnus cathartica, Rosa sp. Sorbus sp. div. Other plants: Achillea millefolium, Alium sp., Artemisia campestris, Asplenium trichomanes, A. septentrionale, A. septentrionale x trichomanes, Calluna vulgaris, Campanula rotundifolia, Filipendula vulgaris, Fragaria vesca, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium, Hypericum perforatum, Inula salicina, Lotus corniculatus, Origanum vulgare, Polypodium vulgare, Sedum album, Trifolium alpestre, Polygonatum odoratum, Woodsia ilvensis, Viscaria vulgaris.*

Condition: The blooming period finished earlier this year so, plants were not very spectacular and more difficult to notice. They were also smaller – to 30cm high but growing in the same concentrations as last year. Very abundant location.

Care

GPS-coordinates:

Central part of location 59°53'15.70"N 10°45'59.70"E <u>Dracocephalum-Ekeberg2</u>

North edge of location 59°53'21.10"N 10°45'53.60"E <u>Dracocephalum-Ekeberg2(N)</u>

South edge of location 59°53'14.60"N 10°45'01.40"E <u>Dracocephalum-Ekeberg2(S)</u>

Date of watch: 24th 06.2014

Owner:

Photos: R. Gramsz

Observer: R. Gramsz



Phot.1. The larges patch with Dracocephalum in location Ekeberg 2. 24^{th} 06.2014. Phot. R. Gramsz



Photo.2. A slightly shaded site with last blooming individuals. 24th 06.2014. Phot. R. Gramsz.

Location: Ekeberg 3 (C) Bekkelaget

Individuals: ca. 310

Area: 150 x 50 m

Environment (habitat): Very steep part of SW slope between railway and buildings on Grottanveien. Inclination of slope is 20° to 80°. Trees and bushes cover varies between 30% and 80% in Southern part of this location, where extremely big *Dracocephalum* tufts grow in small clearings among trees and bushes. Trees and bushes layer: *Acer platanoides, Berberis vulgaris, Frangula alnus, Fraxinus excelsior, Ligustrum vulgare, Pinus sylvestris, Populus tremula, Ribes sp., Rhamnus cathartica, Rosa sp. Sorbus sp. div, Tilia cordata. Other plants: <i>Achillea millefolium, Artemisia campestris, Asplenium trichomanes, Asplenium septentrionale, Calluna vulgaris, Campanula rotundifolia, Filipendula vulgaris, Fragaria vesca, Galium verum, Geranium sanguineum, Geum urbanum, Hylotelephium telephium, Hypericum perforatum, Inula salicina, Lotus corniculatus, Origanum vulgare, Polypodium vulgare, Sedum album, Trifolium alpestre, Polygonatum odoratum, Viscaria vulgaris.*

Condition: *Dracocephalum* plants grow usually in small concentrations scattered among bushes and on ledges. The blooming period finished earlier this year and plants were smaller – to 30cm or to 40cm. Big tuftswere found in partly shaded Southern part of location. Very abundant location.

Care:

GPS-coordinates:

Central part of location 59°52'51.96"N 10°46'26.78"E <u>Dracocephalum-Ekeberg3</u>

North edge of location 59°52'53.59"N 10°46'24.15"E <u>Dracocephalum-Ekeberg3(N)</u>

South edge of location 59°52'49.80"N 10°46'29.30"E Dracocephalum-Ekeberg3(S)

Date of watch: 24th 06.2014

Owner:

Photos: R. Gramsz

Observer: R. Gramsz

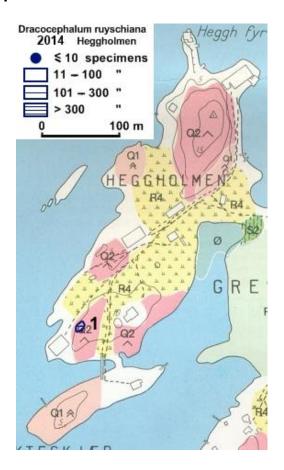


Phot.1. Central part of location between houses and railway. 20th 06.2013. Phot. R. Gramsz



Phot.2. Southern edge of location with very big tufts in last year. This year tufts were not very spectacular: 30 - 40cm high. 24th 06.2014. Phot. R. Gramsz

