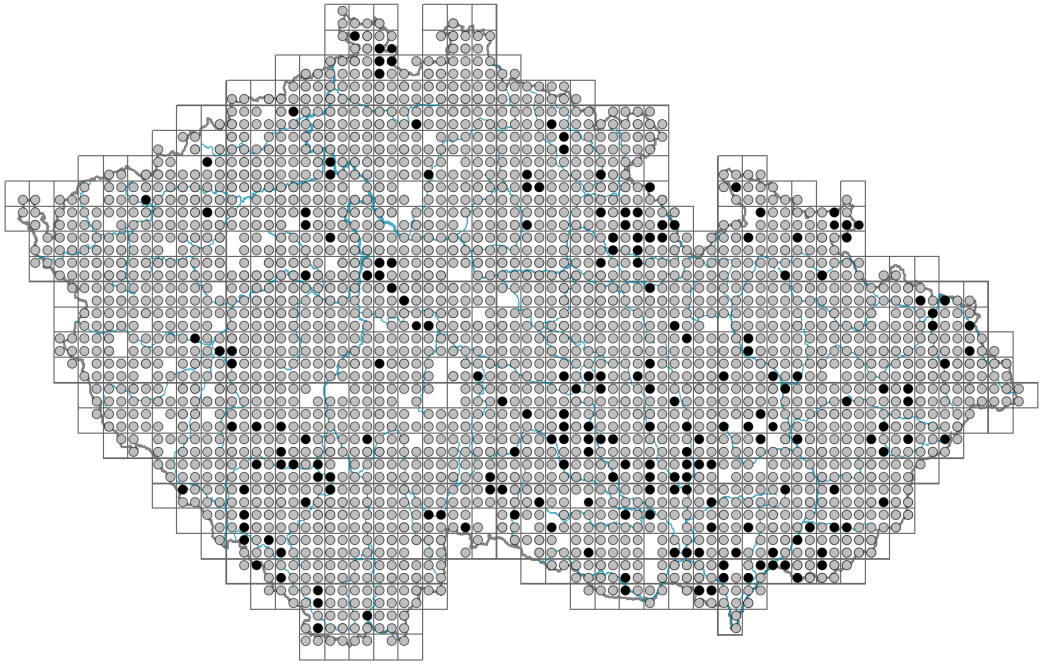
Plantago major

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]: **0.1–0.4**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy (Pierce method based on leaf traits): **C/CR**
Life strategy (Pierce method, C-score): **82.3 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **17.7 %**

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]: **June–October**
Flower colour: **green, brown**

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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**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **wind-pollination, selfing, geitonogamy**
Pollinator spectrum: **hoverflies, butterflies, beetles (bumblebees, solitary bees, other Diptera)**

Fruit, seed and dispersal

Fruit type: **dry fruit – capsule**
Fruit colour: **violet, 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

Type of clonal growth organ: **epigeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **monopodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **3.6**
Number of clonal offspring: **1.6**
Lateral spreading distance by clonal growth [m]: **0.01**

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: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **12**
Ploidy level (x): **2**
2C genome size [Mbp]: **1304**
1Cx monoploid genome size [Mbp]: **652**
Genomic GC content: **41.2 %**

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: **5 – indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**
Reaction indicator value: **6x – transition between values 5 and 7 (generalist)**
Nutrient indicator value: **6 – transition between values 5 and 7**
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: **-0.25**
Herb layer disturbance frequency indicator value: **-0.04**
Whole-community disturbance severity indicator value: **0.69**
Herb layer disturbance severity indicator value: **0.7**
Whole-community structure based disturbance indicator value: **0.65**
Herb layer structure-based disturbance indicator value: **0.71**

Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 – rare occurrence**

4 Wetland and riverine herbaceous vegetation

4B Halophilous reed and sedge beds: **1 – rare occurrence**
4D Riverine reed vegetation: **1 – rare occurrence**
4E Reed vegetation of brooks: **1 – rare occurrence**
4G Tall-sedge beds: **1 – rare occurrence**
4H Vegetation of low annual hygrophilous herbs: **1 – rare occurrence**
4I Vegetation of nitrophilous annual hygrophilous herbs: **2 – optimum**
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**

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6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**
6B Montane mesic meadows: **1 – rare occurrence**
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: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **2 – optimum**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 – rare occurrence**
7B Submontane Nardus grasslands: **1 – rare occurrence**

