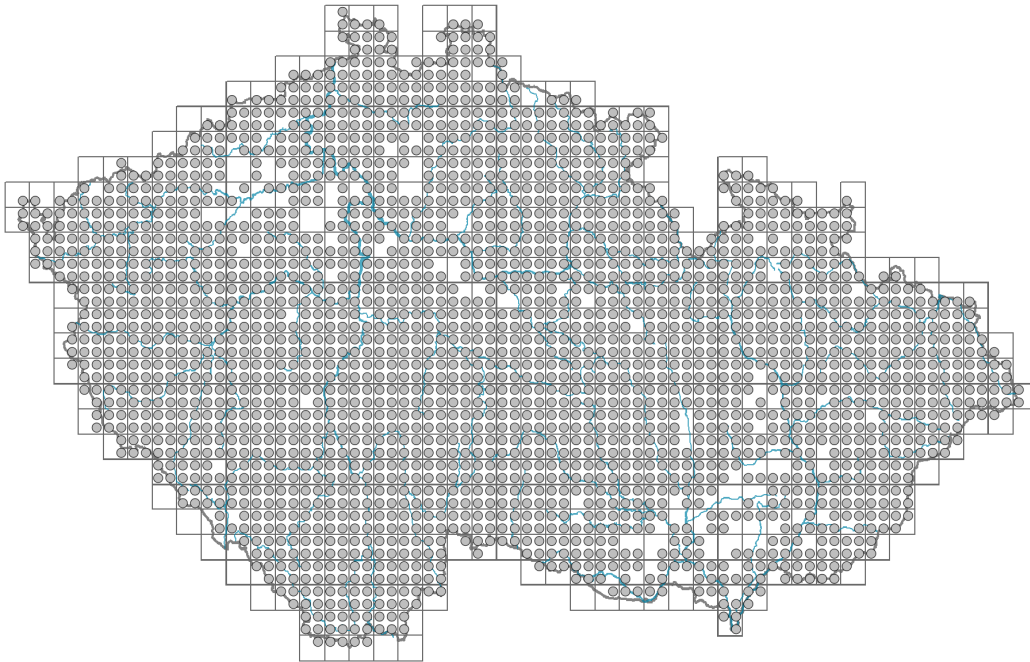


# *Lysimachia vulgaris*

## Distribution



© Pavel Veselý

### 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]: **0.5-1.2**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **36.5 %**

Life strategy (Pierce method, S-score): **28.4 %**

Life strategy (Pierce method, R-score): **35.2 %**

## Leaf

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

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

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **helomorphic**



© Pavel Veselý



© Pavel Veselý

## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **yellow**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

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

Calyx fusion: **fused at the base**

Inflorescence type: **panicula**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

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

### Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **seed**

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

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

### Belowground organs and clonality

Shoot metamorphosis: **stolon**

Storage organ: **stolon**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

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

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

Primary root: **absent**

Persistence of the clonal growth organ [year]: **1.7**

Number of clonal offspring: **5.3**

Lateral spreading distance by clonal growth [m]: **0.17**

Clonal index: **5**

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): **15**

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]: **4**



## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **84 (28, 42, 56, 70)**

Ploidy level (x): **12**

2C genome size [Mbp]: **7453.6**

1Cx monoploid genome size [Mbp]: **621.13**

Genomic GC content: **37 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **6x - transition between values 5 and 7; rarely at less than 20% of 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: **8 - transition between values 7 and 9**

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: **6x - transition between values 5 and 7 (generalist)**

Salinity indicator value: **1 - salt tolerant, mostly on low-salt to salt-free soils, but occasionally on slightly salty soils**

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.1**

Herb layer disturbance frequency indicator value: **-0.64**

Whole-community disturbance severity indicator value: **0.23**

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

Whole-community structure based disturbance indicator value: **0.43**

Herb layer structure-based disturbance indicator value: **0.47**

## Habitat and sociology

### Occurrence in habitats

#### 3 Aquatic vegetation

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

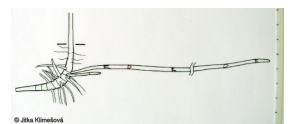
#### 4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4B Halophilous reed and sedge beds: **1 - rare occurrence**

