

Bidens frondosa

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.



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Habitus and growth type

Height [m]: **0.2-1.8**

Growth form: **annual herb**

Life form: **therophyte**

Life strategy: **CR - competitor/ruderal**

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

Life strategy (Pierce method, C-score): **51.4 %**

Life strategy (Pierce method, S-score): **4.2 %**

Life strategy (Pierce method, R-score): **44.4 %**

Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **compound - ternate, compound - imparipinnate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, helomorphic**

Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
 Flower colour: **yellow**
 Flower symmetry: **actinomorphic, zygomorphic**
 Perianth type: **calyx absent, corolla present**
 Perianth fusion: **fused**
 Shape of the sympetalous corolla or syntepalous perianth: **ligulate, tubular**
 Inflorescence type: **panicula ex anthodiis composita**
 Dicliny: **synoecious**
 Generative reproduction type: **autogamy**
 Pollination syndrome: **selfing**
 Pollinator spectrum: **honeybee, hoverflies, flies s. l. (solitary bees, other Hymenoptera, other Diptera, butterflies)**



Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**
 Fruit colour: **brown, black**
 Reproduction type: **only by seed/spores**
 Dispersal unit (diaspore): **fruit, infrutescence or its part**
 Dispersal strategy: **Bidens (mainly autochory and epizoochory)**
 Myrmecochory: **non-myrmecochorous (b)**



Belowground organs and clonality

Shoot life span (cyclicity): **monocyclic shoots prevailing**
 Primary root: **present**

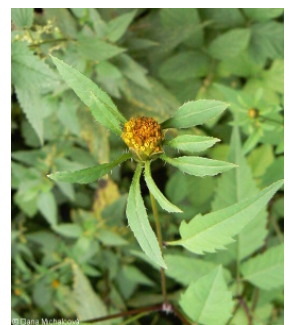
Bud bank

Number of buds per shoot at the soil surface (root buds excluded):
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded):
 Number of buds per shoot at a depth greater than 10 cm (root buds excluded):
 Size of the belowground bud bank (root buds excluded):
 Number of buds per shoot at the soil surface (root buds included):
 Number of buds per shoot at a depth of 0–10 cm (root buds included):
 Number of buds per shoot at a depth greater than 10 cm (root buds included):
 Size of the belowground bud bank (root buds included):



Trophic mode

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



Karyology

Chromosome number (2n): **48**
 Ploidy level (x): **4**
 2C genome size [Mbp]: **2851.18**
 1Cx monoploid genome size [Mbp]: **712.79**
 Genomic GC content: **39.1 %**

Taxon origin

Origin in the Czech Republic: **neophyte**

Invasion status: **invasive**

Geographic origin: **North America**

Year of the first record in the wild: **1907**

Period of introduction: **Late Modern Period (1800-1950)**

Introduction pathway: **unintentional - anthropogenic, unintentional - nature**

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: **6 - transition between values 5 and 7**

Moisture indicator value: **9 - wetness indicator, focus on often soaked, poorly aerated soils**

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

Nutrient indicator value: **8 - pronounced nutrient indicator**

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: **-0.78**

Herb layer disturbance frequency indicator value: **-0.57**

Whole-community disturbance severity indicator value: **0.37**

Herb layer disturbance severity indicator value: **0.39**

Whole-community structure based disturbance indicator value: **0.47**

Herb layer structure-based disturbance indicator value: **0.48**

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

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4B Halophilous reed and sedge beds: **1 - rare occurrence**

4C Eutrophic vegetation of muddy substrata: **2 - optimum**

4D Riverine reed vegetation: **2 - optimum**

4E Reed vegetation of brooks: **1 - rare occurrence**

4F Mesotrophic vegetation of muddy substrata: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**

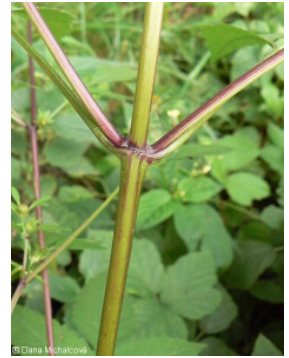
4H Vegetation of low annual hygrophilous herbs: **2 - optimum**

4I Vegetation of nitrophilous annual hygrophilous herbs: **3 - dominant**

4L Nitrophilous herbaceous fringes of lowland rivers: **2 - optimum**

6 Meadows and mesic pastures

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



6G Vegetation of wet disturbed soils: **1 - rare occurrence**

10 Saline vegetation

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

11 Heathlands and scrub

11I Willow carrs: **1 - rare occurrence**

11J Willow galleries of loamy and sandy river banks: **2 - optimum**

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

12B Alluvial forests: **1 - rare occurrence**

13 Anthropogenic vegetation

13A Annual vegetation of ruderal 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: **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 associations: [KAC01 *Salicetum albae*](#), [MBA04 *Polygono brittingeri-Chenopodietum rubri*](#), [MBA06 *Polygonetum hydropiperis*](#), [MCA10 *Phalarido arundinaceae-Bolboschoenetum laticarpi*](#), [MCE05 *Leersietum oryzoidis*](#), [XDA04 *Sicyo angulatae-Echinocystietum lobatae*](#)

Constant taxon

Constant taxon of associations: [KAB03 *Salici purpureae-Myricarietum germanicae*](#), [KAC01 *Salicetum albae*](#), [MBA04 *Polygono brittingeri-Chenopodietum rubri*](#), [MBA06 *Polygonetum hydropiperis*](#), [MCA10 *Phalarido arundinaceae-Bolboschoenetum laticarpi*](#), [MCE05 *Leersietum oryzoidis*](#), [XDA04 *Sicyo angulatae-Echinocystietum lobatae*](#)

Dominant taxon

Dominant taxon of associations: [MBA06 *Polygonetum hydropiperis*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.6**

Ecological specialization index for non-forest vegetation: **3.7**

Ecological specialization index for forest vegetation: **5**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **6**

Optimum successional age [years]: **11.5**

Distribution and frequency

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

Floristic region: **Europe, Americas**

Continental degree: **6**

Distribution range extension along the continentality gradient: **5**



Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 551

taxon.data.freq_in_quad: 1475

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **10.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **4.3 %**

Occurrence frequency in vegetation plots with a cover above 50%: **2.7 %**

Mean percentage cover in vegetation plots: **5.2 %**

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

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **22**

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

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**