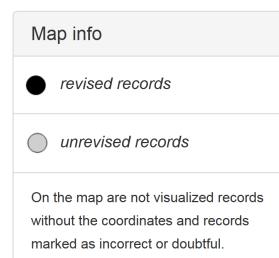
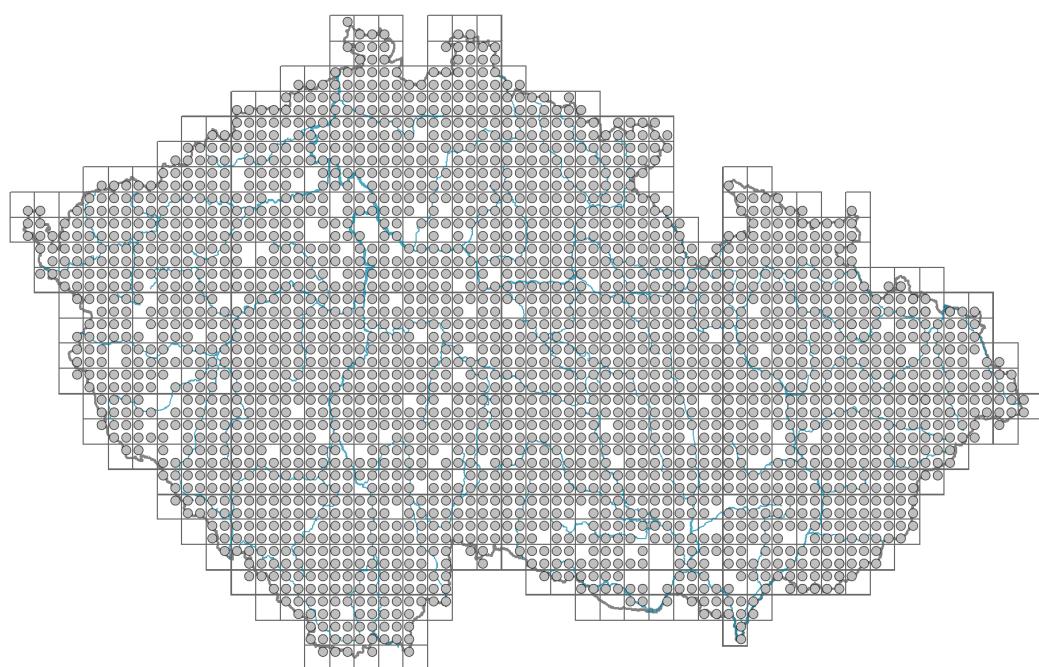


# *Veronica chamaedrys*

## Distribution



## Habitus and growth type

Height [m]: **0.15-0.3**

Growth form: **clonal herb**

Life form: **hemicryptophyte (chamaephyte)**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

## 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: **evergreen**

Leaf anatomy: **mesomorphic**



## Flower

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

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**

Flower colour: **blue**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **rotate**

Calyx fusion: **fused at the base**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

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

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



## Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown**

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

Dispersal unit (diaspore): **seed**

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

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



## Belowground organs and clonality

Shoot metamorphosis: **stolon**

Storage organ: **stolon**

Type of clonal growth organ: **stolon**

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]: **2.9**

Number of clonal offspring: **2.1**

Lateral spreading distance by clonal growth [m]: **0.13**

Clonal index: **4**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **9**

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): **24**

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

Number of buds per shoot at the soil surface (root buds included): **9**

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): **24**

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): **32**

Ploidy level (x): **4**

2C genome size [Mbp]: **3037.07**

1Cx monoploid genome size [Mbp]: **759.27**

Genomic GC content: **40.4 %**



## Taxon origin

Origin in the Czech Republic: **native**



## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6x - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area (generalist)**

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: **7x - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions (generalist)**

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

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 - rare occurrence**

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

1C Walls: **1 - rare occurrence**

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

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

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

4E Reed vegetation of brooks: **1 - rare occurrence**

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

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

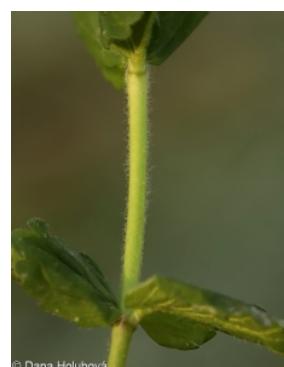
4K Petasites fringes of montane brooks: **1 - rare occurrence**

