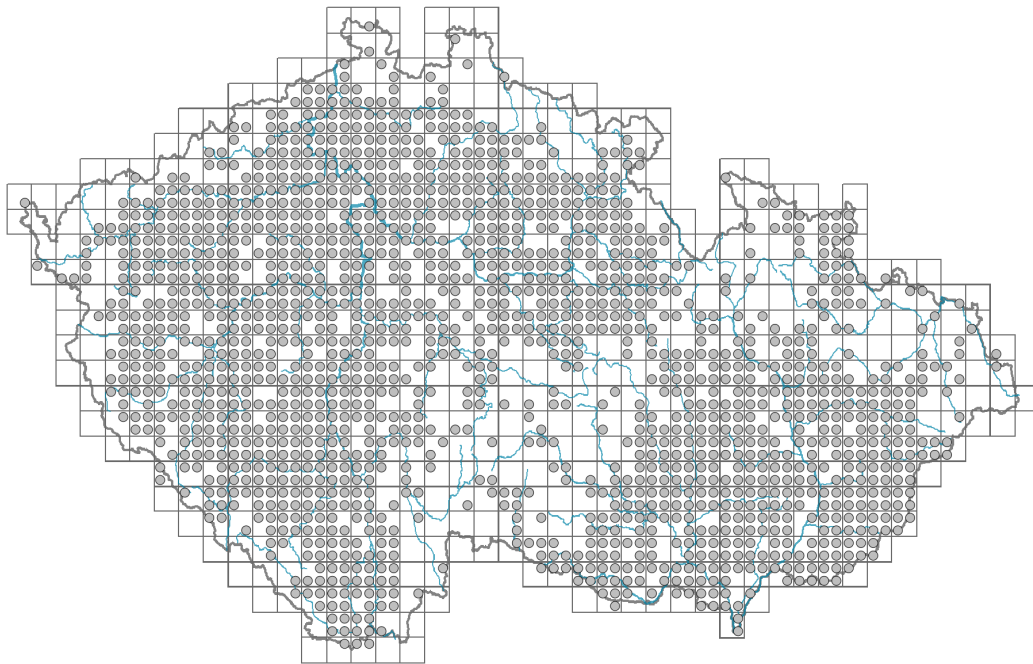


Brachypodium pinnatum

Distribution



© Eva Hettnerbergerová

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]: **0.4-1**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **15.5 %**

Life strategy (Pierce method, S-score): **61.5 %**

Life strategy (Pierce method, R-score): **23.1 %**



© Dana Michalcová

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: **scleromorphic, mesomorphic**

Flower

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



© Dana Holubová

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

Flower colour: **green**

Perianth type: **reduced**

Perianth fusion: **reduced**

Inflorescence type: **racemus e spiculis compositus**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit - caryopsis**

Fruit colour: **brown**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

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

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

Belowground organs and clonality

Shoot metamorphosis: **stolon**

Storage organ: **stolon**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **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: **2.4**

Lateral spreading distance by clonal growth [m]: **0.13**

Clonal index: **4**

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: **autotrophic**

Carnivory: **non-carnivorous**

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



Karyology

Chromosome number (2n): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **1297.58**

1Cx monoploid genome size [Mbp]: **648.79**

Genomic GC content: **47.2 %**



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: **-1.3**

Herb layer disturbance frequency indicator value: **-0.54**

Whole-community disturbance severity indicator value: **0.23**

Herb layer disturbance severity indicator value: **0.22**

Whole-community structure based disturbance indicator value: **0.33**

Herb layer structure-based disturbance indicator value: **0.43**



Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 - rare occurrence**

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

5 Vegetation of springs and mires

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

6 Meadows and mesic pastures

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

6B Montane mesic meadows: **1 - rare occurrence**

6C Pastures and park grasslands: **1 - rare occurrence**

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

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

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

7 Acidophilous grasslands

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

8 Dry grasslands

- 8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**
- 8B Submediterranean dry grasslands on rock outcrops: **2 - optimum**
- 8C Narrow-leaved sub-continental steppes: **2 - optimum**
- 8D Broad-leaved dry grasslands: **4 - constant dominant**
- 8E Acidophilous dry grasslands: **1 - rare occurrence**
- 8F Thermophilous forest fringe vegetation: **4 - constant dominant**

9 Sand grasslands and rock-outcrop vegetation

- 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**

11 Heathlands and scrub

- 11A Dry lowland to subalpine heathlands: **1 - rare occurrence**
- 11I Willow carrs: **1 - rare occurrence**
- 11L Tall mesic and xeric shrub: **2 - optimum**
- 11N Low xeric scrub: **3 - dominant**

12 Forests

- 12A Alder carrs: **1 - rare occurrence**
- 12C Oak-hornbeam forests: **1 - rare occurrence**
- 12D Ravine forests: **1 - rare occurrence**
- 12F Limestone beech forests: **1 - rare occurrence**
- 12H Peri-Alpidic basiphilous thermophilous oak forests: **4 - constant dominant**
- 12I Sub-continental thermophilous oak forests: **2 - optimum**
- 12J Acidophilous thermophilous oak forests: **2 - optimum**
- 12K Acidophilous oak forests: **1 - rare occurrence**
- 12L Boreo-continental pine forests: **1 - rare occurrence**
- 12O Peri-Alpidic pine forests: **3 - dominant**
- 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: **2 - optimum**

13 Anthropogenic vegetation

- 13A Annual vegetation of ruderal habitats: **1 - rare occurrence**
- 13C Annual vegetation of trampled habitats: **1 - rare occurrence**
- 13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**
- 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

