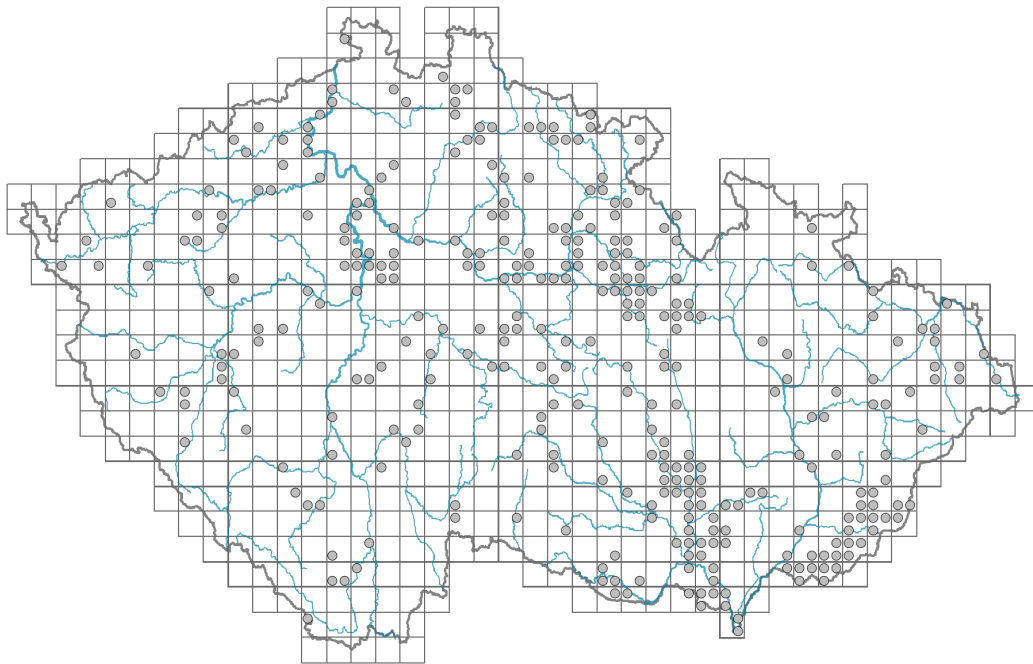


Helianthus annuus

Distribution

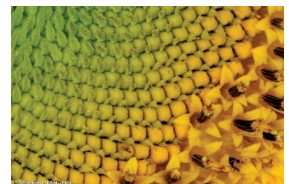


Map info

● 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]: **0.4-4.5**

Growth form: **annual herb**

Life form: **therophyte**

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

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

Life strategy (Pierce method, C-score): **77.3 %**

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

Life strategy (Pierce method, R-score): **22.8 %**

Leaf

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

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

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **present**

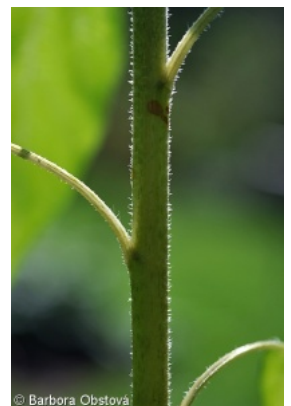
Leaf life span: **summer green**

Leaf anatomy: **mesomorphic**

Flower

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

Flower colour: **yellow**
 Flower symmetry: **actinomorphic, zygomorphic**
 Perianth type: **calyx reduced, corolla present**
 Perianth fusion: **fused**
 Shape of the sympetalous corolla or syntepalous perianth: **ligulate, tubular**
 Calyx fusion: **pappus**
 Inflorescence type: **anthodium solitarium**
 Dicliny: **synoecious**
 Generative reproduction type: **allogamy self-incompatibility**
 Pollination syndrome: **insect-pollination**



Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**
 Fruit colour: **grey, black**
 Reproduction type: **only by seed/spores**
 Dispersal unit (diaspore): **fruit, infrutescence or its part**
 Dispersal strategy: **Allium (mainly autochory)**
 Myrmecochory: **probably non-myrmecochorous nv**

Belowground organs and clonality

Shoot life span (cyclicity): **monocyclic shoots prevailing**
 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): **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): **5**
 Depth of the belowground bud bank (root buds excluded) [cm]: **1**
 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): **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): **5**
 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): **34**
 Ploidy level (x): **2**
 2C genome size [Mbp]: **5965.49**
 1Cx monoploid genome size [Mbp]: **2982.74**
 Genomic GC content: **40.8 %**

Taxon origin

Origin in the Czech Republic: **neophyte**

Invasion status: **casual**

Geographic origin: **North America**

Year of the first record in the wild: **1872**

Period of introduction: **Early Modern Period (1500-1800)**

Introduction pathway: **intentional - ornamental, intentional - crops**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 - rare occurrence**

1C Walls: **1 - rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **2 - optimum**

13B Annual vegetation of arable land: **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**

Distribution and frequency

Floristic zone: **submeridional, meridional**

Floristic region: **Western America**

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: 230

taxon.data.freq_in_quad: 334

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **4**

Number of narrow habitats in which the taxon has its optimum: **1**

Number of broad habitats in which the taxon occurs: **2**

Number of broad habitats in which the taxon has its optimum: **1**

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**