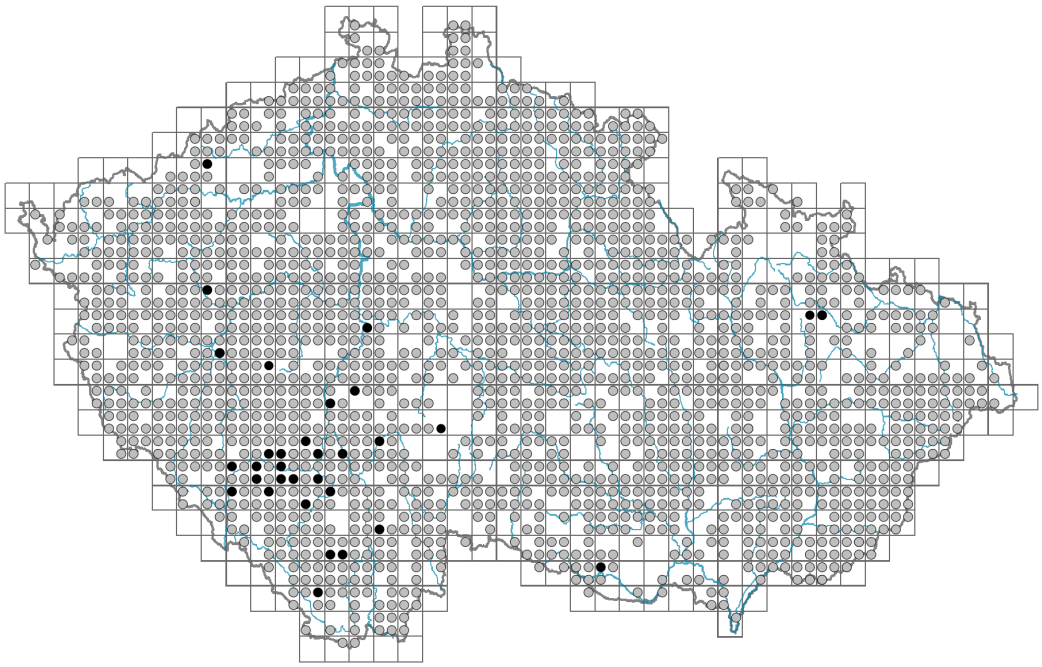
Viola riviniana

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]: **0.1–0.35**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **SR/CSR**
Life strategy (Pierce method, C-score): **16 %**
Life strategy (Pierce method, S-score): **47.6 %**
Life strategy (Pierce method, R-score): **36.4 %**

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, hygromorphic**

Flower

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

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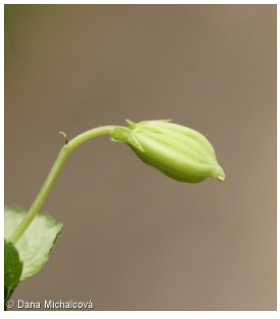
Flowering phase: **3 Prunus avium-Ranunculus auricomus (end of early spring)**
Flower colour: **blue, blue-violet**
Flower symmetry: **zygomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **free**
Calyx fusion: **aposepalous**
Inflorescence type: **flores solitarii**
Dicliny: **synoecious**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

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: **myrmecochorous**



Belowground organs and clonality

Shoot metamorphosis: **rhizome**
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]: **3.5**
Number of clonal offspring: **0.5**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **2**
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): **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): **20**
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): **40**
Depth of the belowground bud bank (root buds included) [cm]: **8**

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Trophic mode

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

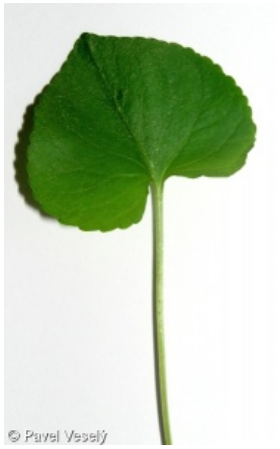
Karyology

Chromosome number (2n): **40**
Ploidy level (x): **8**
2C genome size [Mbp]: **2151.76**
1Cx monoploid genome size [Mbp]: **268.97**
Genomic GC content: **40.5 %**

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: **6x – transition between values 5 and 7 (generalist)**
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: **6 – transition between values 5 and 7**
Nutrient indicator value: **6x – transition between values 5 and 7 (generalist)**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.91**
Herb layer disturbance frequency indicator value: **-0.73**
Whole-community disturbance severity indicator value: **0.27**
Herb layer disturbance severity indicator value: **0.12**
Whole-community structure based disturbance indicator value: **0.1**
Herb layer structure-based disturbance indicator value: **0.18**

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**

5 Vegetation of springs and mires

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

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**
6B Montane mesic meadows: **1 – rare occurrence**

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6C Pastures and park grasslands: **1 – rare occurrence**
6D Alluvial meadows of lowland rivers: **1 – rare occurrence**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

7 Acidophilous grasslands

7B Submontane Nardus grasslands: **1 – rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 – rare occurrence**
8B Submediterranean dry grasslands on rock outcrops: **1 – rare occurrence**
8D Broad-leaved dry grasslands: **1 – rare occurrence**
8E Acidophilous dry grasslands: **1 – rare occurrence**
8F Thermophilous forest fringe vegetation: **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: **2 – optimum**

12 Forests

12B Alluvial forests: **1 – rare occurrence**
12C Oak-hornbeam forests: **2 – optimum**
12D Ravine forests: **2 – optimum**
12E Herb-rich beech forests: **2 – optimum**
12F Limestone beech forests: **2 – optimum**
12G Acidophilous beech forests: **2 – optimum**
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**
12I Sub-continental thermophilous oak forests: **2 – optimum**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12K Acidophilous oak forests: **2 – optimum**
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: **2 – optimum**
12W Pine and larch plantations: **2 – optimum**

13 Anthropogenic vegetation

13F Herbaceous vegetation of forests clearings and Rubus scrub: **2 – optimum**

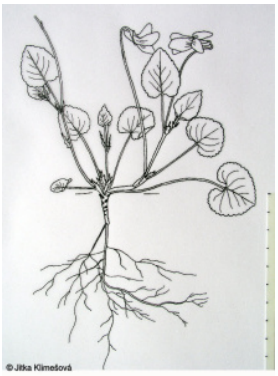
Affinity to the forest environment

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: **LBB *Carpinion betuli***
Diagnostic taxon of associations: **XEA03 *Rubo idaei-Calamagrostietum arundinaceae***

Constant taxon



Constant taxon of associations: **XEA03 *Rubo idaei-Calamagrostietum arundinaceae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.7**
Ecological specialization index for non-forest vegetation: **3.9**
Ecological specialization index for forest vegetation: **5**

Colonization ability

Index of colonization success (ICS): **5**
Index of colonization potential (ICP): **5**
Optimum successional age [years]: **34.5**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe**
Continentality degree: **4**
Distribution range extension along the continentality gradient: **4**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 602
taxon.data.freq_in_quad: 1828

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.7 %**
Occurrence frequency in vegetation plots with a cover above 5%: **0.2 %**
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 %**
Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **39**
Number of narrow habitats in which the taxon has its optimum: **11**
Number of broad habitats in which the taxon occurs: **8**
Number of broad habitats in which the taxon has its optimum: **3**

Threats and protection

Legal protection: **not protected by law**

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