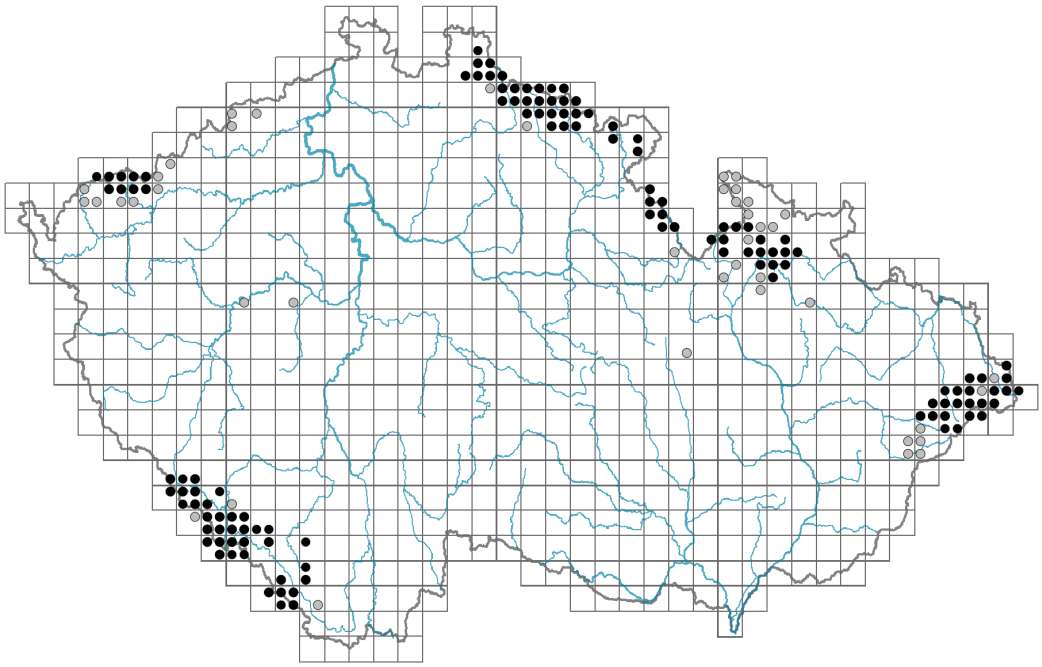
Athyrium distentifolium

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]: **0.4–1.1**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CS – competitor/stress-tolerator**
Life strategy (Pierce method based on leaf traits): **C/CR**
Life strategy (Pierce method, C-score): **62.3 %**
Life strategy (Pierce method, S-score): **3.6 %**
Life strategy (Pierce method, R-score): **34.1 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **rosulate**
Leaf shape: **compound – bipinnate, compound – tripinnate**
Stipules: **absent**
Petiole: **present**
Leaf life span: **summer green**
Leaf anatomy: **hygromorphic**

Flower

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

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Dicliny: **synoecious**

Fruit, seed and dispersal

Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **spore**
Dispersal strategy: **Lycopodium (mainly anemochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**
Storage organ: **rhizome**
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: **dichotomous**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **4**
Number of clonal offspring: **0.5**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **2**

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): **80**
Ploidy level (x): **2**
2C genome size [Mbp]: **12595.96**
1Cx monoploid genome size [Mbp]: **6297.98**
Genomic GC content: **45.7 %**

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Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5 – semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area**
Temperature indicator value: **3 – cool indicator, occurring mainly in subalpine areas**
Moisture indicator value: **6 – transition between values 5 and 7**
Reaction indicator value: **5 – indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions**
Nutrient indicator value: **6 – transition between values 5 and 7**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.66**
Herb layer disturbance frequency indicator value: **-0.83**
Whole-community disturbance severity indicator value: **0.2**
Herb layer disturbance severity indicator value: **0.15**
Whole-community structure based disturbance indicator value: **0.16**
Herb layer structure-based disturbance indicator value: **0.24**

Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **3 – dominant**

4 Wetland and riverine herbaceous vegetation

4K Petasites fringes of montane brooks: **1 – rare occurrence**

5 Vegetation of springs and mires

5B Lowland to montane soft-water springs: **1 – rare occurrence**
5C Alpine and subalpine soft-water springs: **1 – rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 – rare occurrence**
11D Subalpine acidophilous Pinus mugo scrub: **2 – optimum**
11H Subalpine deciduous scrub: **2 – optimum**

