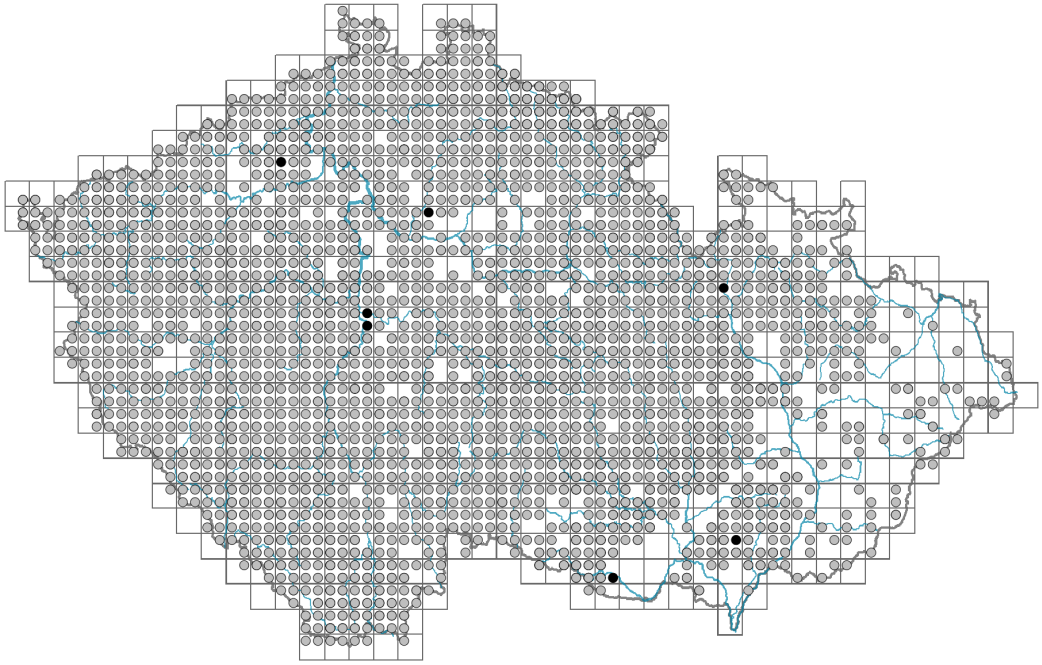
Campanula rotundifolia agg.

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

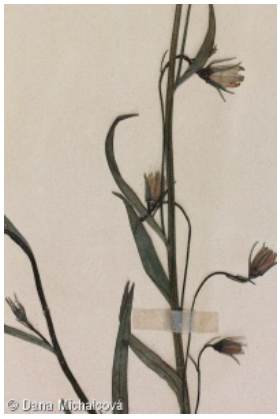
Height [m]: **0.05–0.7**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **R/SR**
Life strategy (Pierce method, C-score): **7.4 %**
Life strategy (Pierce method, S-score): **23.6 %**
Life strategy (Pierce method, R-score): **69 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate, rosulate**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **both present and absent**
Leaf life span: **evergreen**
Leaf anatomy: **mesomorphic**

Flower

Flowering period [month]: **July–September**



Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**
Flower colour: **violet, blue, blue-violet**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **campanulate**
Calyx fusion: **synsepalous**
Inflorescence type: **racemus, flores solitarii, panicula**
Dicliny: **synoecious**
Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**
Pollination syndrome: **insect-pollination**
Pollinator spectrum: **honeybee, bumblebees, solitary bees, other Hymenoptera, hoverflies, flies s. l., meat flies s. l., other Diptera, butterflies, beetles, thrips, unknown**

Fruit, seed and dispersal

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

Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**
Root metamorphosis: **primary storage root, root shoot**
Storage organ: **pleiocorm, primary storage root**
Type of clonal growth organ: **epigeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **monopodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **4**
Number of clonal offspring: **0.5**
Lateral spreading distance by clonal growth [m]: **0.11**
Position of root buds: **lateral roots**
Role of root buds in life-history of a plant: **additive**

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): **18**
Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**

