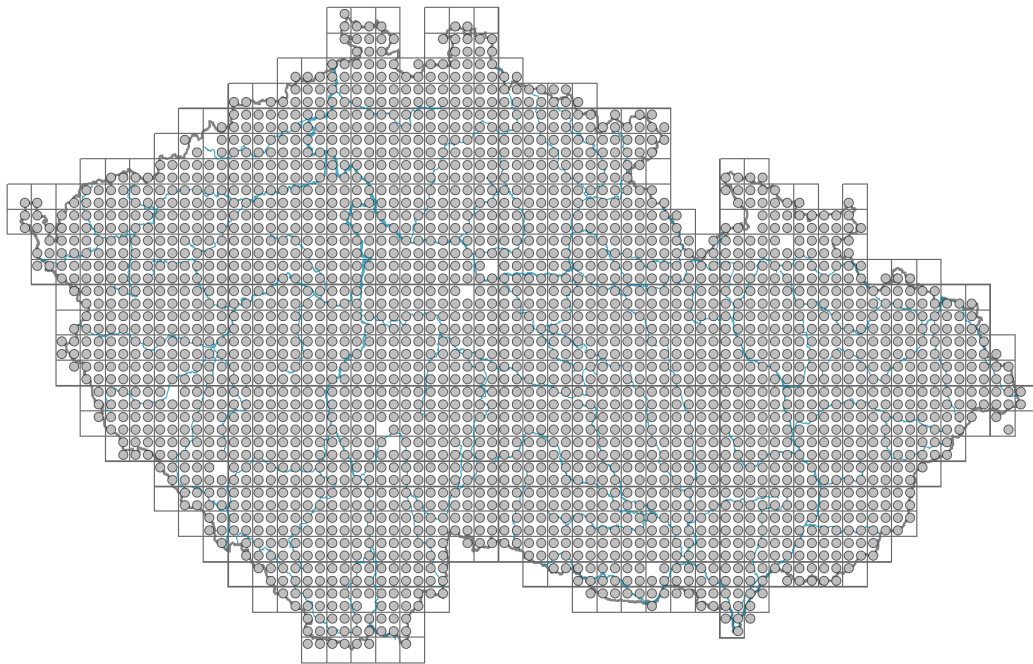


# *Cirsium arvense*

## 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]: **0.4-1.6**

Growth form: **clonal herb**

Life form: **geophyte (hemicryptophyte)**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **80.8 %**

Life strategy (Pierce method, S-score): **0 %**

Life strategy (Pierce method, R-score): **19.2 %**

## 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]: **June-September**

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

Flower colour: **pink**

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: **dioecious, gynodioecious**

Generative reproduction type: **allogamy**

Pollination syndrome: **insect-pollination**

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

### Fruit, seed and dispersal

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

Fruit colour: **yellow, brown**

Reproduction type: **by seed/spores and vegetatively**

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

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

Myrmecochory: **myrmecochorous**

### Belowground organs and clonality

Root metamorphosis: **root shoot**

Type of clonal growth organ: **root with adventitious buds**

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]: **2.8**

Number of clonal offspring: **5.1**

Lateral spreading distance by clonal growth [m]: **0.18**

Clonal index: **6**

Position of root buds: **lateral roots**

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

#### 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): **10**

Number of buds per shoot at a depth greater than 10 cm (root buds excluded): **2**

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

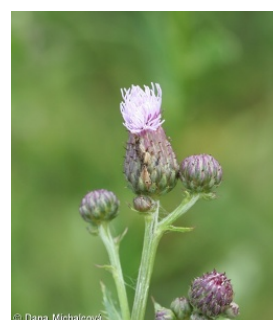
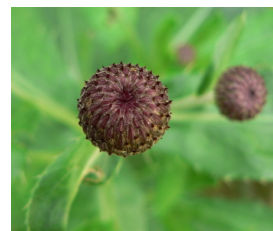
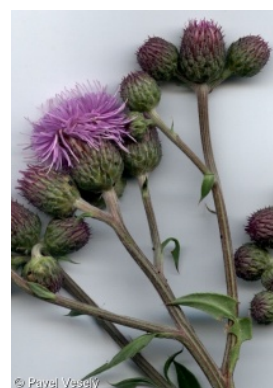
Depth of the belowground bud bank (root buds excluded) [cm]: **5**