HEGGHOLMEN – 2014



Location: Heggholmen 1

Individuals: ca. 160

Area: 8 x12 m

Environment (habitat): SW part of the flat top of the hill. In thermophilous vegetation on shallow soil. With: *Fraxinus excelsior, Sobus aucuparia, Rosa sp., Polygonatum odoratun, Sedum album, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Geranium sanguineum, Thymus pulegioides, Filipendula vulgaris, Fragaria vesca, Cotoneaster sp., Allium vineale, Vincetoxicum rossicum.*

Condition: Plants grow still on the same area (without expanding). There were a little over 155 specimen this year (on the both sides of the path) - on the main part of location and only 3 on the slope facing SW, above the headland with old factory buildings. About 80-90 % of individuals were blooming, plants were rather low, with different number of shoots (sprauts) in individual ramet (cluster) - an average of ten to 20 branches (shoots). Dry and hot weather was the cause of earlier flowering of plants than usual. They were at the end of the blooming at the time of observation.

Care: This area should be moved by motor scythe once a 3 - 4 years after *Dracocephalum* seeds are ripen. The area was moved this year in August.

There were clearly less plants of *Vincentoxicum rossicum* than last year, plants looked weak (because of care of the Oslo community nature conservation services and/ or dry and hot

weather?; see phot. 2-5). We picked out the plants on the main area of *Dracocephalum ruyschiana* on 18th 07.2014.

We counted *Vincentoxicum* on the permanent plots:

- 21 shoots of *Vincentoxicum* on the circular area with a radius of 1 meter around the rowan and 27 on the circular area with a radius of 1 meter around the ash on the 17th 06.2014;
- 87 shoots of *Vincentoxicum* on the circular area with a radius of 1 meter around the rowan and 110 one on the circular area with a radius of 1 meter around the ash on the 18th 07.2014;

All plants of *Vincentoxicum* were without inflorescences (both in June and July), plants growing up to 15 cm (ca. 50% specimen). The maximum heigh that the plants reached was 30 cm.

GPS-coordinates: 59°52'55.90"N 10°42'42.10"E Dracocephalum-Heggholmen1

SW part of Heggholmen, flat top of the hill and part of slope facing SW.

Date of watch: 17th 06.2014

Owner:

Photos: J. Potocka



Phot.1. General view of location on Heggholmen. 17th 06.2014. Phot. J. Potocka



Phot. 2. Heggholmen 1. Sward view with *Vincentoxicum* around the rowan on 17th 06.2014. Phot. J. Potocka



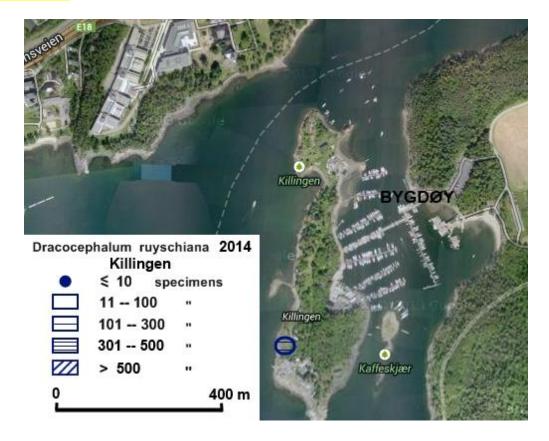
Phot. 3. Heggholmen 1. Sward view with *Vincentoxicum* around the ash on 17th 06.2014. Phot. J. Potocka



Phot. 4. Heggholmen 1. Sward view with *Vincentoxicum* around the rowan on 18th 07.2014. Phot. J. Potocka.



Phot. 5. Heggholmen 1. Sward view with *Vincentoxicum* around the ash on 18th 07.2014. Phot. J. Potocka.



Location: Killingen

Individuals: ca. 190

Area: 5 x 5 m. Potential habitat: 15m x 80m

Environment (habitat): Western part of Killingen. Open area between lawn close to house and rocky coast. Site is slightly bending westwards, sunny, with shallow stony soil. Trees and bushes: *Juniperus communis, Pinus sylvestris, Sorbus aucuparia, Syringa vulgaris, Rosa sp.* (covers less than 10%).

