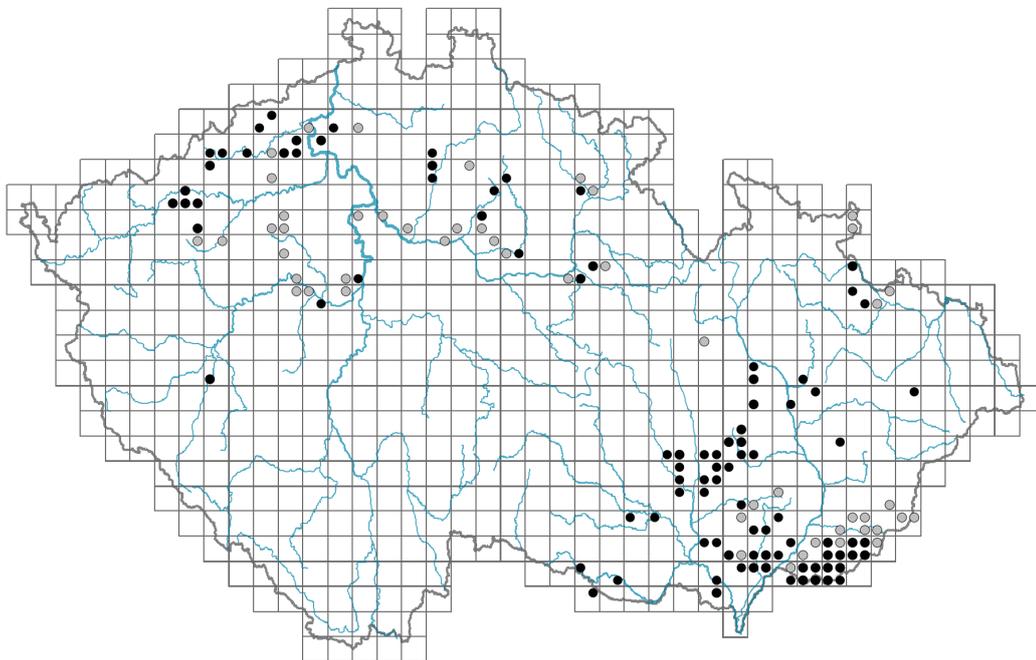


Pulmonaria angustifolia

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]: **0.1-0.35**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **82.7 %**

Life strategy (Pierce method, S-score): **3.2 %**

Life strategy (Pierce method, R-score): **14.1 %**

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: **summer green**

Leaf anatomy: **mesomorphic**

Flower

Flowering period [month]: **March-April**

Flower colour: **red, blue**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped**
Calyx fusion: **synsepalous**
Inflorescence type: **cincinnus**
Dicliny: **synoecious**
Generative reproduction type: **allogamy**
Pollination syndrome: **insect-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit - cluster of four one-seeded nutlets**
Fruit colour: **brown**
Reproduction type: **by seed/spores and vegetatively**
Dispersal unit (diaspore): **fruit, infrutescence or its part**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **myrmecochorous nv**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**
Storage organ: **rhizome**
Type of clonal growth organ: **epigeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **dicyclic or polycyclic 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: **6**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **4**
Position of root buds: **lateral roots**
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): **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): **23**
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): **43**
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): **14**

Ploidy level (x): **2**

2C genome size [Mbp]: **2219.74**

1Cx monoploid genome size [Mbp]: **1109.87**

Genomic GC content: **39.2 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**

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

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

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic 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: **-1.47**

Herb layer disturbance frequency indicator value: **-0.38**

Whole-community disturbance severity indicator value: **0.25**

Herb layer disturbance severity indicator value: **0.22**

Whole-community structure based disturbance indicator value: **0.26**

Herb layer structure-based disturbance indicator value: **0.38**

Habitat and sociology

Occurrence in habitats

6 Meadows and mesic pastures

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

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

8 Dry grasslands

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

8E Acidophilous dry grasslands: **1 - rare occurrence**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

11 Heathlands and scrub

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

12 Forests

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

13 Anthropogenic vegetation

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

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of alliances: [LCB *Aceri tatarici-Quercion*](#)

Diagnostic taxon of associations: [LCB02 *Carici fritschii-Quercetum roboris*](#), [THF02 *Brachypodio pinnati-Molinietum arundinaceae*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **6.3**

Ecological specialization index for non-forest vegetation: **7**

Ecological specialization index for forest vegetation: **6**

Colonization ability

Index of colonization success (ICS): **1**

Index of colonization potential (ICP): **1**

Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **6**

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

Elevational belt in the Czech Republic: **lowlands, colline belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 102

taxon.data.freq_in_quad: 148

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **0 %**

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: **2.1 %**

Maximum percentage cover in vegetation plots: **3 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **8**

Number of narrow habitats in which the taxon has its optimum: **2**

Number of broad habitats in which the taxon occurs: **5**

Number of broad habitats in which the taxon has its optimum: **2**

Threats and protection

Red List 2017 (national categories): **C2b - endangered taxon, rare and declining**

Red List 2017 (IUCN categories): **VU - vulnerable**

Legal protection: **not protected by law**