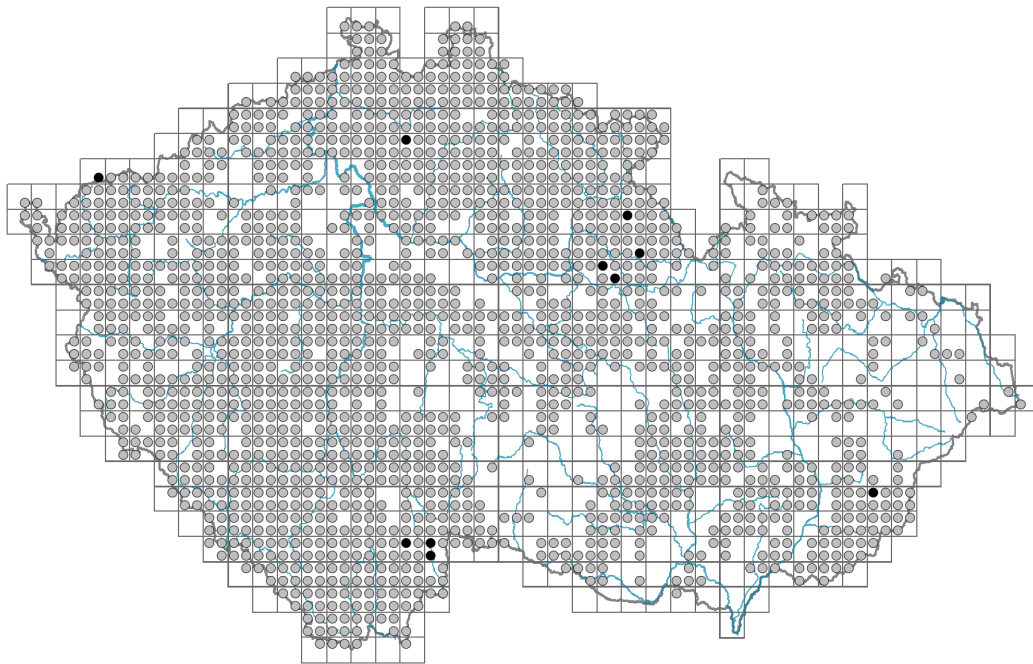


Melampyrum pratense

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]: **0.05-0.5**

Growth form: **annual herb**

Life form: **therophyte**

Life strategy: **CR - competitor/ruderal**

Life strategy (Pierce method based on leaf traits): **R/CSR**

Life strategy (Pierce method, C-score): **14.2 %**

Life strategy (Pierce method, S-score): **26.7 %**

Life strategy (Pierce method, R-score): **59.1 %**

Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **simple - entire**

Stipules: **absent**

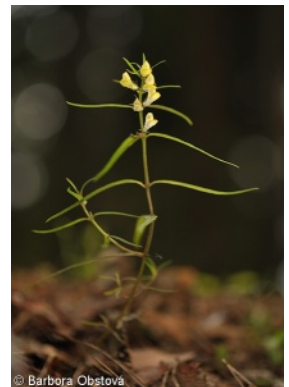
Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, hygromorphic**

Flower

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



Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**

Flower colour: **white, yellow**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **bilabiate**

Calyx fusion: **synsepalous**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **facultative autogamy**

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



Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown, black**

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

Dispersal unit (diaspore): **seed**

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

Myrmecochory: **myrmecochorous**

Belowground organs and clonality

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

Primary root: **present**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **0**

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

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): **0**

Number of buds per shoot at the soil surface (root buds included): **0**

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

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): **0**



Trophic mode

Parasitism and mycoheterotrophy: **root hemiparasite**

Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **13610.54**

1Cx monoploid genome size [Mbp]: **6805.27**

Genomic GC content: **43.8 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5x - semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area (generalist)**

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

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

Reaction indicator value: **3 - acidity indicator, occurring mainly in acidic conditions, exceptionally in neutral conditions**

Nutrient indicator value: **2 - transition between values 1 and 3**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.93**

Herb layer disturbance frequency indicator value: **-1.1**

Whole-community disturbance severity indicator value: **0.22**

Herb layer disturbance severity indicator value: **0.08**

Whole-community structure based disturbance indicator value: **0.14**

Herb layer structure-based disturbance indicator value: **0.19**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

