

# *Centaurea jacea*

## 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]: **0.4**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **39.2 %**

Life strategy (Pierce method, S-score): **24.4 %**

Life strategy (Pierce method, R-score): **36.5 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

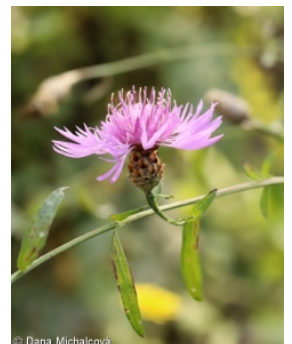
Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, mesomorphic**

## Flower

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



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Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **pink**

Flower symmetry: **actinomorphic, zygomorphic**

Perianth type: **calyx reduced, corolla present**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped, tubular**

Calyx fusion: **pappus**

Inflorescence type: **corymbothsus ex anthodiis compositus**

Dicliny: **synoecious, trioecious**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **honeybee, bumblebees, hoverflies (solitary bees, other Hymenoptera, flies s. l., meat flies s. l., other Diptera, butterflies, beetles, nitidulids, other pollinators, unknown)**

## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**

Fruit colour: **brown, grey**

Reproduction type: **only by seed/spores**

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

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

Myrmecochory: **myrmecochorous**

## Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**

Storage organ: **pleiocorm**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **monocyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **absent**

Persistence of the clonal growth organ [year]: **3.3**

Number of clonal offspring: **1.8**

Lateral spreading distance by clonal growth [m]: **0.04**

Clonal index: **3**

Position of root buds: **lateral roots**

Role of root buds in life-history of a plant: **additive**

## Bud bank

Number of buds per shoot at the soil surface (root buds excluded):

Number of buds per shoot at a depth of 0-10 cm (root buds excluded): **12**

Number of buds per shoot at a depth greater than 10 cm (root buds excluded):

Size of the belowground bud bank (root buds excluded): **17**

Depth of the belowground bud bank (root buds excluded) [cm]: **4**

Number of buds per shoot at the soil surface (root buds included):

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):

Size of the belowground bud bank (root buds included): **35**



Depth of the belowground bud bank (root buds included) [cm]: **9**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Karyology

Chromosome number (2n): **36**

Ploidy level (x): **4**

2C genome size [Mbp]: **3366.79**

1Cx monoploid genome size [Mbp]: **841.7**

Genomic GC content: **39.6 %**

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

Moisture indicator value: **5x - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out (generalist)**

Reaction indicator value: **6x - transition between values 5 and 7 (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: **-0.3**

Herb layer disturbance frequency indicator value: **-0.22**

Whole-community disturbance severity indicator value: **0.29**

Herb layer disturbance severity indicator value: **0.31**

Whole-community structure based disturbance indicator value: **0.58**

Herb layer structure-based disturbance indicator value: **0.72**

## Habitat and sociology

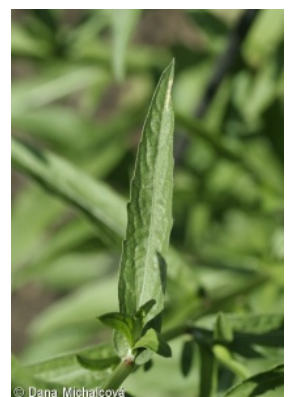
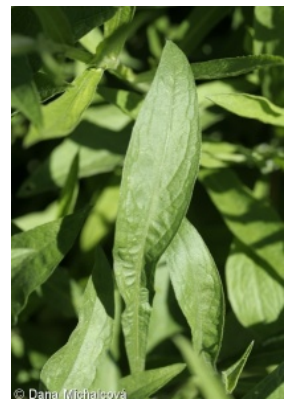
### Occurrence in habitats

#### 5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 - rare occurrence**

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

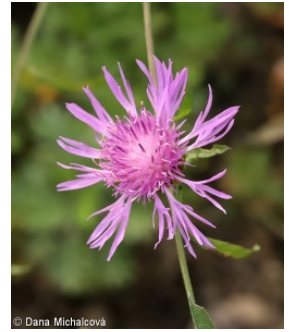
5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**





