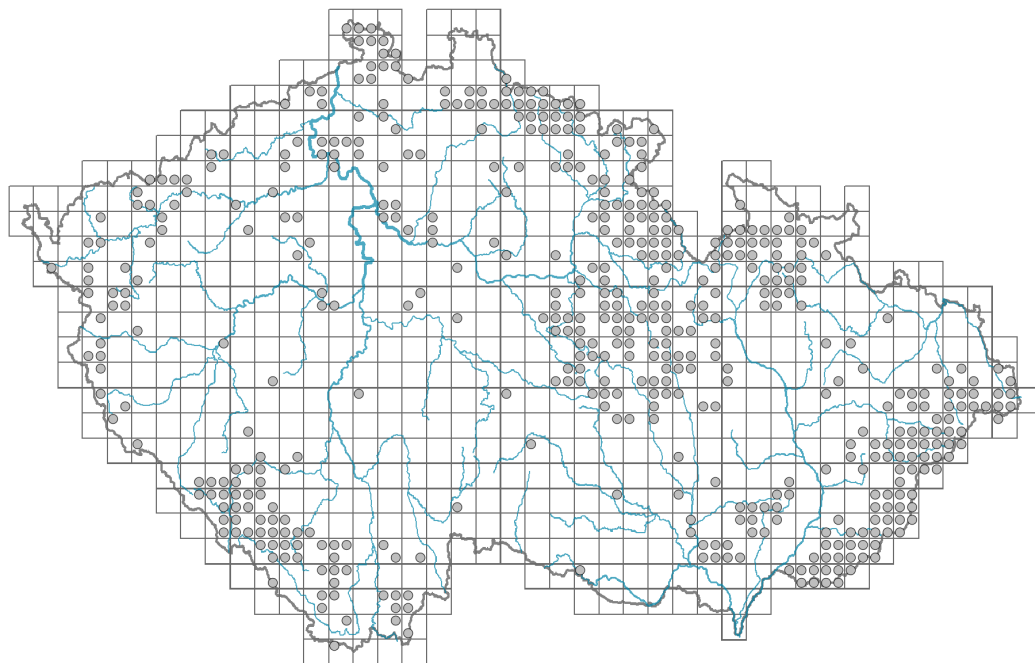


# *Gymnadenia conopsea*

## 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]: **0.25-0.7**

Growth form: **clonal herb**

Life form: **geophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

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

Life strategy (Pierce method, C-score): **56.6 %**

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

Life strategy (Pierce method, R-score): **43.4 %**

## 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**

## Flower

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



Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**  
 Flower colour: **pink, red-violet**  
 Flower symmetry: **zygomorphic**  
 Perianth type: **homochlamydeous**  
 Perianth fusion: **free**  
 Inflorescence type: **spica**  
 Dicliny: **synoecious**  
 Generative reproduction type: **facultative allogamy**  
 Pollination syndrome: **insect-pollination**



### Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**  
 Fruit colour: **green, brown**  
 Reproduction type: **only by seed/spores**  
 Dispersal unit (diaspore): **seed**  
 Dispersal strategy: **Lycopodium (mainly anemochory)**  
 Myrmecochory: **non-myrmecochorous (b)**



### Belowground organs and clonality

Root metamorphosis: **root tuber**  
 Storage organ: **root tuber**  
 Type of clonal growth organ: **root tuber**  
 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]: **1**  
 Number of clonal offspring: **1.6**  
 Lateral spreading distance by clonal growth [m]: **0.01**  
 Clonal index: **3**  
 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): **5**  
 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): **10**  
 Depth of the belowground bud bank (root buds excluded) [cm]: **3**  
 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): **5**  
 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): **10**  
 Depth of the belowground bud bank (root buds included) [cm]: **3**



### Trophic mode

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

## Karyology

Chromosome number (2n): **40, 80 (100)**

Ploidy level (x): **2, 4 (5)**

2C genome size [Mbp]: **13261.3**

1Cx monoploid genome size [Mbp]: **3315.33**

Genomic GC content: **45.1 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **7 - half-light plant, mostly occurring at full light, but also in the shade up to about 30% of diffuse radiation incident in an open area**

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

Moisture indicator value: **6 - transition between values 5 and 7**

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: **-0.56**

Herb layer disturbance frequency indicator value: **-0.39**

Whole-community disturbance severity indicator value: **0.24**

Herb layer disturbance severity indicator value: **0.27**

Whole-community structure based disturbance indicator value: **0.62**

Herb layer structure-based disturbance indicator value: **0.78**

## Habitat and sociology

Occurrence in habitats

5 Vegetation of springs and mires

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

5D Calcareous fens: **1 - rare occurrence**

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

6 Meadows and mesic pastures

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

6B Montane mesic meadows: **2 - optimum**

6F Intermittently wet Molinia meadows: **1 - rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **2 - optimum**

7B Submontane Nardus grasslands: **2 - optimum**

8 Dry grasslands



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

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

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

11 Heathlands and scrub

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

12 Forests

12O Peri-Alpidic pine forests: **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: [TEB \*Nardo strictae-Agrostion tenuis\*](#)

Diagnostic taxon of associations: [TEA02 \*Thesio alpini-Nardetum strictae\*](#), [TEB01 \*Sileno vulgaris-Nardetum strictae\*](#), [THF02 \*Brachypodio pinnati-Molinietum arundinaceae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.2**

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

## Distribution and frequency

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

Floristic region: **Europe, Asia**

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

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: **259**

taxon.data.freq\_in\_quad: **503**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **2.4 %**

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: **2.2 %**

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: **13**

Number of narrow habitats in which the taxon has its optimum: **4**

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

Number of broad habitats in which the taxon has its optimum: **3**

## Threats and protection

Red List 2017 (national categories): **C2t - endangered taxon, declining**



Red List 2017 (IUCN categories): **EN - endangered**

Legal protection: **vulnerable taxon**