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

2 Alpine and subalpine grasslands

2A Alpine grasslands on siliceous bedrock: **1 - rare occurrence**

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

5 Vegetation of springs and mires

5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

5F Transitional mires: **1 - rare occurrence**

5G Raised bogs: **2 - optimum**

5H Wet peat soils and bog hollows: **1 - rare occurrence**

6 Meadows and mesic pastures

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

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

7B Submontane *Nardus* grasslands: **1 - rare occurrence**

8 Dry grasslands

8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**

8D Broad-leaved dry grasslands: **1 - rare occurrence**

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



11 Heathlands and scrub

- 11A Dry lowland to subalpine heathlands: **2 - optimum**
 11D Subalpine acidophilous *Pinus mugo* scrub: **2 - optimum**
 11H Subalpine deciduous scrub: **1 - rare occurrence**
 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

- 12B Alluvial forests: **1 - rare occurrence**
 12C Oak-hornbeam forests: **2 - optimum**
 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: **2 - optimum**
 12I Sub-continental thermophilous oak forests: **2 - optimum**
 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: **1 - rare occurrence**
 12P Peatland pine forests: **2 - optimum**
 12Q Peatland birch forests: **2 - optimum**
 12R Acidophilous spruce forests: **2 - optimum**
 12S Basiphilous spruce forests: **1 - rare occurrence**
 12V Spruce plantations: **1 - rare occurrence**
 12W Pine and larch plantations: **1 - rare occurrence**

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 classes: [LC *Quercetea pubescentis*](#), [LD *Quercetea robori-petraeae*](#), [RC *Oxycocco-Sphagnetum*](#)

Diagnostic taxon of alliances: [LCB *Aceri tatarici-Quercion*](#), [LCC *Quercion petraeae*](#), [LDA *Quercion roboris*](#), [LFD *Vaccinio uliginosi-Pinion sylvestris*](#), [RCB *Oxycocco palustris-Ericion tetralicis*](#)

Diagnostic taxon of associations: [LCB02 *Carici fritschii-Quercetum roboris*](#), [LCC03 *Melico pictae-Quercetum roboris*](#), [LDA01 *Luzulo luzuloidis-Quercetum petraeae*](#), [LDA04 *Holco mollis-Quercetum roboris*](#), [LFD04 *Vaccinio uliginosi-Piceetum abietis*](#), [RCA03 *Vaccinio uliginosi-Pinetum mugo*](#), [RCB01 *Trichophoro cespitosi-Sphagnetum papilloso*](#)

Constant taxon

Constant taxon of classes: [LD *Quercetea robori-petraeae*](#)

Constant taxon of alliances: [LDA *Quercion roboris*](#), [LFD *Vaccinio uliginosi-Pinion sylvestris*](#), [RCB *Oxycocco palustris-Ericion tetralicis*](#)

Constant taxon of associations: [LCB02 *Carici fritschii-Quercetum roboris*](#), [LCC03 *Melico pictae-Quercetum roboris*](#), [LDA01 *Luzulo luzuloidis-Quercetum petraeae*](#),

[LDA04 *Holco mollis-Quercetum roboris*, LFD03 *Vaccinio-Pinetum montanae*, LFD04 *Vaccinio uliginosi-Piceetum abietis*, RCA03 *Vaccinio uliginosi-Pinetum mugo*, RCB01 *Trichophoro cespitosi-Sphagnetum papilloso*](#)

Dominant taxon

Dominant taxon of associations: [LDA01 *Luzulo luzuloidis-Quercetum petraeae*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.3**

Ecological specialization index for non-forest vegetation: **3.3**

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

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **3**

Optimum successional age [years]: **33**

Distribution and frequency

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

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, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 594

taxon.data.freq_in_quad: 1749

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **19.1 %**

Occurrence frequency in vegetation plots with a cover above 25%: **3.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.9 %**

Mean percentage cover in vegetation plots: **5.5 %**

Maximum percentage cover in vegetation plots: **63 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **36**

Number of narrow habitats in which the taxon has its optimum: **12**

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**