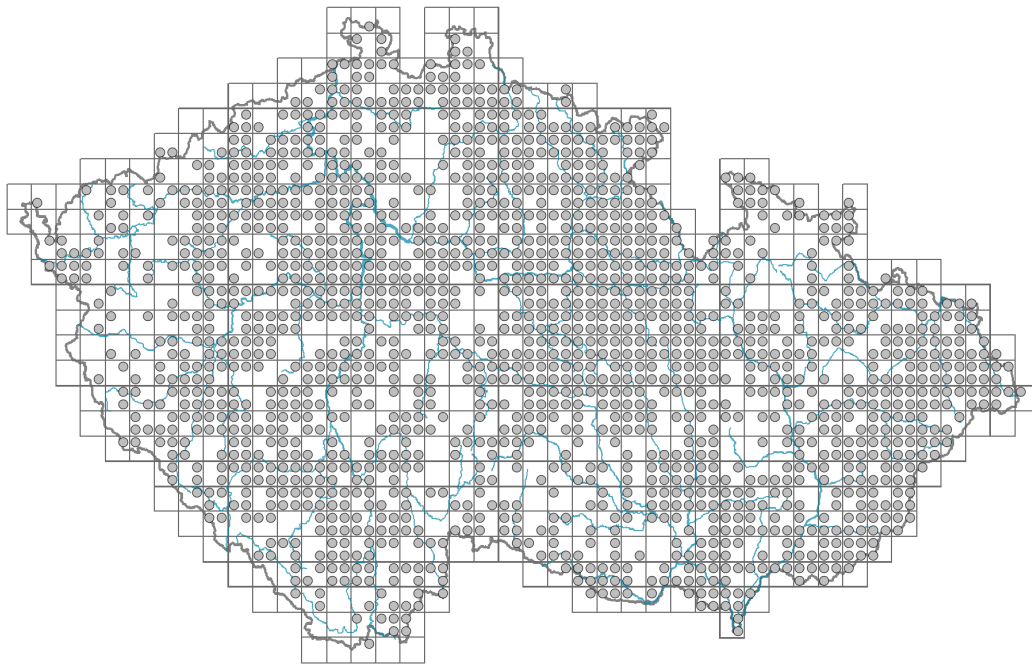


# Sonchus asper

## Distribution

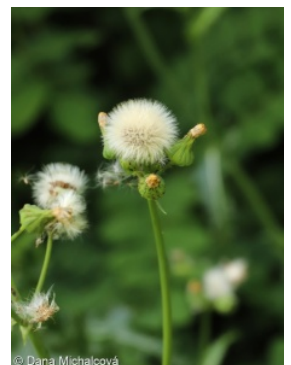


### Map info

● 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]: **0.1-1**

Growth form: **annual herb**

Life form: **therophyte**

Life strategy: **CR - competitor/ruderal**

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

Life strategy (Pierce method, C-score): **62.3 %**

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

Life strategy (Pierce method, R-score): **37.7 %**

## 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: **overwintering green**

Leaf anatomy: **mesomorphic**

## Flower

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

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**

Flower colour: **yellow**

Flower symmetry: **zygomorphic**

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

Perianth fusion: **fused**

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

Calyx fusion: **pappus**

Inflorescence type: **corymbothyrus ex anthodiis compositus**

Dicliny: **synoecious**

Generative reproduction type: **facultative autogamy**

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

Pollinator spectrum: **hoverflies, flies s. l., other Diptera, nitidulids (bumblebees, meat flies s. l., beetles)**



## 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: **probably non-myrmecochorous**



## Belowground organs and clonality

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

Primary root: **present**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **3**

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

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): **3**

Depth of the belowground bud bank (root buds excluded) [cm]: **1**

Number of buds per shoot at the soil surface (root buds included): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **0**

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): **3**

Depth of the belowground bud bank (root buds included) [cm]: **1**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **1342.23**  
1Cx monoploid genome size [Mbp]: **671.12**  
Genomic GC content: **38.9 %**

## 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 - anthropogenic**

## 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: **6 - transition between values 5 and 7**  
Moisture indicator value: **5 - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**  
Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic 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: **0.18**  
Herb layer disturbance frequency indicator value: **0.31**  
Whole-community disturbance severity indicator value: **0.95**  
Herb layer disturbance severity indicator value: **0.95**  
Whole-community structure based disturbance indicator value: **0.73**  
Herb layer structure-based disturbance indicator value: **0.82**

## Habitat and sociology

### Occurrence in habitats

1 Vegetation of cliffs, screes and walls  
1A Calcareous cliffs: **1 - rare occurrence**  
1C Walls: **1 - rare occurrence**  
1D Mobile calcareous screes: **1 - rare occurrence**  
4 Wetland and riverine herbaceous vegetation  
4D Riverine reed vegetation: **1 - rare occurrence**  
4E Reed vegetation of brooks: **1 - rare occurrence**  
4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**  
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

6C Pastures and park grasslands: **1 - rare occurrence**  
6G Vegetation of wet disturbed soils: **1 - rare occurrence**  
10 Saline vegetation  
10I Inland saline meadows: **2 - optimum**  
11 Heathlands and scrub  
11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**  
12 Forests  
12T Robinia pseudacacia plantations: **1 - rare occurrence**  
13 Anthropogenic vegetation  
13A Annual vegetation of ruderal habitats: **2 - optimum**  
13B Annual vegetation of arable land: **2 - optimum**  
13C Annual vegetation of trampled habitats: **1 - rare occurrence**  
13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**  
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: [XB \*Stellarietea mediae\*](#)  
Diagnostic taxon of alliances: [XBA \*Caucalidion\*](#), [XBB \*Veronico-Euphorbion\*](#), [XBE \*Oxalidion fontanae\*](#)  
Diagnostic taxon of associations: [XBA01 \*Caucalido platycarpi-Conringietum orientalis\*](#), [XBA03 \*Euphorbio exiguae-Melandrietum noctiflori\*](#), [XBB02 \*Veronico-Lamietum hybridi\*](#), [XBE01 \*Echinochloo cruris-galli-Chenopodietum polyspermi\*](#)  
Constant taxon  
Constant taxon of alliances: [XBB \*Veronico-Euphorbion\*](#)  
Constant taxon of associations: [XBA03 \*Euphorbio exiguae-Melandrietum noctiflori\*](#), [XBB02 \*Veronico-Lamietum hybridi\*](#)  
Ecological specialization indices  
Ecological specialization index for all vegetation types: **5.6**  
Ecological specialization index for non-forest vegetation: **5.6**  
Colonization ability  
Index of colonization success (ICS): **4**  
Index of colonization potential (ICP): **2**  
Optimum successional age [years]: **5**

## Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional**  
Floristic region: **Europe, Asia**  
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: 599

taxon.data.freq\_in\_quad: 1615

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **4.8 %**

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

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **2.7 %**

Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **19**

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

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

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**