

Carex acuta

Distribution



© Josef Navrátil

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]: **0.3-1.4**

Growth form: **clonal herb**

Life form: **hemicryptophyte (geophyte)**

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

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

Life strategy (Pierce method, C-score): **35.8 %**

Life strategy (Pierce method, S-score): **51.8 %**

Life strategy (Pierce method, R-score): **12.4 %**



© Dana Michalčová

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**



© Katerina Šemberová



© Dana Michalčová

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

Fruit, seed and dispersal

Fruit type: **dry fruit - nut enclosed in an utricle**
 Fruit colour: **green, 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 non-myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **stolon, rhizome**
 Storage organ: **stolon, rhizome**
 Type of clonal growth organ: **hypogeogenous 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: **4.6**
 Lateral spreading distance by clonal growth [m]: **0.19**
 Clonal index: **5**
 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): **82**

Ploidy level (x): **2**

2C genome size [Mbp]: **806.62**

1Cx monoploid genome size [Mbp]: **403.31**

Genomic GC content: **36.1 %**

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

Nutrient indicator value: **6 - transition between values 5 and 7**

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: **-0.75**

Herb layer disturbance frequency indicator value: **-0.63**

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

Herb layer disturbance severity indicator value: **0.25**

Whole-community structure based disturbance indicator value: **0.55**

Herb layer structure-based disturbance indicator value: **0.59**

Habitat and sociology

Occurrence in habitats

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: **2 - optimum**

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: **2 - optimum**

4G Tall-sedge beds: **3 - dominant**

4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**



- 4K Petasites fringes of montane brooks: **1 - rare occurrence**
- 5 Vegetation of springs and mires
- 5B Lowland to montane soft-water springs: **1 - rare occurrence**
- 5D Calcareous fens: **1 - rare occurrence**
- 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
- 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**
- 6D Alluvial meadows of lowland rivers: **2 - optimum**
- 6E Wet Cirsium meadows: **2 - optimum**
- 6F Intermittently wet Molinia meadows: **1 - rare occurrence**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 10 Saline vegetation
- 10I Inland saline meadows: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11I Willow carrs: **2 - optimum**
- 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: **2 - optimum**
- 12B Alluvial forests: **1 - rare occurrence**
- 12Q Peatland birch forests: **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**

Diagnostic taxon

Diagnostic taxon of alliances: [MCH Magno-Caricion gracilis](#)

Diagnostic taxon of associations: [MCG05 Caricetum diandrae](#), [MCH03 Caricetum gracilis](#), [MCH07 Caricetum vulpinae](#), [TDE03 Lathyro palustris-Gratioletum officinalis](#)

Constant taxon

Constant taxon of alliances: [MCH Magno-Caricion gracilis](#)

Constant taxon of associations: [MCG03 Peucedano palustris-Caricetum lasiocarpae](#), [MCG05 Caricetum diandrae](#), [MCH03 Caricetum gracilis](#), [MCH05 Caricetum distichae](#), [MCH07 Caricetum vulpinae](#), [MCH08 Phalaridetum arundinaceae](#), [TDE03 Lathyro palustris-Gratioletum officinalis](#), [TDF07 Scirpo sylvatici-Cirsietum cani](#)

Dominant taxon

Dominant taxon of associations: [MCF02 Thelypterido palustris-Phragmitetum australis](#), [MCH03 Caricetum gracilis](#), [MCH07 Caricetum vulpinae](#), [TDF01 Angelico sylvestris-Cirsietum oleracei](#), [TDF07 Scirpo sylvatici-Cirsietum cani](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.1**

Ecological specialization index for non-forest vegetation: **4.2**

Ecological specialization index for forest vegetation: **4.8**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **3**

Optimum successional age [years]: **10**

Distribution and frequency

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

Floristic region: **Europe, Siberia**

Distribution range extension along the continentality gradient: **5**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **638**

taxon.data.freq_in_quad: **2100**

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%: **45.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **35 %**

Occurrence frequency in vegetation plots with a cover above 50%: **31.9 %**

Mean percentage cover in vegetation plots: **29.4 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **28**

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

Number of broad habitats in which the taxon occurs: **7**

Number of broad habitats in which the taxon has its optimum: **4**

Threats and protection

Legal protection: **not protected by law**