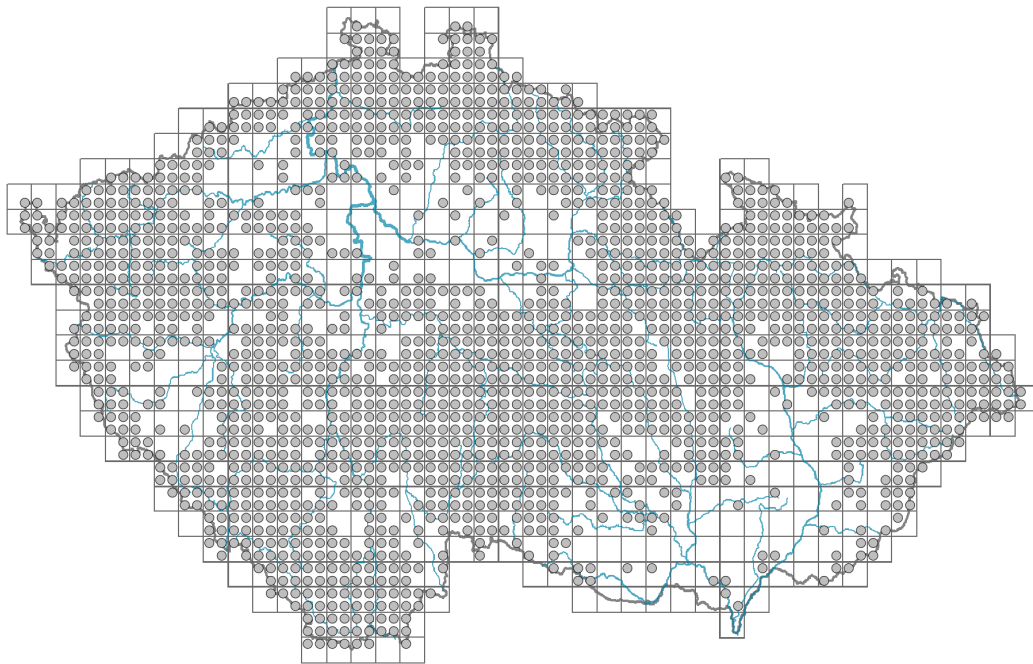


# *Chaerophyllum hirsutum*

## 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]: **0.5-1.2**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **74.4 %**

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

Life strategy (Pierce method, R-score): **25.6 %**



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## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **compound - tripinnate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **hygromorphic**



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## Flower

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

Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**

Flower colour: **white, pink**

Flower symmetry: **actinomorphic, zygomorphic**

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

Perianth fusion: **free**

Inflorescence type: **umbella composita**

Dicliny: **andromonoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **flies s. l. (hoverflies, other Diptera, butterflies)**



## Fruit, seed and dispersal

Fruit type: **dry fruit - cremocarp**

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 (b)**



## Belowground organs and clonality

Shoot metamorphosis: **stolon-like rhizome**

Storage organ: **stolon-like rhizome**

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

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

Shoot life span (cyclicity): **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]: **3.2**

Number of clonal offspring: **4**

Lateral spreading distance by clonal growth [m]: **0.08**

Clonal index: **5**

### 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): **22**

Ploidy level (x): **2**

2C genome size [Mbp]: **6548.33**

1Cx monoploid genome size [Mbp]: **3274.17**

Genomic GC content: **39.3 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**

Temperature indicator value: **4 - transition between values 3 and 5**

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

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: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.38**

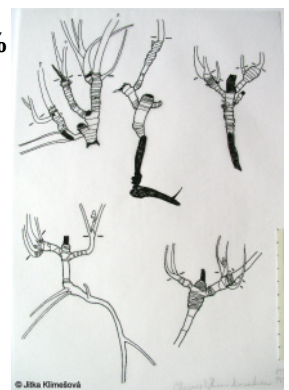
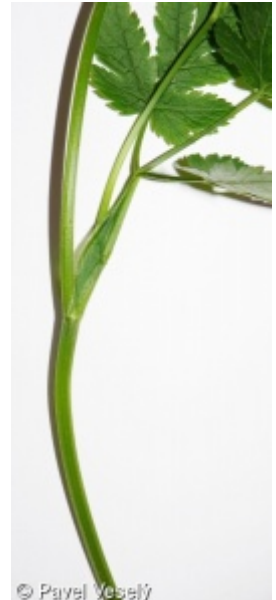
Herb layer disturbance frequency indicator value: **-0.51**

