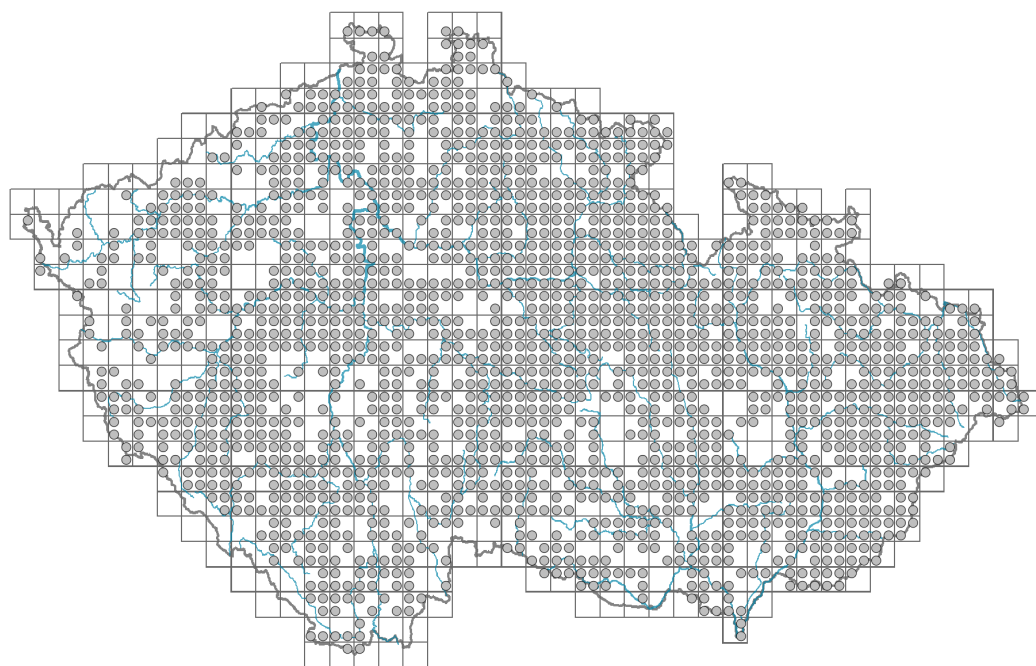


# Campanula trachelium

## Distribution



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### 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]: **0.3-0.9**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

Life strategy (Pierce method based on leaf traits): **CR**

Life strategy (Pierce method, C-score): **47.5 %**

Life strategy (Pierce method, S-score): **0 %**

Life strategy (Pierce method, R-score): **52.5 %**

## Leaf

Leaf presence and metamorphosis: **leaves present, not modified**

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, hygromorphic**



© Dana Michalcová



© Dana Michalcová

## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **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**

Dicliny: **synoecious**

Generative reproduction type: **allogamy**

Pollination syndrome: **insect-pollination**

## Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **seed**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

Shoot metamorphosis: **rhizome-like pleiocorm**

Root metamorphosis: **primary storage root**

Storage organ: **rhizome-like pleiocorm, primary storage root**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **monocyclic 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: **0.8**

Lateral spreading distance by clonal growth [m]: **0.03**

Clonal index: **3**

Position of root buds: **primary root**

Role of root buds in life-history of a plant: **regenerative**

## 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): **13**

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): **18**

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): **16**

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): **36**

Depth of the belowground bud bank (root buds included) [cm]: **9**



## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Karyology

Chromosome number (2n): **34**

Ploidy level (x): **2**

2C genome size [Mbp]: **4435.68**

1Cx monoploid genome size [Mbp]: **2217.84**

Genomic GC content: **42.1 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **4 - transition between values 3 and 5**

Temperature indicator value: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **6 - transition between values 5 and 7**

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

Nutrient indicator value: **7 - occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor sites**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.9**

