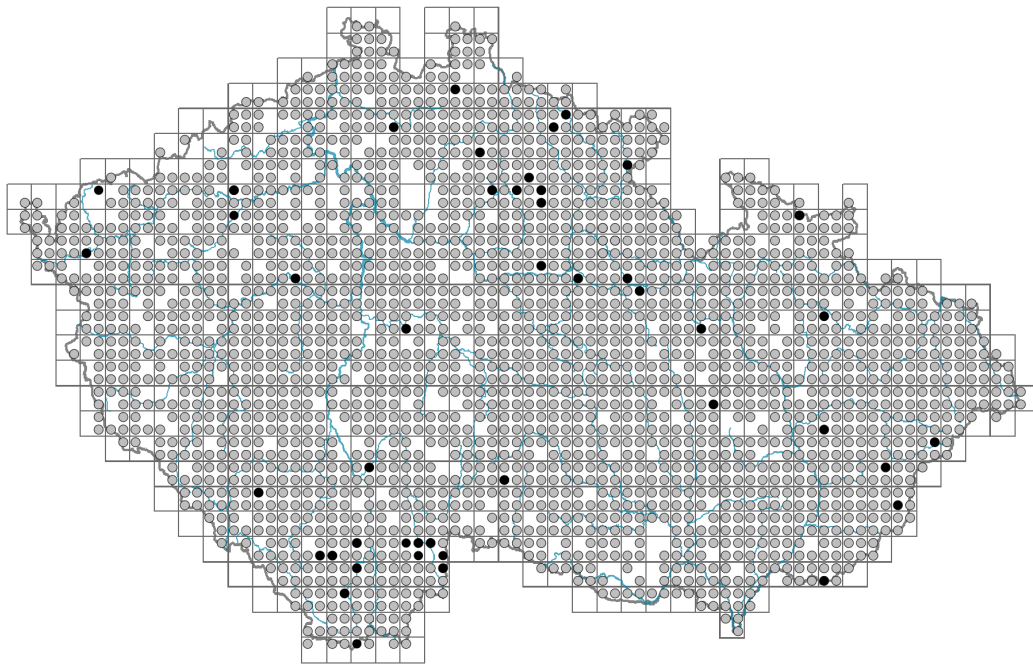


# *Equisetum arvense*

## 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.

## Habitus and growth type

Height [m]: **0.1-0.7**

Growth form: **clonal herb**

Life form: **geophyte**

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

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

Life strategy (Pierce method, C-score): **14.7 %**

Life strategy (Pierce method, S-score): **63.8 %**

Life strategy (Pierce method, R-score): **21.5 %**



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## Leaf

Leaf presence and metamorphosis: **leaves reduced to sheaths**

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - entire**

Stipules: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, helomorphic**



© Vladimír Motýčka

## Flower

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

Dicliny: **dioecious, androdioecious**

## Fruit, seed and dispersal

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **spore**

Dispersal strategy: **Lycopodium (mainly anemochory)**

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

## Belowground organs and clonality

Shoot metamorphosis: **stolon, shoot tuber**

Storage organ: **stolon, shoot tuber**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **monocyclic shoots prevailing**

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

Primary root: **absent**

Persistence of the clonal growth organ [year]: **3.5**

Number of clonal offspring: **3.8**

Lateral spreading distance by clonal growth [m]: **0.27**

Clonal index: **6**

### 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): **15**

Size of the belowground bud bank (root buds excluded): **35**

Depth of the belowground bud bank (root buds excluded) [cm]: **9**

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): **15**

Size of the belowground bud bank (root buds included): **35**

Depth of the belowground bud bank (root buds included) [cm]: **9**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Karyology

Chromosome number (2n): **216**

Ploidy level (x): **2**

2C genome size [Mbp]: **24730.44**

1Cx monoploid genome size [Mbp]: **12365.22**

Genomic GC content: **42.6 %**

## Taxon origin

Origin in the Czech Republic: **native**



## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **6x** - **transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area (generalist)**

