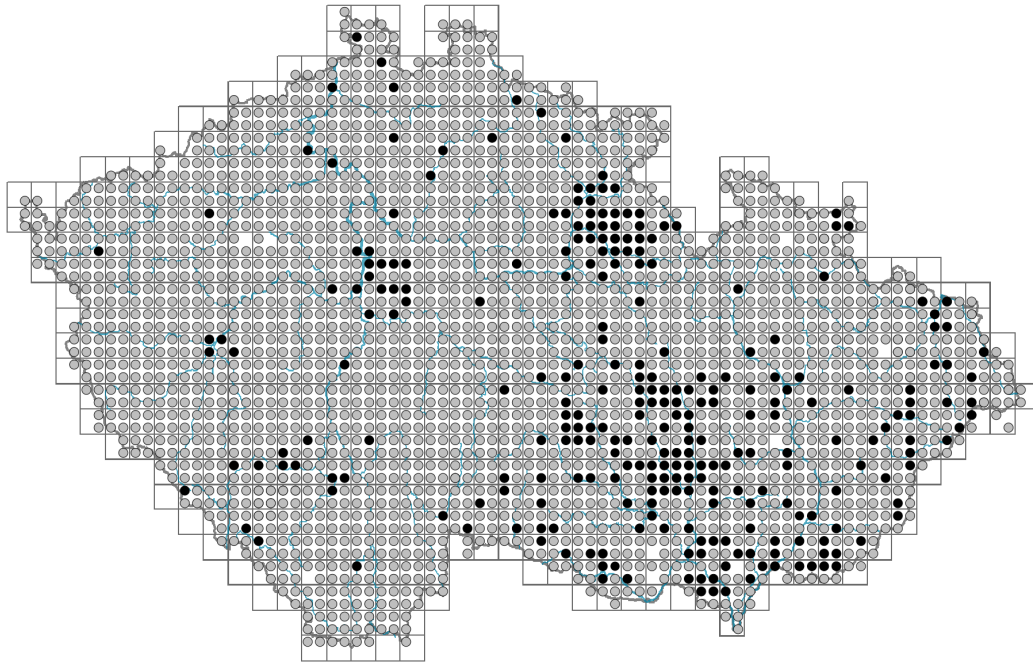


Plantago lanceolata

Distribution



© Pavel Veselý

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]: **0.07-0.3**

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

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **61.1 %**

Life strategy (Pierce method, S-score): **0.9 %**

Life strategy (Pierce method, R-score): **38 %**

Leaf

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

Leaf arrangement (phyllotaxis): **rosulate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, mesomorphic**

Flower

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



© Pavel Veselý



© Dana Michalčová

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**

Flower colour: **green, brown**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **tubular**

Calyx fusion: **synsepalous**

Inflorescence type: **spica**

Dicliny: **gynomonoecious, gynodioecious**

Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**

Pollination syndrome: **wind-pollination, insect-pollination, geitonogamy**

Pollinator spectrum: **hoverflies (honeybee, bumblebees, solitary bees, other Hymenoptera, flies s. l., meat flies s. l., other Diptera, butterflies, beetles, nitidulids, other pollinators, unknown)**

Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown**

Reproduction type: **mostly by seed/spores, rarely vegetatively**

Dispersal unit (diaspore): **seed**

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

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

Belowground organs and clonality

Shoot metamorphosis: **rhizome-like pleiocorm**

Root metamorphosis: **root shoot**

Storage organ: **rhizome-like pleiocorm**

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

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

Primary root: **present**

Position of root buds: **lateral roots**

Role of root buds in life-history of a plant: **additive**

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): **20**

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): **40**

Depth of the belowground bud bank (root buds included) [cm]: **8**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**



Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **12**

Ploidy level (x): **2**

2C genome size [Mbp]: **2383.09**

1Cx monoploid genome size [Mbp]: **1191.54**

Genomic GC content: **42.4 %**



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

Moisture indicator value: **5x - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out (generalist)**

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

Nutrient indicator value: **5x - occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**

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: **-0.16**

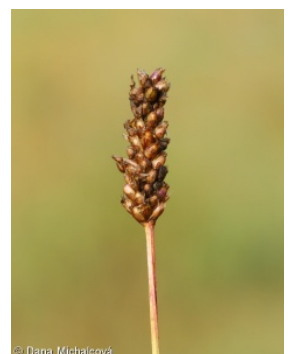
Herb layer disturbance frequency indicator value: **-0.14**