Herbaceous plants and dwarf shrubs: Agrostis capillaris, Anthyllis vulneralia, Artemisia campestris, Avenastrum pubescens Campanula rotundifolia, Carlina vulgaris, Convallaria majalis, Daucus carota, Festuca ovina, Filipendula vulgaris, Fragaria vesca, Galium boreale, Galium verum, Geranium sanguineum, Hypericum perforatum, Melica nutans, Origanum vulgare, Polygonatum odoratum, Pimpinella saxifraga, Poa pratensis s. lato, Rubus sp., Solidago virgaurea, Thymus pulegioides

Condition: Blooming individuals – about 60%, the average height of tufts is 20 cm; tufts grow very densely, for this reason, very difficult to count. Sward height - an average of 25 cm. Plants were in very good condition – the patch occurs on the margin of lawn, and was partly watered with the lawn by the owner of area.

Care: The property owner cut down bushes on the location and watered the plants.

GPS-coordinates: 59°54'29.90"N 10°32'29.10"E <u>Dracocephalum-Killingen</u>

Date of watch: 22nd 06. 2014.

Owner:

Photos: J. Potocka

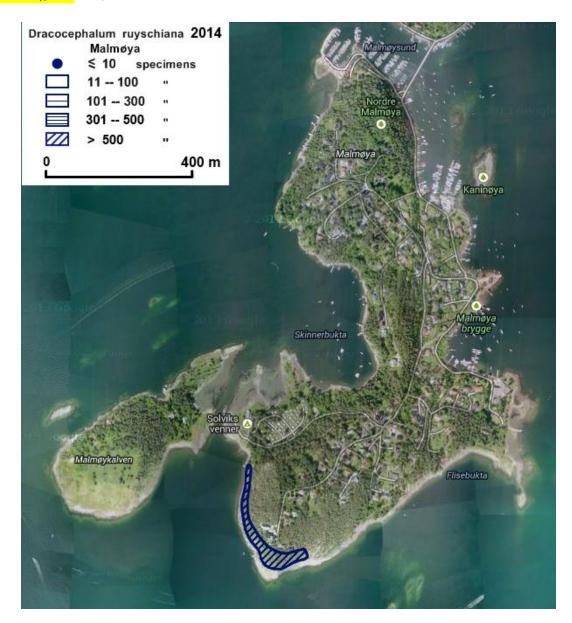


Phot.1. Killingen location on the margin of watered lawn. 22nd 06. 2014. Phot. J. Potocka



Phot.2. Blooming plants on Killingen location. 22nd 06. 2014. Phot. J. Potocka

MALMØYA – 2014



Location: Malmøya

Individuals: ca. 615

Area: 400 x 80 - 20m

Potential habitat: 600 x 100 m (Additionally maybe some 200 x 50m belt on SE cost of

Malmøya).

Environment (habitat): South end of Malmøya, deforested hillside sloping South, South – West and West towards the sea. The slope to the west is getting steeper. Habitat is the belt between the forest (with the houses) and devoid of vegetation, rocks on the water. Habitat is fairly homogeneous, open, with single pines, junipers, mountain ashes, barberries. Sward height about 30 cm (mainly *Geranium sanguineum*).

Trees and bushes: *Juniperus communis, Pinus sylvestris, Sorbus aria, Sorbus x hybrida, Rosa sp., Rosa mollis cfr., Cotoneaster scandinavicus cfr.*

Herbaceous plants and dwarf shrubs: Anthyllis vulneralia, Arctostaphylos uva-ursi, Artemisia campestris, Campanula rotundifolia, Carex digitata cfr., Carlina vulgaris, Convallaria majalis, Epipactis atrorubens, Festuca ovina, Filipendula vulgaris, Galium boreale, Geranium sanguineum, Inula salicina, Melica nutans, Origanum vulgare, Polygala vulgaris, Polygonatum odoratum, Pimpinella saxifraga, Poa pratensis s. lato, Solidago virgaurea. (lack of Thymus pulegioides!!!);

Condition: Fewer specimens than last year. About 70% individuals were blooming, but blooming period was completely finished at the moment of observation. Some plants were wilted or dried-up. In bushes – many specimens were without flowers. Clusters not high, ca. 15-20 cm, with 10 - 20 shoots, some of them – more shoots.

Care: Places with Sedum hybridum were still covered with canvas from last year.