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): **18**

Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**

Size of the belowground bud bank (root buds included): **38**



Depth of the belowground bud bank (root buds included) [cm]: **8**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **34**

Ploidy level (x): **2**

2C genome size [Mbp]: **2455.28**

1Cx monoploid genome size [Mbp]: **1227.64**

Genomic GC content: **38.1 %**

## Taxon origin

Origin in the Czech Republic: **archaeophyte**

Invasion status: **invasive**

Geographic origin: **Europe, Asia**

Period of introduction: **Neolithic (5600-4200 BCE)**

Introduction pathway: **unintentional - agriculture, unintentional - anthropogenic**

## 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: **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: **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: **-0.3**

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

Whole-community disturbance severity indicator value: **0.71**

Herb layer disturbance severity indicator value: **0.72**

Whole-community structure based disturbance indicator value: **0.61**

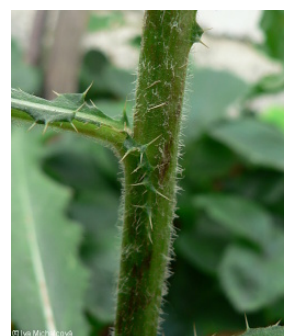
Herb layer structure-based disturbance indicator value: **0.67**

## Habitat and sociology

Occurrence in habitats



- 1 Vegetation of cliffs, screes and walls  
 1C Walls: **1 - rare occurrence**
- 2 Alpine and subalpine grasslands  
 2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**
- 4 Wetland and riverine herbaceous vegetation  
 4A Reed-beds of eutrophic still waters: **1 - rare occurrence**  
 4B Halophilous reed and sedge beds: **1 - rare occurrence**  
 4D Riverine reed vegetation: **1 - rare occurrence**  
 4E Reed vegetation of brooks: **1 - rare occurrence**  
 4G Tall-sedge beds: **1 - rare occurrence**  
 4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**  
 4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**  
 4J River gravel banks: **1 - rare occurrence**  
 4K Petasites fringes of montane brooks: **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**  
 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: **1 - rare occurrence**  
 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 8 Dry grasslands  
 8F Thermophilous forest fringe vegetation: **1 - rare occurrence**
- 9 Sand grasslands and rock-outcrop vegetation  
 9B Open vegetation of acidic sands: **1 - rare occurrence**  
 9C Festuca grasslands on acidic sands: **1 - rare occurrence**  
 9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**
- 10 Saline vegetation  
 10I Inland saline meadows: **2 - optimum**
- 11 Heathlands and scrub  
 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**  
 11L Tall mesic and xeric shrub: **1 - rare occurrence**  
 11N Low xeric scrub: **1 - rare occurrence**  
 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**
- 12 Forests  
 12A Alder carrs: **1 - rare occurrence**  
 12B Alluvial forests: **1 - rare occurrence**  
 12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**  
 12I Sub-continental thermophilous oak forests: **1 - rare occurrence**  
 12T Robinia pseudacacia plantations: **1 - rare occurrence**  
 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**  
 12V Spruce plantations: **1 - rare occurrence**



12W Pine and larch plantations: **1 - rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **3 - dominant**

13B Annual vegetation of arable land: **2 - optimum**

13C Annual vegetation of trampled habitats: **1 - rare occurrence**

13D Perennial thermophilous ruderal vegetation: **3 - dominant**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**

13F Herbaceous vegetation of forests clearings and Rubus scrub: **3 - dominant**

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: [XB Stellarietea mediae](#)

Diagnostic taxon of alliances: [XBA Caucalidion](#), [XBC Scleranthion annui](#)

Diagnostic taxon of associations: [TDE04 Cnidio dubii-Deschampsietum cespitosae](#)

