

Carduus acanthoides

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]: **0.5-1.8**Growth form: **monocarpic perennial non-clonal herb**Life form: **hemicryptophyte**Life strategy: **CR - competitor/ruderal**Life strategy (Pierce method based on leaf traits): **C/CR**Life strategy (Pierce method, C-score): **71.5 %**Life strategy (Pierce method, S-score): **0 %**Life strategy (Pierce method, R-score): **28.5 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**Leaf arrangement (phyllotaxis): **alternate**Leaf shape: **simple - pinnately divided**Stipules: **absent**Petiole: **absent**Leaf life span: **evergreen**Leaf anatomy: **scleromorphic, mesomorphic**

Flower

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

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

Flower colour: **red-violet**

Flower symmetry: **actinomorphic**

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

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **tubular**

Calyx fusion: **pappus**

Inflorescence type: **corymbothsus ex anthodiis compositus**

Dicliny: **synoecious**

Generative reproduction type: **mixed mating**

Pollination syndrome: **insect-pollination, selfing**



Fruit, seed and dispersal

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

Fruit colour: **brown**

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

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

Dispersal strategy: **Epilobium (mainly anemochory and autochory)**

Myrmecochory: **myrmecochorous**



Belowground organs and clonality

Root metamorphosis: **primary storage root**

Storage organ: **primary storage root**

Shoot life span (cyclicity): **dicyclic or polycyclic shoots prevailing**

Primary root: **present**

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): **5**

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): **10**

Depth of the belowground bud bank (root buds excluded) [cm]: **3**

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): **5**

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): **10**

Depth of the belowground bud bank (root buds included) [cm]: **3**



Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **22 (16, 20)**

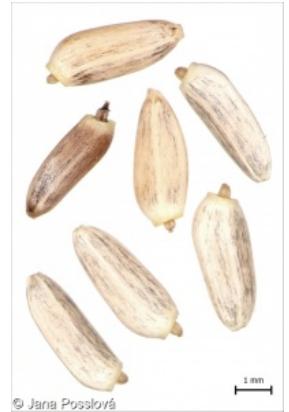
Ploidy level (x): **2**



2C genome size [Mbp]: **1609.82**
 1Cx monoploid genome size [Mbp]: **804.91**
 Genomic GC content: **38.2 %**

Taxon origin

Origin in the Czech Republic: **archaeophyte**
 Invasion status: **naturalized**
 Geographic origin: **Mediterranean**
 Period of introduction: **Iron Age (750-20 BCE)**
 Introduction pathway: **unintentional - agriculture, unintentional - nature**



Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **9 - full light plant, occurring only in fully irradiated places, not at less than 50% of diffuse radiation incident in an open area**
 Temperature indicator value: **6 - transition between values 5 and 7**
 Moisture indicator value: **4 - transition between values 3 and 5**
 Reaction indicator value: **8 - transition between values 7 and 9, occurring mostly in calcium-rich conditions**
 Nutrient indicator value: **7 - occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor 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: **-0.37**
 Herb layer disturbance frequency indicator value: **-0.27**
 Whole-community disturbance severity indicator value: **0.72**
 Herb layer disturbance severity indicator value: **0.73**
 Whole-community structure based disturbance indicator value: **0.6**
 Herb layer structure-based disturbance indicator value: **0.65**



Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation
 4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**
 4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**
 6 Meadows and mesic pastures
 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**
 6C Pastures and park grasslands: **1 - rare occurrence**
 8 Dry grasslands
 8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**
 8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**
 8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**
 8E Acidophilous dry grasslands: **1 - rare occurrence**
 8F Thermophilous forest fringe vegetation: **1 - rare occurrence**



9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**9F Basiphilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

10 Saline vegetation

10I Inland saline meadows: **1 - rare occurrence**

11 Heathlands and scrub

11L Tall mesic and xeric shrub: **1 - rare occurrence**11N Low xeric scrub: **2 - optimum**11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

12T Robinia pseudacacia plantations: **1 - rare occurrence**12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**12W Pine and larch plantations: **1 - rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **2 - optimum**13B Annual vegetation of arable land: **1 - rare occurrence**13C Annual vegetation of trampled habitats: **1 - rare occurrence**13D Perennial thermophilous ruderal vegetation: **3 - dominant**13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**13F Herbaceous vegetation of forests clearings and Rubus scrub: **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 classes: [XC *Artemisietea vulgaris*](#)Diagnostic taxon of alliances: [XCA *Onopordion acanthii*](#)Diagnostic taxon of associations: [KBA02 *Prunetum tenellae*](#), [XBG07 *Sisymbrietum loeselii*](#), [XBG12 *Ivaetum xanthiifoliae*](#), [XBK03 *Eragrostio poaeoidis-Panicetum capillaris*](#), [XCA01 *Carduo acanthoidis-Onopordetum acanthii*](#), [XCA03 *Potentillo argenteae-Artemisietum absinthii*](#), [XCB02 *Berteroetum incanae*](#), [XCB03 *Dauco carotae-Crepidetum rhoeadifoliae*](#), [XCB04 *Dauco carotae-Picridetum hieracioidis*](#)

Constant taxon

Constant taxon of alliances: [XCA *Onopordion acanthii*](#)Constant taxon of associations: [KBA02 *Prunetum tenellae*](#), [XBG07 *Sisymbrietum loeselii*](#), [XBG12 *Ivaetum xanthiifoliae*](#), [XCA01 *Carduo acanthoidis-Onopordetum acanthii*](#), [XCA03 *Potentillo argenteae-Artemisietum absinthii*](#), [XCB02 *Berteroetum incanae*](#), [XCB04 *Dauco carotae-Picridetum hieracioidis*](#)

Dominant taxon

Dominant taxon of associations: [XCA01 *Carduo acanthoidis-Onopordetum acanthii*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.1**Ecological specialization index for non-forest vegetation: **4.1**Ecological specialization index for forest vegetation: **3.5**

Colonization ability

Index of colonization success (ICS): **7**

Index of colonization potential (ICP): **8**

Optimum successional age [years]: **8**

Distribution and frequency

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

Floristic region: **Europe**

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: 540

taxon.data.freq_in_quad: 1454

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **8.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.2 %**

Mean percentage cover in vegetation plots: **3.5 %**

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: **24**

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

Number of broad habitats in which the taxon occurs: **8**

Number of broad habitats in which the taxon has its optimum: **2**

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**

