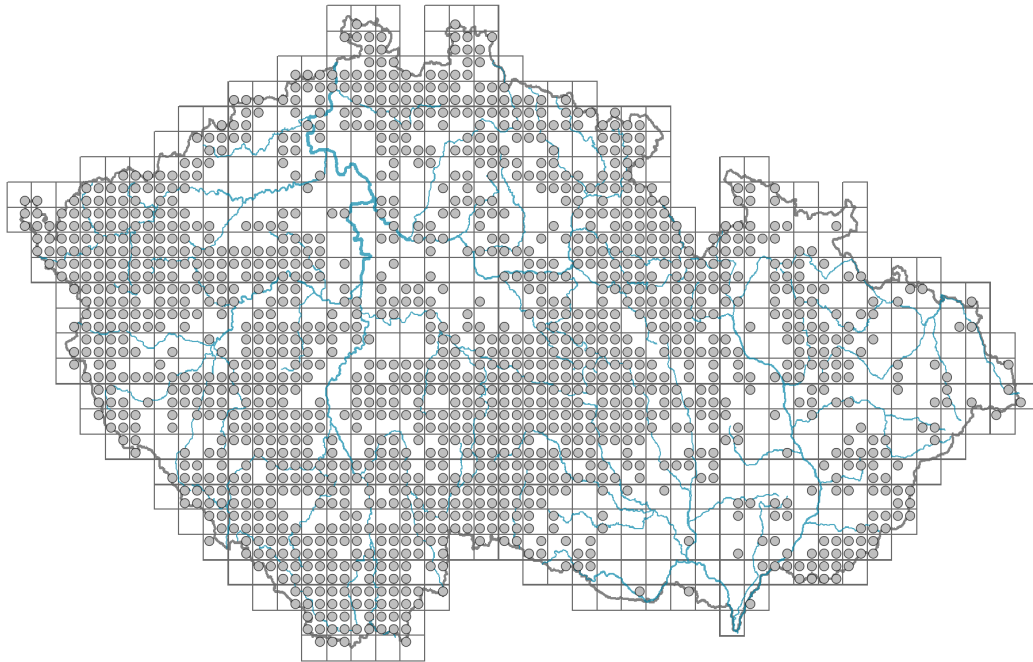


# Valeriana dioica

## 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]: **0.1-0.45**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

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

Life strategy (Pierce method, C-score): **31.1 %**

Life strategy (Pierce method, S-score): **2.2 %**

Life strategy (Pierce method, R-score): **66.7 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **opposite, rosulate**

Leaf shape: **simple - entire, simple - pinnately divided**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **helomorphic**



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## Flower

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

Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**  
 Flower colour: **white, pink**  
 Flower symmetry: **zygomorphic**  
 Perianth type: **calyx reduced, corolla present**  
 Perianth fusion: **fused**  
 Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped, tubular**  
 Calyx fusion: **synsepalous**  
 Inflorescence type: **panicula e dichasiis composita**  
 Dicliny: **dioecious**  
 Generative reproduction type: **allogamy**  
 Pollination syndrome: **insect-pollination**



## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**  
 Fruit colour: **brown**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **fruit, infrutescence or its part**  
 Dispersal strategy: **Phragmites (mainly anemochory and hydrochory)**  
 Myrmecochory: **non-myrmecochorous (b)**



## 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): **dicyclic or polycyclic shoots prevailing**  
 Branching type of stem-derived organs of clonal growth: **sympodial**  
 Primary root: **absent**  
 Persistence of the clonal growth organ [year]: **2**  
 Number of clonal offspring: **1**  
 Lateral spreading distance by clonal growth [m]: **0.07**  
 Clonal index: **4**

## Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **10**  
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **10**  
 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 excluded) [cm]: **3**  
 Number of buds per shoot at the soil surface (root buds included): **10**  
 Number of buds per shoot at a depth of 0–10 cm (root buds included): **10**  
 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): **20**  
 Depth of the belowground bud bank (root buds included) [cm]: **3**

## 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]: **2651.27**

1Cx monoploid genome size [Mbp]: **1325.63**

Genomic GC content: **40.1 %**

## 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: **5x - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

Moisture indicator value: **8 - transition between values 7 and 9**

Reaction indicator value: **6 - transition between values 5 and 7**

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at 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: **-0.82**

Herb layer disturbance frequency indicator value: **-0.5**

Whole-community disturbance severity indicator value: **0.2**

Herb layer disturbance severity indicator value: **0.23**

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.68**

## Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

4E Reed vegetation of brooks: **1 - rare occurrence**

4F Mesotrophic vegetation of muddy substrata: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**

4K Petasites fringes of montane brooks: **1 - rare occurrence**

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 - rare occurrence**

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

5D Calcareous fens: **2 - optimum**

5E Acidic moss-rich fens and peatland meadows: **2 - optimum**

5F Transitional mires: **2 - optimum**

5H Wet peat soils and bog hollows: **1 - rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 - rare occurrence**

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

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

6E Wet Cirsium meadows: **2 - optimum**

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

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

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

10 Saline vegetation

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

11 Heathlands and scrub

11I Willow carrs: **1 - rare occurrence**

12 Forests

12A Alder carrs: **2 - optimum**

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

12Q Peatland birch forests: **1 - rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: [RB Scheuchzerio palustris-Caricetea nigrae](#)

Diagnostic taxon of alliances: [RBA Caricion davallianae](#), [RBB Sphagno warnstorffii-Tomentypnion nitentis](#), [RBC Caricion canescenti-nigrae](#)

Diagnostic taxon of associations: [MCG06 Caricetum appropinquatae](#), [RBA01 Valeriano dioicae-Caricetum davallianae](#), [RBA04 Campylio stellati-Caricetum lasiocarpae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBB02 Campylio stellati-Trichophoretum alpini](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#)

Constant taxon

Constant taxon of alliances: [RBA Caricion davallianae](#)

Constant taxon of associations: [MCG04 Comaro palustris-Caricetum cespitosae](#), [MCG06 Caricetum appropinquatae](#), [RBA01 Valeriano dioicae-Caricetum davallianae](#), [RBA04 Campylio stellati-Caricetum lasiocarpae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBB02 Campylio stellati-Trichophoretum alpini](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.9**

Ecological specialization index for non-forest vegetation: **6**

Ecological specialization index for forest vegetation: **5.5**

Colonization ability

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

Index of colonization potential (ICP): **1**

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continentality degree: **3**

Distribution range extension along the continentality gradient: **3**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 550

taxon.data.freq\_in\_quad: 1468

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.8 %**

Occurrence frequency in vegetation plots with a cover above 5%: **17 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.8 %**

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

Mean percentage cover in vegetation plots: **4.5 %**

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: **22**

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

Number of broad habitats in which the taxon occurs: **7**

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

## Threats and protection

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**