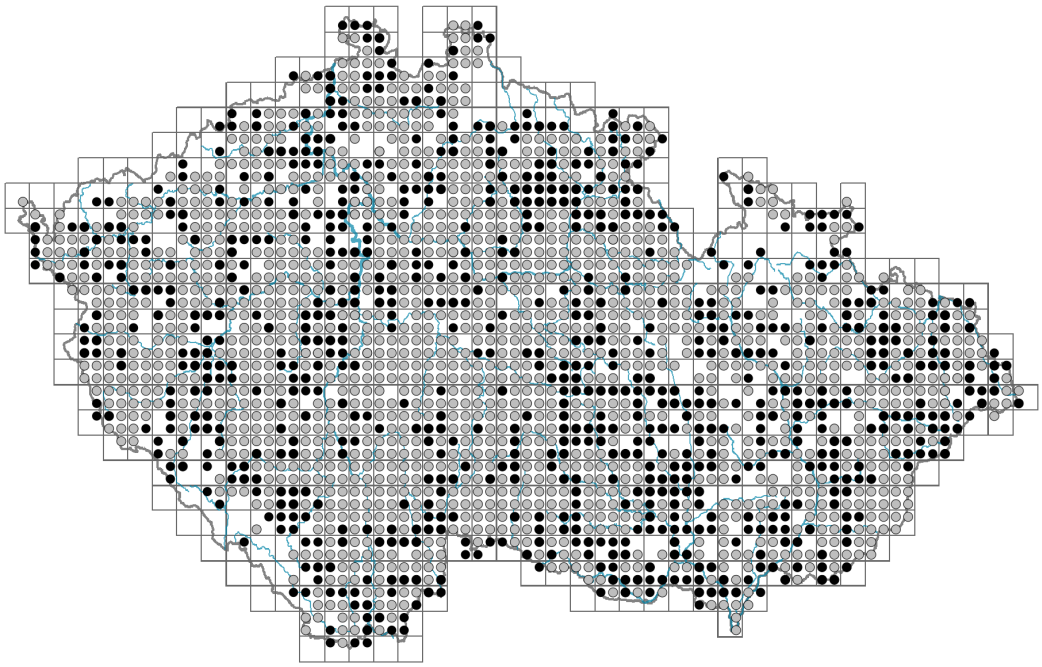
Lycopus europaeus

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]: **0.2–0.8**
Growth form: **clonal herb**
Life form: **hemicryptophyte (geophyte)**
Life strategy: **CS – competitor/stress-tolerator**
Life strategy (Pierce method based on leaf traits): **R/CR**
Life strategy (Pierce method, C-score): **31.6 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **68.4 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **opposite**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **present**
Leaf life span: **summer green**
Leaf anatomy: **hygromorphic, helomorphic**

Flower

Flowering period [month]: **July–September**

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **white**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **tubular**
Calyx fusion: **synsepalous**
Inflorescence type: **pseudospica e verticillastris composita**
Dicliny: **gynomonoecious, gynodioecious**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **insect-pollination**

Fruit, seed and dispersal

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

Belowground organs and clonality

Shoot metamorphosis: **stolon**
Storage organ: **stolon**
Type of clonal growth organ: **belowground stem tuber**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]:
Number of clonal offspring:
Lateral spreading distance by clonal growth [m]: **0.18**
Clonal index: **5**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded):
Number of buds per shoot at a depth of 0–10 cm (root buds excluded):
Number of buds per shoot at a depth greater than 10 cm (root buds excluded):
Size of the belowground bud bank (root buds excluded):
Depth of the belowground bud bank (root buds exluded) [cm]: **4**
Number of buds per shoot at the soil surface (root buds included):
Number of buds per shoot at a depth of 0–10 cm (root buds included):
Number of buds per shoot at a depth greater than 10 cm (root buds included):
Size of the belowground bud bank (root buds included):
Depth of the belowground bud bank (root buds included) [cm]: **4**