8 Dry grasslands

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

10 Saline vegetation

10I Inland saline meadows: **1 – rare occurrence**
10J Saline steppes: **1 – rare occurrence**

11 Heathlands and scrub

11J Willow galleries of loamy and sandy river banks: **1 – rare occurrence**
11L Tall mesic and xeric shrub: **1 – rare occurrence**
11R Scrub and pioneer woodland of forests clearings: **1 – rare occurrence**

12 Forests

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

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **2 – optimum**
13B Annual vegetation of arable land: **2 – optimum**
13C Annual vegetation of trampled habitats: **2 – optimum**
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 classes: **XA *Polygono arenastri-Poëtea annuae***
Diagnostic taxon of alliances: **TDC *Cynosurion cristati***, **XAA *Coronopodo-Polygonion arenastri***, **XAB *Saginion procumbentis***
Diagnostic taxon of associations: **TDC01 *Lolio perennis-Cynosuretum cristati***, **TDC03 *Lolietum perennis***, **TDC04 *Prunello vulgaris-Ranunculetum repentis***,

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TDC05 *Alchemillo hybridae-Poëtum supinae*, XAA04 *Eragrostio minoris-Polygonetum arenastri*, XAB04 *Poëtum annuae*, XAB05 *Lolio perennis-Matricarietum discoideae*

Constant taxon

Constant taxon of classes: **XA *Polygono arenastri-Poëtea annuae***

Constant taxon of alliances: **TDC *Cynosurion cristati*, XAA *Coronopodo-Polygonion arenastri*, XAB *Saginion procumbentis*, XBI *Malvion neglectae***

Constant taxon of associations: **MBB04 *Chenopodio chenopodioidis-Atriplicetum prostratae*, TCB02 *Loto tenuis-Potentilletum anserinae*, TCB03 *Agrostio stoloniferae-Juncetum ranarii*, TDC01 *Lolio perennis-Cynosuretum cristati*, TDC03 *Lolietum perennis*, TDC04 *Prunello vulgaris-Ranunculetum repentis*, TDC05 *Alchemillo hybridae-Poëtum supinae*, XAA01 *Polygonetum arenastri*, XAA03 *Poo annuae-Coronopodetum squamati*, XAA04 *Eragrostio minoris-Polygonetum arenastri*, XAB01 *Sagino procumbentis-Bryetum argentei*, XAB02 *Herniarietum glabrae*, XAB04 *Poëtum annuae*, XAB05 *Lolio perennis-Matricarietum discoideae*, XBG02 *Chenopodietum urbici*, XBG06 *Atriplicetum roseae*, XBG10 *Chamaeplietum officinalis*, XBI01 *Hyoscyamo nigri-Malvetum neglectae*, XBI03 *Polygono arenastri-Chenopodietum muralis*, XBI04 *Malvo neglectae-Chenopodietum vulvariae*, XBI05 *Matricario discoideae-Anthemidetum cotulae*, XBK01 *Digitario sanguinalis-Eragrostietum minoris*, XBK03 *Eragrostio poaeoidis-Panicetum capillaris*, XCB01 *Melilotetum albo-officinalis***

Dominant taxon

Dominant taxon of associations: **TCB02 *Loto tenuis-Potentilletum anserinae*, TDC03 *Lolietum perennis*, XAB04 *Poëtum annuae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.9**

Ecological specialization index for non-forest vegetation: **3.9**

Ecological specialization index for forest vegetation: **4.4**

Colonization ability

Index of colonization success (ICS): **7**

Index of colonization potential (ICP): **5**

Optimum successional age [years]: **6**

Distribution and frequency

Distribution range extension along the continentality gradient: **8**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt (subalpine belt)**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 666

taxon.data.freq_in_quad: 2379

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **6.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **15.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **5.4 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.9 %**

Mean percentage cover in vegetation plots: **5.5 %**

Maximum percentage cover in vegetation plots: **88 %**

Number of habitats with taxon occurrence in the Czech Republic

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Number of narrow habitats in which the taxon occurs: **38**
Number of narrow habitats in which the taxon has its optimum: **8**
Number of broad habitats in which the taxon occurs: **10**
Number of broad habitats in which the taxon has its optimum: **3**

Threats and protection

Legal protection: **not protected by law**

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