GPS-coordinates:

Central part of location 59°51'42.10"N 10°45'04.20"E <u>Dracocephalum-Malmoya</u>

East edge of location 59°51'42.40"N 10°45'10.10"E <u>Dracocephalum-Malmoya(E)</u>

North edge of location 59°51'49.70"N 10°45'01.00"E Dracocephalum-Malmoya(NW)

Date of watch: 23rd 06. 2014

Owner:

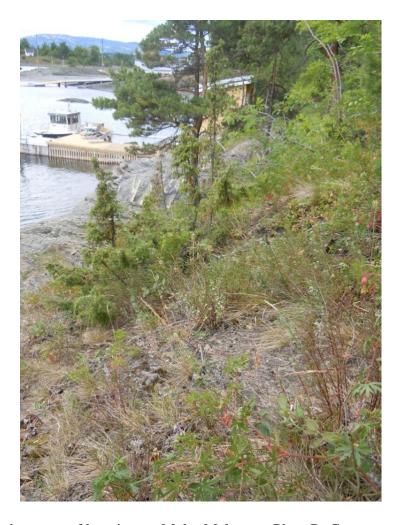
Photos: J. Potocka



Phot.1. Central part of location on – view to the North-East. 23^{rd} 06. 2014. Phot. J. Potocka



Phot.2. Central part of location on Malmøya. 23rd 06. 2014. Phot. J. Potocka

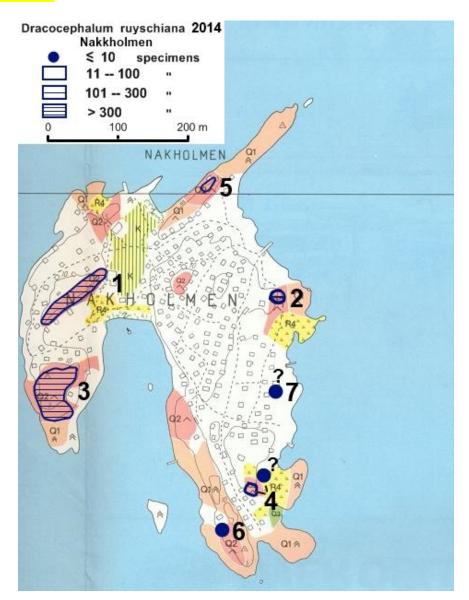


Phot. 3. The Northest part of location on Malm Malmøya. Phot. R. Gramsz



Phot.4. Individulas on Malmøya at the end of flowering. 23rd 06. 2014. Phot. J. Potocka

NAKKHOLMEN – 2014



Location: Nakkholmen 1

Individuals: ca. 240

Area: 130m x 10m

Environment (habitat): The ridge of a hill partly overgrown by bushes (covering ca 50% of the area). In thermophilous vegetation on shallow soil, with: *Syringa vulgaris, Fraxinus excelsior, Rosa sp. Cotoneaster sp., Berberis vulgaris, Geranium sanguineum, Dianthus deltoides, Fragaria vesca, Polygonatum odoratum, Verbascum sp, Sedum spurium, Filipendula vulgaris.*

Dracocephalum plants can be found along a whole top of the ridge.

Condition: More than 50% of the clumps had blooming shoots, which were not with abundant flowers. Plants were not very high (ca. 15-20 cm) but with a few to several shoots. It

was after the blooming period – plants began to form fruits. Only plants closer to the toilets were flowering at the time of our observation.

Care: Group of local people <u>Dragehodegruppa</u> has taken care of this place for a few years. They regularly do some cutting on the main area and they herbicidal control of overgrowing lilac bushes. That opens the area and gives more light for already existing *Dracocephalum* plants.

A "brush" of sticking out hard lilac branches has remanded after this cutting and will make difficult to do next cuttings. Those places shall be mow by motor scythe preferable twice a year to remove lilac shoots completely. First cutting of lilac bushes should be made to the ground level (without sticking out branches).

Bushes of lilac were cut out on the side closer to sea (SW part of location) but it cause that *Dracocephalum* plants were weak and dry-up – they were exposed to direct sunlight suddenly. This place is not the main area of occurrence of *Drocephalum ruyschiana* population on location Nakholmen 1.

GPS-coordinates: 59°53'23.97"N 10°41'29.46"E <u>Dracocephalum-Nakkholmen1</u>

Stony hill in the central part of W side of the island.

