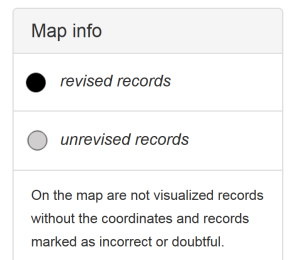
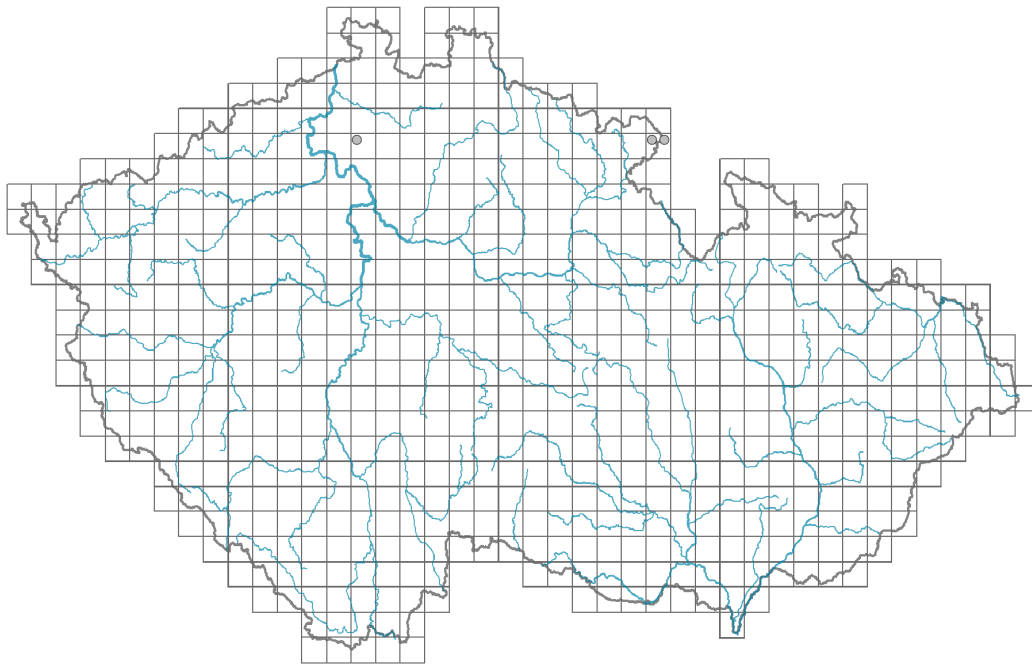


# *Carex paniculata* subsp. *paniculata*

## Distribution



## Habitus and growth type

Height [m]: **0.6-1.4**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **43.7 %**

Life strategy (Pierce method, S-score): **39.9 %**

Life strategy (Pierce method, R-score): **16.3 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, helomorphic**

## Flower

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

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**  
 Flower colour: **brown**  
 Perianth type: **flower achlamydeous**  
 Inflorescence type: **panicula e spiculis composita**  
 Dicliny: **monoecious**  
 Generative reproduction type: **facultative allogamy**  
 Pollination syndrome: **wind-pollination**

### Fruit, seed and dispersal

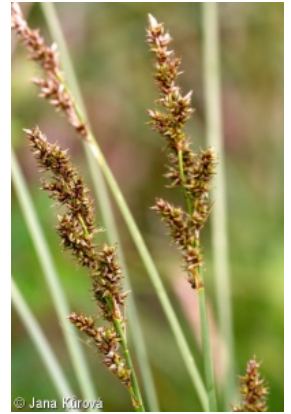
Fruit type: **dry fruit - nut enclosed in an utricle**  
 Fruit colour: **brown**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **fruit, infrutescence or its part**  
 Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**  
 Myrmecochory: **probably myrmecochorous**

### Belowground organs and clonality

Shoot metamorphosis: **rhizome**  
 Storage organ: **rhizome, tuft**  
 Type of clonal growth organ: **epigeogenous rhizome**  
 Freely dispersible organs of clonal growth: **absent**  
 Shoot life span (cyclicality): **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: **6**  
 Lateral spreading distance by clonal growth [m]: **0.01**  
 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): **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): **62**

Ploidy level (x): **2**

2C genome size [Mbp]: **731.18**

1Cx monoploid genome size [Mbp]: **365.59**

Genomic GC content: **37.2 %**

## 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: **9 - wetness indicator, focus on often soaked, poorly aerated soils**

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

Nutrient indicator value: **5 - occurring at moderately nutrient-rich sites, and less frequently at poor and 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: **-1.1**

Herb layer disturbance frequency indicator value: **-0.78**

Whole-community disturbance severity indicator value: **0.21**

Herb layer disturbance severity indicator value: **0.21**

Whole-community structure based disturbance indicator value: **0.34**

Herb layer structure-based disturbance indicator value: **0.43**

## Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **2 - optimum**

4C Eutrophic vegetation of muddy substrata: **1 - rare occurrence**

4E Reed vegetation of brooks: **1 - rare occurrence**

4F Mesotrophic vegetation of muddy substrata: **2 - optimum**

4G Tall-sedge beds: **2 - optimum**

5 Vegetation of springs and mires

5D Calcareous fens: **2 - optimum**

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

5F Transitional mires: **1 - rare occurrence**

5H Wet peat soils and bog hollows: **1 - rare occurrence**

## 6 Meadows and mesic pastures

6E Wet *Cirsium* meadows: **2 - optimum**

6F Intermittently wet *Molinia* meadows: **1 - rare occurrence**

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

## 11 Heathlands and scrub

11I Willow carrs: **2 - optimum**

## 12 Forests

12A Alder carrs: **2 - optimum**

12B Alluvial forests: **1 - rare occurrence**

## Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

## Diagnostic taxon

Diagnostic taxon of classes: [LA \*Alnetea glutinosae\*](#)

Diagnostic taxon of alliances: [LAA \*Alnion glutinosae\*](#)

Diagnostic taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAA03 \*Carici acutiformis-Alnetum glutinosae\*](#), [MCH01 \*Caricetum acutiformi-paniculatae\*](#)

## Constant taxon

Constant taxon of associations: [MCH01 \*Caricetum acutiformi-paniculatae\*](#)

## Dominant taxon

Dominant taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [MCH01 \*Caricetum acutiformi-paniculatae\*](#), [TDF02 \*Cirsietum rivularis\*](#)

## Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **4.7**

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

## Colonization ability

Index of colonization success (ICS): **1**

Index of colonization potential (ICP): **1**

## Distribution and frequency

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

Floristic region: **Europe**

Continentality degree: **4**

Distribution range extension along the continentality gradient: **4**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 425

taxon.data.freq\_in\_quad: 784

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **43.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **32.7 %**

Occurrence frequency in vegetation plots with a cover above 50%: **25.7 %**

Mean percentage cover in vegetation plots: **24.2 %**

Maximum percentage cover in vegetation plots: **88 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **15**

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: **5**

### **Threats and protection**

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**