Dryopteris filix-mas

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]: **0.3–1.3**
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): **70.9 %**
Life strategy (Pierce method, S-score): **7.9 %**
Life strategy (Pierce method, R-score): **21.3 %**

Leaf

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

Flower

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

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Dicliny: **synoecious**

Fruit, seed and dispersal

Reproduction type: **by seed/spores and vegetatively**
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**
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): **164**
Ploidy level (x): **4**
2C genome size [Mbp]: **27841.78**
1Cx monoploid genome size [Mbp]: **6960.44**
Genomic GC content: **41.8 %**

Taxon origin

Origin in the Czech Republic: **native**

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Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **3 – shade plant, usually occurring where the incident radiation is less than 5% of that in an open area, but also at sunnier sites**
Temperature indicator value: **5 – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**
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: **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: **-1.93**
Herb layer disturbance frequency indicator value: **-0.78**
Whole-community disturbance severity indicator value: **0.26**
Herb layer disturbance severity indicator value: **0.1**
Whole-community structure based disturbance indicator value: **0.11**
Herb layer structure-based disturbance indicator value: **0.18**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 – rare occurrence**
1B Siliceous cliffs and block fields: **2 – optimum**
1C Walls: **1 – rare occurrence**
1D Mobile calcareous screes: **1 – rare occurrence**

2 Alpine and subalpine grasslands

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

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 – rare occurrence**
4K Petasites fringes of montane brooks: **1 – rare occurrence**

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 – rare occurrence**
5B Lowland to montane soft-water springs: **1 – rare occurrence**

8 Dry grasslands

8F Thermophilous forest fringe vegetation: **1 – rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 – rare occurrence**
11D Subalpine acidophilous Pinus mugo scrub: **1 – rare occurrence**
11H Subalpine deciduous scrub: **1 – rare occurrence**
11I Willow carrs: **1 – rare occurrence**
11J Willow galleries of loamy and sandy river banks: **1 – rare occurrence**
11L Tall mesic and xeric shrub: **1 – rare occurrence**
11N Low xeric scrub: **1 – rare occurrence**

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11R Scrub and pioneer woodland of forests clearings: **2 – optimum**

12 Forests

12A Alder carrs: **1 – rare occurrence**
12B Alluvial forests: **2 – optimum**
12C Oak-hornbeam forests: **2 – optimum**
12D Ravine forests: **2 – optimum**
12E Herb-rich beech forests: **2 – optimum**
12F Limestone beech forests: **1 – rare occurrence**
12G Acidophilous beech forests: **2 – optimum**
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**
12I Sub-continental thermophilous oak forests: **1 – rare occurrence**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12K Acidophilous oak forests: **1 – rare occurrence**
12L Boreo-continental pine forests: **1 – rare occurrence**
12O Peri-Alpidic pine forests: **1 – rare occurrence**
12R Acidophilous spruce forests: **1 – rare occurrence**
12S Basiphilous spruce forests: **1 – rare occurrence**
12T Robinia pseudacacia plantations: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **1 – rare occurrence**
12V Spruce plantations: **2 – optimum**
12W Pine and larch 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: **2 – optimum**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 – taxon occurring mainly in the closed forest**
Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 – taxon occurring mainly in the closed forest**

Diagnostic taxon

Diagnostic taxon of classes: **LB *Carpino-Fagetea***
Diagnostic taxon of alliances: **LBC *Fagion sylvaticae*, LBF *Tilio platyphylli-Acerion***
Diagnostic taxon of associations: **ADD04 *Laserpitio archangelicae-Dactylidetum glomeratae*, ADE01 *Daphno mezerei-Dryopteridetum filicis-maris*, KBC04 *Senecioni fuchsii-Coryletum avellanae*, LBC02 *Mercuriali perennis-Fagetum sylvaticae*, LBC05 *Galio rotundifolii-Abietetum albae*, LBF02 *Mercuriali perennis-Fraxinetum excelsioris*, LBF03 *Arunco dioici-Aceretum pseudoplatani***

Constant taxon

Constant taxon of classes: **LB *Carpino-Fagetea***
Constant taxon of alliances: **ADE *Dryopterido filicis-maris-Athyrion distentifolii*, LBC *Fagion sylvaticae*, LBF *Tilio platyphylli-Acerion***
Constant taxon of associations: **ADC02 *Pado borealis-Sorbetum aucupariae*, ADD04 *Laserpitio archangelicae-Dactylidetum glomeratae*, ADE01 *Daphno mezerei-Dryopteridetum filicis-maris*, ADE02 *Adenostylo alliariae-Athyrietum distentifolii*, KBC01 *Ribeso alpini-Rosetum pendulinae*, KBC03 *Senecioni fuchsii-Sambucetum racemosae*, KBC04 *Senecioni fuchsii-Coryletum avellanae*, KCA02 *Adenostylo alliariae-Pinetum mugo*, LBC01 *Galio odorati-Fagetum sylvaticae*, LBC02 *Mercuriali perennis-Fagetum sylvaticae*, LBC04 *Athyrio distentifolii-***

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Fagetum sylvaticae*, LBC05 *Galio rotundifolii-Abietetum albae*, LBE03 *Luzulo-Abietetum albae*, LBF01 *Aceri-Tilietum*, LBF02 *Mercuriali perennis-Fraxinetum excelsioris*, LBF03 *Arunco dioici-Aceretum pseudoplatani*, SAC03 *Asplenio trichomanis-Polypodietum vulgaris*, XDC01 *Stachyo sylvaticae-Impatientetum noli-tangere*, XEA07 *Gymnocarpio dryopteridis-Athyrietum filicis-feminae

Dominant taxon

Dominant taxon of associations: **ADE01 *Daphno mezerei-Dryopteridetum filicis-maris*, LBC04 *Athyrio distentifolii-Fagetum sylvaticae*, LBC05 *Galio rotundifolii-Abietetum albae*, LBF02 *Mercuriali perennis-Fraxinetum excelsioris*, XEA07 *Gymnocarpio dryopteridis-Athyrietum filicis-feminae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.3**

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

Ecological specialization index for forest vegetation: **5.4**

Colonization ability

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

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

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

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional, subtropical, tropical, austral or antarctic**

Floristic region: **circumpolar**

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

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 661

taxon.data.freq_in_quad: 2347

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **14.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **4.1 %**

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

Mean percentage cover in vegetation plots: **4.9 %**

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: **39**

Number of narrow habitats in which the taxon has its optimum: **10**

Number of broad habitats in which the taxon occurs: **8**

Number of broad habitats in which the taxon has its optimum: **5**

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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