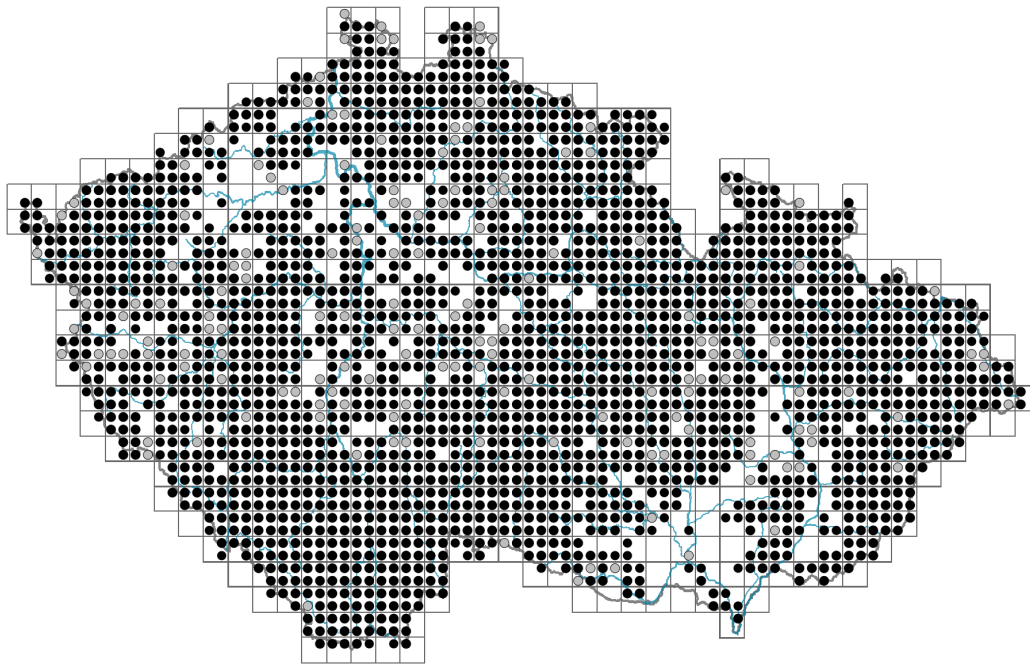


# *Dryopteris carthusiana*

## 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]: **0.2-0.8**

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): **73.5 %**

Life strategy (Pierce method, S-score): **9.5 %**

Life strategy (Pierce method, R-score): **17.1 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **rosulate**

Leaf shape: **compound - tripinnate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic**

## Flower

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

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 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): **164**

Ploidy level (x): **4**

2C genome size [Mbp]: **30901.22**

1Cx monoploid genome size [Mbp]: **7725.31**

Genomic GC content: **43.4 %**

## 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: **5x - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

Moisture indicator value: **6x - transition between values 5 and 7 (generalist)**

Reaction indicator value: **4 - transition between values 3 and 5**

Nutrient indicator value: **5 - occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.9**

Herb layer disturbance frequency indicator value: **-0.84**

Whole-community disturbance severity indicator value: **0.27**

Herb layer disturbance severity indicator value: **0.11**

Whole-community structure based disturbance indicator value: **0.09**

Herb layer structure-based disturbance indicator value: **0.16**

## Habitat and sociology

### Occurrence in habitats

#### 1 Vegetation of cliffs, screes and walls

1B Siliceous cliffs and block fields: **1 - rare occurrence**

#### 2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

#### 4 Wetland and riverine herbaceous vegetation

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

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

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**

5F Transitional mires: **1 - rare occurrence**

5G Raised bogs: **1 - rare occurrence**

5H Wet peat soils and bog hollows: **1 - rare occurrence**

#### 7 Acidophilous grasslands

7B Submontane Nardus grasslands: **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**

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

## 12 Forests

12A Alder carrs: **2 - optimum**12B Alluvial forests: **2 - optimum**12C Oak-hornbeam forests: **1 - rare occurrence**12D Ravine forests: **1 - rare occurrence**12E Herb-rich beech forests: **2 - optimum**12G Acidophilous beech forests: **1 - rare occurrence**12K Acidophilous oak forests: **2 - optimum**12L Boreo-continental pine forests: **1 - rare occurrence**12P Peatland pine forests: **2 - optimum**12Q Peatland birch forests: **2 - optimum**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

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

## 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: [LA \*Alnetea glutinosae\*](#)Diagnostic taxon of alliances: [LAA \*Alnion glutinosae\*](#)Diagnostic taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAA02 \*Carici elongatae-Alnetum glutinosae\*](#), [LBA02 \*Piceo abietis-Alnetum glutinosae\*](#), [LBE03 \*Luzulo-Abietetum albae\*](#)

## Constant taxon

Constant taxon of classes: [LA \*Alnetea glutinosae\*](#)Constant taxon of alliances: [LAA \*Alnion glutinosae\*](#)Constant taxon of associations: [KCA02 \*Adenostylo alliariae-Pinetum mugo\*](#), [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAA02 \*Carici elongatae-Alnetum glutinosae\*](#), [LBA02 \*Piceo abietis-Alnetum glutinosae\*](#), [LBC05 \*Galio rotundifolii-Abietetum albae\*](#), [LBE03 \*Luzulo-Abietetum albae\*](#)

## Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**Ecological specialization index for non-forest vegetation: **3.7**Ecological specialization index for forest vegetation: **4.9**

## Colonization ability

Index of colonization success (ICS): **7**Index of colonization potential (ICP): **7**Optimum successional age [years]: **30**

## 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: **lowlands, colline belt, submontane belt, montane belt (subalpine belt)**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **650**

taxon.data.freq\_in\_quad: **2204**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **3.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**

Mean percentage cover in vegetation plots: **2.3 %**

Maximum percentage cover in vegetation plots: **63 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **34**

Number of narrow habitats in which the taxon has its optimum: **7**

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

Number of broad habitats in which the taxon has its optimum: **1**

## 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**