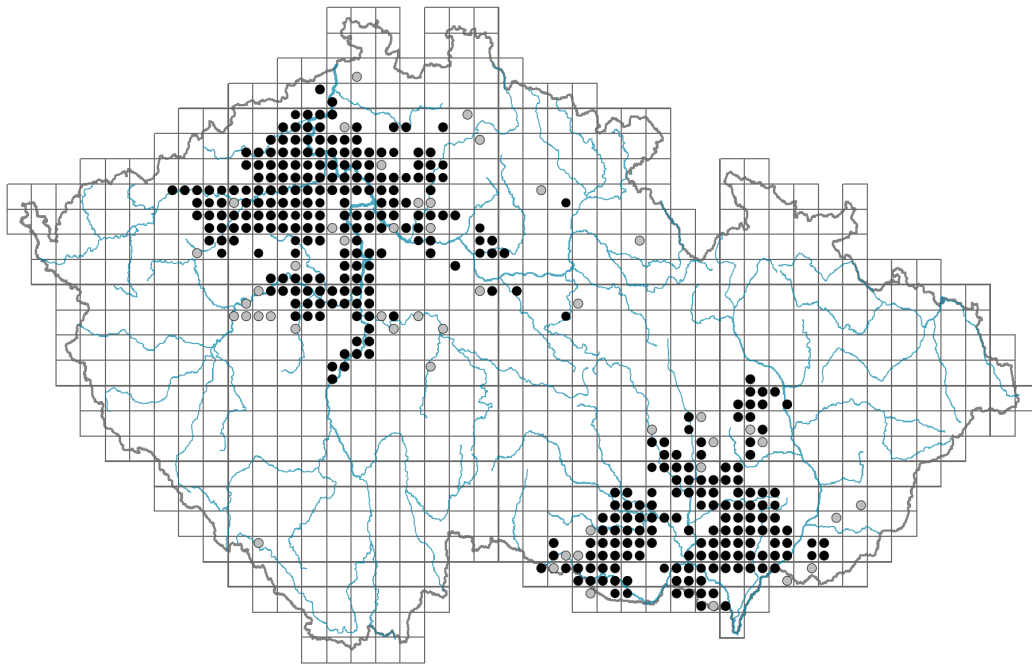


# Carex humilis

## 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]: **0.05-0.2**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

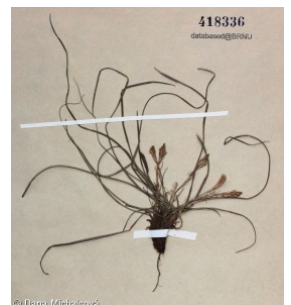
Life strategy: **CSR - competitor/stress-tolerator/ruderal**

Life strategy (Pierce method based on leaf traits): **S/SR**

Life strategy (Pierce method, C-score): **5.8 %**

Life strategy (Pierce method, S-score): **67 %**

Life strategy (Pierce method, R-score): **27.2 %**



## 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, mesomorphic**

## Flower

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

Flowering phase: **2 Acer platanoides-Anemone nemorosa (start of early spring)**

Flower colour: **brown**

Perianth type: **flower achlamydeous**

Inflorescence type: **spica e spiculis composita**

Dicliny: **monoecious**

Generative reproduction type: **mixed mating**

Pollination syndrome: **wind-pollination**

## Fruit, seed and dispersal

Fruit type: **dry fruit - nut enclosed in an utricle**

Fruit colour: **brown**

Reproduction type: **mostly by seed/spores, rarely vegetatively**

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

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

Myrmecochory: **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: **2.5**

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): **36**

Ploidy level (x): **2**

2C genome size [Mbp]: **907.59**

1Cx monoploid genome size [Mbp]: **453.79**

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: **6 - transition between values 5 and 7**

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

Reaction indicator value: **8 - transition between values 7 and 9, occurring mostly in calcium-rich conditions**

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.21**

Herb layer disturbance frequency indicator value: **-0.43**

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

Herb layer disturbance severity indicator value: **0.22**

Whole-community structure based disturbance indicator value: **0.37**

Herb layer structure-based disturbance indicator value: **0.45**

## Habitat and sociology

### Occurrence in habitats

#### 8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **2 - optimum**

8B Submediterranean dry grasslands on rock outcrops: **3 - dominant**

8C Narrow-leaved sub-continental steppes: **3 - dominant**

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

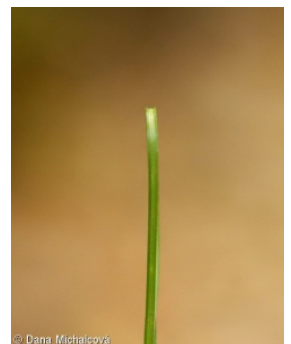
9B Open vegetation of acidic sands: **1 - rare occurrence**

