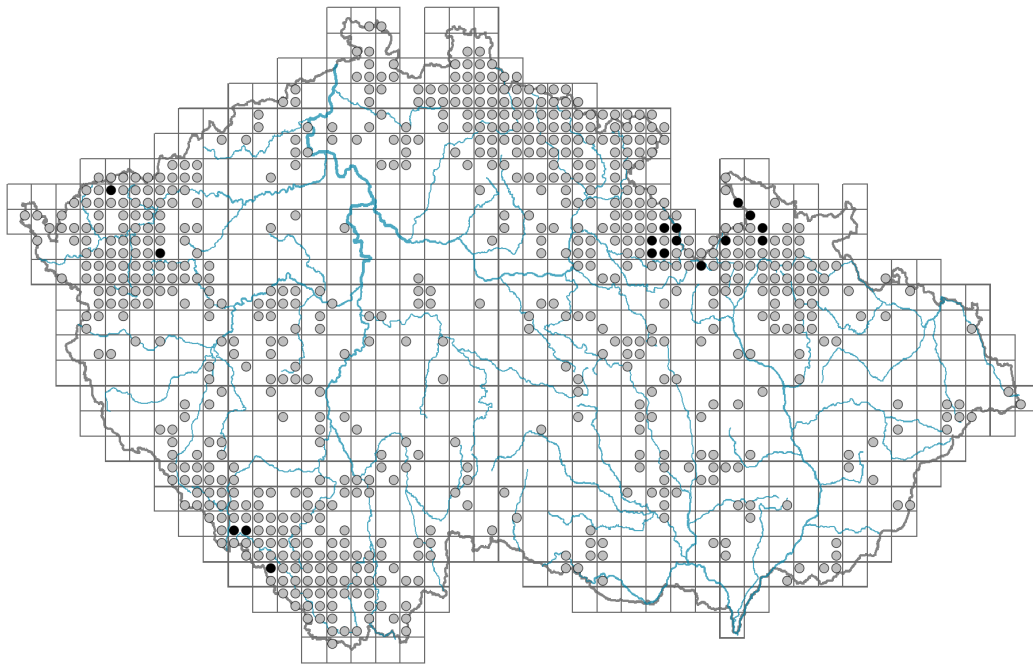


# Melampyrum sylvaticum

## Distribution



© Jan Lukavský (flora.upol.cz)

### Map info

● revised records

○ unrevised records

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



© Jan Lukavský (flora.upol.cz)



© Jan Lukavský (flora.upol.cz)



© Dana Michalčová

## Habitus and growth type

Height [m]: **0.1-0.4**Growth form: **annual herb**Life form: **therophyte**Life strategy: **CR - competitor/ruderal**Life strategy (Pierce method based on leaf traits): **R/CR**Life strategy (Pierce method, C-score): **20.2 %**Life strategy (Pierce method, S-score): **0 %**Life strategy (Pierce method, R-score): **79.8 %**

## 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]: **June-September**

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**  
 Flower colour: **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: **mixed mating**  
 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 (cyclicality): **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]: **8233.23**  
 1Cx monoploid genome size [Mbp]: **4116.61**  
 Genomic GC content: **42.6 %**

## 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: **4 - transition between values 3 and 5**

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: **2 - transition between values 1 and 3**

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: **-1.49**

Herb layer disturbance frequency indicator value: **-1.12**

Whole-community disturbance severity indicator value: **0.19**

Herb layer disturbance severity indicator value: **0.19**

Whole-community structure based disturbance indicator value: **0.34**

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

## 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: **2 - optimum**

5 Vegetation of springs and mires

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

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **2 - optimum**

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

8 Dry grasslands

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: **2 - optimum**

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

12 Forests

12E Herb-rich beech forests: **1 - rare occurrence**

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

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

12L Boreo-continental pine forests: **2 - optimum**

12Q Peatland birch forests: **1 - rare occurrence**

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

Diagnostic taxon

Diagnostic taxon of classes: [KC \*Roso pendulinae-Pinetea mugo\*](#)

Diagnostic taxon of alliances: [ADA \*Calamagrostion villosae\*](#), [ADC \*Salicion silesiaca\*](#), [KCA \*Pinion mugo\*](#)

Diagnostic taxon of associations: [AAA02 \*Junco trifidi-Empetretum hermaphroditi\*](#), [ADA02 \*Crepido conyzifoliae-Calamagrostietum villosae\*](#), [ADC01 \*Salici silesiaca-Betuletum carpaticae\*](#), [TEF03 \*Festuco supinae-Vaccinietum myrtilli\*](#)

Constant taxon

Constant taxon of alliances: [ADC \*Salicion silesiaca\*](#)

Constant taxon of associations: [ADA02 \*Crepido conyzifoliae-Calamagrostietum villosae\*](#), [ADC01 \*Salici silesiaca-Betuletum carpaticae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.4**

Ecological specialization index for non-forest vegetation: **5**

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

Colonization ability

Index of colonization success (ICS): **3**

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

Optimum successional age [years]: **18**

## Distribution and frequency

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

Floristic region: **Europe**

Distribution range extension along the continentality gradient: **5**

Elevational belt in the Czech Republic: **submontane belt, montane belt, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 355

taxon.data.freq\_in\_quad: 723

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.2 %**

Occurrence frequency in vegetation plots with a cover above 5%: **5.7 %**

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: **2.7 %**

Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **21**

Number of narrow habitats in which the taxon has its optimum: **8**

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

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**