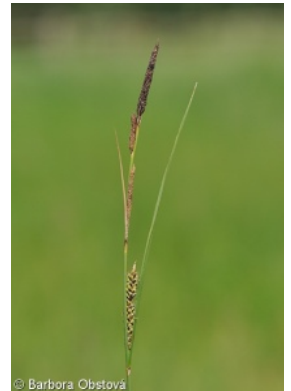
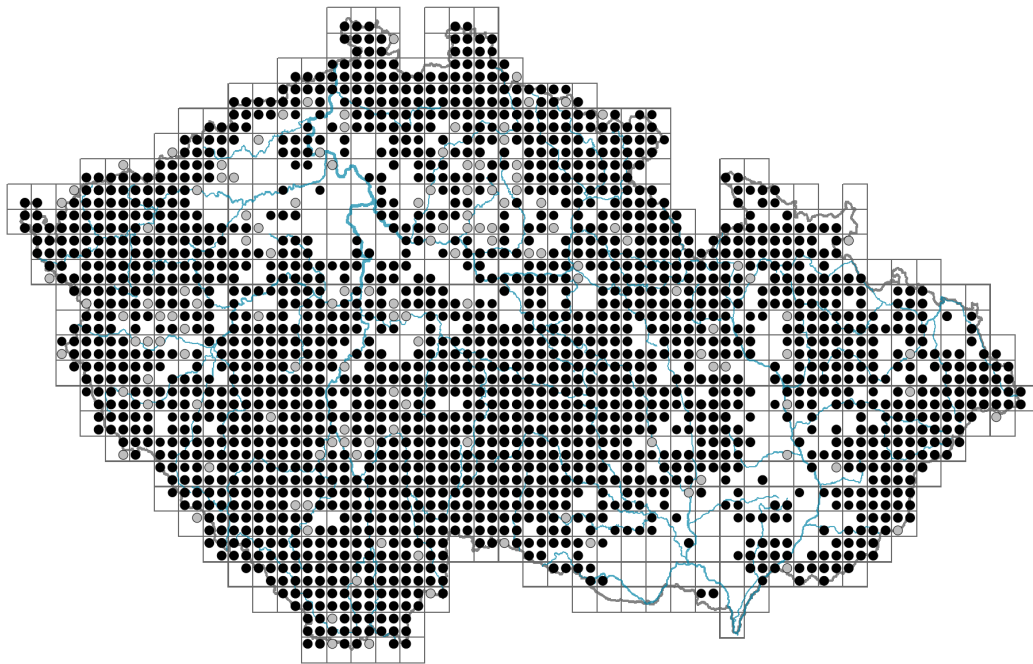


# Carex nigra

## Distribution



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### 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]: **0.1-0.8**

Growth form: **clonal herb**

Life form: **hemicryptophyte (geophyte)**

Life strategy: **S - stress-tolerator**

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

Life strategy (Pierce method, C-score): **7 %**

Life strategy (Pierce method, S-score): **68.8 %**

Life strategy (Pierce method, R-score): **24.3 %**

## 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: **helomorphic**

## Flower

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



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© Dana Micalcová

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, andromonoecious**  
 Generative reproduction type: **alogamy self-incompatibility**  
 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: **Allium (mainly autochory)**  
 Myrmecochory: **non-myrmecochorous (a)**

### Belowground organs and clonality

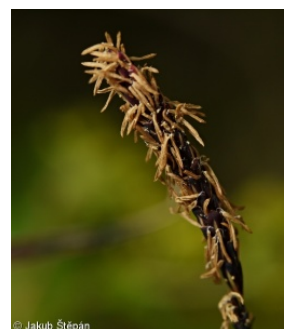
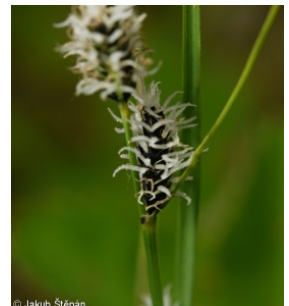
Shoot metamorphosis: **stolon, rhizome**  
 Storage organ: **stolon, rhizome**  
 Type of clonal growth organ: **epigeogenous rhizome**  
 Freely dispersible organs of clonal growth: **absent**  
 Shoot life span (cyclicality): **dicyclic or polycyclic shoots prevailing**  
 Branching type of stem-derived organs of clonal growth: **sympodial**  
 Primary root: **absent**  
 Persistence of the clonal growth organ [year]: **4**  
 Number of clonal offspring: **1**  
 Lateral spreading distance by clonal growth [m]: **0.09**  
 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): **84**

Ploidy level (x): **2**

2C genome size [Mbp]: **786.69**

1Cx monoploid genome size [Mbp]: **393.34**

Genomic GC content: **36.2 %**

## 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: **5x - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

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

Reaction indicator value: **3 - acidity indicator, occurring mainly in acidic conditions, exceptionally in neutral conditions**

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

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: **-0.92**

Herb layer disturbance frequency indicator value: **-0.71**

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

Herb layer disturbance severity indicator value: **0.23**

Whole-community structure based disturbance indicator value: **0.53**

Herb layer structure-based disturbance indicator value: **0.66**

## Habitat and sociology

### Occurrence in habitats

#### 2 Alpine and subalpine grasslands

2A Alpine grasslands on siliceous bedrock: **1 - rare occurrence**

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**

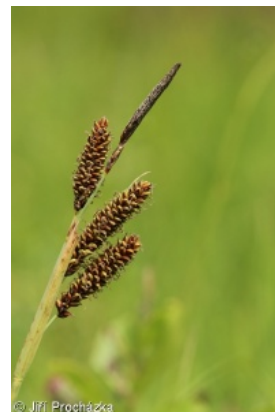
4E Reed vegetation of brooks: **1 - rare occurrence**

