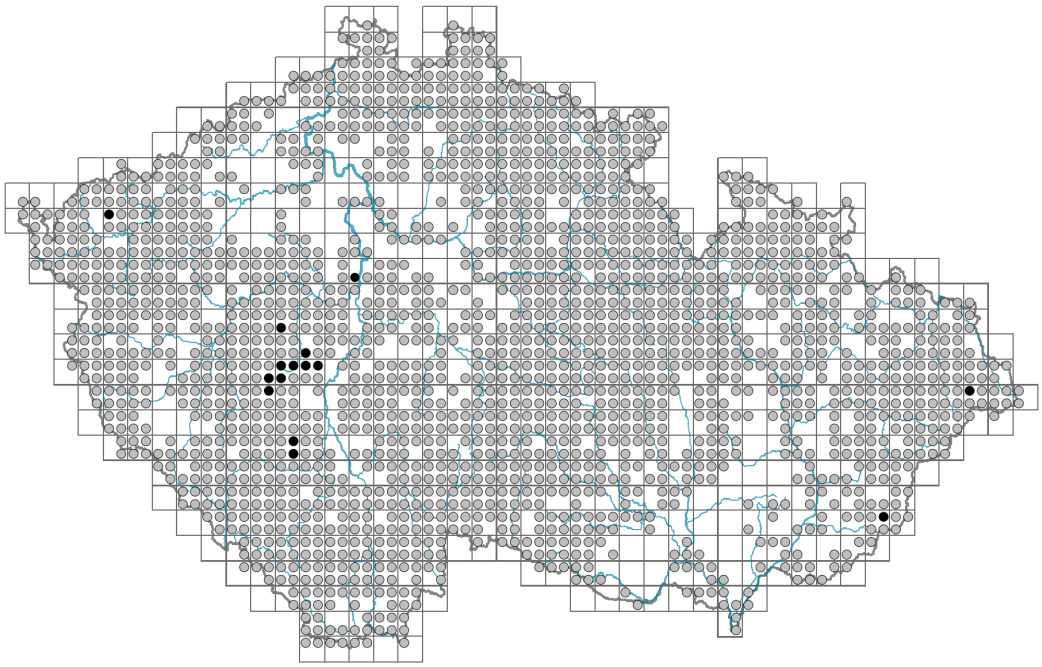
# *Cardamine pratensis*

## 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]: **0.15–0.5**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **CR/CSR**
Life strategy (Pierce method, C-score): **35.2 %**
Life strategy (Pierce method, S-score): **22.5 %**
Life strategy (Pierce method, R-score): **42.3 %**

### Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – pinnately divided, compound – imparipinnate**
Stipules: **absent**
Petiole: **present**
Leaf life span: **evergreen**
Leaf anatomy: **hygromorphic, helomorphic**

### Flower

Flowering period [month]: **April–May**

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Flowering phase: **3 Prunus avium-Ranunculus auricomus (end of early spring)**
Flower colour: **white, pink, pink-violet**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **free**
Calyx fusion: **aposepalous**
Inflorescence type: **racemus**
Dicliny: **synoecious**
Generative reproduction type: **allogamy self-incompatibility**
Pollination syndrome: **insect-pollination, selfing**
Pollinator spectrum: **hoverflies, flies s. l., other Diptera (honeybee, bumblebees, solitary bees, butterflies, beetles, nitidulids)**

## Fruit, seed and dispersal

Fruit type: **dry fruit – siliqua**
Fruit colour: **brown**
Reproduction type: **mostly vegetatively, rarely by seed/spores**
Dispersal unit (diaspore): **seed, leaf-born plantlet**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **non-myrmecochorous (b)**

## 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]: **3**
Number of clonal offspring: **5.4**
Lateral spreading distance by clonal growth [m]: **0.11**
Clonal index: **4**

### 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): **13**
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): **18**
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): **13**
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): **18**
Depth of the belowground bud bank (root buds included) [cm]: **4**

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## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Karyology

Chromosome number (2n): **28 (30, 37, 38, 39, 44)**
Ploidy level (x): **4**
2C genome size [Mbp]: **1553.93**
1Cx monoploid genome size [Mbp]: **388.48**
Genomic GC content: **40.2 %**

