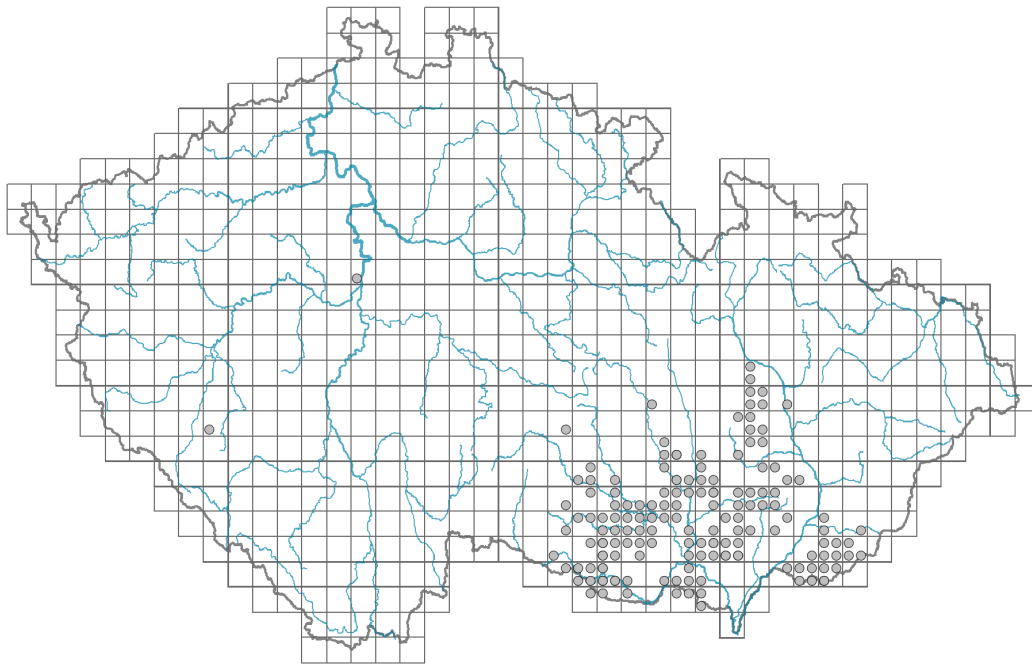


# *Pulsatilla grandis*

## 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]: **0.05-0.4**

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

Life form: **hemicryptophyte**

## Leaf

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

Leaf arrangement (phyllotaxis): **rosulate**

Leaf shape: **simple - pinnately divided, compound - imparipinnate**

Stipules: **absent**

Petiole: **present**

## Flower

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

Flower colour: **violet**

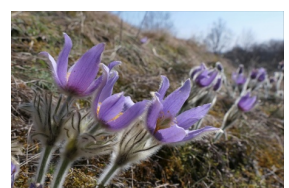
Flower symmetry: **actinomorphic**

Perianth type: **homochlamydeous**

Perianth fusion: **free**

Inflorescence type: **flores solitarii**

Generative reproduction type: **facultative allogamy**



## Fruit, seed and dispersal

Fruit type: **dry fruit - head of achenes**

Fruit colour: **brown**

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

Dispersal strategy: **Epilobium (mainly anemochory and autochory)**

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

## Belowground organs and clonality

Shoot life span (cyclicality): **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): **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 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): **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): **32**

Ploidy level (x): **4**

2C genome size [Mbp]: **26314.85**

1Cx monoploid genome size [Mbp]: **6578.71**

Genomic GC content: **45.1 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **8 - light plant, only exceptionally occurring at less than 40%**



**of diffuse radiation incident in an open area**

Temperature indicator value: **7 - heat indicator, occurring in relatively warm lowlands**

Moisture indicator value: **3 - missing on damp soil**

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

Nutrient indicator value: **2 - transition between values 1 and 3**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.37**

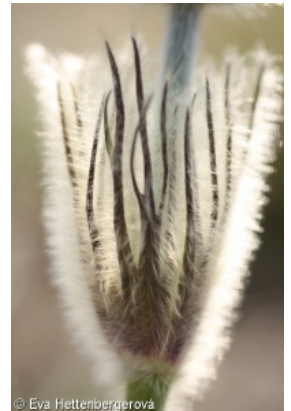
Herb layer disturbance frequency indicator value: **-0.05**

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

Herb layer disturbance severity indicator value: **0.24**

Whole-community structure based disturbance indicator value: **0.73**

Herb layer structure-based disturbance indicator value: **0.76**

**Habitat and sociology**

Occurrence in habitats

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: **1 - rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

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

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

11 Heathlands and scrub

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

11N Low xeric 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 alliances: [THG \*Koelerio-Phleion phleoidis\*](#)

Diagnostic taxon of associations: [THA04 \*Helichryso arenarii-Festucetum pallentis\*](#), [THF02 \*Brachypodio pinnati-Molinietum arundinaceae\*](#), [THG01 \*Potentillo heptaphyllae-Festucetum rupicolae\*](#), [THG02 \*Avenulo pratensis-Festucetum valesiacae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.7**

Ecological specialization index for non-forest vegetation: **5.7**

Colonization ability

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

### **Distribution and frequency**

Continentality degree: **5**  
Distribution range extension along the continentality gradient: **3**  
Elevational belt in the Czech Republic: **colline belt**  
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **70**  
taxon.data.freq\_in\_quad: **142**  
Commonness in vegetation plots from the Czech Republic  
Occurrence frequency in vegetation plots: **0.3 %**  
Occurrence frequency in vegetation plots with a cover above 5%: **7.8 %**  
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: **3.1 %**  
Maximum percentage cover in vegetation plots: **13 %**  
Number of habitats with taxon occurrence in the Czech Republic  
Number of narrow habitats in which the taxon occurs: **10**  
Number of narrow habitats in which the taxon has its optimum: **4**  
Number of broad habitats in which the taxon occurs: **3**  
Number of broad habitats in which the taxon has its optimum: **1**

### **Threats and protection**

Red List 2017 (national categories): **C2b - endangered taxon, rare and declining**  
Red List 2017 (IUCN categories): **VU - vulnerable**  
Legal protection: **endangered taxon**