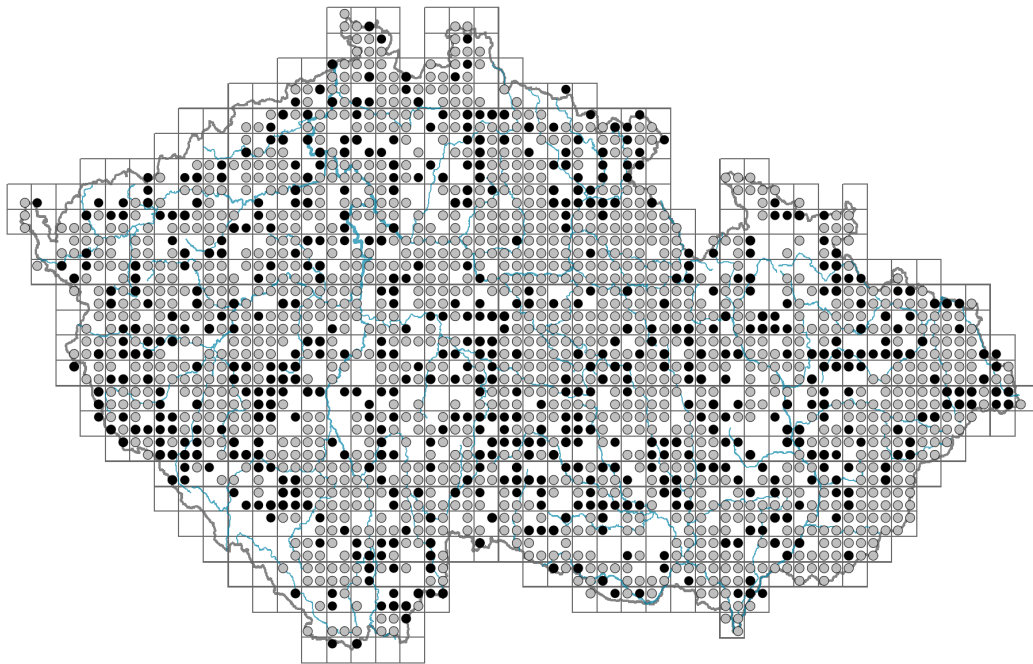


# *Stachys palustris*

## 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.

## Habitus and growth type

Height [m]: **0.3-1**

Growth form: **clonal herb**

Life form: **geophyte (hemicryptophyte)**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **28 %**

Life strategy (Pierce method, S-score): **9.5 %**

Life strategy (Pierce method, R-score): **62.5 %**

## 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: **hygromorphic, helomorphic**

## Flower

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



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

Flower colour: **red-violet**

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: **pseudospica e verticillastris composita**

Dicliny: **synoecious**

Generative reproduction type: **mixed mating**

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

Pollinator spectrum: **bumblebees, hoverflies, beetles, nitidulids (flies s. l., other Diptera, butterflies)**



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## Fruit, seed and dispersal

Fruit type: **dry fruit - cluster of four one-seeded nutlets**

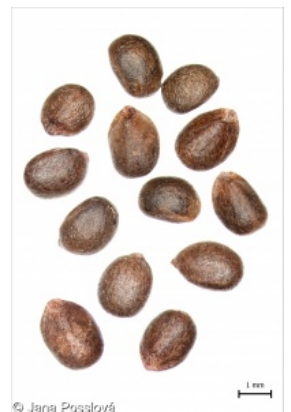
Fruit colour: **brown**

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

Dispersal unit (diaspore): **fruit, infrutescence or its part**

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

Myrmecochory: **myrmecochorous**



© Jana Pospolová

## Belowground organs and clonality

Shoot metamorphosis: **stolon, stolon with tuberous tip**

Storage organ: **stolon, stolon with tuberous tip**

Type of clonal growth organ: **belowground stem tuber**

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**

Number of clonal offspring: **5.2**

Lateral spreading distance by clonal growth [m]: **0.22**

Clonal index: **5**

### 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): **13**

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): **18**

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): **13**

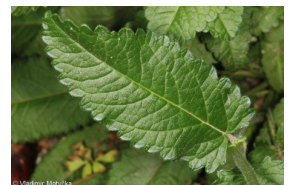
Number of buds per shoot at a depth greater than 10 cm (root buds included): **0**

Size of the belowground bud bank (root buds included): **18**

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



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## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **64**

Ploidy level (x): **8**

2C genome size [Mbp]: **2793.85**

1Cx monoploid genome size [Mbp]: **349.23**

Genomic GC content: **37.9 %**

## Taxon origin

Origin in the Czech Republic: **native**

## 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: **7 - humidity indicator, focus on well moistened, but not wet 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: **-0.66**

Herb layer disturbance frequency indicator value: **-0.21**

Whole-community disturbance severity indicator value: **0.76**

Herb layer disturbance severity indicator value: **0.77**

Whole-community structure based disturbance indicator value: **0.57**

Herb layer structure-based disturbance indicator value: **0.64**

## Habitat and sociology

Occurrence in habitats

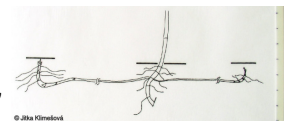
4 Wetland and riverine herbaceous vegetation

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

4B Halophilous reed and sedge beds: **2 - optimum**

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

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



- 4E Reed vegetation of brooks: **1 - rare occurrence**  
4G Tall-sedge beds: **1 - rare occurrence**  
4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**  
4I Vegetation of nitrophilous annual hygrophilous herbs: **2 - optimum**  
4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**

## 6 Meadows and mesic pastures

- 6D Alluvial meadows of lowland rivers: **1 - rare occurrence**  
6E Wet Cirsium 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

- 11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**  
11L Tall mesic and xeric shrub: **1 - rare occurrence**

## 12 Forests

- 12B Alluvial forests: **1 - rare occurrence**  
12U Plantations of broad-leaved non-native trees: **2 - optimum**

## 13 Anthropogenic vegetation

- 13A Annual vegetation of ruderal habitats: **1 - rare occurrence**  
13B Annual vegetation of arable land: **2 - optimum**  
13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**

## Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

## Diagnostic taxon

Diagnostic taxon of alliances: [\*\*XBC \*Scleranthion annui\*\*\*](#)

## Ecological specialization indices

- Ecological specialization index for all vegetation types: **4.5**  
Ecological specialization index for non-forest vegetation: **4.8**  
Ecological specialization index for forest vegetation: **5.3**

## Colonization ability

- Index of colonization success (ICS): **5**  
Index of colonization potential (ICP): **4**  
Optimum successional age [years]: **15**

## Distribution and frequency

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

Floristic region: **circumpolar**

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: 625

taxon.data.freq\_in\_quad: 1877

## Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **4.1 %**

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: **2.6 %**

Maximum percentage cover in vegetation plots: **23 %**

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

Number of narrow habitats in which the taxon occurs: **20**

Number of narrow habitats in which the taxon has its optimum: **4**

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**