Herb layer disturbance frequency indicator value: **-0.74**

Whole-community disturbance severity indicator value: **0.28**

Herb layer disturbance severity indicator value: **0.14**

Whole-community structure based disturbance indicator value: **0.11**

Herb layer structure-based disturbance indicator value: **0.21**

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 - rare occurrence**

1D Mobile calcareous screes: **1 - rare occurrence**

2 Alpine and subalpine grasslands

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

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 - rare occurrence**





4K Petasites fringes of montane brooks: **1 - rare occurrence**

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 - rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 - rare occurrence**

6B Montane mesic meadows: **1 - rare occurrence**

8 Dry grasslands

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

11 Heathlands and scrub

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

11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

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

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

12B Alluvial forests: **2 - optimum**

12C Oak-hornbeam forests: **2 - optimum**

12D Ravine forests: **2 - optimum**

12E Herb-rich beech forests: **2 - optimum**

12F Limestone beech forests: **2 - optimum**

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

12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**

12I Sub-continental thermophilous oak forests: **2 - optimum**

12J Acidophilous thermophilous oak forests: **1 - rare occurrence**

12K Acidophilous oak forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

12V Spruce plantations: **1 - rare occurrence**

12W Pine and larch plantations: **1 - rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **1 - rare occurrence**

13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 - taxon occurring mainly in the closed forest**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 - taxon occurring mainly in the closed forest**

Diagnostic taxon

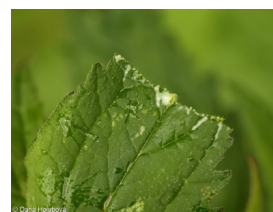
Diagnostic taxon of alliances: [LBB Carpinion betuli](#), [LBF Tilio platyphylli-Acerion](#)

Diagnostic taxon of associations: [LBB02 Stellario holostaeae-Carpinetum betuli](#), [LBB03 Carici pilosae-Carpinetum betuli](#), [LBB04 Primulo veris-Carpinetum betuli](#), [LBF01 Aceri-Tilietum](#), [LCA01 Lathyro collini-Quercetum pubescentis](#)

Constant taxon

Constant taxon of alliances: [LBB Carpinion betuli](#)

Constant taxon of associations: [KBB03 Populo tremulae-Coryletum avellanae](#), [LBB02 Stellario holostaeae-Carpinetum betuli](#), [LBB03 Carici pilosae-Carpinetum betuli](#), [LBB04 Primulo veris-Carpinetum betuli](#), [LBF01 Aceri-Tilietum](#), [LCA01](#)



***Lathyro collini-Quercetum pubescentis*****Ecological specialization indices**Ecological specialization index for all vegetation types: **5.1**Ecological specialization index for non-forest vegetation: **3.5**Ecological specialization index for forest vegetation: **5.5****Colonization ability**Index of colonization success (ICS): **5**Index of colonization potential (ICP): **5**Optimum successional age [years]: **25****Distribution and frequency**Floristic zone: **northern temperate, southern temperate, submeridional, meridional**Floristic region: **Europe, Western Asia**Distribution range extension along the continentality gradient: **5**Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt (subalpine belt)**Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **606**taxon.data.freq\_in\_quad: **1785****Commonness in vegetation plots from the Czech Republic**Occurrence frequency in vegetation plots: **2.6 %**Occurrence frequency in vegetation plots with a cover above 5%: **0.6 %**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: **2 %**Maximum percentage cover in vegetation plots: **23 %****Number of habitats with taxon occurrence in the Czech Republic**Number of narrow habitats in which the taxon occurs: **30**Number of narrow habitats in which the taxon has its optimum: **9**Number of broad habitats in which the taxon occurs: **9**Number of broad habitats in which the taxon has its optimum: **3****Threats and protection**Red List 2017 (national categories): **taxon is not on the Red List**Red List 2017 (IUCN categories): **LC(NA) - least concern (taxon is not on the Red List)**Legal protection: **not protected by law**