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

5 Vegetation of springs and mires

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**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 - optimum**

6B Montane mesic meadows: **2 - optimum**

6C Pastures and park grasslands: **2 - optimum**

6D Alluvial meadows of lowland rivers: **2 - optimum**

6E Wet Cirsium meadows: **2 - optimum**

6F Intermittently wet Molinia meadows: **2 - optimum**

6G Vegetation of wet disturbed soils: **1 - rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **2 - optimum**

7B Submontane Nardus grasslands: **2 - optimum**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**

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**

9 Sand grasslands and rock-outcrop vegetation

9C Festuca grasslands on acidic sands: **1 - rare occurrence**

9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

9F Basiphilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

10 Saline vegetation

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

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

11H Subalpine deciduous scrub: **1 - rare occurrence**

11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

11L Tall mesic and xeric shrub: **1 - rare occurrence**

11N Low xeric scrub: **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: **1 - rare occurrence**

12C Oak-hornbeam forests: **2 - optimum**

12D Ravine forests: **1 - rare occurrence**

12E Herb-rich beech forests: **1 - rare occurrence**

12F Limestone beech forests: **2 - optimum**

12G Acidophilous 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**

12K Acidophilous oak forests: **1 - rare occurrence**

12L Boreo-continental pine forests: **1 - rare occurrence**

12O Peri-Alpidic pine forests: **1 - rare occurrence**

12T Robinia pseudacacia plantations: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

12V Spruce plantations: **1 - rare occurrence**

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**

13C Annual vegetation of trampled habitats: **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: **2.1 - 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**

### Constant taxon

Constant taxon of alliances: [\*\*TDA Arrhenatherion elatioris\*\*](#), [\*\*TDB Polygono bistortae-Trisetion flavescentis\*\*](#), [\*\*TDD Molinion caeruleae\*\*](#), [\*\*TDE Deschampson cespitosae\*\*](#), [\*\*TEB Nardo strictae-Agrostion tenuis\*\*](#), [\*\*TEC Violion caninae\*\*](#)

Constant taxon of associations: [\*\*KAB02 Salicetum purpureae\*\*](#), [\*\*LBA07 Fraxino pannoniciae-Ulmetum glabrae\*\*](#), [\*\*TDA01 Pastinaco sativae-Arrhenatheretum elatioris\*\*](#), [\*\*TDA02 Ranunculo bulbosi-Arrhenatheretum elatioris\*\*](#), [\*\*TDA03 Poo-Trisetetum flavescentis\*\*](#), [\*\*TDA04 Potentillo albae-Festucetum rubrae\*\*](#), [\*\*TDB01 Geranio sylvatici-Trisetetum flavescentis\*\*](#), [\*\*TDB02 Melandrio rubri-Phleetum alpini\*\*](#), [\*\*TDB03 Meo athamantici-Festucetum rubrae\*\*](#), [\*\*TDC01 Lolio perennis-Cynosuretum cristati\*\*](#), [\*\*TDD01 Molinetum caeruleae\*\*](#), [\*\*TDD02 Junco effusi-Molinietum caeruleae\*\*](#), [\*\*TDE02 Holcetum lanati\*\*](#), [\*\*TDE04 Cnidio dubii-Deschampsietum cespitosae\*\*](#), [\*\*TDF02 Cirsietum rivularis\*\*](#), [\*\*TDF05 Polygono bistortae-Cirsietum heterophylli\*\*](#), [\*\*TEB01 Sileno vulgaris-Nardetum strictae\*\*](#), [\*\*TEC02 Campanulo rotundifoliae-Dianthetum deltoidis\*\*](#)

### Colonization ability

Index of colonization success (ICS): 7

Index of colonization potential (ICP): 3

Optimum successional age [years]: 32

## Distribution and frequency

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

Floristic region: **Europe**

Distribution range extension along the continentality gradient: 6

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: 666

taxon.data.freq\_in\_quad: 2338

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: 62

Number of narrow habitats in which the taxon has its optimum: 15

Number of broad habitats in which the taxon occurs: **12**  
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**