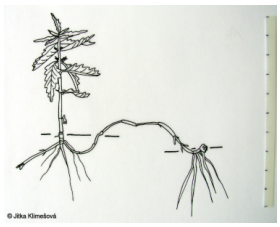
Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **22**
Ploidy level (x): **2**
2C genome size [Mbp]: **765.74**
1Cx monoploid genome size [Mbp]: **382.87**
Genomic GC content: **39.1 %**



Taxon origin

Origin in the Czech Republic: **native**
Geographic origin: **Mediterranean**

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: **6 – transition between values 5 and 7**
Moisture indicator value: **9 – wetness indicator, focus on often soaked, poorly aerated soils**
Reaction indicator value: **7 – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**
Nutrient indicator value: **7 – occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor sites**
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: **-0.97**
Herb layer disturbance frequency indicator value: **-0.66**
Whole-community disturbance severity indicator value: **0.25**
Herb layer disturbance severity indicator value: **0.27**
Whole-community structure based disturbance indicator value: **0.48**
Herb layer structure-based disturbance indicator value: **0.48**

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: **2 – optimum**
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: **2 – optimum**
4F Mesotrophic vegetation of muddy substrata: **2 – optimum**

4G Tall-sedge beds: **2 – optimum**
4H Vegetation of low annual hygrophilous herbs: **1 – rare occurrence**
4I Vegetation of nitrophilous annual hygrophilous herbs: **2 – optimum**
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

5A Hard-water springs with tufa formation: **1 – rare occurrence**
5B Lowland to montane soft-water springs: **1 – rare occurrence**
5D Calcareous fens: **1 – rare occurrence**
5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**
5F Transitional mires: **1 – rare occurrence**
5H Wet peat soils and bog hollows: **1 – rare occurrence**

6 Meadows and mesic pastures

6D Alluvial meadows of lowland rivers: **1 – rare occurrence**
6E Wet Cirsium meadows: **2 – optimum**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

10 Saline vegetation

10I Inland saline meadows: **1 – rare occurrence**

11 Heathlands and scrub

11I Willow carrs: **2 – optimum**
11J Willow galleries of loamy and sandy river banks: **2 – optimum**
11R Scrub and pioneer woodland of forests clearings: **1 – rare occurrence**

12 Forests

12A Alder carrs: **2 – optimum**
12B Alluvial forests: **2 – optimum**

13 Anthropogenic vegetation

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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*, MCF *Carici-Rumicion hydrolapathi***
Diagnostic taxon of associations: **LAA02 *Carici elongatae-Alnetum glutinosae*, LAA03 *Carici acutiformis-Alnetum glutinosae*, MCF02 *Thelypterido palustris-Phragmitetum australis***

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*, MBA06**

Polygonetum hydropiperis*, MCF01 *Cicuto virosae-Caricetum pseudocyperi*, MCF02 *Thelypterido palustris-Phragmitetum australis*, MCG04 *Comaro palustris-Caricetum cespitosae*, MCG05 *Caricetum diandrae*, MCH01 *Caricetum acutiformi-paniculatae

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.4**
Ecological specialization index for non-forest vegetation: **3.4**
Ecological specialization index for forest vegetation: **5.1**

Colonization ability

Index of colonization success (ICS): **6**
Index of colonization potential (ICP): **4**
Optimum successional age [years]: **15**

Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Asia**
Distribution range extension along the continentality gradient: **8**
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: 624
taxon.data.freq_in_quad: 2124

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **4.9 %**
Occurrence frequency in vegetation plots with a cover above 5%: **5.6 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.6 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0.2 %**
Mean percentage cover in vegetation plots: **2.9 %**
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: **30**
Number of narrow habitats in which the taxon has its optimum: **10**
Number of broad habitats in which the taxon occurs: **8**
Number of broad habitats in which the taxon has its optimum: **4**

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**