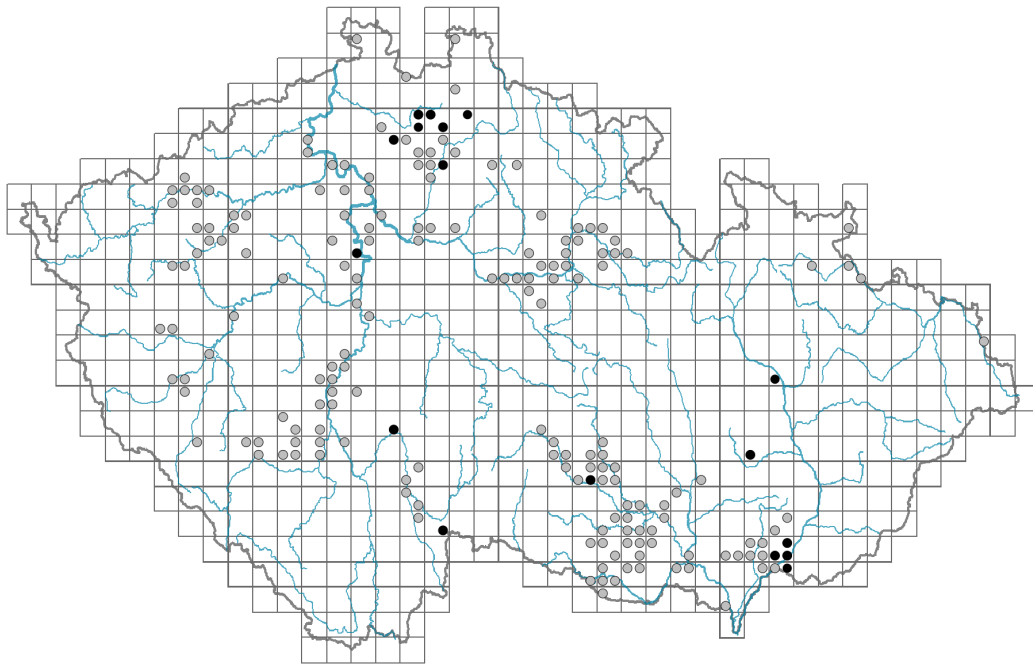


# *Helichrysum arenarium*

## Distribution

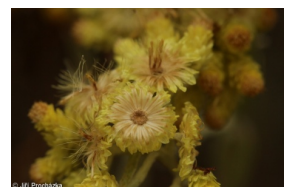


### Map info

● 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]: **0.1-0.4**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

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

Life strategy (Pierce method, C-score): **21.3 %**

Life strategy (Pierce method, S-score): **40.4 %**

Life strategy (Pierce method, R-score): **38.4 %**

## 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**

## Flower

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

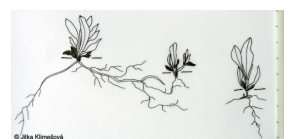
Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**  
 Flower colour: **yellow**  
 Flower symmetry: **actinomorphic**  
 Perianth type: **calyx reduced, corolla present**  
 Perianth fusion: **fused**  
 Shape of the sympetalous corolla or syntepalous perianth: **tubular, filiform**  
 Calyx fusion: **pappus**  
 Inflorescence type: **corymbus ex anthodiis compositus**  
 Dicliny: **gynomonoecious**  
 Pollination syndrome: **insect-pollination, geitonogamy**

## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**  
 Fruit colour: **brown**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **fruit, infrutescence or its part**  
 Dispersal strategy: **Epilobium (mainly anemochory and autochory)**  
 Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**  
 Root metamorphosis: **root shoot**  
 Storage organ: **pleiocorm**  
 Type of clonal growth organ: **root with adventitious buds**  
 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]: **3.6**  
 Number of clonal offspring: **3.7**  
 Lateral spreading distance by clonal growth [m]: **0.12**  
 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): **5**  
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **11**  
 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): **16**  
 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): **19**  
 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): **39**  
 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): **28**

Ploidy level (x): **4**

2C genome size [Mbp]: **1581.56**

1Cx monoploid genome size [Mbp]: **395.39**

Genomic GC content: **37.8 %**

## Taxon origin

Origin in the Czech Republic: **native**

## 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: **6 - transition between values 5 and 7**

Moisture indicator value: **2 - transition between values 1 and 3**

Reaction indicator value: **5 - indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions**

Nutrient indicator value: **2 - transition between values 1 and 3**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.51**

Herb layer disturbance frequency indicator value: **-0.18**

Whole-community disturbance severity indicator value: **0.24**

Herb layer disturbance severity indicator value: **0.28**

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

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

## Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **2 - optimum**

8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**

8E Acidophilous dry grasslands: **1 - rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **2 - optimum**

9C Festuca grasslands on acidic sands: **2 - optimum**

9D Pannonian sand steppes: **2 - optimum**

9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

12 Forests

12J Acidophilous thermophilous oak forests: **1 - rare occurrence**

12K Acidophilous oak forests: **1 - rare occurrence**

12L Boreo-continental pine forests: **1 - rare occurrence**

12W Pine and larch plantations: **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: [TG Festucetea vaginatae](#)

Diagnostic taxon of alliances: [TFC Armerion elongatae](#), [TGA Festucion vaginatae](#)

Diagnostic taxon of associations: [TFA02 Festuco psammophilae-Koelerietum glaucae](#), [TFC02 Erysimo diffusi-Agrostietum capillaris](#), [TGA01 Diantho serotini-Festucetum vaginatae](#), [THA04 Helichryso arenariae-Festucetum pallentis](#)

Constant taxon

Constant taxon of classes: [TG Festucetea vaginatae](#)

Constant taxon of alliances: [TGA Festucion vaginatae](#)

Constant taxon of associations: [TFC02 Erysimo diffusi-Agrostietum capillaris](#), [TGA01 Diantho serotini-Festucetum vaginatae](#), [THA04 Helichryso arenariae-Festucetum pallentis](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.7**

Ecological specialization index for non-forest vegetation: **5.7**

Colonization ability

Index of colonization success (ICS): **1**

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

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continental degree: **8**

Distribution range extension along the continentality gradient: **7**

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: **125**

taxon.data.freq\_in\_quad: **189**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.2 %**

Occurrence frequency in vegetation plots with a cover above 5%: **9.3 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.9 %**

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

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

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: **13**

Number of narrow habitats in which the taxon has its optimum: **4**

Number of broad habitats in which the taxon occurs: **5**

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

### **Threats and protection**

Red List 2017 (national categories): **C2b - endangered taxon, rare and declining**

Red List 2017 (IUCN categories): **EN - endangered**

Legal protection: **endangered taxon**