4C Eutrophic vegetation of muddy substrata: **1 - rare occurrence**

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



- 4E Reed vegetation of brooks: **1 - rare occurrence**
- 4F Mesotrophic vegetation of muddy substrata: **1 - rare occurrence**
- 4G Tall-sedge beds: **2 - optimum**
- 4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**
- 4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**
- 4J River gravel banks: **1 - rare occurrence**
- 4K Petasites fringes of montane brooks: **1 - rare occurrence**
- 4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**
- 5 Vegetation of springs and mires
- 5B Lowland to montane soft-water springs: **1 - rare occurrence**
- 5D Calcareous fens: **2 - optimum**
- 5E Acidic moss-rich fens and peatland meadows: **2 - optimum**
- 5F Transitional mires: **2 - optimum**
- 5G Raised bogs: **1 - rare occurrence**
- 5H Wet peat soils and bog hollows: **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**
- 6E Wet Cirsium meadows: **3 - dominant**
- 6F Intermittently wet Molinia meadows: **2 - optimum**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 7 Acidophilous grasslands
- 7B Submontane Nardus grasslands: **1 - rare occurrence**
- 10 Saline vegetation
- 10I Inland saline meadows: **1 - rare occurrence**
- 10J Saline steppes: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11I Willow carrs: **2 - optimum**
- 11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**
- 11L Tall mesic and xeric shrub: **1 - rare occurrence**
- 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**
- 12 Forests
- 12A Alder carrs: **2 - optimum**
- 12B Alluvial forests: **2 - optimum**
- 12C Oak-hornbeam forests: **1 - rare occurrence**
- 12I Sub-continental thermophilous oak forests: **1 - rare occurrence**
- 12K Acidophilous oak forests: **1 - rare occurrence**
- 12P Peatland pine forests: **1 - rare occurrence**
- 12Q Peatland birch forests: **1 - rare occurrence**
- 12R Acidophilous spruce forests: **1 - rare occurrence**
- 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**
- 12V Spruce plantations: **1 - rare occurrence**
- 12W Pine and larch plantations: **1 - rare occurrence**
- 13 Anthropogenic vegetation
- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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: **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: [LA \*Alnetea glutinosae\*](#)

Diagnostic taxon of alliances: [LAA \*Alnion glutinosae\*](#), [LAB \*Salicion cinereae\*](#)

Diagnostic taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAA02 \*Carici elongatae-Alnetum glutinosae\*](#), [LAA03 \*Carici acutiformis-Alnetum glutinosae\*](#), [TDF13 \*Lysimachio vulgaris-Filipenduletum ulmariae\*](#)

Constant taxon

Constant taxon of classes: [LA \*Alnetea glutinosae\*](#)

Constant taxon of alliances: [LAA \*Alnion glutinosae\*](#), [LAB \*Salicion cinereae\*](#)

Constant taxon of associations: [KAC01 \*Salicetum albae\*](#), [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAA02 \*Carici elongatae-Alnetum glutinosae\*](#), [LAA03 \*Carici acutiformis-Alnetum glutinosae\*](#), [LAB01 \*Salicetum auritae\*](#), [LAB02 \*Salicetum pentandro-auritae\*](#), [LCB02 \*Carici fritschii-Quercetum roboris\*](#), [LDA04 \*Holco mollis-Quercetum roboris\*](#), [MCF02 \*Thelypterido palustris-Phragmitetum australis\*](#), [MCG01 \*Caricetum elatae\*](#), [MCG06 \*Caricetum appropinquatae\*](#), [MCG07 \*Carici elatae-Calamagrostietum canescentis\*](#), [MCH01 \*Caricetum acutiformi-paniculatae\*](#), [MCH08 \*Phalaridetum arundinaceae\*](#), [RBA02 \*Carici flavae-Cratoneuretum filicini\*](#), [RBC03 \*Agrostio caninae-Caricetum diandrae\*](#), [RBD01 \*Sphagno recurvi-Caricetum rostratae\*](#), [RBD02 \*Sphagno recurvi-Caricetum lasiocarpae\*](#), [RBE03 \*Rhynchosporo albae-Sphagnetum tenelli\*](#), [TDF13 \*Lysimachio vulgaris-Filipenduletum ulmariae\*](#)

Dominant taxon

Dominant taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [TDF13 \*Lysimachio vulgaris-Filipenduletum ulmariae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4**

Ecological specialization index for non-forest vegetation: **4.3**

Ecological specialization index for forest vegetation: **4.6**

Colonization ability

Index of colonization success (ICS): **7**

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

Optimum successional age [years]: **19**

## Distribution and frequency

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

Floristic region: **Europe, Asia**

Distribution range extension along the continentality gradient: **7**

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

Expansive taxon in the region: **Bohemian Thermophyticum, Bohemian Moravian Mesophyticum, Carpathian Mesophyticum**

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

mapping cells: 658

taxon.data.freq\_in\_quad: 2342

### Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **12.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.3 %**

Mean percentage cover in vegetation plots: **4 %**

Maximum percentage cover in vegetation plots: **88 %**

### Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **46**

Number of narrow habitats in which the taxon has its optimum: **9**

Number of broad habitats in which the taxon occurs: **9**

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**