Size of the belowground bud bank (root buds included): **38**
Depth of the belowground bud bank (root buds included) [cm]: **8**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **34, 68**
Ploidy level (x): **2, 4**
2C genome size [Mbp]: **3375.59**
1Cx monoploid genome size [Mbp]: **967.08**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **7 – half-light plant, mostly occurring at full light, but also in the shade up to about 30% of diffuse radiation incident in an open area**
Temperature indicator value: **5x – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**
Moisture indicator value: **4x – transition between values 3 and 5 (generalist)**
Reaction indicator value: **5x – indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions (generalist)**
Nutrient indicator value: **3 – occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.29**
Herb layer disturbance frequency indicator value: **-0.54**
Whole-community disturbance severity indicator value: **0.26**
Herb layer disturbance severity indicator value: **0.25**
Whole-community structure based disturbance indicator value: **0.36**
Herb layer structure-based disturbance indicator value: **0.5**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **2 – optimum**
1B Siliceous cliffs and block fields: **2 – optimum**
1C Walls: **1 – rare occurrence**
1D Mobile calcareous screes: **2 – optimum**

2 Alpine and subalpine grasslands

2A Alpine grasslands on siliceous bedrock: **2 – optimum**

2B Subalpine tall-forb and tall-grass vegetation: **1 – rare occurrence**

5 Vegetation of springs and mires

5C Alpine and subalpine soft-water springs: **1 – rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 – optimum**

6B Montane mesic meadows: **2 – optimum**

6C Pastures and park grasslands: **1 – rare occurrence**

6D Alluvial meadows of lowland rivers: **1 – rare occurrence**

6E Wet Cirsium meadows: **1 – rare occurrence**

6F Intermittently wet Molinia meadows: **1 – rare occurrence**

6G Vegetation of wet disturbed soils: **1 – rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **2 – optimum**

7B Submontane Nardus grasslands: **2 – optimum**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **2 – optimum**

8B Submediterranean dry grasslands on rock outcrops: **2 – optimum**

8C Narrow-leaved sub-continental steppes: **2 – optimum**

8D Broad-leaved dry grasslands: **2 – optimum**

8E Acidophilous dry grasslands: **2 – optimum**

8F Thermophilous forest fringe vegetation: **2 – optimum**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 – rare occurrence**

9C Festuca grasslands on acidic sands: **1 – rare occurrence**

9E Acidophilous vegetation of spring therophytes and succulents: **1 – rare occurrence**

9F Basiphilous vegetation of spring therophytes and succulents: **1 – rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **2 – optimum**

11D Subalpine acidophilous Pinus mugo scrub: **1 – rare occurrence**

11H Subalpine deciduous scrub: **1 – rare occurrence**

11L Tall mesic and xeric shrub: **1 – rare occurrence**

11N Low xeric scrub: **1 – rare occurrence**

12 Forests

12C Oak-hornbeam forests: **1 – rare occurrence**

12D Ravine forests: **1 – rare occurrence**

12E Herb-rich beech forests: **1 – rare occurrence**

12F Limestone beech forests: **1 – rare occurrence**

12G Acidophilous beech forests: **1 – rare occurrence**

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**

12I Sub-continental thermophilous oak forests: **1 – rare occurrence**

12J Acidophilous thermophilous oak forests: **2 – optimum**

12K Acidophilous oak forests: **2 – optimum**

12L Boreo-continental pine forests: **2 – optimum**

12O Peri-Alpidic pine forests: **2 – optimum**

12R Acidophilous spruce forests: **1 – rare occurrence**
12V Spruce plantations: **1 – rare occurrence**
12W Pine and larch plantations: **2 – optimum**

13 Anthropogenic vegetation

13D Perennial thermophilous ruderal vegetation: **1 – rare occurrence**
13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 – rare occurrence**

Diagnostic taxon

Diagnostic taxon of alliances: **LFA *Festuco-Pinion sylvestris***
Diagnostic taxon of associations: **LFA01 *Festuco-Pinetum sylvestris***

Constant taxon

Constant taxon of alliances: **LFA *Festuco-Pinion sylvestris*, TEC *Violion caninae***
Constant taxon of associations: **LDA02 *Viscario vulgaris-Quercetum petraeae*, LFA01 *Festuco-Pinetum sylvestris*, LFB03 *Hieracio pallidi-Pinetum sylvestris*, SAB02 *Notholaeno marantae-Sempervivetum hirti*, SAC02 *Festuco pallentis-Saxifragetum rosaceae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.2**
Ecological specialization index for non-forest vegetation: **4.6**
Ecological specialization index for forest vegetation: **4.5**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate**
Floristic region: **Europe, Western Siberia**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 631
taxon.data.freq_in_quad: 2087

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.5 %**
Occurrence frequency in vegetation plots with a cover above 5%: **2.4 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.1 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **2.4 %**
Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **47**
Number of narrow habitats in which the taxon has its optimum: **20**
Number of broad habitats in which the taxon occurs: **10**
Number of broad habitats in which the taxon has its optimum: **7**