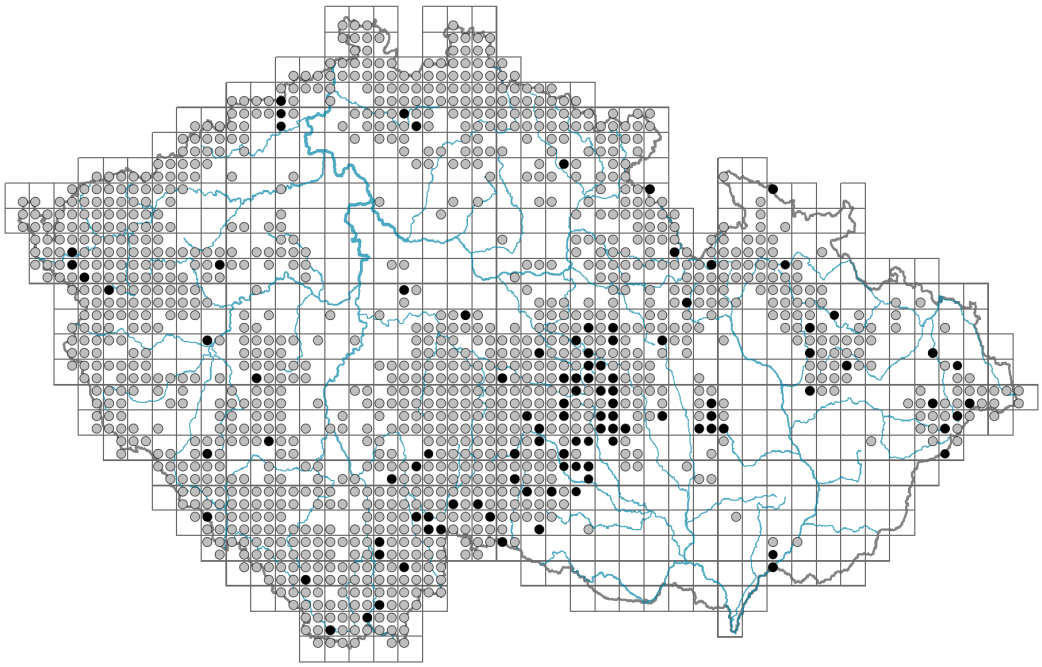
Viola palustris

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]: **0.05–0.15**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **S – stress-tolerator**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **38.1 %**
Life strategy (Pierce method, S-score): **3 %**
Life strategy (Pierce method, R-score): **58.9 %**

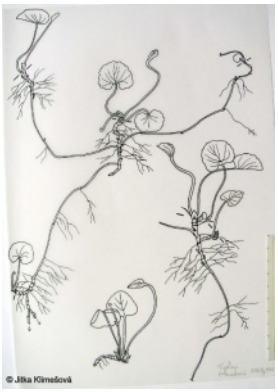
Leaf

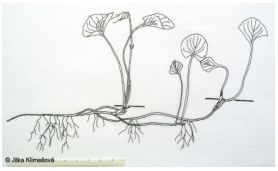
Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **rosulate**
Leaf shape: **simple – entire**
Stipules: **present**
Petiole: **present**
Leaf life span: **evergreen**
Leaf anatomy: **hygromorphic, helomorphic**

Flower

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

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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**
Generative reproduction type: **mixed mating**
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: **stolon**
Storage organ: **stolon**
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]: **2.6**
Number of clonal offspring: **1.8**
Lateral spreading distance by clonal growth [m]: **0.08**
Clonal index: **3**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **8**
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **11**
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): **19**
Depth of the belowground bud bank (root buds exluded) [cm]: **3**
Number of buds per shoot at the soil surface (root buds included): **8**
Number of buds per shoot at a depth of 0–10 cm (root buds included): **11**
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): **19**
Depth of the belowground bud bank (root buds included) [cm]: **3**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **48**
Ploidy level (x): **8**
2C genome size [Mbp]: **3841.75**
1Cx monoploid genome size [Mbp]: **480.22**
Genomic GC content: **42.8 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5x – semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area (generalist)**
Temperature indicator value: **5x – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**
Moisture indicator value: **9 – wetness indicator, focus on often soaked, poorly aerated soils**
Reaction indicator value: **3 – acidity indicator, occurring mainly in acidic conditions, exceptionally in neutral conditions**
Nutrient indicator value: **3 – occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.06**
Herb layer disturbance frequency indicator value: **-0.67**
Whole-community disturbance severity indicator value: **0.18**
Herb layer disturbance severity indicator value: **0.2**
Whole-community structure based disturbance indicator value: **0.49**
Herb layer structure-based disturbance indicator value: **0.57**

Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

2A Alpine grasslands on siliceous bedrock: **1 – rare occurrence**
2B Subalpine tall-forb and tall-grass vegetation: **1 – rare occurrence**

