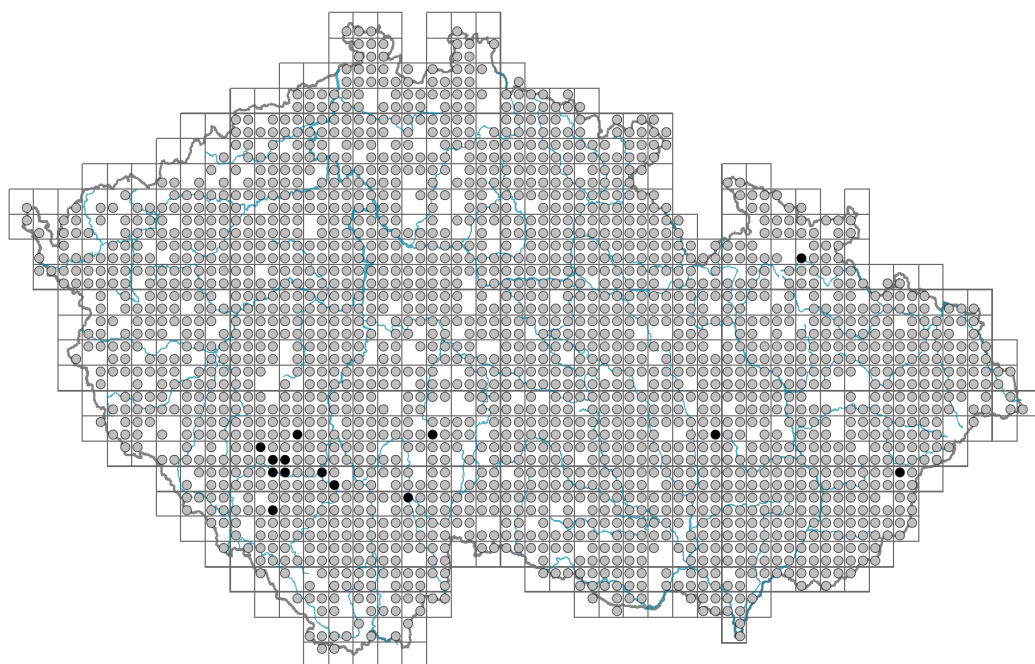


Viola arvensis

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]: **0.05-0.3**

Growth form: **annual herb**

Life form: **therophyte**

Life strategy: **R - ruderal**

Life strategy (Pierce method based on leaf traits): **R/CR**

Life strategy (Pierce method, C-score): **30.8 %**

Life strategy (Pierce method, S-score): **1.6 %**

Life strategy (Pierce method, R-score): **67.6 %**



Leaf

Leaf presence and metamorphosis: **leaves present, not modified**

Leaf arrangement (phyllotaxis): **alternate**

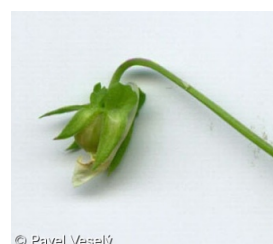
Leaf shape: **simple - entire**

Stipules: **present**

Petiole: **present**

Leaf life span: **evergreen**

Leaf anatomy: **mesomorphic, hygromorphic**



Flower

Flowering period [month]: **April-September**

Flowering phase: **3 Prunus avium-Ranunculus auricomus (end of early spring)**

Flower colour: **yellow-white, violet**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **aposepalous**

Inflorescence type: **flores solitarii**

Dicliny: **synoecious**

Generative reproduction type: **autogamy**

Pollination syndrome: **insect-pollination, selfing, 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 life span (cyclicity): **monocyclic shoots prevailing**

Primary root: **present**

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):

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):

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **34**

Ploidy level (x): **8**

2C genome size [Mbp]: **4360.29**

1Cx monoploid genome size [Mbp]: **545.04**

Genomic GC content: **43.4 %**

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: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **5x - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out (generalist)**

Reaction indicator value: **6x - transition between values 5 and 7 (generalist)**

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: **-0.11**

Herb layer disturbance frequency indicator value:

