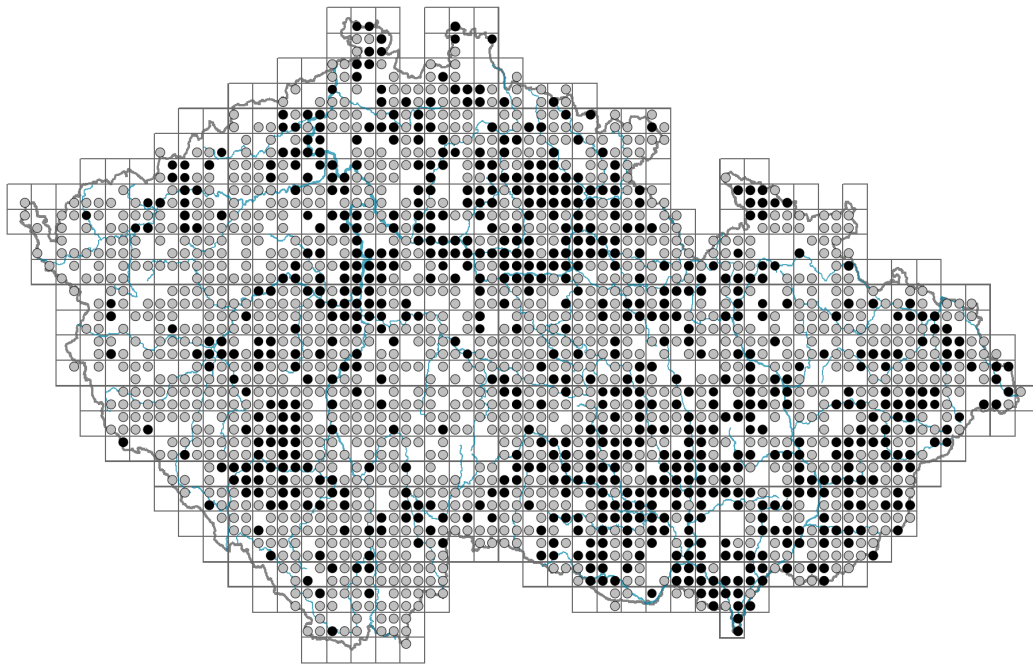


# Veronica arvensis

## Distribution



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### 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**

Life strategy (Pierce method, C-score): **14.6 %**

Life strategy (Pierce method, S-score): **0 %**

Life strategy (Pierce method, R-score): **85.4 %**



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## Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **overwintering green**

Leaf anatomy: **scleromorphic, mesomorphic**

## Flower

Flowering period [month]: **March-June**

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

Flower colour: **blue**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **rotate**

Calyx fusion: **fused at the base**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **autogamy**

Pollination syndrome: **insect-pollination, selfing**

## 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: **non-myrmecochorous (a)**

## 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): **5**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **0**

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): **5**

Depth of the belowground bud bank (root buds excluded) [cm]: **1**

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): **0**

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): **5**

Depth of the belowground bud bank (root buds included) [cm]: **1**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **16**

Ploidy level (x): **2**

2C genome size [Mbp]: **747.03**

1Cx monoploid genome size [Mbp]: **373.52**



Genomic GC content: **39.4 %**

## Taxon origin

Origin in the Czech Republic: **archaeophyte/neophyte**

Invasion status: **naturalized**

Geographic origin: **Mediterranean**

Period of introduction: **Late Middle Ages and Early Modern Period (merged category, 1200-1800)**

Introduction pathway: **unintentional - agriculture, unintentional - nature**

## 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: **6 - transition between values 5 and 7**

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: **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: **0.21**

Herb layer disturbance frequency indicator value: **0.21**

Whole-community disturbance severity indicator value: **0.81**

Herb layer disturbance severity indicator value: **0.82**

Whole-community structure based disturbance indicator value: **0.76**

Herb layer structure-based disturbance indicator value: **0.84**

## Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

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

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 - rare occurrence**

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

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

4J River gravel banks: **1 - rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 - optimum**

6B Montane mesic meadows: **1 - rare occurrence**

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

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

6E Wet Cirsium meadows: **1 - rare occurrence**

6F Intermittently wet Molinia meadows: **1 - rare occurrence**

6G Vegetation of wet disturbed soils: **2 - optimum**





## 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**

8D Broad-leaved dry grasslands: **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**

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

9F Basiphilous vegetation of spring therophytes and succulents: **2 - optimum**

## 10 Saline vegetation

10I Inland saline meadows: **1 - rare occurrence**

## 12 Forests

12T Robinia pseudacacia 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**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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 alliances: [XBC \*Scleranthion annui\*](#), [XBD \*Arnoseridion minimae\*](#)

Diagnostic taxon of associations: [TDE04 \*Cnidio dubii-Deschampsietum cespitosae\*](#), [XBC01 \*Aphano arvensis-Matricarietum chamomillae\*](#), [XBC03 \*Erophilo vernaе-Arabisetum thalianae\*](#), [XBD01 \*Sclerantho annui-Arnoseridetum minimae\*](#)

## Constant taxon

Constant taxon of alliances: [XBC \*Scleranthion annui\*](#), [XBD \*Arnoseridion minimae\*](#)

Constant taxon of associations: [TDE04 \*Cnidio dubii-Deschampsietum cespitosae\*](#), [XBC01 \*Aphano arvensis-Matricarietum chamomillae\*](#), [XBC03 \*Erophilo vernaе-Arabisetum thalianae\*](#), [XBD01 \*Sclerantho annui-Arnoseridetum minimae\*](#)

## Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**

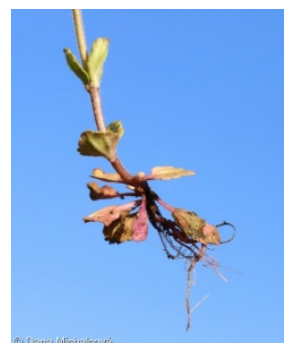
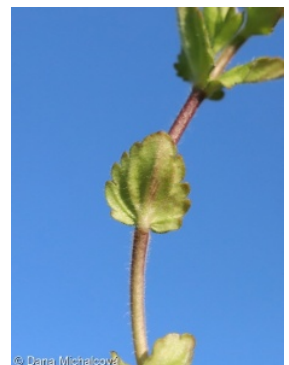
Ecological specialization index for non-forest vegetation: **4.8**

## Colonization ability

Index of colonization success (ICS): **4**

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

Optimum successional age [years]: **24**



## 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**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **624**

taxon.data.freq\_in\_quad: **1987**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **3.7 %**

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

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

Mean percentage cover in vegetation plots: **2.6 %**

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: **29**

Number of narrow habitats in which the taxon has its optimum: **6**

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

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**