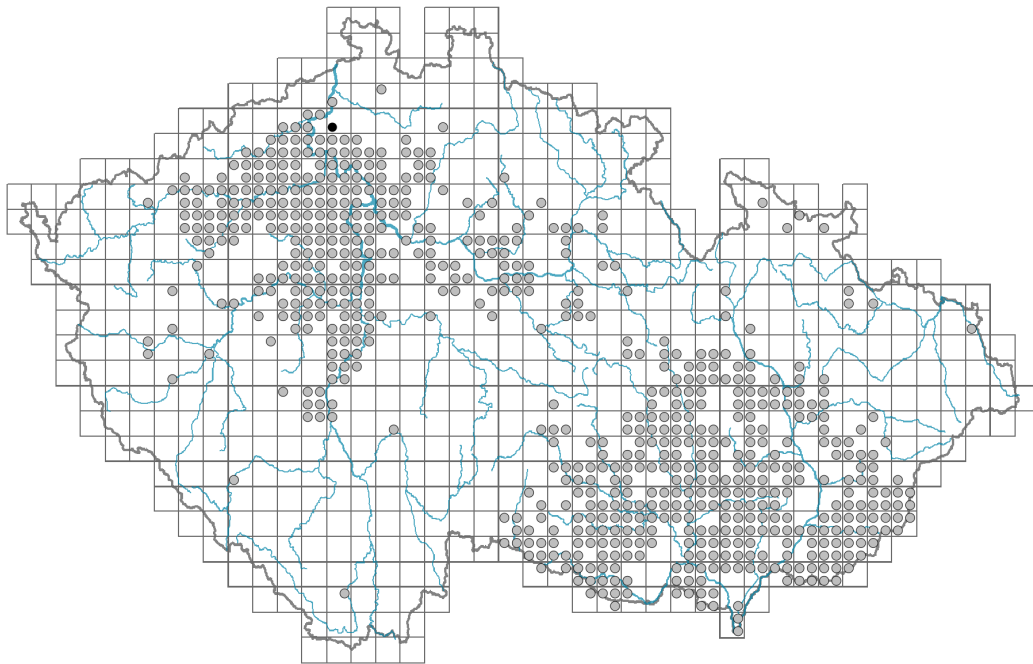


# *Asperula cynanchica*

## Distribution



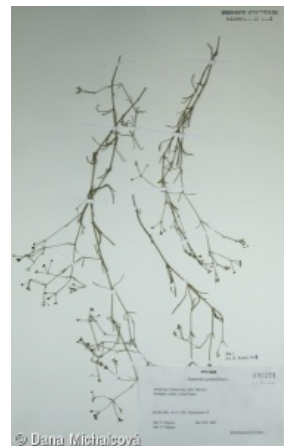
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### Map info

● revised records

○ unrevised records

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



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## Habitus and growth type

Height [m]: **0.1-0.4**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

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

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

Life strategy (Pierce method, S-score): **57.8 %**

Life strategy (Pierce method, R-score): **42.2 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **opposite, verticillate**

Leaf shape: **simple - entire**

Stipules: **present**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic**

## Flower

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

Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**

Flower colour: **white, pink**

Flower symmetry: **actinomorphic**

Perianth type: **calyx absent, corolla present**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped**

Inflorescence type: **panicula e dichasiis composita**

Dicliny: **synoecious**

Pollination syndrome: **insect-pollination, selfing**



## Fruit, seed and dispersal

Fruit type: **dry fruit - pair of nutlets**

Fruit colour: **brown, black**

Reproduction type: **only by seed/spores**

Dispersal unit (diaspore): **fruit, infructescence or its part**

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

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



## Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**

Storage organ: **pleiocorm**

Shoot life span (cyclicality): **monocyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **present**

### Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **10**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **10**

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]: **3**

Number of buds per shoot at the soil surface (root buds included): **10**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **10**

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]: **3**

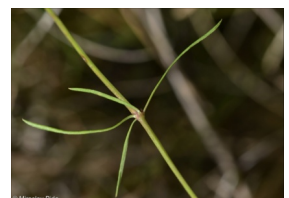


## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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