Date of watch: 18th 06 2014

Owner:

Photos: J. Potocka



Phot.1. Location Nakkholmen 1 on top of the hill. Area after cutting and herbicidal control is visible in the centre of the photo. 18th 06. 2014. Phot. J. Potocka



Phot.2. NW part of location with blooming individuals on the NW part of location Nakkholmen 1. 18^{th} 06. 2014. Phot. J. Potocka



Phot.3. Wilting plants of $Dracocephalum\ ruyschiana$ in the SW end of location Nakkholmen 1. $18^{th}\ 06.\ 2014$. Phot. J. Potocka

Individuals: ca. 230

Area: 10 x 10 m (potential area 20 x 50 m)

Environment (habitat): Open NE slope of a small hill. In thermophilous vegetation with Geranium sanguineum on shallow soil. With: Geranium sanguineum, Filipendula vulgaris, Arctostaphylos uva-ursi, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Syringa vulgaris, Rosa sp., Berberis vulgaris, Sorbus aucuparia x, Cotoneaster sp. (cult. - lucidus? scandinavicus?), Sedum spurium, Festuca (ovina agg.?), Galium boreale, Thymus sp, Fragaria vesca, Plantago media, Veronica spicata, Polygonatum odoratum, Convallaria majalis. Rubus Saxatilis

Condition: Low ramets, not very magnificent as usual (ca. 15 cm). Large numbers of ramet with single branch (shoot) - young individulas?. Very few plants of the population bloomed this year – ca. 10% of ramets. There were no signs of *Arvicola terestris* living.

Care: Dragehodegruppa takes care of *Dracocephalum* on Nakkholmen.

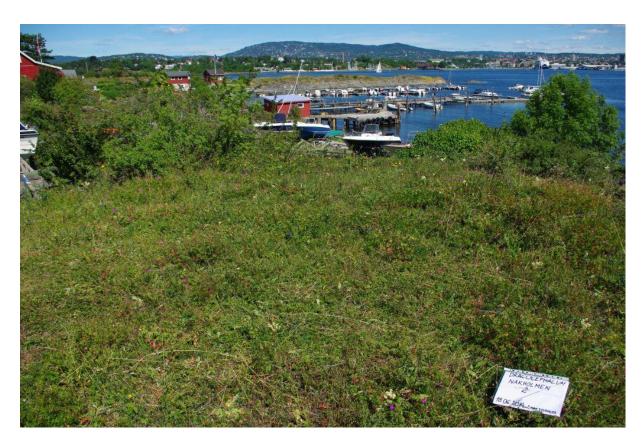
GPS-coordinates: 59°53'24.43"N 10°41'48.97"E Dracocephalum-Nakkholmen2

Open NE slope of a small hill, close to the shore, 100 m S from the harbour, over the compost deposit.

Date of watch: 18th 06.2014

Owner:

Photos: J. Potocka



Phot.1. General view over location Nakkholmen 2. 18th 06.2014. Phot. J. Potocka



Phot.2. Blooming specimens in the sward on the location Nakkholmen 2. 18^{th} 06.2014. Phot. J. Potocka

Individuals: ca. 110

Area: 80 x 100 m

Environment (habitat): The ridge and slopes of a hill partly overgrown by bushes. In thermophilous vegetation with: *Geranium sanguineum on shallow soil. With: Sorbus acuparia, S. intermedia, Cotoneaster sp., Rosa sp., Ligustrum vulgare, Syringa vulgaris, Lycium barbarum, Berberis vulgaris, Pinus silvaticus, Filipendula vulgaris, Sedum spurium, Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Geranium sanguineum, Thymus sp., Origanum vulgare, Plantago media, Fragaria vesca, Campanula persicifolia, Polygonatum odoratum.*

Condition: Plants in this site looks poor comparing with other locations, especially this year: they were small and dried-up. In the N part of area – ca. 80% were blooming, ramets as usual – were bigger, with many shoots. In the S part – plants were smaller, lower, not flowering so abundant like in the N part.

Care: Light clearing of bushes and mowing open areas once for 2-3 years is recommended.

<u>Dragehodegruppa</u> takes care of *Dracocephalum* on Nakkholmen.

This year they cut dawn the pine tree from N part of location but branches laid on the part of the area of occurrence of *Dracocephalum* population (over o dozen ramets (clusters) (at the time of pur observation).

GPS-coordinates: 59°53'19.20"N 10°41'28.40"E Dracocephalum-Nakkholmen3

Stony hill in the southern peninsula of the W side of the island.

