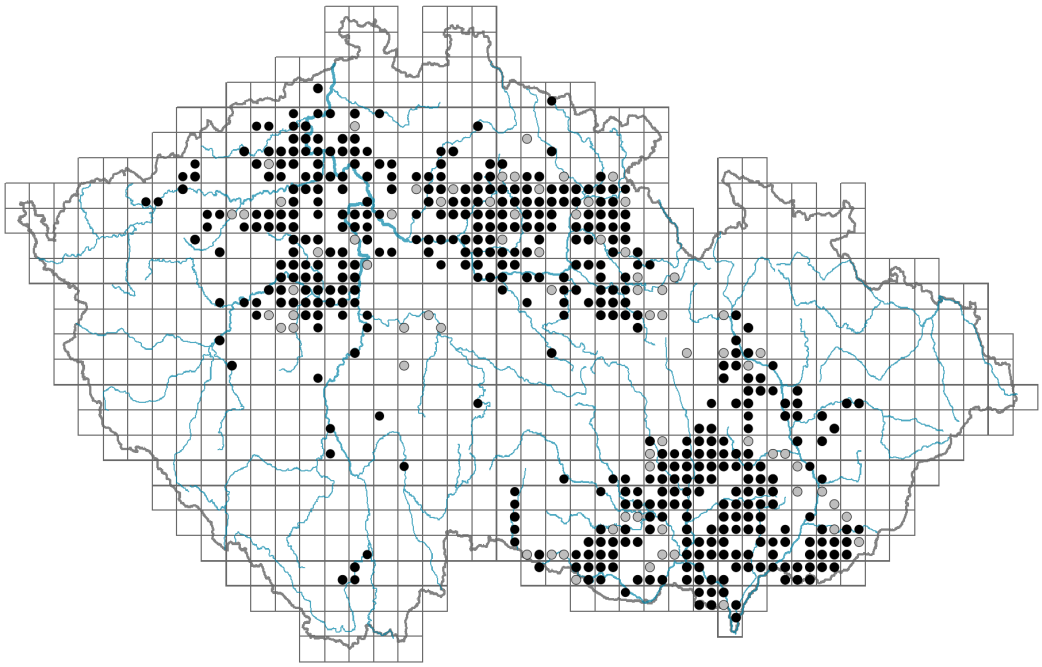
Viola mirabilis

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]: **0.1–0.3**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **47.5 %**
Life strategy (Pierce method, S-score): **0.4 %**
Life strategy (Pierce method, R-score): **52.1 %**

Leaf

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

Flower

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

© 2014–2026 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

Flowering phase: **3 Prunus avium-Ranunculus auricomus (end of early spring)**
Flower colour: **violet**
Flower symmetry: **zygomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **free**
Calyx fusion: **aposepalous**
Inflorescence type: **flores solitarii**
Dicliny: **synoecious**
Pollination syndrome: **insect-pollination, cleistogamy**

Fruit, seed and dispersal

Fruit type: **dry fruit – capsule**
Fruit colour: **brown**
Reproduction type: **mostly vegetatively, rarely by seed/spores**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**
Root metamorphosis: **root shoot**
Storage organ: **rhizome**
Type of clonal growth organ: **epigeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **monopodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **4**
Number of clonal offspring: **0.5**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **2**
Position of root buds: **lateral roots**
Role of root buds in life-history of a plant: **additive**

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 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): **19**
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): **39**
Depth of the belowground bud bank (root buds included) [cm]: **8**

© 2014–2026 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

Trophic mode

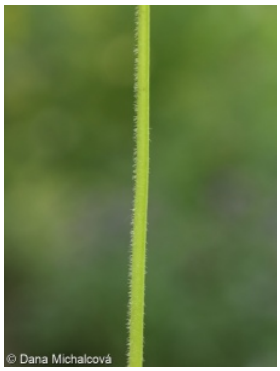
Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **20**
Ploidy level (x): **4**
2C genome size [Mbp]: **1120.67**
1Cx monoploid genome size [Mbp]: **280.17**
Genomic GC content: **40.9 %**

Taxon origin

Origin in the Czech Republic: **native**



Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **4 – transition between values 3 and 5**
Temperature indicator value: **6 – transition between values 5 and 7**
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: **8 – transition between values 7 and 9, occurring mostly in calcium-rich conditions**
Nutrient indicator value: **5x – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.95**
Herb layer disturbance frequency indicator value: **-0.75**
Whole-community disturbance severity indicator value: **0.22**
Herb layer disturbance severity indicator value: **0.05**
Whole-community structure based disturbance indicator value: **0.05**
Herb layer structure-based disturbance indicator value: **0.14**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1D Mobile calcareous screes: **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**
11N Low xeric scrub: **1 – rare occurrence**

© 2014–2026 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

11R Scrub and pioneer woodland of forests clearings: **1 – rare occurrence**

12 Forests

12B Alluvial forests: **1 – rare occurrence**
12C Oak-hornbeam forests: **2 – optimum**
12D Ravine forests: **2 – optimum**
12F Limestone beech forests: **2 – optimum**
12H Peri-Alpidic basiphilous thermophilous oak forests: **2 – optimum**
12I Sub-continental thermophilous oak forests: **2 – optimum**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**

13 Anthropogenic vegetation

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 – taxon occurring mainly in the closed forest**
Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 – taxon occurring mainly in the closed forest**

Diagnostic taxon

Diagnostic taxon of alliances: **LCA *Quercion pubescenti-petraeae*, LCB *Aceri tatarici-Quercion***
Diagnostic taxon of associations: **LBB04 *Primulo veris-Carpinetum betuli*, LCA02 *Lithospermo purpurocaerulei-Quercetum pubescentis*, LCB01 *Quercetum pubescenti-roboris***

Constant taxon

Constant taxon of associations: **LBB04 *Primulo veris-Carpinetum betuli***

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.7**
Ecological specialization index for non-forest vegetation: **4.3**
Ecological specialization index for forest vegetation: **5.8**

Colonization ability

Index of colonization success (ICS): **4**
Index of colonization potential (ICP): **7**
Optimum successional age [years]: **42**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional**
Floristic region: **Europe, Asia**
Continentality degree: **6**
Distribution range extension along the continentality gradient: **6**
Elevational belt in the Czech Republic: **lowlands, colline belt (montane belt)**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 260
taxon.data.freq_in_quad: 560

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.4 %**
Occurrence frequency in vegetation plots with a cover above 5%: **9.7 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.7 %**

© 2014–2026 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **3.3 %**
Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **13**
Number of narrow habitats in which the taxon has its optimum: **5**
Number of broad habitats in which the taxon occurs: **5**
Number of broad habitats in which the taxon has its optimum: **1**

Threats and protection

Red List 2017 (national categories): **C4a – near threatened taxon**
Red List 2017 (IUCN categories): **LC – least concern**
Legal protection: **not protected by law**

© 2014–2026 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz