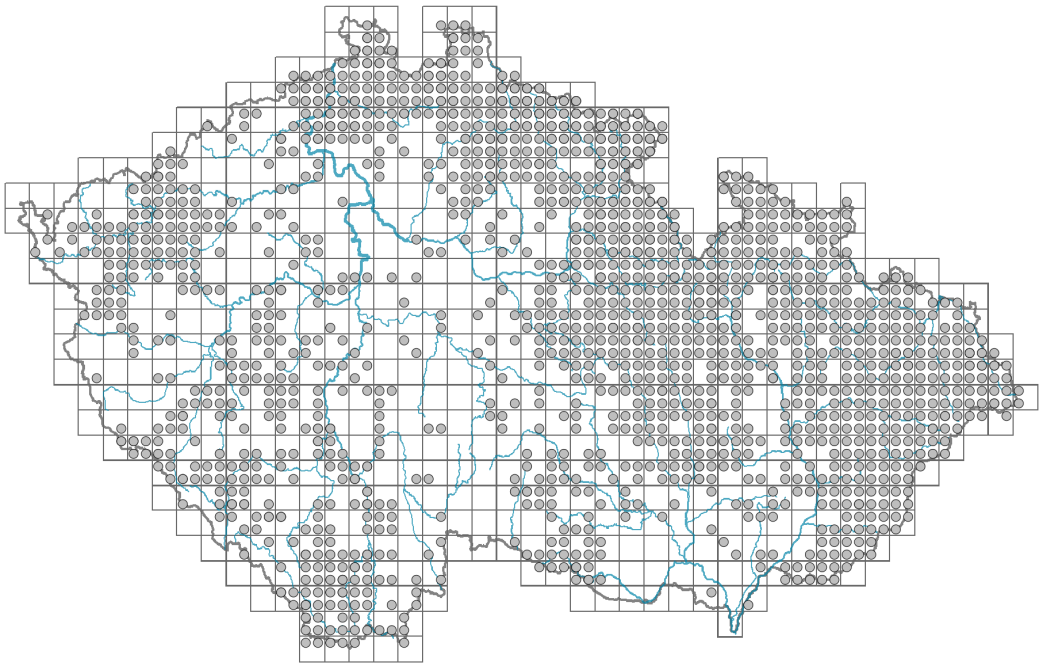
Primula elatior

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]: **0.03–0.3**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **53.2 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **46.8 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **rosulate**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **present**
Leaf life span: **summer green**
Leaf anatomy: **hygromorphic**

Flower

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

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Flowering phase: **2 Acer platanoides-Anemone nemorosa (start of early spring)**
Flower colour: **yellow**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **hypocrateriform**
Calyx fusion: **synsepalous**
Inflorescence type: **umbella**
Dicliny: **synoecious**
Generative reproduction type: **allogamy**
Pollination syndrome: **insect-pollination**

Fruit, seed and dispersal

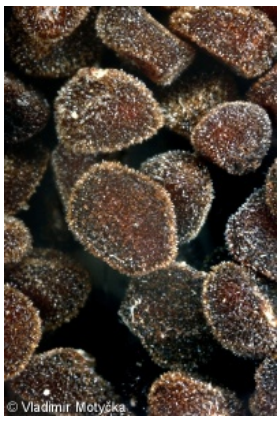
Fruit type: **dry fruit – capsule**
Fruit colour: **brown**
Reproduction type: **by seed/spores and vegetatively**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **non-myrmecochorous (a), non-myrmecochorous (a) nv**

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): **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]: **4**
Number of clonal offspring: **1**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **3**

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): **15**
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]: **4**



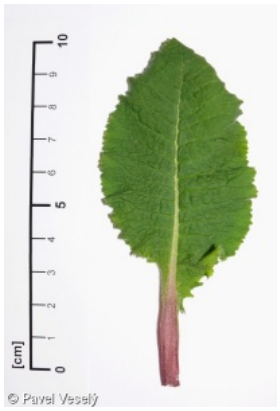
Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **22**
Ploidy level (x): **2**
2C genome size [Mbp]: **943.72**
1Cx monoploid genome size [Mbp]: **471.86**
Genomic GC content: **37.6 %**