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**

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**  
 5C Alpine and subalpine soft-water springs: **1 - rare occurrence**  
 5D Calcareous fens: **2 - optimum**  
 5E Acidic moss-rich fens and peatland meadows: **3 - dominant**  
 5F Transitional mires: **3 - dominant**  
 5G Raised bogs: **2 - optimum**  
 5H Wet peat soils and bog hollows: **1 - rare occurrence**



## 6 Meadows and mesic pastures

- 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**  
 6B Montane mesic meadows: **1 - rare occurrence**  
 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: **2 - optimum**

## 10 Saline vegetation

- 10I Inland saline meadows: **1 - rare occurrence**  
 10J Saline steppes: **1 - rare occurrence**

## 11 Heathlands and scrub

- 11A Dry lowland to subalpine heathlands: **1 - rare occurrence**  
 11D Subalpine acidophilous Pinus mugo scrub: **1 - rare occurrence**  
 11H Subalpine deciduous scrub: **1 - rare occurrence**  
 11I Willow carrs: **1 - rare occurrence**  
 11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

## 12 Forests

- 12A Alder carrs: **1 - rare occurrence**  
 12G Acidophilous beech forests: **1 - rare occurrence**  
 12K Acidophilous oak forests: **1 - rare occurrence**  
 12P Peatland pine forests: **1 - rare occurrence**  
 12Q Peatland birch forests: **2 - optimum**  
 12R Acidophilous spruce forests: **1 - rare occurrence**  
 12S Basiphilous spruce forests: **1 - rare occurrence**  
 12V Spruce plantations: **1 - rare occurrence**

## 13 Anthropogenic vegetation

- 13F Herbaceous vegetation of forests clearings and Rubus scrub: **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 classes: [\*\*\*RB Scheuchzerio palustris-Caricetea nigrae\*\*\*](#)

Diagnostic taxon of alliances: [RBA Caricion davallianae](#), [RBB Sphagno warnstorffii-Tomentypnion nitentis](#), [RBC Caricion canescenti-nigrae](#), [RBD Sphagno-Caricion canescentis](#)

Diagnostic taxon of associations: [RBA03 Valeriano simplicifoliae-Caricetum flavae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBC01 Caricetum nigrae](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [RBD03 Carici echinatae-Sphagnetum](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#)

Constant taxon

Constant taxon of classes: [RB Scheuchzerio palustris-Caricetea nigrae](#)

Constant taxon of alliances: [RBA Caricion davallianae](#), [RBC Caricion canescenti-nigrae](#), [RBD Sphagno-Caricion canescentis](#), [TDD Molinion caeruleae](#), [TDF Calthion palustris](#), [TED Nardo strictae-Juncion squarrosi](#)

Constant taxon of associations: [LAA01 Thelypterido palustris-Alnetum glutinosae](#), [LAB01 Salicetum auritae](#), [MCG04 Comaro palustris-Caricetum cespitosae](#), [MCG06 Caricetum appropinquatae](#), [RBA01 Valeriano dioicae-Caricetum davallianae](#), [RBA02 Carici flavae-Cratoneuretum filicini](#), [RBA03 Valeriano simplicifoliae-Caricetum flavae](#), [RBA04 Campylio stellati-Caricetum lasiocarpae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBB02 Campylio stellati-Trichophoretum alpini](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC01 Caricetum nigrae](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [RBD01 Sphagno recurvi-Caricetum rostratae](#), [RBD02 Sphagno recurvi-Caricetum lasiocarpae](#), [RBD03 Carici echinatae-Sphagnetum](#), [TDD02 Junco effusi-Molinietum caeruleae](#), [TDF01 Angelico sylvestris-Cirsietum oleracei](#), [TDF02 Cirsietum rivularis](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#), [TDF04 Crepido paludosae-Juncetum acutiflori](#), [TDF06 Chaerophyllo hirsuti-Calthetum palustris](#), [TDF08 Scirpetum sylvatici](#), [TDF10 Scirpo sylvatici-Caricetum brizoidis](#), [TED01 Juncetum squarrosi](#)

Dominant taxon

Dominant taxon of associations: [RBA03 Valeriano simplicifoliae-Caricetum flavae](#), [RBC01 Caricetum nigrae](#), [RBD03 Carici echinatae-Sphagnetum](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.5**

Ecological specialization index for non-forest vegetation: **5.6**

Ecological specialization index for forest vegetation: **5.1**

Colonization ability

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

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

Optimum successional age [years]: **28**

## Distribution and frequency

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

Floristic region: **Europe, Asia, Americas**

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

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: **631**

taxon.data.freq\_in\_quad: **2030**

## Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **26.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **8.2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **2.1 %**

Mean percentage cover in vegetation plots: **7.8 %**

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: **41**

Number of narrow habitats in which the taxon has its optimum: **10**

Number of broad habitats in which the taxon occurs: **10**

Number of broad habitats in which the taxon has its optimum: **5**

## 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**