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**



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

11N Low xeric scrub: **2 - optimum**

12 Forests

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

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

12F Limestone beech forests: **2 - optimum**

12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**

12I Sub-continental thermophilous oak forests: **1 - rare occurrence**

12J Acidophilous thermophilous oak forests: **2 - optimum**

12K Acidophilous oak forests: **1 - rare occurrence**

12L Boreo-continental pine forests: **1 - rare occurrence**

12O Peri-Alpidic pine forests: **3 - dominant**

12W Pine and larch plantations: **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**

Diagnostic taxon

Diagnostic taxon of classes: [TH \*Festuco-Brometea\*](#)

Diagnostic taxon of alliances: [LCA \*Quercion pubescenti-petraeae\*](#), [THB \*Bromo pannonici-Festucion pallentis\*](#), [THD \*Festucion valesiaca\*](#), [THE \*Cirsio-Brachypodium pinnati\*](#)

Diagnostic taxon of associations: [LCA01 \*Lathyro collini-Quercetum pubescentis\*](#), [LCA02 \*Lithospermo purpureocaerulei-Quercetum pubescentis\*](#), [LCC02 \*Genisto pilosae-Quercetum petraeae\*](#), [THA04 \*Helichryso arenarii-Festucetum pallentis\*](#), [THB01 \*Poo badensis-Festucetum pallentis\*](#), [THC01 \*Carici humilis-Seslerietum caeruleae\*](#), [THD02 \*Erysimo crepidifolii-Festucetum valesiaca\*](#), [THE03 \*Polygalo majoris-Brachypodium pinnati\*](#)

Constant taxon

Constant taxon of alliances: [THB \*Bromo pannonici-Festucion pallentis\*](#), [THD \*Festucion valesiaca\*](#)

Constant taxon of associations: [LCA01 \*Lathyro collini-Quercetum pubescentis\*](#), [LCA02 \*Lithospermo purpureocaerulei-Quercetum pubescentis\*](#), [LCC02 \*Genisto pilosae-Quercetum petraeae\*](#), [THA04 \*Helichryso arenarii-Festucetum pallentis\*](#), [THB01 \*Poo badensis-Festucetum pallentis\*](#), [THC01 \*Carici humilis-Seslerietum caeruleae\*](#), [THC02 \*Minuartio setaceae-Seslerietum caeruleae\*](#), [THD02 \*Erysimo crepidifolii-Festucetum valesiaca\*](#), [THD03 \*Festuco rupicolae-Caricetum humilis\*](#), [THD04 \*Koelerio macranthae-Stipetum joannis\*](#), [THD06 \*Astragalo exscapi-Crambetum tatariae\*](#), [THE03 \*Polygalo majoris-Brachypodium pinnati\*](#), [THG02 \*Avenulo pratensis-Festucetum valesiaca\*](#)

Dominant taxon

Dominant taxon of associations: [LCA01 \*Lathyro collini-Quercetum pubescentis\*](#), [LCA02 \*Lithospermo purpureocaerulei-Quercetum pubescentis\*](#), [LCC01 \*Sorbo torminalis-Quercetum\*](#), [LCC02 \*Genisto pilosae-Quercetum petraeae\*](#), [THA04 \*Helichryso arenarii-Festucetum pallentis\*](#), [THD03 \*Festuco rupicolae-Caricetum humilis\*](#), [THD04 \*Koelerio macranthae-Stipetum joannis\*](#), [THE01 \*Scabioso ochroleucaae-Brachypodium pinnati\*](#), [THE02 \*Cirsio pannonici-Seslerietum caeruleae\*](#), [THE03 \*Polygalo majoris-Brachypodium pinnati\*](#), [THH03 \*Geranio sanguinei-Peucedanetum cervariae\*](#)

Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **5**

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

### Colonization ability

Index of colonization success (ICS): **3**

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

Optimum successional age [years]: **75**

### Distribution and frequency

Floristic zone: **southern temperate, submeridional**

Floristic region: **Europe, Asia**

Continental degree: **6**

Distribution range extension along the continentality gradient: **6**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **181**

taxon.data.freq\_in\_quad: **427**

### Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.9 %**

Occurrence frequency in vegetation plots with a cover above 5%: **49.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **19.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **3.4 %**

Mean percentage cover in vegetation plots: **13.4 %**

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: **22**

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

Number of broad habitats in which the taxon occurs: **4**

Number of broad habitats in which the taxon has its optimum: **3**

### Threats and protection

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

Red List 2017 (IUCN categories): **NT - near threatened**

Legal protection: **not protected by law**