12 Forests

12D Ravine forests: **1 – rare occurrence**
12E Herb-rich beech forests: **1 – rare occurrence**
12G Acidophilous beech forests: **1 – rare occurrence**
12L Boreo-continental pine forests: **1 – rare occurrence**
12R Acidophilous spruce forests: **1 – rare occurrence**
12S Basiphilous spruce forests: **4 – constant dominant**
12V Spruce plantations: **1 – rare occurrence**

13 Anthropogenic vegetation

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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 Mesophyticum and Oreophyticum: **2.1 – taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: **AD *Mulgedio-Aconitetea***, **KC *Roso pendulinae-Pinetea mugo***

Diagnostic taxon of alliances: **ADB *Calamagrostion arundinaceae***, **ADC *Salicion silesiacae***, **ADD *Adenostylion alliariae***, **ADE *Dryopterido filicis-maris-Athyrion distentifolii***, **KCA *Pinion mugo***, **LFC *Piceion abietis***

Diagnostic taxon of associations: **ADA02 *Crepido conyzifoliae-Calamagrostietum villosae***, **ADB01 *Bupleuro longifoliae-Calamagrostietum arundinaceae***, **ADC01 *Salici silesiacae-Betuletum carpaticae***, **ADC02 *Pado borealis-Sorbetum aucupariae***, **ADD01 *Ranunculo platanifolii-Adenostyletum alliariae***, **ADD05 *Chaerophyllo hirsuti-Cicerbitetum alpinae***, **ADE01 *Daphno mezerei-Dryopteridetum filicis-maris***, **ADE02 *Adenostylo alliariae-Athyrietum distentifolii***, **KCA02 *Adenostylo alliariae-Pinetum mugo***, **LBC04 *Athyrio distentifolii-Fagetum sylvaticae***, **LFC02 *Athyrio distentifolii-Piceetum abietis***

Constant taxon

Constant taxon of classes: **AD *Mulgedio-Aconitetea***

Constant taxon of alliances: **ADC *Salicion silesiacae***, **ADD *Adenostylion alliariae***, **ADE *Dryopterido filicis-maris-Athyrion distentifolii***

Constant taxon of associations: **ADA02 *Crepido conyzifoliae-Calamagrostietum villosae***, **ADC01 *Salici silesiacae-Betuletum carpaticae***, **ADC02 *Pado borealis-Sorbetum aucupariae***, **ADD01 *Ranunculo platanifolii-Adenostyletum alliariae***, **ADD05 *Chaerophyllo hirsuti-Cicerbitetum alpinae***, **ADE01 *Daphno mezerei-Dryopteridetum filicis-maris***, **ADE02 *Adenostylo alliariae-Athyrietum distentifolii***, **KCA02 *Adenostylo alliariae-Pinetum mugo***, **LBC04 *Athyrio distentifolii-Fagetum sylvaticae***, **LFC02 *Athyrio distentifolii-Piceetum abietis***

Dominant taxon

Dominant taxon of associations: **ADE02 *Adenostylo alliariae-Athyrietum distentifolii***, **LFC02 *Athyrio distentifolii-Piceetum abietis***

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.6**

Ecological specialization index for non-forest vegetation: **5.3**

Ecological specialization index for forest vegetation: **6.2**

Colonization ability

Index of colonization success (ICS): **2**

Index of colonization potential (ICP): **1**

Optimum successional age [years]: **35**

Distribution and frequency

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

Floristic region: **circumpolar**

Continentality degree: **5**

Distribution range extension along the continentality gradient: **4**

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Elevational belt in the Czech Republic: **montane belt, subalpine belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 90
taxon.data.freq_in_quad: 193

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.7 %**
Occurrence frequency in vegetation plots with a cover above 5%: **43.6 %**
Occurrence frequency in vegetation plots with a cover above 25%: **24.3 %**
Occurrence frequency in vegetation plots with a cover above 50%: **11.4 %**
Mean percentage cover in vegetation plots: **17.3 %**
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: **16**
Number of narrow habitats in which the taxon has its optimum: **4**
Number of broad habitats in which the taxon occurs: **6**
Number of broad habitats in which the taxon has its optimum: **3**

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**

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