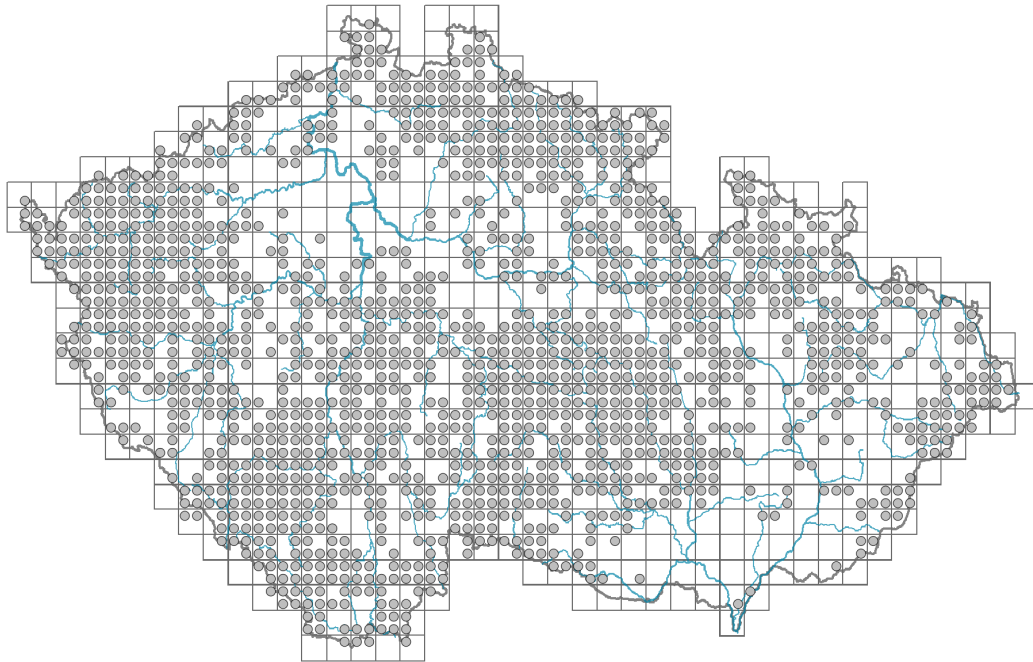


Lupinus polyphyllus

Distribution



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Map info

● revised records

○ unrevised records

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



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Habitus and growth type

Height [m]: **0.5-1.5**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **80.1 %**

Life strategy (Pierce method, S-score): **4.6 %**

Life strategy (Pierce method, R-score): **15.4 %**

Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **compound - palmate (8- and more-foliolate)**

Stipules: **present**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic**

Flower

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



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Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**

Flower colour: **white, violet, blue**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

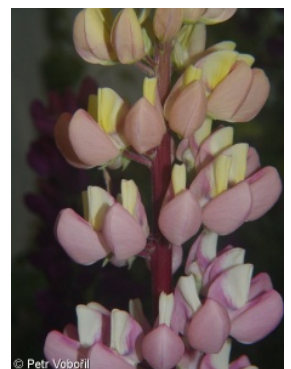
Calyx fusion: **synsepalous**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

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



Fruit, seed and dispersal

Fruit type: **dry fruit - legume**

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

Dispersal unit (diaspore): **seed**

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

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

Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**

Root metamorphosis: **primary storage root**

Storage organ: **pleiocorm, primary storage root**

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

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

Primary root: **present**

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): **12**

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): **17**

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): **12**

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): **17**

Depth of the belowground bud bank (root buds included) [cm]: **4**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **symbiosis with rhizobia**



Karyology

Chromosome number (2n): **48**

Ploidy level (x): **2**

2C genome size [Mbp]: **1390.2**
 1Cx monoploid genome size [Mbp]: **695.1**
 Genomic GC content: **38.4 %**

Taxon origin

Origin in the Czech Republic: **neophyte**
 Invasion status: **invasive**
 Geographic origin: **North America**
 Year of the first record in the wild: **1895**
 Period of introduction: **Late Modern Period (1800-1950)**
 Introduction pathway: **intentional - ornamental, intentional - forest, intentional - other**

Ecological indicator values

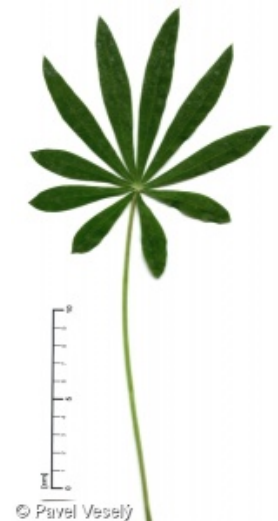
Ellenberg-type indicator values

Light indicator value: **7 - half-light plant, mostly occurring at full light, but also in the shade up to about 30% of diffuse radiation incident in an open area**
 Temperature indicator value: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**
 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: **5 - indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions**
 Nutrient indicator value: **6x - transition between values 5 and 7 (generalist)**
 Salinity indicator value: **0 - not salt tolerant, glycophyte**

Habitat and sociology

Occurrence in habitats

- 4 Wetland and riverine herbaceous vegetation
- 4K Petasites fringes of montane brooks: **1 - rare occurrence**
- 6 Meadows and mesic pastures
- 6A Mesic Arrhenatherum meadows: **2 - optimum**
- 6B Montane mesic meadows: **1 - rare occurrence**
- 6C Pastures and park grasslands: **1 - rare occurrence**
- 6E Wet Cirsium meadows: **1 - rare occurrence**
- 6F Intermittently wet Molinia meadows: **1 - rare occurrence**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 7 Acidophilous grasslands
- 7B Submontane Nardus grasslands: **1 - rare occurrence**
- 8 Dry grasslands
- 8F Thermophilous forest fringe vegetation: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11L Tall mesic and xeric shrub: **1 - rare occurrence**
- 11R Scrub and pioneer woodland of forests clearings: **2 - optimum**
- 13 Anthropogenic vegetation



13D Perennial thermophilous ruderal vegetation: **3 - dominant**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**

13F Herbaceous vegetation of forests clearings and Rubus scrub: **2 - optimum**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.5**

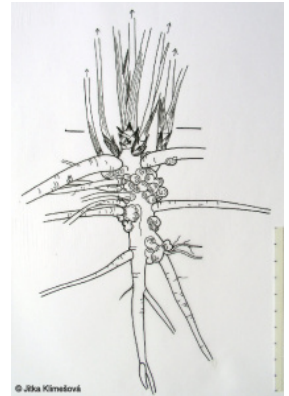
Ecological specialization index for non-forest vegetation: **3.7**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **9**

Optimum successional age [years]: **32.5**



Distribution and frequency

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

Floristic region: **Western America**

Continental degree: **3**

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

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: 572

taxon.data.freq_in_quad: 1511

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%: **15.8 %**

Occurrence frequency in vegetation plots with a cover above 25%: **5.3 %**

Occurrence frequency in vegetation plots with a cover above 50%: **5.3 %**

Mean percentage cover in vegetation plots: **6.8 %**

Maximum percentage cover in vegetation plots: **70 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **14**

Number of narrow habitats in which the taxon has its optimum: **5**

Number of broad habitats in which the taxon occurs: **6**

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**