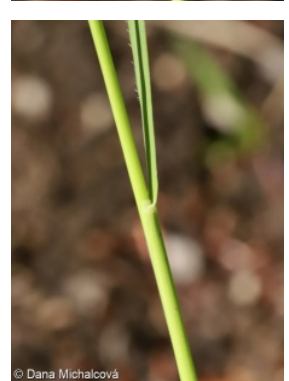
Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: [LC Quercetea pubescentis](#), [TH Festuco-Brometea](#)

Diagnostic taxon of alliances: [LCA Quercion pubescenti-petraeae](#), [LCB Aceri tatarici-Quercion](#), [LFA Festuco-Pinion sylvestris](#), [THE Cirsio-Brachypodion](#)



pinnati*, THF *Bromion erecti*, THH *Geranion sanguinei

Diagnostic taxon of associations: [LCA01 *Lathyro collini-Quercetum pubescentis*](#), [LCA02 *Lithospermo purpureocaerulei-Quercetum pubescentis*](#), [LFA01 *Festuco-Pinetum sylvestris*](#), [THE01 *Scabioso ochroleucae-Brachypodietum pinnati*](#), [THE02 *Cirsio pannonici-Seslerietum caeruleae*](#), [THE03 *Polygalo majoris-Brachypodietum pinnati*](#), [THF01 *Carlino acaulis-Brometum erecti*](#), [THF02 *Brachypodio pinnati-Molinietum arundinaceae*](#), [THH03 *Geranio sanguinei-Peucedanetum cervariae*](#)

Constant taxon

Constant taxon of classes: [TH *Festuco-Brometea*](#)

Constant taxon of alliances: [LCA *Quercion pubescenti-petraeae*](#), [LCB *Aceri tatarici-Quercion*](#), [LFA *Festuco-Pinion sylvestris*](#), [THE *Cirsio-Brachypodion pinnati*](#), [THF *Bromion erecti*](#), [THH *Geranion sanguinei*](#), [THI *Trifolion medii*](#)

Constant taxon of associations: [KBA01 *Prunetum fruticosae*](#), [KBB03 *Populo tremulae-Coryletum avellanae*](#), [KBB04 *Pruno spinosae-Ligustretum vulgaris*](#), [LCA01 *Lathyro collini-Quercetum pubescentis*](#), [LCA02 *Lithospermo purpureocaerulei-Quercetum pubescentis*](#), [LCB01 *Quercetum pubescenti-roboris*](#), [LCC03 *Melico pictae-Quercetum roboris*](#), [LFA01 *Festuco-Pinetum sylvestris*](#), [TDC02 *Anthoxantho odorati-Agrostietum tenuis*](#), [THD05 *Stipetum tirsae*](#), [THE01 *Scabioso ochroleucae-Brachypodietum pinnati*](#), [THE02 *Cirsio pannonici-Seslerietum caeruleae*](#), [THE03 *Polygalo majoris-Brachypodietum pinnati*](#), [THE04 *Plantagini maritimae-Caricetum flaccae*](#), [THF01 *Carlino acaulis-Brometum erecti*](#), [THF02 *Brachypodio pinnati-Molinietum arundinaceae*](#), [THH01 *Trifolio alpestris-Geranietum sanguinei*](#), [THH02 *Geranio sanguinei-Dictamnietum albae*](#), [THH03 *Geranio sanguinei-Peucedanetum cervariae*](#), [THI01 *Trifolio medii-Agrimonetum eupatoriae*](#)

Dominant taxon

Dominant taxon of associations: [KBA01 *Prunetum fruticosae*](#), [KBB03 *Populo tremulae-Coryletum avellanae*](#), [KBB04 *Pruno spinosae-Ligustretum vulgaris*](#), [LCA03 *Euphorbio-Quercetum*](#), [LCC01 *Sorbo torminalis-Quercetum*](#), [LCC03 *Melico pictae-Quercetum roboris*](#), [LFA01 *Festuco-Pinetum sylvestris*](#), [TEC02 *Campanulo rotundifoliae-Dianthetum deltoidis*](#), [THE01 *Scabioso ochroleucae-Brachypodietum pinnati*](#), [THE03 *Polygalo majoris-Brachypodietum pinnati*](#), [THF01 *Carlino acaulis-Brometum erecti*](#), [THH01 *Trifolio alpestris-Geranietum sanguinei*](#), [THH03 *Geranio sanguinei-Peucedanetum cervariae*](#), [THI01 *Trifolio medii-Agrimonetum eupatoriae*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.4**

Ecological specialization index for non-forest vegetation: **4.8**

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

Colonization ability

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

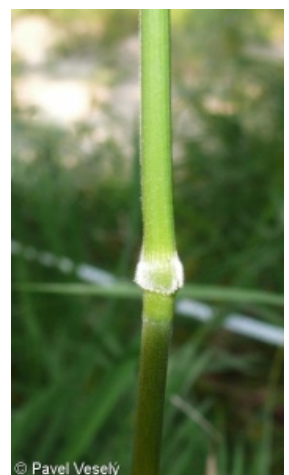
Index of colonization potential (ICP): **4**

Optimum successional age [years]: **44.5**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**



Distribution range extension along the continentality gradient: **6**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **544**

taxon.data.freq_in_quad: **1609**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **52.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **25.4 %**

Occurrence frequency in vegetation plots with a cover above 50%: **7.8 %**

Mean percentage cover in vegetation plots: **16.5 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **42**

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

Number of broad habitats in which the taxon occurs: **10**

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

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**