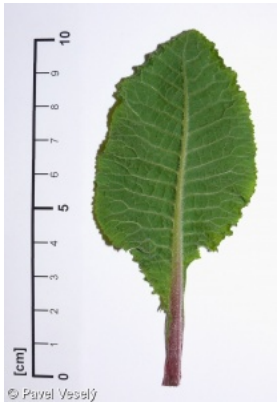
Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5x – semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area (generalist)**
Temperature indicator value: **5x – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**
Moisture indicator value: **6 – transition between values 5 and 7**
Reaction indicator value: **7 – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**
Nutrient indicator value: **6 – transition between values 5 and 7**
Salinity indicator value: **0 – not salt tolerant, glycophyte**



Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.68**
Herb layer disturbance frequency indicator value: **-0.55**
Whole-community disturbance severity indicator value: **0.29**
Herb layer disturbance severity indicator value: **0.21**
Whole-community structure based disturbance indicator value: **0.19**
Herb layer structure-based disturbance indicator value: **0.33**

Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 – rare occurrence**

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 – rare occurrence**
4J River gravel banks: **1 – rare occurrence**
4K Petasites fringes of montane brooks: **2 – optimum**

5 Vegetation of springs and mires

5B Lowland to montane soft-water springs: **1 – rare occurrence**
5C Alpine and subalpine soft-water springs: **1 – rare occurrence**

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5D Calcareous fens: **1 – rare occurrence**
5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**
6B Montane mesic meadows: **2 – optimum**
6C Pastures and park grasslands: **1 – rare occurrence**
6D Alluvial meadows of lowland rivers: **1 – rare occurrence**
6E Wet Cirsium meadows: **2 – optimum**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 – rare occurrence**
7B Submontane Nardus grasslands: **1 – rare occurrence**

8 Dry grasslands

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

11 Heathlands and scrub

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**
11R Scrub and pioneer woodland of forests clearings: **1 – rare occurrence**

12 Forests

12A Alder carrs: **1 – rare occurrence**
12B Alluvial forests: **2 – optimum**
12C Oak-hornbeam forests: **2 – optimum**
12D Ravine forests: **2 – optimum**
12E Herb-rich beech forests: **1 – rare occurrence**
12F Limestone beech forests: **1 – rare occurrence**
12G Acidophilous beech forests: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **1 – rare occurrence**
12V Spruce plantations: **1 – rare occurrence**

13 Anthropogenic vegetation

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 – rare occurrence**

Diagnostic taxon

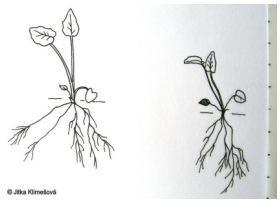
Diagnostic taxon of alliances: **XDB *Petasition hybridi***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.6**
Ecological specialization index for non-forest vegetation: **5.3**
Ecological specialization index for forest vegetation: **5.7**

Colonization ability

Index of colonization success (ICS): **4**
Index of colonization potential (ICP): **2**
Optimum successional age [years]: **75**



Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional**
Floristic region: **Europe, Western Asia**
Continentality degree: **5**

Distribution range extension along the continentality gradient: **4**
Elevational belt in the Czech Republic: **colline belt, submontane belt, montane belt, subalpine belt (lowlands)**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 524
taxon.data.freq_in_quad: 1386

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.1 %**
Occurrence frequency in vegetation plots with a cover above 5%: **6.7 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.9 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **3 %**
Maximum percentage cover in vegetation plots: **42 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **31**
Number of narrow habitats in which the taxon has its optimum: **6**
Number of broad habitats in which the taxon occurs: **9**
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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