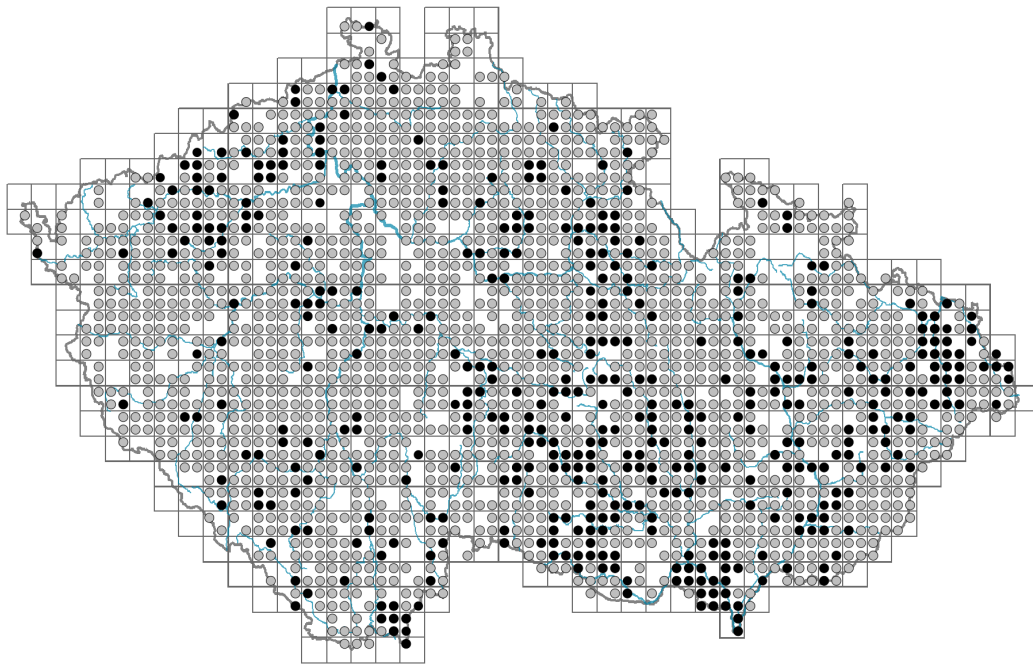


# *Astragalus glycyphyllos*

## 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.



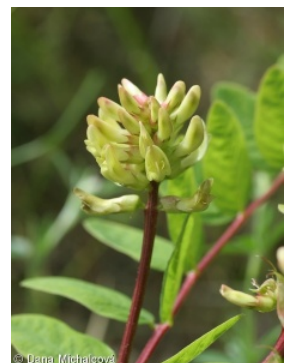
Janek Štěpán



Pavel Veselý



Ondřej Hájek



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## Habitus and growth type

Height [m]: **0.6-1.5**

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

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **34.7 %**

Life strategy (Pierce method, S-score): **33.9 %**

Life strategy (Pierce method, R-score): **31.4 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **compound - imparipinnate**

Stipules: **present**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic**

## Flower

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

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

Flower colour: **yellow-white**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **synsepalous**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**



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## Fruit, seed and dispersal

Fruit type: **dry fruit - legume**

Fruit colour: **brown**

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

Dispersal unit (diaspore): **seed**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **probably non-myrmecochorous**



© Jana Pospišková



© Dana Michalčová

## Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**

Storage organ: **pleiocorm**

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

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

Primary root: **present**

### Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **10**

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): **25**

Depth of the belowground bud bank (root buds excluded) [cm]: **3**

Number of buds per shoot at the soil surface (root buds included): **10**

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): **25**

Depth of the belowground bud bank (root buds included) [cm]: **3**



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## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **symbiosis with rhizobia**

## Karyology

Chromosome number (2n): **16**

Ploidy level (x): **2**



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2C genome size [Mbp]: **1400.12**  
 1Cx monoploid genome size [Mbp]: **700.06**  
 Genomic GC content: **39.9 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

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

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

Moisture indicator value: **4 - transition between values 3 and 5**

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

Nutrient indicator value: **4 - transition between values 3 and 5**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.73**

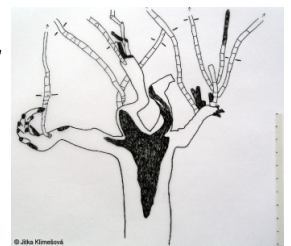
Herb layer disturbance frequency indicator value: **-0.64**

Whole-community disturbance severity indicator value: **0.3**

Herb layer disturbance severity indicator value: **0.21**

Whole-community structure based disturbance indicator value: **0.17**

Herb layer structure-based disturbance indicator value: **0.22**



## 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**

7 Acidophilous grasslands

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

8 Dry grasslands

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

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: **2 - optimum**

11 Heathlands and scrub

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

- 12C Oak-hornbeam forests: **2 - optimum**
- 12D Ravine forests: **1 - rare occurrence**
- 12E Herb-rich beech forests: **1 - rare occurrence**
- 12F Limestone beech forests: **2 - optimum**
- 12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**
- 12I Sub-continental thermophilous oak forests: **2 - optimum**
- 12J Acidophilous thermophilous oak forests: **2 - optimum**
- 12K Acidophilous oak forests: **2 - optimum**
- 12L Boreo-continental pine forests: **1 - rare occurrence**
- 12O Peri-Alpidic pine 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: **2 - optimum**
- 13 Anthropogenic vegetation
- 13D Perennial thermophilous ruderal vegetation: **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**
- Diagnostic taxon
- Diagnostic taxon of classes: [LC \*Quercetea pubescentis\*](#)
- Diagnostic taxon of alliances: [LCA \*Quercion pubescenti-petraeae\*](#), [LCB \*Aceri tatarici-Quercion\*](#)
- Diagnostic taxon of associations: [LBB04 \*Primulo veris-Carpinetum betuli\*](#), [LCA01 \*Lathyro collini-Quercetum pubescentis\*](#)
- Constant taxon
- Constant taxon of associations: [LBB04 \*Primulo veris-Carpinetum betuli\*](#), [LCA01 \*Lathyro collini-Quercetum pubescentis\*](#)
- Ecological specialization indices
- Ecological specialization index for all vegetation types: **4.3**
- Ecological specialization index for non-forest vegetation: **4.5**
- Ecological specialization index for forest vegetation: **5.2**
- Colonization ability
- Index of colonization success (ICS): **7**
- Index of colonization potential (ICP): **8**
- Optimum successional age [years]: **30**

## Distribution and frequency

- Floristic zone: **northern temperate, southern temperate, submeridional**
- Floristic region: **Europe, Western Siberia**
- Continental degree: **5**
- Distribution range extension along the continentality gradient: **4**
- 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: 625

taxon.data.freq\_in\_quad: 2049

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **1.8 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.3 %**

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

Mean percentage cover in vegetation plots: **2.1 %**

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: **26**

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**

### **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**