Temperature indicator value: **5x** - **moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

Moisture indicator value: **6x** - **transition between values 5 and 7 (generalist)**

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

Nutrient indicator value: **5** - **occurring at moderately nutrient-rich sites, and less frequently at poor and rich 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: **-0.94**

Herb layer disturbance frequency indicator value: **-0.35**

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

Herb layer disturbance severity indicator value: **0.52**

Whole-community structure based disturbance indicator value: **0.5**

Herb layer structure-based disturbance indicator value: **0.58**

## Habitat and sociology

### Occurrence in habitats

#### 2 Alpine and subalpine grasslands

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

#### 3 Aquatic vegetation

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

#### 4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4B Halophilous reed and sedge beds: **1 - rare occurrence**

4D Riverine reed vegetation: **1 - rare occurrence**

4E Reed vegetation of brooks: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**

4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**

4J River gravel banks: **1 - rare occurrence**

4K Petasites fringes of montane brooks: **1 - rare occurrence**

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

#### 5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 - rare occurrence**

5B Lowland to montane soft-water springs: **1 - rare occurrence**

5C Alpine and subalpine soft-water springs: **1 - rare occurrence**

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

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

5F Transitional mires: **1 - rare occurrence**



## 6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 - optimum**

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

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

6D Alluvial meadows of lowland rivers: **2 - optimum**

6E Wet Cirsium meadows: **2 - optimum**

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

6G Vegetation of wet disturbed soils: **2 - optimum**

## 7 Acidophilous grasslands

7B Submontane Nardus grasslands: **1 - rare occurrence**

## 8 Dry grasslands

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

8D Broad-leaved dry grasslands: **1 - rare occurrence**

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

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

## 9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**

9C Festuca grasslands on acidic sands: **1 - rare occurrence**

## 10 Saline vegetation

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

## 11 Heathlands and scrub

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

11H Subalpine deciduous scrub: **1 - rare occurrence**

11I Willow carrs: **1 - rare occurrence**

11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

11L Tall mesic and xeric shrub: **1 - rare occurrence**

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

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

## 12 Forests

12A Alder carrs: **2 - optimum**

12B Alluvial forests: **2 - optimum**

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

12D Ravine forests: **1 - rare occurrence**

12E Herb-rich beech forests: **1 - rare occurrence**

12F Limestone beech forests: **1 - rare occurrence**

12I Sub-continental thermophilous oak forests: **1 - rare occurrence**

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

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

12R Acidophilous spruce forests: **1 - rare occurrence**

12S Basiphilous spruce forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

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

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

## 13 Anthropogenic vegetation

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

13B Annual vegetation of arable land: **2 - optimum**

13C Annual vegetation of trampled habitats: **1 - rare occurrence**

13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**

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

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Constant taxon

Constant taxon of associations: [LAA03 \*Carici acutiformis-Alnetum glutinosae\*](#), [RBA02 \*Carici flavae-Cratoneuretum filicini\*](#), [TDE04 \*Cnidio dubii-Deschampsietum cespitosae\*](#), [TDF02 \*Cirsietum rivularis\*](#)

Dominant taxon

Dominant taxon of associations: [XDC04 \*Carici pendulae-Eupatorietum cannabini\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.7**

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

Ecological specialization index for forest vegetation: **5.3**

Colonization ability

Index of colonization success (ICS): **7**

Index of colonization potential (ICP): **4**

Optimum successional age [years]: **15**

## Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **9**

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: **654**

taxon.data.freq\_in\_quad: **2214**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.3 %**

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

Occurrence frequency in vegetation plots with a cover above 25%: **0.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**

Mean percentage cover in vegetation plots: **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: **60**

Number of narrow habitats in which the taxon has its optimum: **9**

Number of broad habitats in which the taxon occurs: **12**

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**