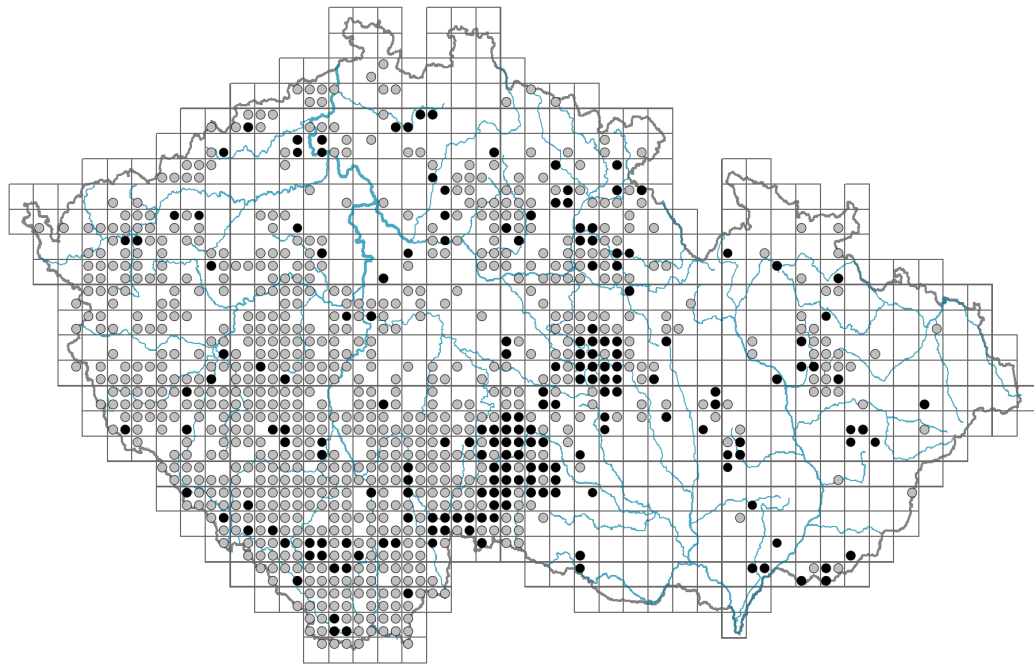


# Scorzonera humilis

## 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.



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## Habitus and growth type

Height [m]: **0.1-0.5**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **61.4 %**

Life strategy (Pierce method, S-score): **1.6 %**

Life strategy (Pierce method, R-score): **37 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate, rosulate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic**

## Flower

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

Flowering phase: **6 Cornus sanguinea-Melica uniflora (start 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: **anthodium solitarium**  
 Dicliny: **synoecious**  
 Generative reproduction type: **alogamy self-incompatibility, facultative alogamy**  
 Pollination syndrome: **insect-pollination, geitonogamy**



## 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: **non-myrmecochorous (b)**



## Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**  
 Root metamorphosis: **primary storage root**  
 Storage organ: **pleiocorm, primary storage root**  
 Shoot life span (cyclicity): **dicyclic or polycyclic shoots prevailing**  
 Branching type of stem-derived organs of clonal growth: **sympodial**  
 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): **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): **14**

Ploidy level (x): **2**

2C genome size [Mbp]: **10883.11**

1Cx monoploid genome size [Mbp]: **5441.55**

Genomic GC content: **40.7 %**

## Taxon origin

Origin in the Czech Republic: **native**

## 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: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **7 - humidity indicator, focus on well moistened, but not wet soils**

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

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.18**

Herb layer disturbance frequency indicator value: **-0.36**

Whole-community disturbance severity indicator value: **0.26**

Herb layer disturbance severity indicator value: **0.27**

Whole-community structure based disturbance indicator value: **0.38**

Herb layer structure-based disturbance indicator value: **0.52**

## Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

5 Vegetation of springs and mires

5D Calcareous fens: **2 - optimum**

5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

6 Meadows and mesic pastures

6B Montane mesic meadows: **1 - rare occurrence**

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

6E Wet Cirsium meadows: **1 - rare occurrence**

6F Intermittently wet Molinia meadows: **2 - optimum**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

7B Submontane Nardus grasslands: **2 - optimum**

11 Heathlands and scrub

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

12 Forests

12C Oak-hornbeam forests: **1 - rare occurrence**

12I Sub-continental thermophilous oak forests: **2 - optimum**

12K Acidophilous oak forests: **2 - optimum**

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

12Q Peatland birch forests: **1 - rare occurrence**

12V Spruce plantations: **1 - rare occurrence**

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

13 Anthropogenic vegetation

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Diagnostic taxon

Diagnostic taxon of alliances: [TDD \*Molinion caeruleae\*](#)

Diagnostic taxon of associations: [TDD01 \*Molinietum caeruleae\*](#), [TDD02 \*Junco effusi-Molinietum caeruleae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **6.2**

Ecological specialization index for non-forest vegetation: **6.5**

Ecological specialization index for forest vegetation: **5**

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**

Continental degree: **5**

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

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 389

taxon.data.freq\_in\_quad: 945

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **8.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.6 %**

Mean percentage cover in vegetation plots: **3.3 %**

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: **18**

Number of narrow habitats in which the taxon has its optimum: **5**

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

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

### **Threats and protection**

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**