Viola pumila

Distribution

© Jiří Danihelka
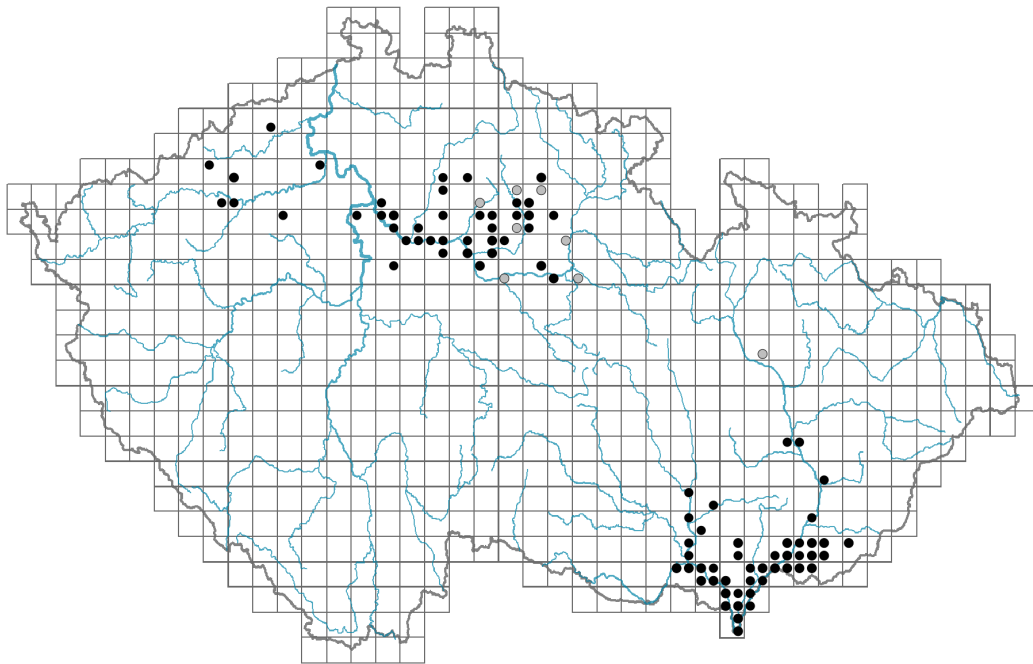
Map info

● *revised records*

◐ *unrevised records*

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

© Milan Chytrý

© Michal Hroneš (flora.upol.cz)

© Jiří Danihelka

Habitus and growth type

Height [m]: **0.05-0.3**
Growth form: **polycarpic perennial non-clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – entire**
Stipules: **present**
Petiole: **present**

Flower

Flowering period [month]: **May–June**
Flower colour: **violet, blue-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: **only by seed/spores**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**
Storage organ: **pleiocorm**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **present**
Position of root buds: **primary root**
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):
Number of buds per shoot at a depth of 0–10 cm (root buds excluded):
Number of buds per shoot at a depth greater than 10 cm (root buds excluded):
Size of the belowground bud bank (root buds excluded):
Depth of the belowground bud bank (root buds exluded) [cm]:
Number of buds per shoot at the soil surface (root buds included):
Number of buds per shoot at a depth of 0–10 cm (root buds included):
Number of buds per shoot at a depth greater than 10 cm (root buds included):
Size of the belowground bud bank (root buds included):
Depth of the belowground bud bank (root buds included) [cm]:

Trophic mode

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

Karyology

Chromosome number (2n): **40**
Ploidy level (x): **8**
2C genome size [Mbp]: **2309.8**
1Cx monoploid genome size [Mbp]: **288.73**
Genomic GC content: **40.5 %**

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: **7 – heat indicator, occurring in relatively warm lowlands**

Moisture indicator value: **7 – humidity indicator, focus on well moistened, but not wet soils**

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

Nutrient indicator value: **5 – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites**

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: **-0.06**

Herb layer disturbance frequency indicator value: **-0.06**

Whole-community disturbance severity indicator value: **0.29**

Herb layer disturbance severity indicator value: **0.32**

Whole-community structure based disturbance indicator value: **0.57**

Herb layer structure-based disturbance indicator value: **0.7**

Habitat and sociology

Occurrence in habitats

5 Vegetation of springs and mires

5D Calcareous fens: **2 – optimum**

6 Meadows and mesic pastures

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

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

11 Heathlands and scrub

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

12 Forests

12B Alluvial forests: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **0 – taxon that does not spontaneously occur in Czech forests**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 – taxon that does not spontaneously occur in Czech forests**

Diagnostic taxon

Diagnostic taxon of associations: **TDE04 *Cnidio dubii-Deschampsietum cespitosae***

Constant taxon

Constant taxon of associations: **TDE04 *Cnidio dubii-Deschampsietum cespitosae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **6.5**

Ecological specialization index for non-forest vegetation: **6.5**

Colonization ability

Index of colonization success (ICS): **1**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continentality degree: **7**

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

Elevational belt in the Czech Republic: **lowlands, colline belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 61

taxon.data.freq_in_quad: 96

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **3.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **2.1 %**

Maximum percentage cover in vegetation plots: **8 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **5**

Number of narrow habitats in which the taxon has its optimum: **3**

Number of broad habitats in which the taxon occurs: **4**

Number of broad habitats in which the taxon has its optimum: **2**

Threats and protection

Red List 2017 (national categories): **C2t – endangered taxon, declining**

Red List 2017 (IUCN categories): **EN – endangered**

Legal protection: **endangered taxon**