Constant taxon

Constant taxon of classes: [XB Stellarietea mediae](#)

Constant taxon of alliances: [XBA Caucalidion](#), [XBB Veronico-Euphorbion](#), [XBC Scleranthion annui](#), [XBE Oxalidion fontanae](#), [XBF Spergulo arvensis-Erodion cicutariae](#), [XCB Dauco carotae-Melilotion](#)

Constant taxon of associations: [MBB04 Chenopodio chenopodioidis-Atriplicetum prostratae](#), [MCC12 Tripleurospermo inodori-Bolboschoenetum planiculmis](#), [TCB03 Agrostio stoloniferae-Juncetum ranarii](#), [TDE04 Cnidio dubii-Deschampsietum cespitosae](#), [TDE05 Scutellario hastifoliae-Veronicetum longifoliae](#), [XBA01 Caucalido platycarpi-Conringietum orientalis](#), [XBA02 Lathyro tuberosi-Adonidetum aestivalis](#), [XBA03 Euphorbio exiguae-Melandrietum noctiflori](#), [XBA05 Veronicetum hederifolio-triphylli](#), [XBB01 Mercurialietum annuae](#), [XBB02 Veronico-Lamietum hybridi](#), [XBC01 Aphano arvensis-Matricarietum chamomillae](#), [XBC02 Spergulo arvensis-Scleranthetum annui](#), [XBC03 Erophilo vernaе-Arabidopsietum thalianae](#), [XBE01 Echinochloo cruris-galli-Chenopodietum polyspermi](#), [XBF01 Setario pumilae-Echinochloëtum cruris-galli](#), [XBG07 Sisymbrietum loeselii](#), [XBG09 Sisymbrietum altissimi](#), [XBG12 Ivaetum xanthiifoliae](#), [XBK05 Setario pumilae-Hibiscetum trioni](#), [XCB01 Melilotetum albo-officinalis](#), [XCB04 Dauco carotae-Picridetum hieracioidis](#), [XCB05 Poo compressae-Tussilaginetum farfarae](#), [XCB07 Tanaceto vulgaris-Artemisietum vulgaris](#), [XCB08 Artemisio vulgaris-Echinopsietum sphaerocephali](#), [XCB09 Rudbeckio laciniatae-Solidaginetum canadensis](#), [XCC01 Convolvulo arvensis-Elytrigietum repentis](#), [XCC03 Convolvulo arvensis-Brometum inermis](#), [XCE02 Arctietum lappae](#), [XDE04 Chaerophylletum aurei](#), [XDE09 Asteretum lanceolati](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.8**

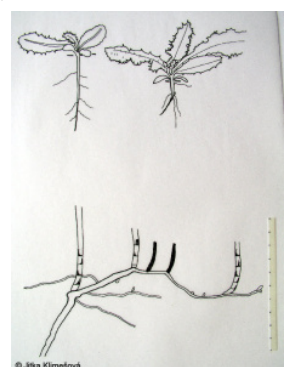
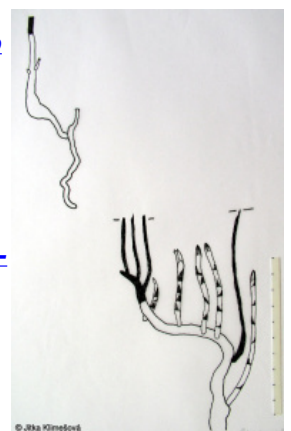
Ecological specialization index for non-forest vegetation: **3.8**

Ecological specialization index for forest vegetation: **3.7**

Colonization ability

Index of colonization success (ICS): **9**

Index of colonization potential (ICP): **6**



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

## Distribution and frequency

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

Floristic region: **Europe, Asia**

Distribution range extension along the continentality gradient: **9**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 666

taxon.data.freq\_in\_quad: 2474

## Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **9.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **11.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.1 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.3 %**

Mean percentage cover in vegetation plots: **3.8 %**

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: **44**

Number of narrow habitats in which the taxon has its optimum: **8**

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

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

## 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**