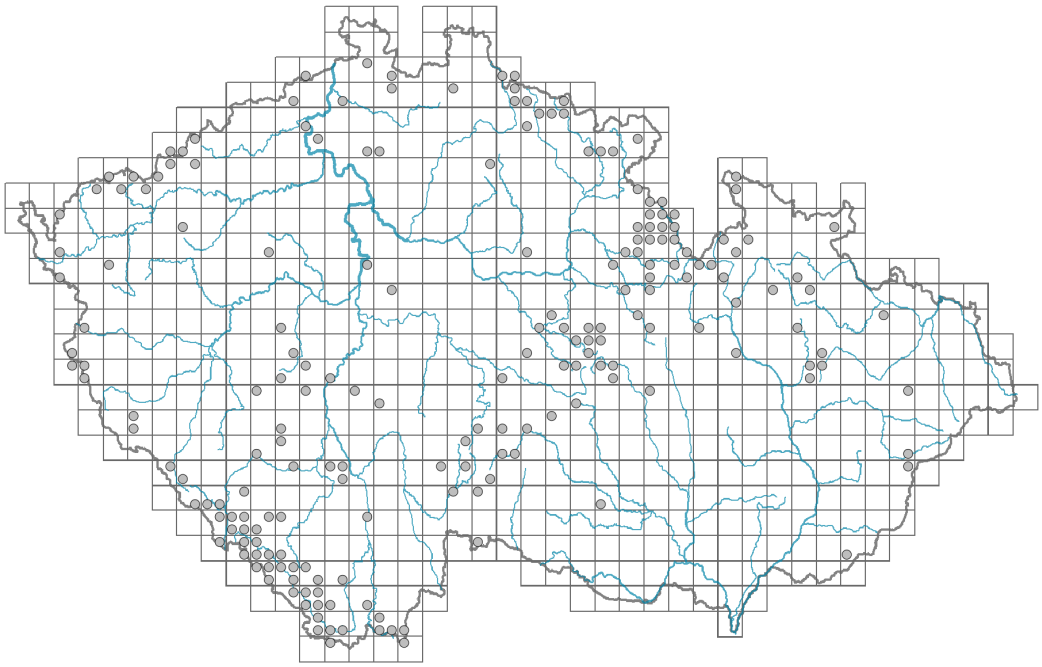
Polemonium caeruleum

Distribution



Map info

revised records

unrevised records

On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.

Habitus and growth type

Height [m]: **0.2–0.8**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **39.2 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **60.8 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **compound – imparipinnate**
Stipules: **absent**
Petiole: **present**
Leaf life span: **summer green**
Leaf anatomy: **mesomorphic, helomorphic**

Flower

Flowering period [month]: **June–August**

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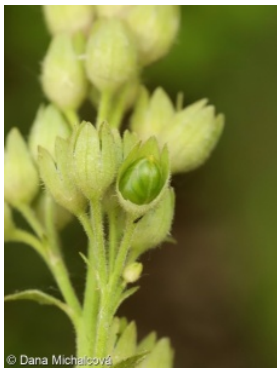
Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**
Flower colour: **white, blue**
Flower symmetry: **actinomorphic, zygomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **rotate**
Calyx fusion: **synsepalous**
Inflorescence type: **cincinnus**
Dicliny: **synoecious**
Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**
Pollination syndrome: **insect-pollination**



Fruit, seed and dispersal

Fruit type: **dry fruit – capsule**
Fruit colour: **brown**
Reproduction type: **mostly by seed/spores, rarely vegetatively**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**
Storage organ: **pleiocorm**
Type of clonal growth organ: **epigeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **dicyclic or polycyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **4**
Number of clonal offspring: **1**
Lateral spreading distance by clonal growth [m]: **0.05**
Clonal index: **3**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **5**
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **15**
Number of buds per shoot at a depth greater than 10 cm (root buds excluded): **0**
Size of the belowground bud bank (root buds excluded): **20**
Depth of the belowground bud bank (root buds exluded) [cm]: **4**
Number of buds per shoot at the soil surface (root buds included): **5**
Number of buds per shoot at a depth of 0–10 cm (root buds included): **15**
Number of buds per shoot at a depth greater than 10 cm (root buds included): **0**
Size of the belowground bud bank (root buds included): **20**
Depth of the belowground bud bank (root buds included) [cm]: **4**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

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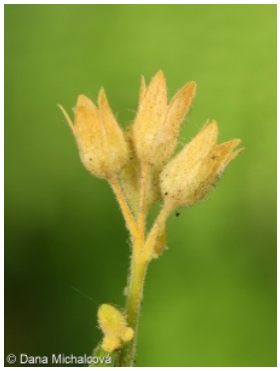
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



Karyology

Chromosome number (2n): **18**
Ploidy level (x): **2**
2C genome size [Mbp]: **11160.22**
1Cx monoploid genome size [Mbp]: **5580.11**
Genomic GC content: **43 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 – transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**
Temperature indicator value: **4 – transition between values 3 and 5**
Moisture indicator value: **7 – humidity indicator, focus on well moistened, but not wet soils**
Reaction indicator value: **7 – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**
Nutrient indicator value: **6 – transition between values 5 and 7**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 – rare occurrence**
4G Tall-sedge beds: **1 – rare occurrence**

5 Vegetation of springs and mires

5B Lowland to montane soft-water springs: **1 – rare occurrence**
5C Alpine and subalpine soft-water springs: **1 – rare occurrence**
5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**

6 Meadows and mesic pastures

6B Montane mesic meadows: **1 – rare occurrence**
6E Wet Cirsium meadows: **2 – optimum**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**

11 Heathlands and scrub

11I Willow carrs: **1 – rare occurrence**

12 Forests

12B Alluvial forests: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **0 – taxon that does not**

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spontaneously occur in Czech forests
Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 – taxon that does not spontaneously occur in Czech forests**

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**
Ecological specialization index for non-forest vegetation: **5.1**

Colonization ability

Index of colonization success (ICS): **1**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional**
Floristic region: **Europe, Asia, Americas**
Continentality degree: **7**
Distribution range extension along the continentality gradient: **3**
Elevational belt in the Czech Republic: **submontane belt, montane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 151
taxon.data.freq_in_quad: 202

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0 %**
Occurrence frequency in vegetation plots with a cover above 5%: **25 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **4.3 %**
Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **10**
Number of narrow habitats in which the taxon has its optimum: **1**
Number of broad habitats in which the taxon occurs: **5**
Number of broad habitats in which the taxon has its optimum: **1**

Threats and protection

Red List 2017 (national categories): **C2r – endangered taxon, rare**
Red List 2017 (IUCN categories): **EN – endangered**
Legal protection: **not protected by law**

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