Whole-community disturbance severity indicator value: **0.9**

Herb layer disturbance severity indicator value: **0.9**

Whole-community structure based disturbance indicator value: **0.7**

Herb layer structure-based disturbance indicator value: **0.74**

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**

4 Wetland and riverine herbaceous vegetation

4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**

6 Meadows and mesic pastures

6C Pastures and park grasslands: **1 - rare occurrence**

6G Vegetation of wet disturbed soils: **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**

8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**

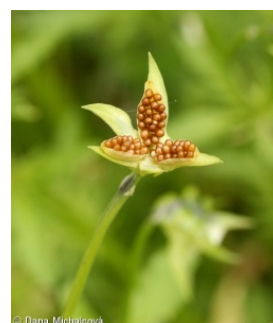
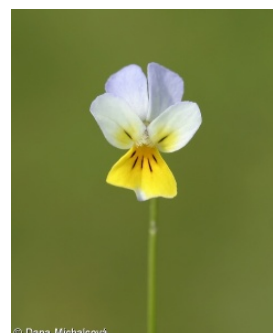
8E Acidophilous dry grasslands: **1 - rare occurrence**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**

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



9D Pannonian sand steppes: **1 - rare occurrence**

9E Acidophilous vegetation of spring therophytes and succulents: **2 - optimum**

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

11 Heathlands and scrub

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

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

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

12 Forests

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**

12I Sub-continental thermophilous oak forests: **1 - rare occurrence**

12J Acidophilous thermophilous oak forests: **1 - rare occurrence**

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

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

12T Robinia pseudacacia 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: **2 - optimum**

13C Annual vegetation of trampled habitats: **1 - rare occurrence**

13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**

13F Herbaceous vegetation of forests clearings and Rubus scrub: **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 classes: [**XB Stellarietea mediae**](#)

Diagnostic taxon of alliances: [**XBA Caucalidion**](#), [**XBC Scleranthion annui**](#), [**XBD Arnoseridion minimae**](#)

Diagnostic taxon of associations: [**XBA01 Caucalido platycarpi-Conringietum orientalis**](#), [**XBA02 Lathyro tuberosi-Adonidetum aestivalis**](#), [**XBA03 Euphorbio exiguae-Melandrietum noctiflori**](#), [**XBA04 Stachyo annuae-Setarietum pumilae**](#), [**XBA05 Veronicetum hederifolio-triphylli**](#), [**XBC01 Aphano arvensis-Matricarietum chamomillae**](#), [**XBC02 Spergulo arvensis-Scleranthetum annui**](#), [**XBC03 Erophilo vernae-Arabidopsietum thalianae**](#), [**XBD01 Sclerantho annui-Arnoseridetum minimae**](#)

Constant taxon

Constant taxon of classes: [**XB Stellarietea mediae**](#)

Constant taxon of alliances: [**XBA Caucalidion**](#), [**XBB Veronico-Euphorbion**](#), [**XBC Scleranthion annui**](#), [**XBD Arnoseridion minimae**](#), [**XBE Oxalidion fontanae**](#)

Constant taxon of associations: [**XBA01 Caucalido platycarpi-Conringietum orientalis**](#), [**XBA02 Lathyro tuberosi-Adonidetum aestivalis**](#), [**XBA03 Euphorbio exiguae-Melandrietum noctiflori**](#), [**XBA04 Stachyo annuae-Setarietum pumilae**](#), [**XBA05 Veronicetum hederifolio-triphylli**](#), [**XBB02 Veronico-Lamietum hybridi**](#), [**XBC01 Aphano arvensis-Matricarietum chamomillae**](#), [**XBC02 Spergulo arvensis-Scleranthetum annui**](#), [**XBC03 Erophilo vernae-Arabidopsietum thalianae**](#), [**XBD01 Sclerantho annui-Arnoseridetum minimae**](#), [**XBE01 Echinochloo cruris-galli**](#)

[Chenopodietum polyspermi](#), [XBI02 Malvetum pusillae](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5**

Ecological specialization index for non-forest vegetation: **5.1**

Ecological specialization index for forest vegetation: **4.4**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **4**

Optimum successional age [years]: **6**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**

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: **637**

taxon.data.freq_in_quad: **2074**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **9.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**

Mean percentage cover in vegetation plots: **3.4 %**

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: **33**

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

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

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

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**