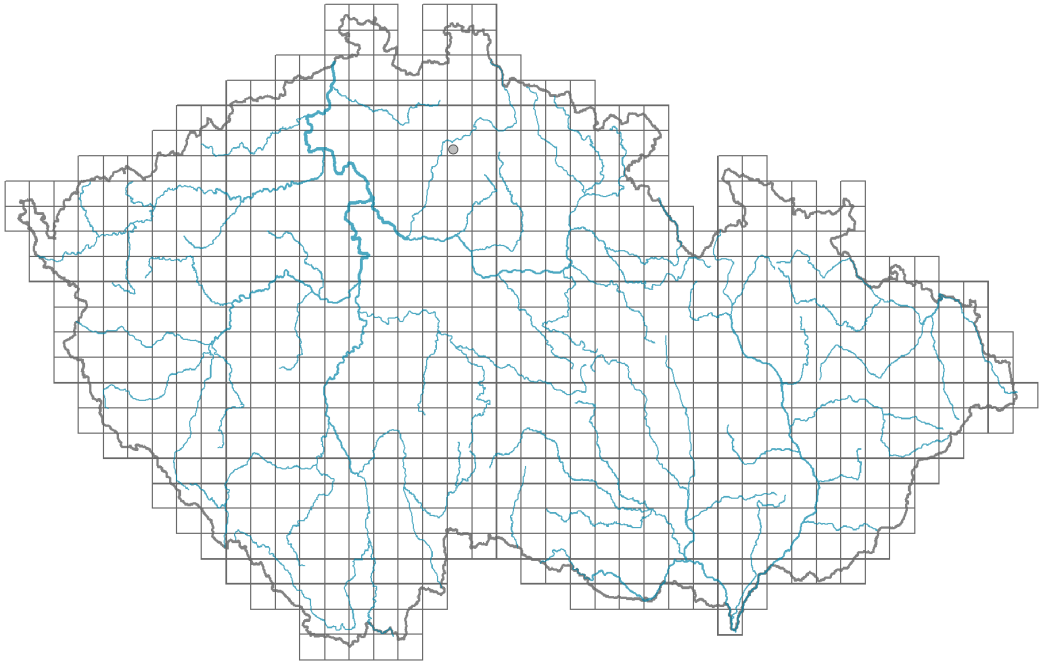
Echinops sphaerocephalus subsp. *sphaerocephalus*

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]: **0.6–2.2**
Growth form: **monocarpic perennial non-clonal herb**
Life form: **hemicryptophyte**
Life strategy: **C – competitor**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – pinnately divided**
Stipules: **absent**
Petiole: **both present and absent**
Leaf life span: **summer green**
Leaf anatomy: **scleromorphic**

Flower

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **white, blue**
Flower symmetry: **actinomorphic**

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Perianth type: **calyx reduced, corolla present**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **tubular**
Calyx fusion: **pappus**
Inflorescence type: **anthella ex capitulis anthodiorum composita**
Dicliny: **synoecious**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **insect-pollination**
Pollinator spectrum: **honeybee, bumblebees, solitary bees**



Fruit, seed and dispersal

Fruit type: **dry fruit – achene/cypsela/samara**
Fruit colour: **yellow, brown**
Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **fruit, infrutescence or its part**
Dispersal strategy: **Bidens (mainly autochory and epizoochory)**
Myrmecochory: **probably myrmecochorous**



Belowground organs and clonality

Root metamorphosis: **primary storage root**
Storage organ: **primary storage root**
Shoot life span (cyclicity): **dicyclic or polycyclic 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): **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 exluded) [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): **32**
Ploidy level (x): **4**
2C genome size [Mbp]: **6948.16**
1Cx monoploid genome size [Mbp]: **1737.04**



Genomic GC content: **41 %**



Taxon origin

Origin in the Czech Republic: **neophyte**
Invasion status: **invasive**
Geographic origin: **Europe, Mediterranean**
Year of the first record in the wild: **1802**
Period of introduction: **Late Modern Period (1800–1950)**
Introduction pathway: **intentional – nature, intentional – other, unintentional – anthropogenic**



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: **7 – heat indicator, occurring in relatively warm lowlands**
Moisture indicator value: **4 – transition between values 3 and 5**
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: **-0.37**
Herb layer disturbance frequency indicator value: **-0.37**
Whole-community disturbance severity indicator value: **0.62**
Herb layer disturbance severity indicator value: **0.62**
Whole-community structure based disturbance indicator value: **0.46**
Herb layer structure-based disturbance indicator value: **0.48**

Habitat and sociology



Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

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

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**

8 Dry grasslands

8C Narrow-leaved sub-continental steppes: **1 – rare occurrence**
8D Broad-leaved dry grasslands: **1 – rare occurrence**

10 Saline vegetation

10I Inland saline meadows: **1 – rare occurrence**

11 Heathlands and scrub

11N Low xeric scrub: **1 – rare occurrence**

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13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **1 – rare occurrence**

13D Perennial thermophilous ruderal vegetation: **2 – optimum**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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 alliances: **XCB *Dauco carotae-Melilotion***

Diagnostic taxon of associations: **XBG12 *Ivaetum xanthiifoliae***, **XCB08 *Artemisio vulgaris-Echinopsietum sphaerocephali***

Constant taxon

Constant taxon of associations: **XCB08 *Artemisio vulgaris-Echinopsietum sphaerocephali***

Dominant taxon

Dominant taxon of associations: **XCB08 *Artemisio vulgaris-Echinopsietum sphaerocephali***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.1**

Ecological specialization index for non-forest vegetation: **4**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **9**

Optimum successional age [years]: **16**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continentality degree: **6**

Distribution range extension along the continentality gradient: **6**

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: 453

taxon.data.freq_in_quad: 1007

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **57.1 %**

Occurrence frequency in vegetation plots with a cover above 25%: **50.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **23.8 %**

Mean percentage cover in vegetation plots: **27.8 %**

Maximum percentage cover in vegetation plots: **88 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **9**

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

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Number of broad habitats in which the taxon occurs: **6**
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**

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