Date of watch: 18th 06. 2014

Owner:

Photos: R. Gramsz



Phot.1. Southern part of the location Nakkholmen 3. 18th 06. 2014. Phot R. Gramsz



Phot.2. Specimen of Dracocpephalum at the end of flowering on the location Nakkholmen 3. $18^{\rm th}$ 06. 2014. Phot R. Gramsz

Individuals: ca 50

Area: 5 x 5m (potential area 40 x 50 m)

Environment (habitat): Small hill partly overgrown by bushes (mainly *Syringa vulgaris*). In thermophilous vegetation on shallow soil. With: *Geranium sanguineum*, *Thymus pulegioides*, *Filipendula vulgaris*, *Fragaria vesca*, *Cotoneaster sp*.

Condition: This year *Dracocephalum* were found only on the place close to the building No. 168. Some of the plants were still blooming under the shadow of the lilac bushes. Shoots had 10-15cm height (20cm), they grew densely in one patch. 80% bloomed. There was no access to this location for a few last years – private property with fence.

Care: <u>Dragehodegruppa</u> takes care of *Dracocephalum* on Nakkholmen.

GPS-koordinates: 59°53'15.47"N 10°41'46.87"E <u>Dracocephalum-Nakkholmen4</u>

Main site is located close to fence of a house no.168 and Syringa bushes and another small one about 15m to the East. Small site was not found this year.

Date of watch: 18th 06. 2014

Owner:

Photos: R. Gramsz



Phot. 1. Main area of location Nakkhomen 4. 18th 06. 2014. Phot R. Gramsz



Phot. 2. *Dracocephalum* on location Nakkholmen 4. 18th 06. 2014. Phot. R. Gramsz

Individuals: 70

Area: 15m x 30m

Environment (habitat): Top of the ridge and NW slope of a hill partly overgrown by bushes from surroundings of a house no 182 to the resting bench. There is a great influence of human presence but *Dracocephalum* plants are growing even on the edges of flower beds in gardens. In thermophilous vegetation with *Geranium sanguineum* on shallow soil. With: *Syringa vulgaris, Rosa sp., Filipendula vulgaris, Sedum spurium* (*Phedimus spurius*), *Hylotelephium telephium ssp. maximum* (*Sedum telephium = Sedum maximum*), *Geranium sanguineum*, *Thymus sp., Origanum vulgare, Plantago media, Polygonatum odoratum*.

Condition: Plants occured among the lilac bushes. They became visible after the lilac bushes cutting this year (by local community). Most of the plants looked weak, dried-up, not blooming, very small on the main area (see below). On the NW slope, towards to sea, plants were bigger (20-30 cm height), abundantly flowering as usual (ca. 20 individuals). Less than 10% were blooming on the main area. We found some new ramets close to the toilets.

Care: We wrote last year that part of a big lilac bush close to resting bench was partly dead. We expected that either the lilac has been poisoned or wilt due to frost. This year we confirm human activity (<u>Dragehodegruppa</u>). We observed that lilac shrubs next to bench and along the path to the location have been cut out this year (on NW side - a strip of 1-2 m wide, on SE side of the path – all). Thus, the rest of the *Dracocephalum* plants which was not visible in the lilac bushes, was exposed now. Unfortunately, they were exposed during a single step - it seems that it changed the conditions of their habitat too urgently. Plants looked weak, dried-up, not blooming, very small.

Sparcely growing bushes (mainly *Cotoneaster* and *Berberis*) over the ledge on the NW slope towards the fjord were cut out too. They protected *Dracocephalum* on the slope.

GPS-coordinates: 59°53'28.93"N 10°41'42.38"E Dracocephalum-Nakkholmen5

A middle part of a long ridge which sticks out as a peninsula in NE part of island. Between houses no 64 and 182.

