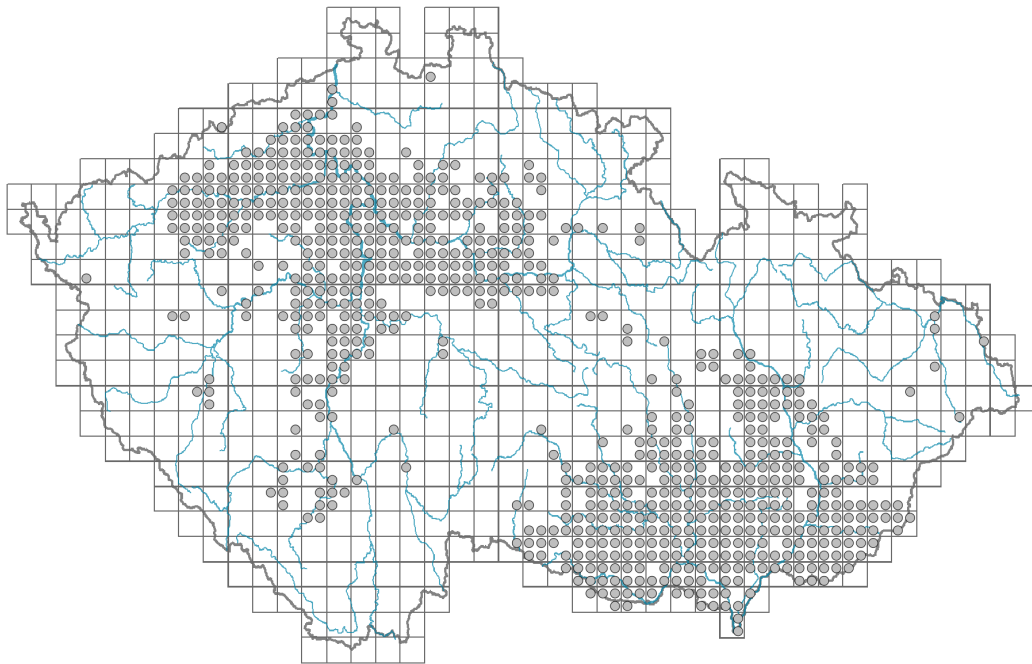


# *Eryngium campestre*

## 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]: **0.3-0.6**

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

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **84.1 %**

Life strategy (Pierce method, S-score): **15.9 %**

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

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire, simple - pinnately divided**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic**

## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **white, green-white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **aposepalous**

Inflorescence type: **umbrella composita**

Dicliny: **andromonoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **solitary bees, beetles (butterflies)**



## Fruit, seed and dispersal

Fruit type: **dry fruit - cremocarp**

Fruit colour: **brown**

Reproduction type: **only by seed/spores**

Dispersal unit (diaspore): **fruit, infructescence or its part, tumbleweed**

Dispersal strategy: **Bidens (mainly autochory and epizoochory)**

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 (cyclicality): **dicyclic or polycyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **present**

Position of root buds: **primary root**

Role of root buds in life-history of a plant: **regenerative**

## 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): **20**

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): **40**

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 (14)**

Ploidy level (x): **4 (2)**

2C genome size [Mbp]: **2921.52**

1Cx monoploid genome size [Mbp]: **730.38**

Genomic GC content: **36.5 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **9 - full light plant, occurring only in fully irradiated places, not at less than 50% of diffuse radiation incident in an open area**

Temperature indicator value: **7 - heat indicator, occurring in relatively warm lowlands**

Moisture indicator value: **3 - missing on damp soil**

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic 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: **-0.43**

Herb layer disturbance frequency indicator value: **-0.3**

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

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

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.63**

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1D Mobile calcareous screes: **1 - rare occurrence**

6 Meadows and mesic pastures

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

6C Pastures and park grasslands: **1 - rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**

8C Narrow-leaved sub-continental steppes: **2 - optimum**

8D Broad-leaved dry grasslands: **2 - optimum**

8E Acidophilous dry grasslands: **2 - optimum**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**



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## 9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**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**9F Basiphilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

## 11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**11L Tall mesic and xeric shrub: **1 - rare occurrence**11N Low xeric scrub: **2 - optimum**

## 12 Forests

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**12J Acidophilous thermophilous oak forests: **1 - rare occurrence**12T Robinia pseudacacia plantations: **1 - rare occurrence**12W Pine and larch plantations: **1 - rare occurrence**

## 13 Anthropogenic vegetation

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

## 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: [TH Festuco-Brometea](#)Diagnostic taxon of alliances: [THD Festucion valesiaca](#), [THG Koelerio-Phleion phleoidis](#)Diagnostic taxon of associations: [TFC02 Erysimo diffusum-Agrostietum capillaris](#), [THA04 Helichryso arenarii-Festucetum pallentis](#), [THD01 Festuco valesiaca-Stipetum capillata](#), [THD06 Astragalo exscapi-Crambetum tatariae](#), [THG02 Avenulo pratensis-Festucetum valesiaca](#), [XCA02 Salvia nemorosae-Marrubietum peregrini](#)

## Constant taxon

Constant taxon of alliances: [THD Festucion valesiaca](#), [THG Koelerio-Phleion phleoidis](#), [XCD Artemisio-Kochion prostratae](#)Constant taxon of associations: [SCA03 Teucrio botryos-Melicetum ciliatae](#), [TFC02 Erysimo diffusum-Agrostietum capillaris](#), [THA04 Helichryso arenarii-Festucetum pallentis](#), [THD01 Festuco valesiaca-Stipetum capillata](#), [THD03 Festuco rupicola-Caricetum humilis](#), [THD04 Koelerio macranthae-Stipetum joannis](#), [THD06 Astragalo exscapi-Crambetum tatariae](#), [THG01 Potentillo heptaphyllae-Festucetum rupicola](#), [THG02 Avenulo pratensis-Festucetum valesiaca](#), [XCA02 Salvia nemorosae-Marrubietum peregrini](#), [XCD01 Agropyro cristati-Kochietum prostratae](#)

## Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**Ecological specialization index for non-forest vegetation: **4.9**Ecological specialization index for forest vegetation: **4.3**

## Colonization ability

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

Index of colonization potential (ICP): **5**

Optimum successional age [years]: **40**

## Distribution and frequency

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

Floristic region: **Europe**

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

Elevational belt in the Czech Republic: **lowlands, colline belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **278**

taxon.data.freq\_in\_quad: **729**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.8 %**

Occurrence frequency in vegetation plots with a cover above 5%: **6.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.9 %**

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

Mean percentage cover in vegetation plots: **2.9 %**

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: **22**

Number of narrow habitats in which the taxon has its optimum: **7**

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): **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**