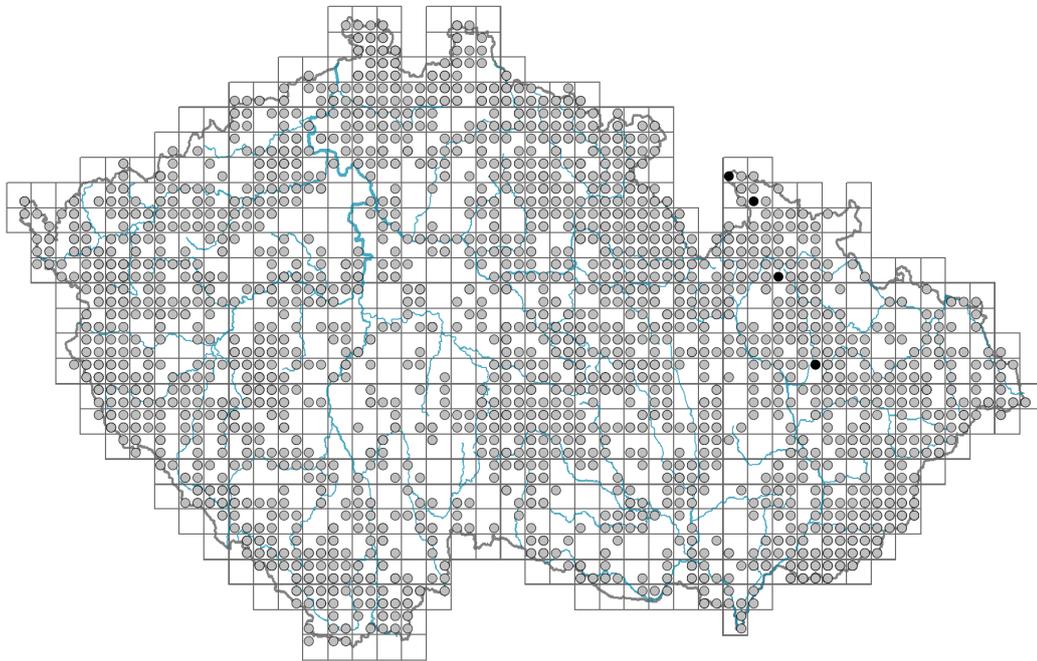


# *Valeriana officinalis* agg.

## Distribution



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### Map info

● revised records

○ unrevised records

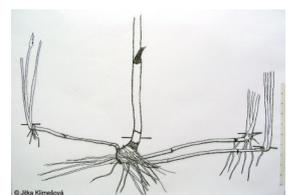
On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.



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## Habitus and growth type

Height [m]: **0.4-2**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

## Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **compound - imparipinnate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **hygromorphic, helomorphic**

## Flower

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

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**

Flower colour: **white, pink**

Flower symmetry: **zygomorphic**

Perianth type: **calyx reduced, corolla present**

Perianth fusion: **fused**

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

Calyx fusion: **synsepalous**

Inflorescence type: **panicula e dichasiis composita**

Dicliny: **synoecious, gynodioecious**

Generative reproduction type: **allogamy, facultative allogamy**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **honeybee, bumblebees, solitary bees, other Hymenoptera, hoverflies, flies s. l., meat flies s. l., other Diptera, butterflies, nitidulids, other pollinators**

## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**

Fruit colour: **brown**

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

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

Dispersal strategy: **Epilobium (mainly anemochory and autochory)**

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

## Belowground organs and clonality

Shoot metamorphosis: **stolon, rhizome**

Storage organ: **stolon, rhizome**

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

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

Shoot life span (cyclicality): **dicyclic or polycyclic shoots prevailing**

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

Primary root: **absent**

Persistence of the clonal growth organ [year]: **1.6**

Number of clonal offspring: **2.4**

Lateral spreading distance by clonal growth [m]: **0.11**

Clonal index: **4**

### 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**

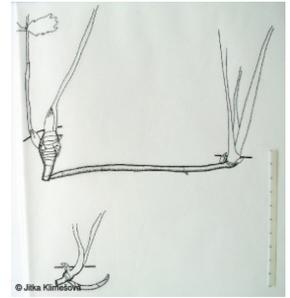
Size of the belowground bud bank (root buds included): **20**

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): **14, 28, 56**

Ploidy level (x): **2, 4, 8**

2C genome size [Mbp]: **4840.03**

1Cx monoploid genome size [Mbp]: **1104.51**

## 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: **6 - transition between values 5 and 7**

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

Nutrient indicator value: **6 - transition between values 5 and 7**

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

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **2 - optimum**

1B Siliceous cliffs and block fields: **1 - rare occurrence**

1D Mobile calcareous screes: **1 - rare occurrence**

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **2 - optimum**

4 Wetland and riverine herbaceous vegetation

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

4D Riverine reed vegetation: **2 - optimum**

4G Tall-sedge beds: **1 - rare occurrence**

4J River gravel banks: **1 - rare occurrence**

4K Petasites fringes of montane brooks: **2 - optimum**

4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**

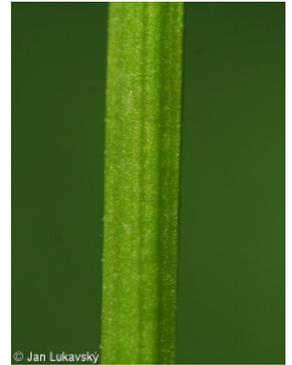
5 Vegetation of springs and mires

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

5C Alpine and subalpine soft-water springs: **1 - rare occurrence**

5D Calcareous fens: **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: **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
- 8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**  
 8B Submediterranean dry grasslands on rock outcrops: **2 - optimum**  
 8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**  
 8D Broad-leaved dry grasslands: **1 - rare occurrence**  
 8E Acidophilous dry grasslands: **1 - rare occurrence**  
 8F Thermophilous forest fringe vegetation: **2 - optimum**
- 11 Heathlands and scrub
- 11H Subalpine deciduous scrub: **2 - optimum**  
 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**  
 11N Low xeric scrub: **2 - optimum**  
 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**
- 12 Forests
- 12A Alder carrs: **1 - rare occurrence**  
 12B Alluvial forests: **2 - optimum**  
 12C Oak-hornbeam forests: **1 - rare occurrence**  
 12D Ravine forests: **2 - optimum**  
 12E Herb-rich beech forests: **1 - rare occurrence**  
 12F Limestone beech forests: **1 - rare occurrence**  
 12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**  
 12I Sub-continental thermophilous oak forests: **2 - optimum**  
 12J Acidophilous thermophilous oak forests: **2 - optimum**  
 12O Peri-Alpidic pine forests: **1 - rare occurrence**  
 12S Basiphilous spruce forests: **1 - rare occurrence**  
 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**  
 12W Pine and larch plantations: **1 - rare occurrence**

### 13 Anthropogenic vegetation

- 13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**  
 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**  
 13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

### Colonization ability

- Index of colonization success (ICS): **5**  
 Index of colonization potential (ICP): **8**  
 Optimum successional age [years]: **34**

### Distribution and frequency

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



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**meridional**Floristic region: **Europe, Asia**Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 587

taxon.data.freq\_in\_quad: 1543

Commonness in vegetation plots from the Czech Republic

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: **48**Number of narrow habitats in which the taxon has its optimum: **16**Number of broad habitats in which the taxon occurs: **9**Number of broad habitats in which the taxon has its optimum: **7**