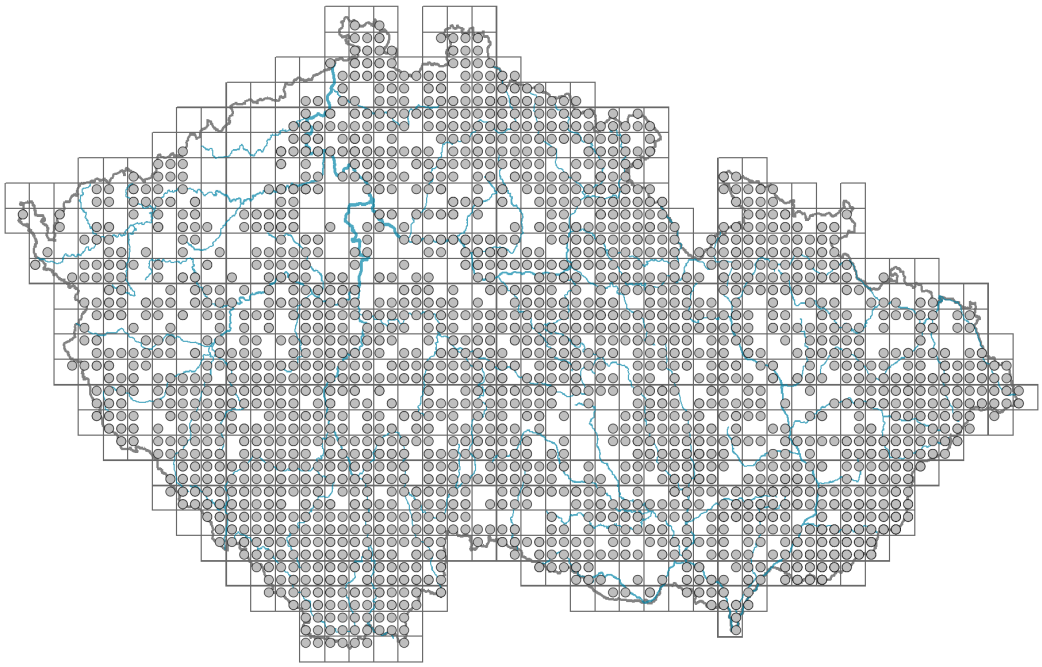
Epipactis helleborine agg.

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]: **0.07–0.9**
Growth form: **clonal herb**
Life form: **geophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **S/CSR**
Life strategy (Pierce method, C-score): **23.9 %**
Life strategy (Pierce method, S-score): **46.2 %**
Life strategy (Pierce method, R-score): **30 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **absent**
Leaf life span: **summer green**
Leaf anatomy: **mesomorphic, hygromorphic**

Flower

Flowering period [month]: **July–September**

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **green-white, green, yellow-green, pink**
Flower symmetry: **zygomorphic**
Perianth type: **homochlamydeous**
Perianth fusion: **free**
Inflorescence type: **spica**
Dicliny: **synoecious**
Generative reproduction type: **facultative allogamy, autogamy**
Pollination syndrome: **insect-pollination, selfing, cleistogamy**

Fruit, seed and dispersal

Fruit type: **dry fruit – capsule**
Reproduction type: **by seed/spores and vegetatively**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Lycopodium (mainly anemochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**
Storage organ: **rhizome**
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: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **4**
Number of clonal offspring: **1**
Lateral spreading distance by clonal growth [m]: **0.02**

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: **partial or initial mycoheterotroph**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **40**
Ploidy level (x): **2**
2C genome size [Mbp]: **23099.76**
1Cx monoploid genome size [Mbp]: **11549.88**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

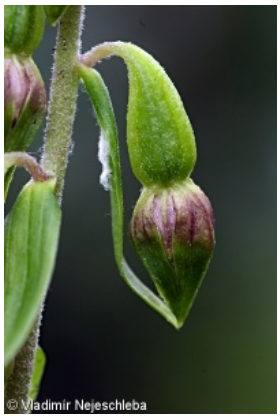
Ellenberg-type indicator values

Light indicator value: **4 – transition between values 3 and 5**
Temperature indicator value: **5 – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**
Moisture indicator value: **5 – indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**
Reaction indicator value: **7 – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**
Nutrient indicator value: **5 – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.95**
Herb layer disturbance frequency indicator value: **-0.75**
Whole-community disturbance severity indicator value: **0.23**
Herb layer disturbance severity indicator value: **0.07**
Whole-community structure based disturbance indicator value: **0.13**
Herb layer structure-based disturbance indicator value: **0.26**

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

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

7 Acidophilous grasslands

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

8 Dry grasslands

8D Broad-leaved dry grasslands: **1 – rare occurrence**
8F Thermophilous forest fringe vegetation: **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: **1 – rare occurrence**

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

12 Forests

12B Alluvial forests: **2 – optimum**
12C Oak-hornbeam forests: **2 – optimum**
12D Ravine forests: **1 – rare occurrence**
12E Herb-rich beech forests: **2 – optimum**
12F Limestone beech forests: **2 – optimum**
12G Acidophilous beech forests: **1 – rare occurrence**
12H Peri-Alpidic basiphilous thermophilous oak forests: **2 – optimum**
12I Sub-continental thermophilous oak forests: **1 – rare occurrence**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12K Acidophilous oak forests: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **1 – rare occurrence**
12V Spruce plantations: **2 – optimum**
12W Pine and larch plantations: **2 – optimum**

13 Anthropogenic vegetation

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

Diagnostic taxon

Diagnostic taxon of alliances: **LBD *Sorbo-Fagion sylvaticae***
Diagnostic taxon of associations: **LBD01 *Cephalanthero damasonii-Fagetum sylvaticae***

Constant taxon

Constant taxon of alliances: **LBD *Sorbo-Fagion sylvaticae***
Constant taxon of associations: **LBD01 *Cephalanthero damasonii-Fagetum sylvaticae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.5**
Ecological specialization index for non-forest vegetation: **3.9**
Ecological specialization index for forest vegetation: **4.9**

Distribution and frequency

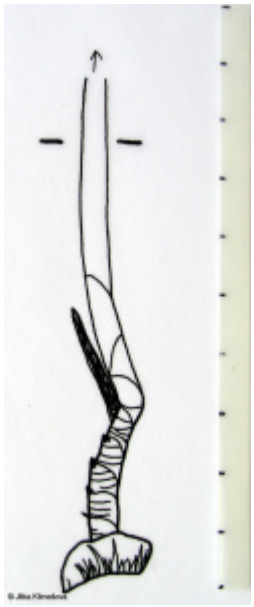
Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Asia**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 620
taxon.data.freq_in_quad: 1825

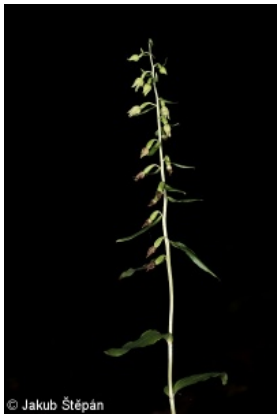
Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.4 %**
Occurrence frequency in vegetation plots with a cover above 5%: **1.5 %**
Occurrence frequency in vegetation plots with a cover above 25%: **0 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0 %**
Mean percentage cover in vegetation plots: **1.8 %**
Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **23**
Number of narrow habitats in which the taxon has its optimum: **8**
Number of broad habitats in which the taxon occurs: **7**
Number of broad habitats in which the taxon has its optimum: **2**






© Vladimír Nejeschleba


© Vladimír Nejeschleba


© Vladimír Nejeschleba


© Ondřej Pánčík