Date of watch: 18th 06.2014

Owner:

Photos: J. Potocka



Phot.1. The main location of Nakkholmen 5 with cut out lilac bushes on the both sides of the path. View toward NE. 18th 06. 2014. Phot. J. Potocka



Phot. 2. The main location of Nakkholmen 5 with cut out lilac bushes next to the bench. *Dracocephalum* plants marked by <u>Dragehodegruppa</u>. 18th 06. 2014. Phot. J. Potocka



Phot. 3. Place with new visible plot with *Dracocephalum ruyschiana*, Nakholmen 5. 18th 06. 2014. Phot J. Potocka



Phot. R. New plot with *Dracocephalum ruyschiana*. 18th 06. 2014. Phot J. Potocka

Individuals: 3

Area: 3 x 5 m (potential area ca. 30 x 100 m)

Environment (habitat): Western slope of a rocky ridge on the southernmost peninsula in Nakkholmen. In thermophilous vegetation with *Geranium sanguineum* on shallow soil. With: *Syringa vulgaris, Rosa sp., Rhamnus cathartica, Cotoneaster sp., Sedum spurium (Phedimus spurius), Hylotelephium telephium ssp. maximum (Sedum telephium = Sedum maximum), Thymus sp., Origanum vulgare, Plantago media, Polygonatum odoratum*

Condition: Only one specimen was blooming.

Care:

GPS-coordinates: 59°53'13.8"N 10°41'44.7"E <u>Dracocephalum-Nakkholmen6</u>

Date of watch: 18th 06. 2014

Owner:

Photos: R. Gramsz



Phot. 1. Area of the location Nakkholmen 6. 18th 06. 2014. Phot. R. Gramsz



Phot. 2. Specimens of *Dracocephalum* on the location Nakkholmen 6. 18th 06. 2014. Phot. R. Gramsz

Individuals: 0

Area: 2 x 2 m (potential area ca. 10 x 15 m)

Environment (habitat): Small area among summerhouses which is kept "wild" – with thermophilous vegetation on shallow soil.

Condition:

Care:

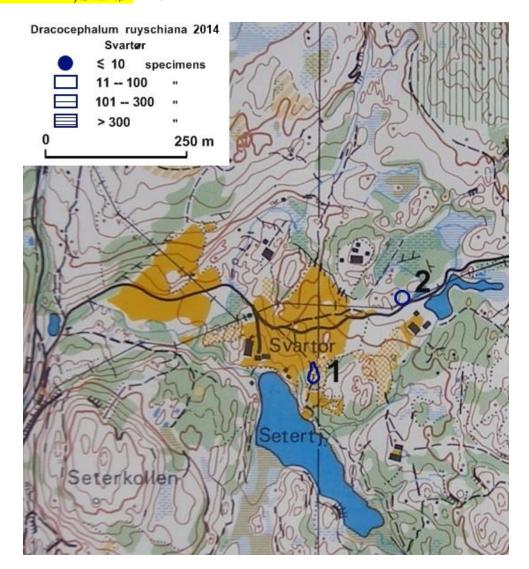
GPS-coordinates: 59°53'19.9"N 10°41'49.3" <u>Dracocephalum-Nakkholmen7</u>

Date of watch: 18th 06. 2014

Owner:

Photos:

NORDMARKA, Svartør – 2014



Location: Svartor 1

Individuals: ca. 100 (47 blooming + 52 vegetative)

Area: 50 x 20

Environment (habitat): On a small dry rocky hill, surrounded by bushes and young trees (main concentration), and spread in the neighbouring part of the meadow. With: Achillea millefolium, Agrostis capillaris, Agrostis vulgaris, Alchemilla sp., Briza media, Campanula rotundifolia, Carex pallescens, Convallaria majalis, Dactylis glomerata, Filipendula vulgaris, Filipendula ulmaria, Fragaria vesca, Fraxinus excelsior, Galium boreale, Galium verum, Geranium sylvaticum, Holcus lanatus, Hypericum perforatum, Hypochoeris maculata, Juniperus communis, Knautia arvensis, Lathyrus vernus, Leucanthemum vulgare, Phleum pratense, Pimpinella saxifraga, Plantago media, Primula veris, Prunus padus, Ranunculus acris, Rosa sp., Rubus sp., Solidago virgaurea, Sorbus aucuparia, Thymus pulegioides, Trifolium alpestre, Trifolium pratense, Vicia cracca

Condition: Most of counted this year plants were like last year very small, looks like juvenile (or small shoots from old tufts) -15 cm heigh, but more frequently less than 10 cm (3-5 cm). Ramets most frequently with 1-5 stems. Only about 50% of them were blooming

(they were at full bloom at the time of counting) and they look freshly. 11 *Dracocephalum* plants have been found on the neighbouring meadow (9 of them were blooming).

