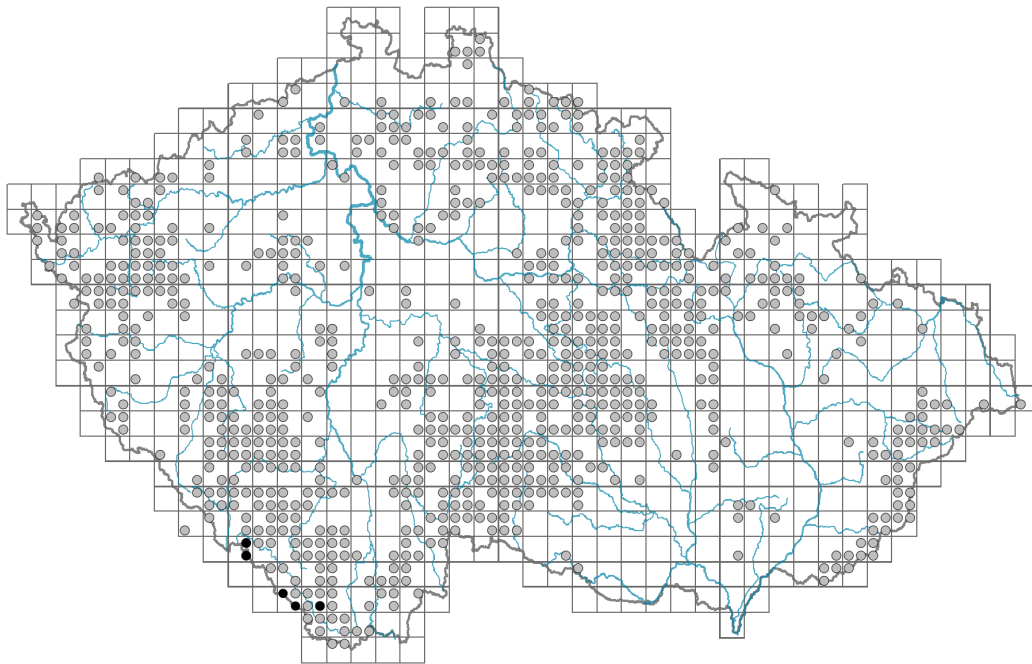


# *Parnassia palustris*

## Distribution

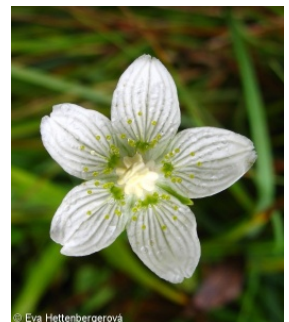


### Map info

● 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]: **0.1-0.25**

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): **28.7 %**

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

Life strategy (Pierce method, R-score): **71.3 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **rosulate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, helomorphic**

## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **fused at the base**

Inflorescence type: **flores solitarii**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**

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

### 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: **Sparganium (mainly autochory and hydrochory)**

Myrmecochory: **probably myrmecochorous**

### Belowground organs and clonality

Shoot metamorphosis: **rhizome, turion**

Storage organ: **rhizome, turion**

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]: **2.5**

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): **9**

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): **14**

Depth of the belowground bud bank (root buds excluded) [cm]: **4**

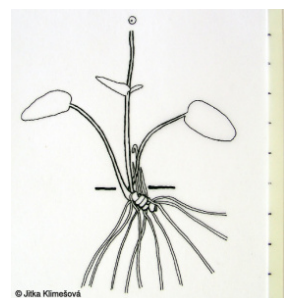
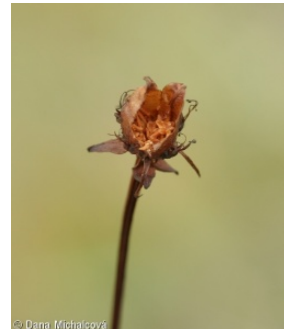
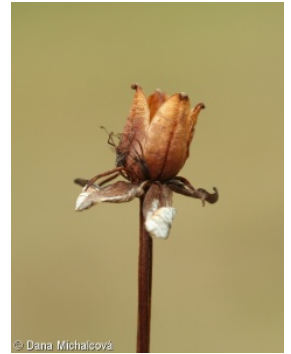
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Depth of the belowground bud bank (root buds included) [cm]: **4**



## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **1983.57**

1Cx monoploid genome size [Mbp]: **991.79**

Genomic GC content: **40.9 %**

## 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: **4 - transition between values 3 and 5**

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

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: **-0.62**

Herb layer disturbance frequency indicator value: **-0.62**

Whole-community disturbance severity indicator value: **0.11**

Herb layer disturbance severity indicator value: **0.15**

Whole-community structure based disturbance indicator value: **0.68**

Herb layer structure-based disturbance indicator value: **0.8**

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1B Siliceous cliffs and block fields: **1 - rare occurrence**

3 Aquatic vegetation

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

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **2 - optimum**

5C Alpine and subalpine soft-water springs: **2 - optimum**

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: **2 - optimum**

6 Meadows and mesic pastures

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

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

7 Acidophilous grasslands

7B Submontane *Nardus* grasslands: **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: [AC \*Elyno-Seslerietea\*](#), [RB \*Scheuchzerio palustris-Caricetea nigrae\*](#)

Diagnostic taxon of alliances: [ACA \*Agrostion alpinae\*](#), [RBA \*Caricion davallianae\*](#), [RBB \*Sphagno warnstorffii-Tomentypnion nitentis\*](#)

Diagnostic taxon of associations: [ACA01 \*Saxifraga oppositifoliae-Festucetum versicoloris\*](#), [RBA01 \*Valeriano dioicae-Caricetea davallianae\*](#), [RBA05 \*Junco subnodulosi-Schoenetum nigricantis\*](#), [RBB01 \*Sphagno warnstorffii-Eriophoretum latifolii\*](#), [RBB02 \*Campylio stellati-Trichophoretum alpini\*](#), [VDC03 \*Scorpidio scorpioidis-Utricularietum\*](#)

Constant taxon

Constant taxon of classes: [AC \*Elyno-Seslerietea\*](#)

Constant taxon of alliances: [ACA \*Agrostion alpinae\*](#)

Constant taxon of associations: [ACA01 \*Saxifraga oppositifoliae-Festucetum versicoloris\*](#), [RBA05 \*Junco subnodulosi-Schoenetum nigricantis\*](#), [RBB01 \*Sphagno warnstorffii-Eriophoretum latifolii\*](#), [RBB02 \*Campylio stellati-Trichophoretum alpini\*](#)

Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **5.9**

Colonization ability

Index of colonization success (ICS): **2**

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

Optimum successional age [years]: **5.5**

## Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **8**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 379

taxon.data.freq\_in\_quad: 796

### Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **4.9 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.5 %**

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

Mean percentage cover in vegetation plots: **2.8 %**

Maximum percentage cover in vegetation plots: **29 %**

### Number of habitats with taxon occurrence in the Czech Republic

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

Number of narrow habitats in which the taxon has its optimum: **7**

Number of broad habitats in which the taxon occurs: **5**

Number of broad habitats in which the taxon has its optimum: **2**

### Threats and protection

Red List 2017 (national categories): **C2t - endangered taxon, declining**

Red List 2017 (IUCN categories): **EN - endangered**

Legal protection: **vulnerable taxon**