## Karyology

Chromosome number (2n): **20, 22 (40, 44)**

Ploidy level (x): **2 (4)**

2C genome size [Mbp]: **1599.52**

1Cx monoploid genome size [Mbp]: **799.76**

Genomic GC content: **41.3 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **8 - light plant, only exceptionally occurring at less than 40% of diffuse radiation incident in an open area**

Temperature indicator value: **7 - heat indicator, occurring in relatively warm lowlands**

Moisture indicator value: **3 - missing on damp soil**

Reaction indicator value: **8 - transition between values 7 and 9, occurring mostly in calcium-rich conditions**

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: **-0.62**

Herb layer disturbance frequency indicator value: **-0.25**

Whole-community disturbance severity indicator value: **0.2**

Herb layer disturbance severity indicator value: **0.24**

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.63**



## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

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

1B Siliceous cliffs and block fields: **1 - rare occurrence**

1D Mobile calcareous screes: **2 - optimum**

6 Meadows and mesic pastures

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

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

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

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: **2 - optimum**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

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

11N Low xeric scrub: **2 - optimum**

12 Forests

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

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

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

12L Boreo-continental pine forests: **1 - rare occurrence**

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

12T Robinia pseudacacia plantations: **1 - rare occurrence**

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

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: [TH Festuco-Brometea](#)

Diagnostic taxon of alliances: [THB Bromo pannonici-Festucion pallentis](#), [THC Diantho lumnitzeri-Seslerion](#), [THD Festucion valesiaca](#), [THE Cirsio-Brachypodium pinnati](#), [THG Koelerio-Phleion phleoidis](#)

Diagnostic taxon of associations: [THA02 Seselio ossei-Festucetum pallentis](#), [THA04 Helichryso arenariae-Festucetum pallentis](#), [THB01 Poo badensis-Festucetum pallentis](#), [THC01 Carici humilis-Seslerietum caeruleae](#), [THE03 Polygalo majoris-Brachypodietum pinnati](#), [THG01 Potentillo heptaphyllae-Festucetum rupicola](#), [THG02 Avenulo pratensis-Festucetum valesiaca](#)

Constant taxon

Constant taxon of classes: [TH Festuco-Brometea](#)

Constant taxon of alliances: [THA Alysso-Festucion pallentis](#), [THB Bromo pannonici-Festucion pallentis](#), [THC Diantho lumnitzeri-Seslerion](#), [THD Festucion valesiaca](#), [THE Cirsio-Brachypodium pinnati](#), [THG Koelerio-Phleion phleoidis](#)

Constant taxon of associations: [TDC02 Anthoxantho odorati-Agrostietum tenuis](#), [THA02 Seselio ossei-Festucetum pallentis](#), [THA04 Helichryso arenariae-Festucetum pallentis](#), [THB01 Poo badensis-Festucetum pallentis](#), [THC01 Carici humilis-Seslerietum caeruleae](#), [THC02 Minuartio setaceae-Seslerietum caeruleae](#), [THC03 Saxifrago paniculatae-Seslerietum caeruleae](#), [THD01 Festuco valesiaca-Stipetum capillatae](#), [THD02 Erysimo crepidifolii-Festucetum valesiaca](#), [THD03 Festuco rupicola-Caricetum humilis](#), [THD06 Astragalo exscapi-Crambetum tatariae](#), [THE03 Polygalo majoris-Brachypodietum pinnati](#), [THF02 Brachypodio pinnati-Molinietum arundinaceae](#), [THG01 Potentillo heptaphyllae-Festucetum rupicola](#), [THG02 Avenulo pratensis-Festucetum valesiaca](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.9**

Ecological specialization index for non-forest vegetation: **4.9**

Ecological specialization index for forest vegetation: **4.7**

### Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **4**

Optimum successional age [years]: **28.5**

### Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional**

Floristic region: **Europe**

Continentality degree: **5**

Distribution range extension along the continentality gradient: **3**

Elevational belt in the Czech Republic: **lowlands, colline belt (submontane belt)**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **272**

taxon.data.freq\_in\_quad: **666**

### Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **2.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.3 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **2.5 %**

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: **26**

Number of narrow habitats in which the taxon has its optimum: **10**

Number of broad habitats in which the taxon occurs: **6**

Number of broad habitats in which the taxon has its optimum: **5**

### 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**