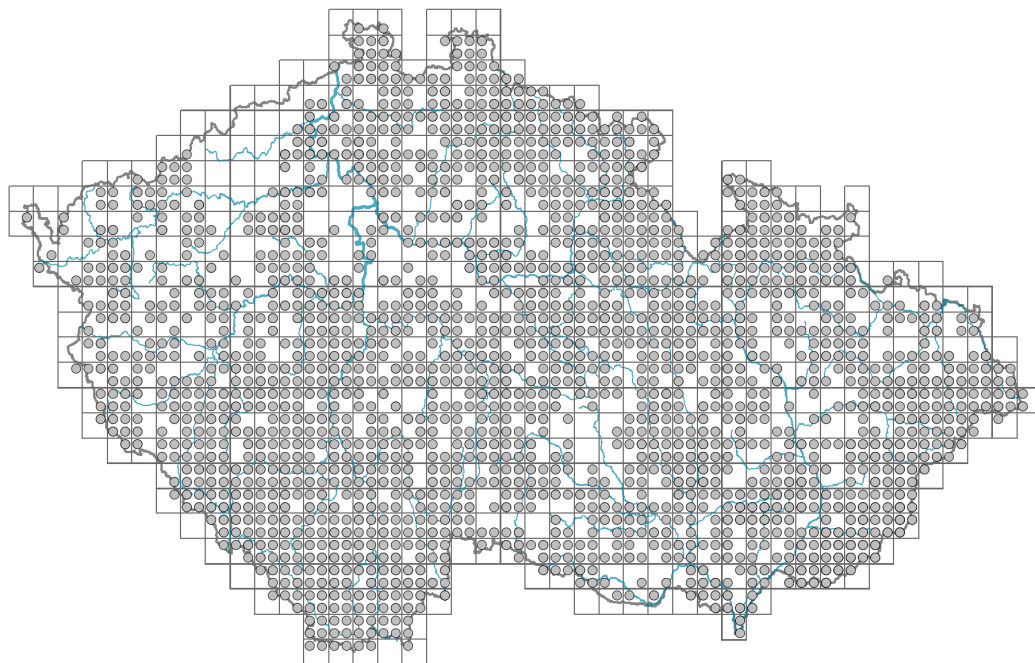


# *Epipactis helleborine* agg.

## 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]: **0.07-0.9**

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**

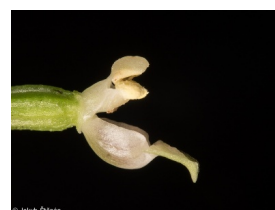
Leaf anatomy: **mesomorphic, hygromorphic**

## Flower

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



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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 (cyclicality): **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 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): **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**

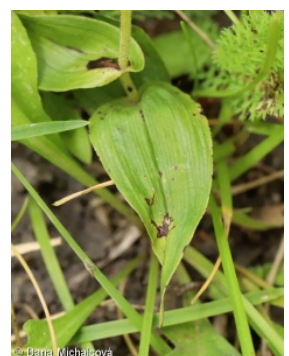
Depth of the belowground bud bank (root buds included) [cm]: **4**

## 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**

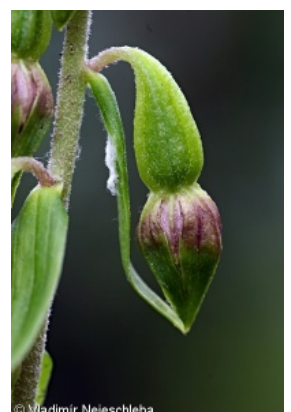
8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

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**