## 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: **8 – transition between values 7 and 9**
Reaction indicator value: **5x – indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions (generalist)**
Nutrient indicator value: **5x – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**
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: **-0.46**
Herb layer disturbance frequency indicator value: **-0.29**
Whole-community disturbance severity indicator value: **0.27**
Herb layer disturbance severity indicator value: **0.3**
Whole-community structure based disturbance indicator value: **0.59**
Herb layer structure-based disturbance indicator value: **0.75**

## Habitat and sociology

### Occurrence in habitats

#### 2 Alpine and subalpine grasslands

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

#### 3 Aquatic vegetation

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

#### 4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 – rare occurrence**

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4B Halophilous reed and sedge beds: **1 – rare occurrence**
4C Eutrophic vegetation of muddy substrata: **1 – rare occurrence**
4D Riverine reed vegetation: **1 – rare occurrence**
4E Reed vegetation of brooks: **1 – rare occurrence**
4F Mesotrophic vegetation of muddy substrata: **1 – rare occurrence**
4G Tall-sedge beds: **2 – optimum**
4H Vegetation of low annual hygrophilous herbs: **1 – rare occurrence**
4I Vegetation of nitrophilous annual hygrophilous herbs: **1 – rare occurrence**
4J River gravel banks: **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**
5C Alpine and subalpine 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**

## 6 Meadows and mesic pastures

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

## 10 Saline vegetation

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

## 11 Heathlands and scrub

11I Willow carrs: **1 – rare occurrence**
11J Willow galleries of loamy and sandy river banks: **1 – rare occurrence**
11L Tall mesic and xeric shrub: **1 – rare occurrence**

## 12 Forests

12A Alder carrs: **1 – rare occurrence**
12B Alluvial forests: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **1 – rare occurrence**
12W Pine and larch plantations: **1 – rare occurrence**

## 13 Anthropogenic vegetation

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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**

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## Diagnostic taxon

Diagnostic taxon of associations: **MCG04 *Comaro palustris-Caricetum cespitosae***, **TDF03 *Angelico sylvestris-Cirsietum palustris***

## Constant taxon

Constant taxon of associations: **MCG04 *Comaro palustris-Caricetum cespitosae***, **RBC03 *Agrostio caninae-Caricetum diandrae***, **TDD02 *Junco effusi-Molinietum caeruleae***, **TDE02 *Holcetum lanati***, **TDF01 *Angelico sylvestris-Cirsietum oleracei***, **TDF03 *Angelico sylvestris-Cirsietum palustris***, **TDF04 *Crepido paludosae-Juncetum acutiflori***, **TDF05 *Polygono bistortae-Cirsietum heterophylli***, **TDF07 *Scirpo sylvatici-Cirsietum cani***, **TDF09 *Caricetum cespitosae***

## Ecological specialization indices

Ecological specialization index for all vegetation types: **5.9**
Ecological specialization index for non-forest vegetation: **5.9**
Ecological specialization index for forest vegetation: **4.7**

## Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional**
Floristic region: **Europe, Asia**
Distribution range extension along the continentality gradient: **7**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 626
taxon.data.freq_in_quad: 1927

## Commonness in vegetation plots from the Czech Republic

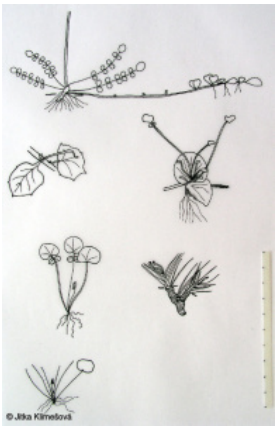
Occurrence frequency in vegetation plots: **4.3 %**
Occurrence frequency in vegetation plots with a cover above 5%: **2.1 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0.2 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **2.2 %**
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: **37**
Number of narrow habitats in which the taxon has its optimum: **9**
Number of broad habitats in which the taxon occurs: **10**
Number of broad habitats in which the taxon has its optimum: **3**

## 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**

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