Whole-community disturbance severity indicator value: **0.3**

Herb layer disturbance severity indicator value: **0.29**

Whole-community structure based disturbance indicator value: **0.36**

Herb layer structure-based disturbance indicator value: **0.4**



## Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **3 - dominant**

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **2 - optimum**

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

4G Tall-sedge beds: **1 - rare occurrence**

4J River gravel banks: **1 - rare occurrence**

4K Petasites fringes of montane brooks: **2 - optimum**

4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**

5 Vegetation of springs and mires

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

5B Lowland to montane soft-water springs: **3 - dominant**

5C Alpine and subalpine soft-water springs: **3 - dominant**  
 5D Calcareous fens: **1 - rare occurrence**  
 5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**  
 6 Meadows and mesic pastures  
 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**  
 6B Montane mesic meadows: **2 - optimum**  
 6D Alluvial meadows of lowland rivers: **1 - rare occurrence**  
 6E Wet Cirsium meadows: **2 - optimum**  
 7 Acidophilous grasslands  
 7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**  
 7B Submontane Nardus grasslands: **1 - rare occurrence**  
 10 Saline vegetation  
 10J Saline steppes: **1 - rare occurrence**  
 11 Heathlands and scrub  
 11D Subalpine acidophilous Pinus mugo scrub: **1 - rare occurrence**  
 11H Subalpine deciduous scrub: **2 - optimum**  
 11I Willow carrs: **1 - rare occurrence**  
 11J Willow galleries of loamy and sandy river banks: **2 - optimum**  
 11L Tall mesic and xeric shrub: **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: **2 - optimum**  
 12D Ravine forests: **1 - rare occurrence**  
 12E Herb-rich beech forests: **1 - rare occurrence**  
 12G Acidophilous beech forests: **1 - rare occurrence**  
 12R Acidophilous spruce forests: **1 - rare occurrence**  
 12S Basiphilous spruce forests: **1 - rare occurrence**  
 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**  
 12V Spruce plantations: **1 - rare occurrence**  
 13 Anthropogenic vegetation  
 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: **2.1 - taxon occurring both in the forest and open vegetation**  
 Diagnostic taxon  
 Diagnostic taxon of classes: [RA Montio-Cardaminetea](#)  
 Diagnostic taxon of alliances: [ADD Adenostylion alliariae](#), [LBA Alnion incanae](#), [RAA Caricion remotae](#), [RAD Swertio perennis-Dichodontion palustris](#), [XDB Petasition hybridi](#), [XDF Rumicion alpini](#)  
 Diagnostic taxon of associations: [ADD01 Ranunculo platanifolii-Adenostyletum alliariae](#), [ADD04 Laserpitio archangelicae-Dactylidetum glomeratae](#), [KAB02 Salicetum purpureae](#), [LBA01 Alnetum incanae](#), [LBA03 Carici remotae-Fraxinetum excelsioris](#), [LFC03 Equiseto sylvatici-Piceetum abietis](#), [RAA02](#)

[Cardamino-Chrysosplenietum alternifolii](#), [RAD02 Swertietum perennis](#), [TDF06 Chaerophyllo hirsuti-Calthetum palustris](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#), [XDB01 Petasitetum hybridi](#), [XDB02 Petasitetum hybrido-kablikiani](#), [XDF01 Rumicetum alpini](#)

Constant taxon

Constant taxon of classes: [RA Montio-Cardaminetea](#)

Constant taxon of alliances: [ADD Adenostylion alliariae](#), [RAA Caricion remotae](#), [RAD Swertio perennis-Dichodontion palustris](#), [XDB Petasition hybridi](#), [XDF Rumicion alpini](#)

Constant taxon of associations: [ADC01 Salici silesiacae-Betuletum carpaticae](#), [ADD01 Ranunculo platanifolii-Adenostyletum alliariae](#), [ADD02 Salicetum lapponum](#), [ADD04 Laserpitio archangelicae-Dactylidetum glomeratae](#), [ADD05 Chaerophyllo hirsuti-Cicerbitetum alpinae](#), [KAB02 Salicetum purpureae](#), [LBA01 Alnetum incanae](#), [LBA02 Piceo abietis-Alnetum glutinosae](#), [LBA03 Carici remotae-Fraxinetum excelsioris](#), [LFC03 Equiseto sylvatici-Piceetum abietis](#), [RAA02 Cardamino-Chrysosplenietum alternifolii](#), [RAD01 Crepido paludosae-Philonotidetum seriatum](#), [RAD02 Swertietum perennis](#), [RAD03 Cardaminetum opicii](#), [TDF06 Chaerophyllo hirsuti-Calthetum palustris](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#), [XDB01 Petasitetum hybridi](#), [XDB02 Petasitetum hybrido-kablikiani](#), [XDF01 Rumicetum alpini](#)

Dominant taxon

Dominant taxon of associations: [LBA01 Alnetum incanae](#), [LBA03 Carici remotae-Fraxinetum excelsioris](#), [RAA02 Cardamino-Chrysosplenietum alternifolii](#), [RAD03 Cardaminetum opicii](#), [TDB01 Geranio sylvatici-Trisetetum flavescens](#), [TDF06 Chaerophyllo hirsuti-Calthetum palustris](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#), [XDC03 Arundo vulgaris-Lunarietum redivivae](#), [XDE06 Anthriscus nitidae-Aegopodietum podagrariae](#), [XDF01 Rumicetum alpini](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.5**

Ecological specialization index for non-forest vegetation: **4.6**

Ecological specialization index for forest vegetation: **5.5**

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **1**

Optimum successional age [years]: **7**

## Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **5**

Distribution range extension along the continentality gradient: **3**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **595**

taxon.data.freq\_in\_quad: **1812**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.8 %**

Occurrence frequency in vegetation plots with a cover above 5%: **40.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **16.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **5.4 %**

Mean percentage cover in vegetation plots: **12.5 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **36**

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: **6**

## **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**