## 6 Meadows and mesic pastures

- 6A Mesic Arrhenatherum meadows: **2 - optimum**
- 6B Montane mesic meadows: **1 - rare occurrence**
- 6C Pastures and park grasslands: **2 - optimum**
- 6D Alluvial meadows of lowland rivers: **2 - optimum**
- 6E Wet Cirsium meadows: **1 - rare occurrence**
- 6F Intermittently wet Molinia meadows: **2 - optimum**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**

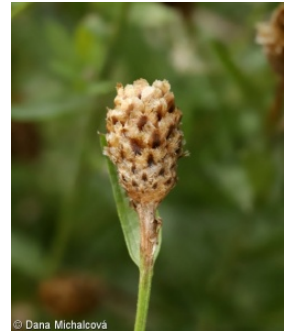


## 7 Acidophilous grasslands

- 7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**
- 7B Submontane Nardus grasslands: **2 - optimum**

## 8 Dry grasslands

- 8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**
- 8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**
- 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

- 9C Festuca grasslands on acidic sands: **1 - rare occurrence**

## 10 Saline vegetation

- 10I Inland saline meadows: **2 - optimum**

## 11 Heathlands and scrub

- 11A Dry lowland to subalpine heathlands: **1 - rare occurrence**
- 11H Subalpine deciduous scrub: **1 - rare occurrence**
- 11L Tall mesic and xeric shrub: **1 - rare occurrence**
- 11N Low xeric scrub: **1 - rare occurrence**



## 12 Forests

- 12C Oak-hornbeam forests: **1 - rare occurrence**
- 12F Limestone beech forests: **1 - rare occurrence**
- 12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**
- 12I Sub-continental thermophilous oak forests: **1 - rare occurrence**
- 12K Acidophilous oak forests: **1 - rare occurrence**
- 12L Boreo-continental pine forests: **1 - rare occurrence**
- 12O Peri-Alpidic pine forests: **1 - rare occurrence**
- 12W Pine and larch plantations: **1 - rare occurrence**



## 13 Anthropogenic vegetation

- 13A Annual vegetation of ruderal habitats: **1 - rare occurrence**
- 13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**
- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**

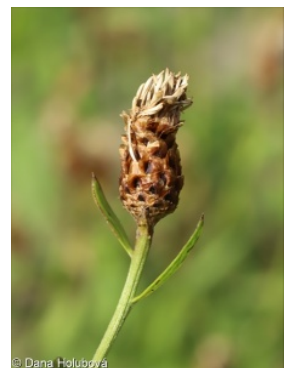
## Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

## Diagnostic taxon

Diagnostic taxon of alliances: **TDD Molinion caeruleae**



Diagnostic taxon of associations: [TDC02 Anthoxantho odorati-Agrostietum tenuis](#), [TDD01 Molinietum caeruleae](#), [THE04 Plantagini maritimae-Caricetum flacca](#)

Constant taxon

Constant taxon of alliances: [TDD Molinion caeruleae](#), [THE Cirsio-Brachypodion pinnati](#)

Constant taxon of associations: [TDA02 Ranunculo bulbosi-Arrhenatheretum elatioris](#), [TDC02 Anthoxantho odorati-Agrostietum tenuis](#), [TDD01 Molinietum caeruleae](#), [TDD02 Junco effusi-Molinietum caeruleae](#), [TDE03 Lathyro palustris-Gratioletum officinalis](#), [TDE04 Cnidio dubii-Deschampsietum cespitosae](#), [TEC02 Campanulo rotundifoliae-Dianthetum deltoidis](#), [THE01 Scabioso ochroleucae-Brachypodietum pinnati](#), [THE02 Cirsio pannonici-Seslerietum caeruleae](#), [THE04 Plantagini maritimae-Caricetum flacca](#), [THF02 Brachypodio pinnati-Molinietum arundinaceae](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.9**

Ecological specialization index for non-forest vegetation: **4.9**

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

Colonization ability

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

Index of colonization potential (ICP): **4**

Optimum successional age [years]: **25**

## Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **6**

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: **645**

taxon.data.freq\_in\_quad: **2242**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **4.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **7.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**

Mean percentage cover in vegetation plots: **2.9 %**

Maximum percentage cover in vegetation plots: **63 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **34**

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

Number of broad habitats in which the taxon occurs: **9**

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

## Threats and protection

Legal protection: **not protected by law**