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 – rare occurrence**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 – rare occurrence**
4C Eutrophic vegetation of muddy substrata: **1 – rare occurrence**
4D Riverine reed vegetation: **1 – rare occurrence**

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4E Reed vegetation of brooks: **1 – rare occurrence**
4F Mesotrophic vegetation of muddy substrata: **1 – rare occurrence**
4G Tall-sedge beds: **2 – optimum**
4H Vegetation of low annual hygrophilous herbs: **1 – rare occurrence**
4K Petasites fringes of montane brooks: **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: **2 – optimum**
5D Calcareous fens: **1 – rare occurrence**
5E Acidic moss-rich fens and peatland meadows: **2 – optimum**
5F Transitional mires: **2 – optimum**
5G Raised bogs: **1 – rare occurrence**
5H Wet peat soils and bog hollows: **2 – optimum**

6 Meadows and mesic pastures

6B Montane mesic meadows: **1 – rare occurrence**
6E Wet Cirsium meadows: **2 – optimum**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 – rare occurrence**
7B Submontane Nardus grasslands: **1 – rare occurrence**

11 Heathlands and scrub

11D Subalpine acidophilous Pinus mugo scrub: **1 – rare occurrence**
11I Willow carrs: **2 – optimum**
11J Willow galleries of loamy and sandy river banks: **1 – rare occurrence**

12 Forests

12A Alder carrs: **2 – optimum**
12B Alluvial forests: **1 – rare occurrence**
12P Peatland pine forests: **1 – rare occurrence**
12Q Peatland birch forests: **1 – rare occurrence**
12R Acidophilous spruce forests: **1 – rare occurrence**
12S Basiphilous spruce forests: **1 – rare occurrence**
12V Spruce plantations: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 – taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: **LA *Alnetea glutinosae***, **RB *Scheuchzerio palustris-Caricetea nigrae***

Diagnostic taxon of alliances: **LAA *Alnion glutinosae***, **RBB *Sphagno warnstorfii-Tomentypnion nitentis***, **RBC *Caricion canescenti-nigrae***, **RBD *Sphagno-Caricion canescentis***

Diagnostic taxon of associations: **LAA01 *Thelypterido palustris-Alnetum glutinosae***, **LAB01 *Salicetum auritae***, **LBA02 *Piceo abietis-Alnetum glutinosae***, **RBB01 *Sphagno warnstorfii-Eriophoretum latifolii***, **RBB03 *Menyantho trifoliatae-Sphagnetum teretis***, **RBC01 *Caricetum nigrae***, **RBC03 *Agrostio caninae-Caricetum diandrae***, **RBD01 *Sphagno recurvi-Caricetum rostratae***, **RBD03 *Carici***

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echinatae-Sphagnetum*, TDF03 *Angelico sylvestris-Cirsietum palustris

Constant taxon

Constant taxon of classes: **RB *Scheuchzerio palustris-Caricetea nigrae***

Constant taxon of alliances: **LAA *Alnion glutinosae*, RBC *Caricion canescenti-nigrae*, RBD *Sphagno-Caricion canescentis***

Constant taxon of associations: **LAA01 *Thelypterido palustris-Alnetum glutinosae*, LAB01 *Salicetum auritae*, LBA02 *Piceo abietis-Alnetum glutinosae*, RAD02 *Swertietum perennis*, RBB01 *Sphagno warnstorfii-Eriophoretum latifolii*, RBB02 *Campylio stellati-Trichophoretum alpini*, RBB03 *Menyantho trifoliatae-Sphagnetum teretis*, RBC01 *Caricetum nigrae*, RBC02 *Drosero anglicae-Rhynchosporetum albae*, RBC03 *Agrostio caninae-Caricetum diandrae*, RBD01 *Sphagno recurvi-Caricetum rostratae*, RBD02 *Sphagno recurvi-Caricetum lasiocarpae*, RBD03 *Carici echinatae-Sphagnetum*, TDF03 *Angelico sylvestris-Cirsietum palustris*, TDF04 *Crepido paludosae-Juncetum acutiflori***

Dominant taxon

Dominant taxon of associations: **TDF04 *Crepido paludosae-Juncetum acutiflori***

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.3**

Ecological specialization index for non-forest vegetation: **5.6**

Ecological specialization index for forest vegetation: **5.3**

Colonization ability

Index of colonization success (ICS): **5**

Index of colonization potential (ICP): **2**

Optimum successional age [years]: **15**

Distribution and frequency

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

Floristic region: **Europe, Eastern America**

Distribution range extension along the continentality gradient: **5**

Elevational belt in the Czech Republic: **colline belt, submontane belt, montane belt, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 470

taxon.data.freq_in_quad: 1281

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **16.3 %**

Occurrence frequency in vegetation plots with a cover above 25%: **2.7 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.5 %**

Mean percentage cover in vegetation plots: **4.8 %**

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: **34**

Number of narrow habitats in which the taxon has its optimum: **8**

Number of broad habitats in which the taxon occurs: **8**

Number of broad habitats in which the taxon has its optimum: **5**

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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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