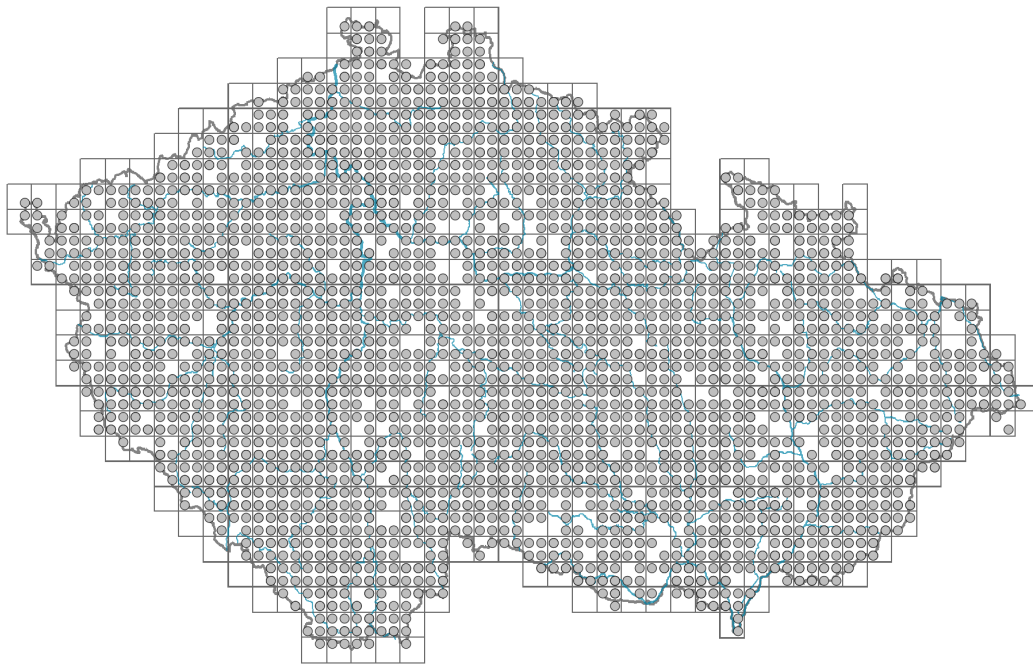


# *Pimpinella saxifraga*

## 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]: **0.3-0.9**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

Life strategy (Pierce method based on leaf traits): **CS/CSR**

Life strategy (Pierce method, C-score): **39.1 %**

Life strategy (Pierce method, S-score): **42.8 %**

Life strategy (Pierce method, R-score): **18.2 %**



## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

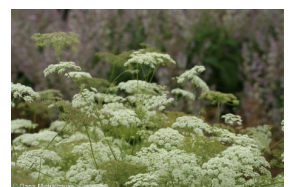
Leaf shape: **compound - imparipinnate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, mesomorphic**



## Flower

Flowering period [month]: **July-October**

Flower colour: **white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx absent, corolla present**

Perianth fusion: **free**

Inflorescence type: **umbrella composita**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **other Hymenoptera, hoverflies, meat flies s. l., other Diptera (bumblebees, solitary bees, flies s. l., butterflies, beetles, nitidulids, other pollinators)**



## Fruit, seed and dispersal

Fruit type: **dry fruit - cremocarp**

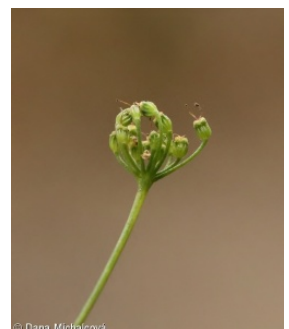
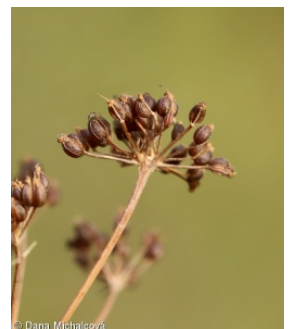
Fruit colour: **brown, grey**

Reproduction type: **only by seed/spores**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **non-myrmecochorous (b)**



## Belowground organs and clonality

Shoot life span (cyclicity): **dicyclic or polycyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **present**

Position of root buds: **primary root**

Role of root buds in life-history of a plant: **regenerative**

### 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): **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): **15**

Depth of the belowground bud bank (root buds excluded) [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): **13**

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): **33**

Depth of the belowground bud bank (root buds included) [cm]: **9**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **20 (40)**

Ploidy level (x): **2 (4)**

2C genome size [Mbp]: **3477.01**

1Cx monoploid genome size [Mbp]: **1738.51**

Genomic GC content: **38 %**

## 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: **3 - missing on damp soil**

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

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: **-0.86**

Herb layer disturbance frequency indicator value: **-0.31**

Whole-community disturbance severity indicator value: **0.27**

Herb layer disturbance severity indicator value: **0.29**

Whole-community structure based disturbance indicator value: **0.49**

Herb layer structure-based disturbance indicator value: **0.6**

## 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**

#### 2 Alpine and subalpine grasslands

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

#### 5 Vegetation of springs and mires

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: **2 - optimum**

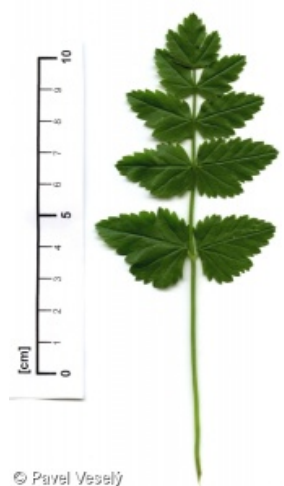
6B Montane mesic meadows: **1 - rare occurrence**

