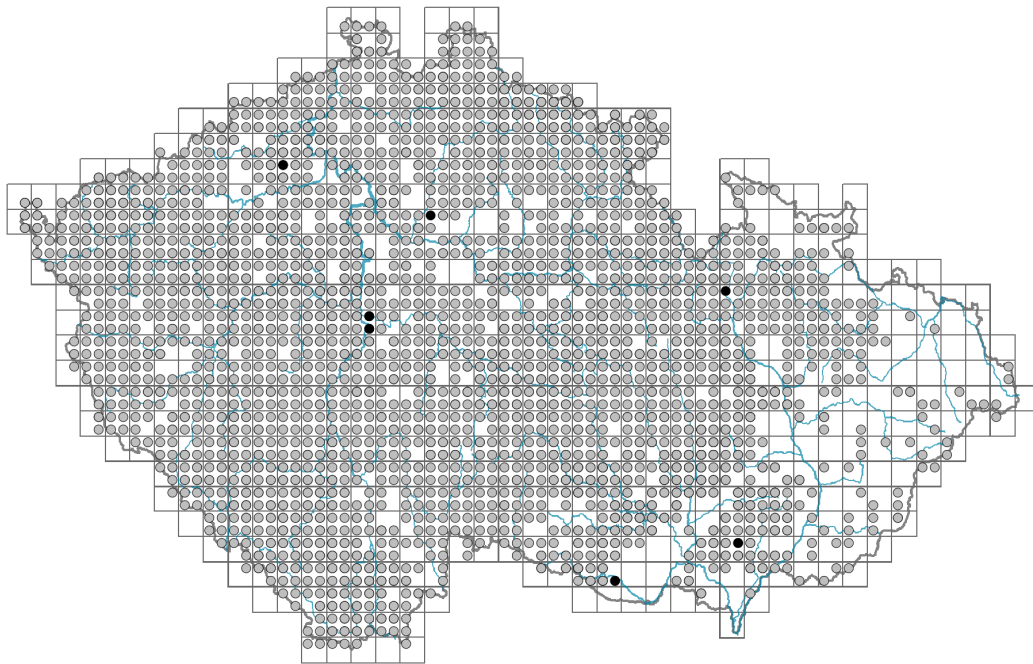


# *Campanula rotundifolia* agg.

## 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**

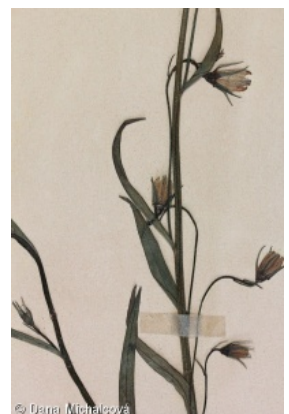
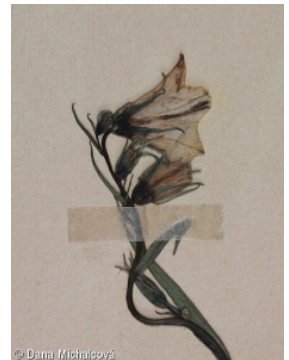
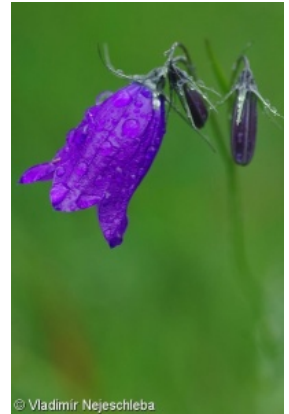
Leaf anatomy: **mesomorphic**



## 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, panícula**  
 Dicliny: **synoecious**  
 Generative reproduction type: **alogamy self-incompatibility, facultative alogamy**  
 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 excluded) [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

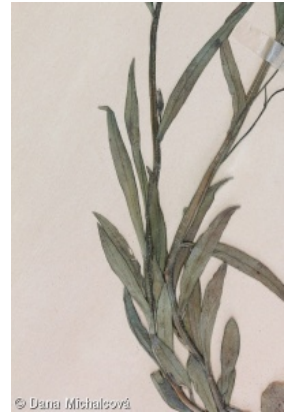
1 Vegetation of cliffs, screes and walls

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: 619

taxon.data.freq\_in\_quad: 2010

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**

