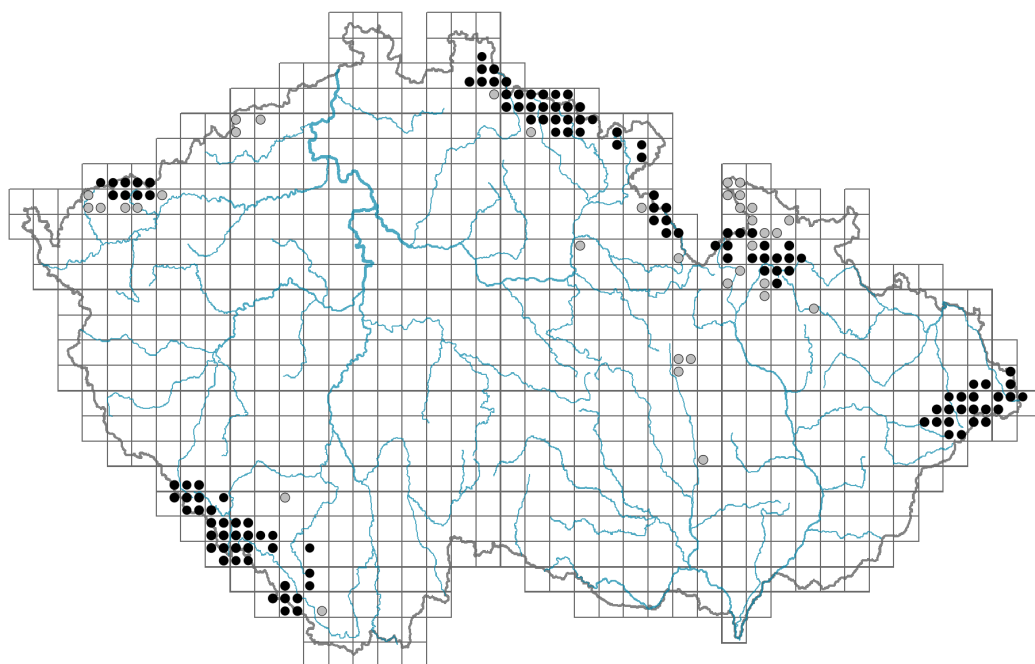


# *Athyrium distentifolium*

## Distribution

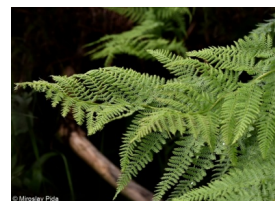
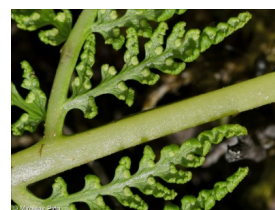


### Map info

● 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**

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]:

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):

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):

Depth of the belowground bud bank (root buds excluded) [cm]:

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):

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

## 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 %**



## 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

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-Athyrium 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-Athyrium 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**

Continental degree: **5**

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

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: 86

taxon.data.freq\_in\_quad: 184

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**