Whole-community disturbance severity indicator value: **0.42**

Herb layer disturbance severity indicator value: **0.45**

Whole-community structure based disturbance indicator value: **0.65**

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



Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1D Mobile calcareous screes: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4E Reed vegetation of brooks: **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

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

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

6 Meadows and mesic pastures

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

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

6C Pastures and park grasslands: **2 - optimum**

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

6E Wet Cirsium meadows: **1 - rare occurrence**

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

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

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

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

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

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

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

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

8E Acidophilous dry grasslands: **2 - optimum**

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: **2 - optimum**

9D Pannonian sand steppes: **1 - rare occurrence**

9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

9F Basiphilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

10 Saline vegetation

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

10J Saline steppes: **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**

12 Forests

12T Robinia pseudacacia plantations: **1 - rare occurrence**

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

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

13D Perennial thermophilous ruderal vegetation: **2 - optimum**

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: **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: [TDA *Arrhenatherion elatioris*](#)

Constant taxon

Constant taxon of alliances: [TDA *Arrhenatherion elatioris*](#), [TDD *Molinion caeruleae*](#), [TDE *Deschampsion cespitosae*](#), [TEB *Nardo strictae-Agrostion tenuis*](#), [TEC *Violion caninae*](#), [TFC *Armerion elongatae*](#), [THF *Bromion erecti*](#), [THG *Koelerio-Phleion phleoidis*](#)

Constant taxon of associations: [TDA01 *Pastinaco sativae-Arrhenatheretum elatioris*](#), [TDA02 *Ranunculo bulbosi-Arrhenatheretum elatioris*](#), [TDA03 *Poo-Trisetetum flavescens*](#), [TDA04 *Potentillo albae-Festucetum rubrae*](#), [TDB01 *Geranio sylvatici-Trisetetum flavescens*](#), [TDC01 *Lolio perennis-Cynosuretum cristati*](#), [TDC02 *Anthoxantho odorati-Agrostietum tenuis*](#), [TDD01 *Molinietum caeruleae*](#), [TDD02 *Junco effusi-Molinietum caeruleae*](#), [TDE02 *Holcetum lanati*](#), [TDE03 *Lathyro palustris-Gratioletum officinalis*](#), [TDE04 *Cnidio dubii-Deschampsietum cespitosae*](#), [TDF04 *Crepido paludosae-Juncetum acutiflori*](#), [TEB01 *Sileno vulgaris-Nardetum strictae*](#), [TEC01 *Festuco capillatae-Nardetum strictae*](#), [TEC02 *Campanulo rotundifoliae-Dianthetum deltoidis*](#), [TFB02 *Vulpietum myuri*](#), [TFC01 *Sileno otitae-Festucetum brevipilae*](#), [TFC02 *Erysimo diffusi-Agrostietum capillaris*](#), [TFD01 *Polytricho piliferi-Scleranthetum perennis*](#), [THF01 *Carlino acaulis-Brometum erecti*](#), [THF02 *Brachypodio pinnati-Molinietum arundinaceae*](#), [THG01 *Potentillo heptaphyllae-Festucetum rupicolae*](#), [THG02 *Avenulo pratensis-Festucetum valesiaca*](#), [THG03 *Viscario vulgaris-Avenuletum pratensis*](#), [XBI05 *Matricario discoideae-Anthemidetum cotulae*](#), [XCB01 *Melilotetum albo-officinalis*](#), [XCB03 *Dauco carotae-Crepidetum rhoeadifoliae*](#), [XCB04 *Dauco carotae-Picridetum hieracioidis*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.5**

Ecological specialization index for non-forest vegetation: **4.5**

Ecological specialization index for forest vegetation: **3.6**

Colonization ability

Index of colonization success (ICS): **8**

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

Optimum successional age [years]: **16**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**

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

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: 666

taxon.data.freq_in_quad: 2478

Commonness in vegetation plots from the Czech Republic



Occurrence frequency in vegetation plots: **10.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **10.3 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.6 %**

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

Mean percentage cover in vegetation plots: **3.4 %**

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: **43**

Number of narrow habitats in which the taxon has its optimum: **12**

Number of broad habitats in which the taxon occurs: **11**

Number of broad habitats in which the taxon has its optimum: **6**

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**