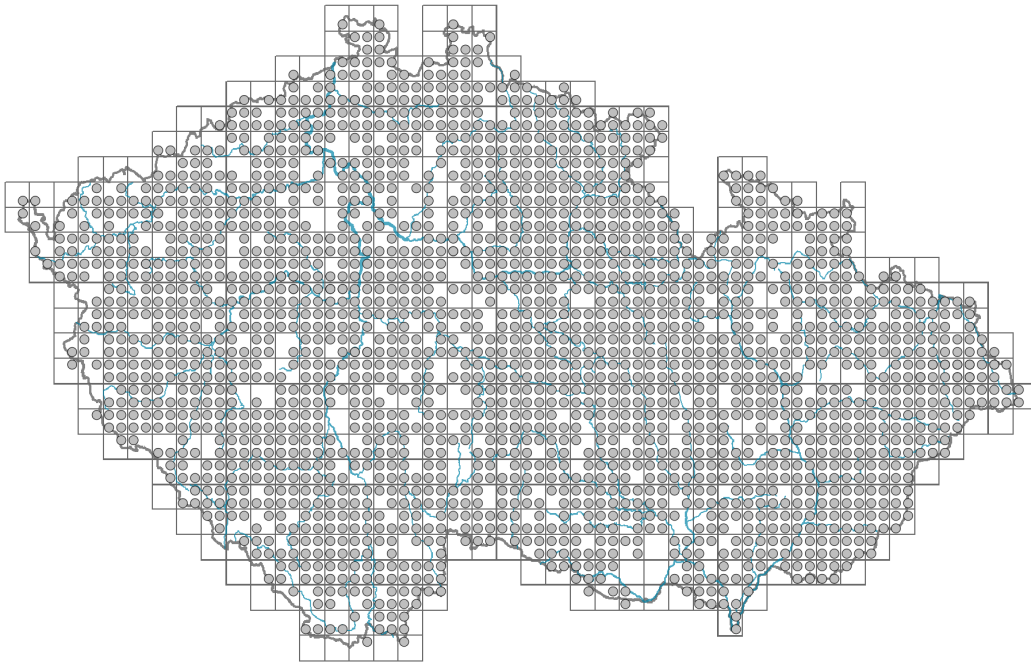


# *Myosotis arvensis*

## 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]: **0.15-0.6**Growth form: **annual herb**Life form: **therophyte**Life strategy: **R - ruderal**Life strategy (Pierce method based on leaf traits): **R/CR**Life strategy (Pierce method, C-score): **31.7 %**Life strategy (Pierce method, S-score): **0 %**Life strategy (Pierce method, R-score): **68.3 %**

© Dana Michalčová

## Leaf

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

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## Flower

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

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

Flower colour: **blue**

Flower symmetry: **actinomorphic**

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: **facultative autogamy**

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

Pollinator spectrum: **hoverflies (honeybee, solitary bees, flies s. l., other Diptera, beetles, thrips)**



## Fruit, seed and dispersal

Fruit type: **dry fruit - cluster of four one-seeded nutlets**

Fruit colour: **black**

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

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

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

Myrmecochory: **myrmecochorous**

## Belowground organs and clonality

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

Primary root: **present**

### Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **2**

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): **5**

Depth of the belowground bud bank (root buds excluded) [cm]: **2**

Number of buds per shoot at the soil surface (root buds included): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **2**

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): **5**

Depth of the belowground bud bank (root buds included) [cm]: **2**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **56**

Ploidy level (x): **6**

2C genome size [Mbp]: **1464.61**  
 1Cx monoploid genome size [Mbp]: **244.1**  
 Genomic GC content: **39.2 %**

## 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: **6 - transition between values 5 and 7**

Moisture indicator value: **5 - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**

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: **6 - transition between values 5 and 7**

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.31**

Herb layer disturbance frequency indicator value: **0.2**

Whole-community disturbance severity indicator value: **0.9**

Herb layer disturbance severity indicator value: **0.9**

Whole-community structure based disturbance indicator value: **0.69**

Herb layer structure-based disturbance indicator value: **0.76**

## Habitat and sociology

### Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1C Walls: **1 - rare occurrence**

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

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

4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

4J River gravel banks: **1 - rare occurrence**

6 Meadows and mesic pastures

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

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

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

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

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

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

8 Dry grasslands

8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**



- 8D Broad-leaved dry grasslands: **1 - rare occurrence**  
8E Acidophilous dry grasslands: **1 - rare occurrence**  
8F Thermophilous forest fringe vegetation: **1 - rare occurrence**  
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**  
9D Pannonian sand steppes: **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**  
10 Saline vegetation  
10I Inland saline meadows: **1 - rare occurrence**  
11 Heathlands and scrub  
11A Dry lowland to subalpine heathlands: **1 - rare occurrence**  
11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**  
11L Tall mesic and xeric shrub: **1 - rare occurrence**  
11N Low xeric scrub: **1 - rare occurrence**  
11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**  
12 Forests  
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**  
12I Sub-continental thermophilous oak forests: **1 - rare occurrence**  
12J Acidophilous thermophilous oak forests: **1 - rare occurrence**  
12K Acidophilous oak forests: **1 - rare occurrence**  
12T Robinia pseudacacia plantations: **1 - rare occurrence**  
13 Anthropogenic vegetation  
13A Annual vegetation of ruderal habitats: **1 - rare occurrence**  
13B Annual vegetation of arable land: **2 - optimum**  
13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**  
13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**  
Affinity to the forest environment  
Affinity to the forest environment in Thermophyticum: **0 - taxon that does not spontaneously occur in Czech forests**  
Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 - taxon that does not spontaneously occur in Czech forests**  
Diagnostic taxon  
Diagnostic taxon of classes: [XB \*Stellarietea mediae\*](#)  
Diagnostic taxon of alliances: [XBC \*Scleranthion annui\*](#)  
Diagnostic taxon of associations: [XBC01 \*Aphano arvensis-Matricarietum chamomillae\*](#), [XBC02 \*Spergulo arvensis-Scleranthetum annui\*](#), [XBC03 \*Erophilo verna-Arabidopsietum thalianae\*](#)  
Constant taxon  
Constant taxon of alliances: [XBC \*Scleranthion annui\*](#), [XBE \*Oxalidion fontanae\*](#)  
Constant taxon of associations: [XBA03 \*Euphorbio exiguae-Melandrietum noctiflori\*](#), [XBC01 \*Aphano arvensis-Matricarietum chamomillae\*](#), [XBC02 \*Spergulo arvensis-Scleranthetum annui\*](#), [XBC03 \*Erophilo verna-Arabidopsietum thalianae\*](#), [XBE01 \*Echinochloo cruris-galli-Chenopodietum polyspermi\*](#)  
Ecological specialization indices  
Ecological specialization index for all vegetation types: **5.2**

Ecological specialization index for non-forest vegetation: **5.3**

Ecological specialization index for forest vegetation: **4.8**

Colonization ability

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

Index of colonization potential (ICP): **5**

Optimum successional age [years]: **25**

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Distribution range extension along the continentality gradient: **6**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 644

taxon.data.freq\_in\_quad: 2102

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **8.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.5 %**

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

Mean percentage cover in vegetation plots: **3.3 %**

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: **35**

Number of narrow habitats in which the taxon has its optimum: **1**

Number of broad habitats in which the taxon occurs: **10**

Number of broad habitats in which the taxon has its optimum: **1**

## 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**