Symphytum officinale

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]: **0.4–1.2**
Growth form: **polycarpic perennial non-clonal herb**
Life form: **hemicryptophyte (geophyte)**
Life strategy: **C – competitor**
Life strategy (Pierce method based on leaf traits): **C/CR**
Life strategy (Pierce method, C-score): **68.1 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **31.9 %**

Leaf

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

Flower

Flowering period [month]: **May–August**

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Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**
Flower colour: **white, pink, blue-violet**
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: **cincinnus**
Dicliny: **synoecious**
Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**
Pollination syndrome: **insect-pollination, selfing**

Fruit, seed and dispersal

Fruit type: **dry fruit – cluster of four one-seeded nutlets**
Fruit colour: **brown, grey**
Reproduction type: **mostly by seed/spores, rarely vegetatively**
Dispersal unit (diaspore): **fruit, infrutescence or its part**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **rhizome-like pleiocorm**
Root metamorphosis: **primary storage root**
Storage organ: **rhizome-like pleiocorm, primary storage root**
Shoot life span (cyclicity): **dicyclic or polycyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **present**
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): **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 exluded) [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): **17**
Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**
Size of the belowground bud bank (root buds included): **37**
Depth of the belowground bud bank (root buds included) [cm]: **9**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

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Karyology



Chromosome number (2n): **48 (24)**
Ploidy level (x): **4 (2)**
2C genome size [Mbp]: **3809.05**
1Cx monoploid genome size [Mbp]: **952.26**
Genomic GC content: **37.5 %**

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: **6 – transition between values 5 and 7**
Moisture indicator value: **7 – humidity indicator, focus on well moistened, but not wet soils**
Reaction indicator value: **7x – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions (generalist)**
Nutrient indicator value: **8 – pronounced nutrient indicator**
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: **-0.92**
Herb layer disturbance frequency indicator value: **-0.5**
Whole-community disturbance severity indicator value: **0.38**
Herb layer disturbance severity indicator value: **0.4**
Whole-community structure based disturbance indicator value: **0.44**
Herb layer structure-based disturbance indicator value: **0.49**



Habitat and sociology

Occurrence in habitats

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: **2 – optimum**
4E Reed vegetation of brooks: **1 – rare occurrence**
4G Tall-sedge beds: **2 – optimum**
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: **2 – optimum**

5 Vegetation of springs and mires

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5B Lowland to montane soft-water springs: **1 – rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 – optimum**
6C Pastures and park grasslands: **1 – rare occurrence**
6D Alluvial meadows of lowland rivers: **2 – optimum**
6E Wet Cirsium meadows: **2 – optimum**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

8 Dry grasslands

8F Thermophilous forest fringe vegetation: **1 – rare occurrence**

10 Saline vegetation

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

11 Heathlands and scrub

11I Willow carrs: **1 – rare occurrence**
11J Willow galleries of loamy and sandy river banks: **2 – optimum**
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: **1 – rare occurrence**
12B Alluvial forests: **2 – optimum**
12I Sub-continental thermophilous oak forests: **1 – rare occurrence**
12T Robinia pseudacacia plantations: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **2 – optimum**
12W Pine and larch plantations: **1 – rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **1 – rare occurrence**
13B Annual vegetation of arable land: **1 – rare occurrence**
13D Perennial thermophilous ruderal vegetation: **1 – rare occurrence**
13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 – optimum**
13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 – 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 classes: **KA *Salicetea purpureae***
Diagnostic taxon of alliances: **KAC *Salicion albae***, **MCD *Phalaridion arundinaceae***, **XDA *Senecionion fluviatilis***
Diagnostic taxon of associations: **KAC01 *Salicetum albae***, **TDE01 *Poo trivialis-Alopecuretum pratensis***, **TDE03 *Lathyro palustris-Gratioletum officinalis***, **TDE05 *Scutellario hastifoliae-Veronicetum longifoliae***

Constant taxon

Constant taxon of alliances: **KAA *Salicion triandrae***, **KAC *Salicion albae***
Constant taxon of associations: **KAA01 *Salicetum triandrae***, **KAC01 *Salicetum albae***, **KBD03 *Sambuco nigrae-Aceretum negundo***, **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **MCD01 *Rorippo-Phalaridetum arundinaceae***, **TDE01 *Poo***











trivialis-Alopecuretum pratensis*, TDE03 *Lathyro palustris-Gratioletum officinalis*, TDE05 *Scutellario hastifoliae-Veronicetum longifoliae*, XDA01 *Cuscuto europaeae-Calystegietum sepium

Dominant taxon

Dominant taxon of associations: **XBG10 *Chamaeplietum officinalis***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.8**
Ecological specialization index for non-forest vegetation: **4**
Ecological specialization index for forest vegetation: **4.9**

Colonization ability

Index of colonization success (ICS): **6**
Index of colonization potential (ICP): **4**
Optimum successional age [years]: **32**

Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Asia**
Distribution range extension along the continentality gradient: **7**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 646
taxon.data.freq_in_quad: 2242

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.8 %**
Occurrence frequency in vegetation plots with a cover above 5%: **5.4 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.4 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**
Mean percentage cover in vegetation plots: **2.7 %**
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: **34**
Number of narrow habitats in which the taxon has its optimum: **11**
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**

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