6C Pastures and park grasslands: **2 - optimum**

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

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

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





6G Vegetation of wet disturbed soils: **1 - rare occurrence**

## 7 Acidophilous grasslands

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

7B Submontane Nardus grasslands: **2 - optimum**

## 8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8B Submediterranean dry grasslands on rock outcrops: **2 - optimum**

8C Narrow-leaved sub-continental steppes: **2 - optimum**

8D Broad-leaved dry grasslands: **2 - optimum**

8E Acidophilous dry grasslands: **2 - optimum**

8F Thermophilous forest fringe vegetation: **2 - optimum**

## 9 Sand grasslands and rock-outcrop vegetation

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

9C Festuca grasslands on acidic sands: **2 - optimum**

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

9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

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

## 10 Saline vegetation

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

## 11 Heathlands and scrub

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

11H Subalpine deciduous scrub: **1 - rare occurrence**

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

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

## 12 Forests

12C Oak-hornbeam forests: **1 - rare occurrence**

12D Ravine forests: **1 - rare occurrence**

12F Limestone beech forests: **1 - rare occurrence**

12G Acidophilous beech forests: **1 - rare occurrence**

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**

12O Peri-Alpidic pine forests: **2 - optimum**

12T Robinia pseudacacia plantations: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

12V Spruce plantations: **1 - rare occurrence**

12W Pine and larch plantations: **1 - rare occurrence**

## 13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **1 - rare occurrence**

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**

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: [LE \*Erico-Pinetea\*](#)

Diagnostic taxon of alliances: [LEA \*Erico carneae-Pinion\*](#), [THE \*Cirsio-Brachypodion pinnati\*](#), [THG \*Koelerio-Phleion phleoidis\*](#)

Diagnostic taxon of associations: [LEA01 \*Thlaspio montani-Pinetum sylvestris\*](#), [SCA03 \*Teucrio botryos-Melicetum ciliatae\*](#), [TDA02 \*Ranunculo bulbosi-Arrhenatheretum elatioris\*](#), [TDC02 \*Anthoxantho odorati-Agrostietum tenuis\*](#), [THA04 \*Helichryso arenariae-Festucetum pallentis\*](#), [THC04 \*Asplenio cuneifolii-Seslerietum caeruleae\*](#)

Constant taxon

Constant taxon of classes: [LE \*Erico-Pinetea\*](#)

Constant taxon of alliances: [LEA \*Erico carneae-Pinion\*](#), [TEC \*Violion caninae\*](#), [TEE \*Euphorbio cyparissiae-Callunion vulgaris\*](#), [THE \*Cirsio-Brachypodion pinnati\*](#), [THF \*Bromion erecti\*](#), [THG \*Koelerio-Phleion phleoidis\*](#)

Constant taxon of associations: [ACA02 \*Saxifrago paniculatae-Agrostietum alpinae\*](#), [LCB02 \*Carici fritschii-Quercetum roboris\*](#), [LEA01 \*Thlaspio montani-Pinetum sylvestris\*](#), [SCA03 \*Teucrio botryos-Melicetum ciliatae\*](#), [TDA02 \*Ranunculo bulbosi-Arrhenatheretum elatioris\*](#), [TDA04 \*Potentillo albae-Festucetum rubrae\*](#), [TDC02 \*Anthoxantho odorati-Agrostietum tenuis\*](#), [TEC02 \*Campanulo rotundifoliae-Dianthetum deltoidis\*](#), [TEF01 \*Euphorbio cyparissiae-Callunetum vulgaris\*](#), [THA04 \*Helichryso arenariae-Festucetum pallentis\*](#), [THC04 \*Asplenio cuneifolii-Seslerietum caeruleae\*](#), [THE01 \*Scabioso ochroleuca-Brachypodietum pinnati\*](#), [THE02 \*Cirsio pannonici-Seslerietum caeruleae\*](#), [THE03 \*Polygalo majoris-Brachypodietum pinnati\*](#), [THF01 \*Carlino acaulis-Brometum erecti\*](#), [THG01 \*Potentillo heptaphyllae-Festucetum rupicola\*](#), [THG02 \*Avenulo pratensis-Festucetum valesiacae\*](#), [THG03 \*Viscario vulgaris-Avenuletum pratensis\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.6**

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

Ecological specialization index for forest vegetation: **4.5**

Colonization ability

Index of colonization success (ICS): **7**

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

Optimum successional age [years]: **32.5**

## Distribution and frequency

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: **650**

taxon.data.freq\_in\_quad: **2254**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.2 %**

Occurrence frequency in vegetation plots with a cover above 5%: **2.5 %**

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: **2.4 %**

Maximum percentage cover in vegetation plots: **23 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **51**

Number of narrow habitats in which the taxon has its optimum: **11**

Number of broad habitats in which the taxon occurs: **11**

Number of broad habitats in which the taxon has its optimum: **5**

## 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**