Care: A recommended cutting of trees and bushes has been done in this area but this place is still used as a pasture for horses or alpacas during the end of July and August. *Dracocephalum* plants are eaten before theirs seeds are ripen. Grazing can weakened plants as well. This location should be fenced against grazing or at least not every year grazing should be permitted. Some of the remaining briars (Rosa sp.) were cut. Briars are not giving much shadow but protect area under them against trampling. Briars should be allowed to grow.

GPS-coordinates: 60° 1'31.32"N 10°38'51.99"E <u>Dracocephalum-Svartor1</u>

The main site is situated ca. 150 m E from Svartor farm on a former footpath to E side of Setertj.

Date of watch: 24th 06.2014

Owner:

Photos: J. Potocka



Phot.1. General vies of the main area of location Svartør 1. Very low vegetation, without bushes after cutting last years and without visible *Dracocephalum* plants. The area is partly grazing by horses. 24th 06.2014. Phot. J. Potocka



Phot. 2. Area with *Dracocephalum* on the neighbouring meadow. Blooming specimen close to the left side of sheet of paper with the name of location). 24th 06.2014. Phot. J. Potocka

Location: Svartør 2

Individuals: ca. 32 (27 blooming)

Area: 2 x 3 m

Environment (habitat): On a very small, dry, rocky hill on a side of a meadow. With: *Picea excelsa, Populus tremula, Rosa sp., Sorbus aucuparia, Salix caprea, Prunus padus, Convallaria majalis, Polygala sp., Geranium sanguineum, Thymus pulegioides, Fragaria vesca, Melampyrum sylvaticum, Galium boreale, Hypericum maculatum*

Condition: Most of plants were blooming (90%), and were in good condition and covered the same area as last years. Stems had 10-15 cm height, they growed a few in one ramet (tuft). There is no horse grazing on this location. *Dracocephalum* plants were in much better condition than on location Syartor 1.

Care: Light clearing was done this year.

GPS-coordinates: 60° 1'34.85"N 10°38'59.56"E <u>Dracocephalum-Svartor2</u>

Site is situated just opposite Framstua, on NW side of the road.

Date of watch: 24th 06.2014

Owner:

Photos: R. Gramsz, J. Potocka



Phot.1. Location Svartør 2 – general view, with Framstua at the background. *Dracocephalum* plants were in good condition, 90% of them were blooming. 24^{th} 06.2014. Phot. J. Potocka



Phot. 2. Blooming specimens of *Dracocephalum* on the location Svartør 2. 24th 06.2014. Phot. J. Potocka



Phot. 3. View of the location Svartør 2 before cutting. 6th 09. 2014. Phot. R. Gramsz



Phot. 4. Svartør 2 - light cutting were done on 6^{th} 09. 2014. Phot. R. Gramsz

NORDMARKA, Blankvann - 2014

Location: Blankvann 1

Individuals: Not found in 2014

Area: 2 x 3 m

Environment (habitat): On a south facing, open hill slope over a Blankvan lake. With a reach calciphilous vegetation. Among other: Acer platanoides, Achillea millefolium, Agrostis capillaris, Alchemilla sp., Anemone nemorosa, Antennaria dioica, Anthericum liliago, Anthoxanthum odoratum, Aruncus dioicus, Betula pubescens, Briza media, Calamagrostis arundinacea, Campanula rotundifolia, Campanula persicifolia, Convallaria majalis, Dryopteris filix-mas, Epilobium angustifolium, Epipactis atrorubens, Fragaria vesca, Filipendula vulgaris, Galium boreale, Galium verum, Geranium sylvaticum, Gymnadenia conopsea, Hepatica nobilis, Hieracium sect. hieracium, Hylotelephium telephium, Iris sibirica, Lapsana communis, Leucantemum vulgare, Lilium martagon, Listera ovata, Melampyrum pratense, Orthilia secunda, Pinus sylvestris, Platanthera chlorantha, Polygala vulgaris, Potentilla erecta, Pyrola minor, P. rotundifolia, Rubus saxatilis, Solidago virgaurea, Sorbus aucuparia, Stachys sylvatica, Trifolium pratense, Vaccinium myrtillus, Vaccinium vitis-idaea, Vicia sp., Viola sp., Viscaria vulgaris

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Care:

GPS-coordinates: 60° 1'40.10"N 10°39'58.30"E <u>Dracocephalum-Blankvann1</u>

About 50 m below a cottage in the direction to Tryvannshogda.

Date of watch: 24th 06.2014

Owner:

Photos: