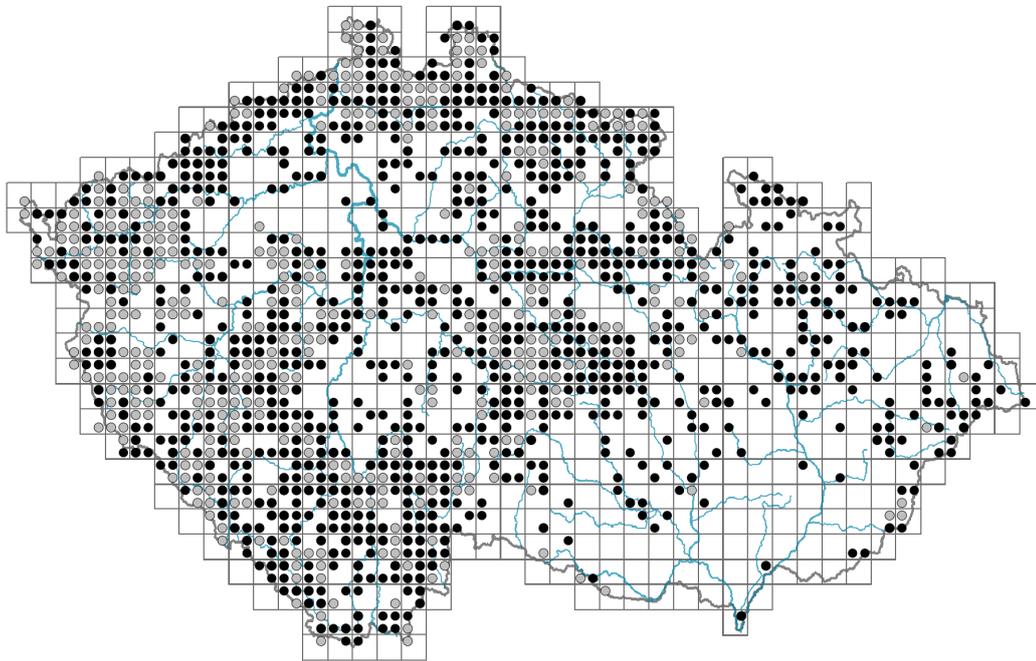


# *Achillea ptarmica*

## 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]: **0.3-1**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

Life strategy (Pierce method based on leaf traits): **SR/CSR**

Life strategy (Pierce method, C-score): **11.4 %**

Life strategy (Pierce method, S-score): **44.8 %**

Life strategy (Pierce method, R-score): **43.8 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, helomorphic**

## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **white**

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: **corymbothyrus ex anthodiis compositus**

Dicliny: **gynomonoecious**

Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**

Pollination syndrome: **insect-pollination**

Pollinator spectrum: **hoverflies, flies s. l., meat flies s. l., other Diptera (bumblebees, solitary bees, other Hymenoptera, butterflies, beetles, nitidulids, other pollinators)**



## **Fruit, seed and dispersal**

Fruit type: **dry fruit - achene/cypsela/samara**

Fruit colour: **grey**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **probably myrmecochorous nv**

## **Belowground organs and clonality**

Shoot metamorphosis: **stolon**

Root metamorphosis: **root shoot**

Storage organ: **stolon**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicality): **monocyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **absent**

Persistence of the clonal growth organ [year]: **4**

Number of clonal offspring: **6**

Lateral spreading distance by clonal growth [m]: **0.13**

Clonal index: **5**

### **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): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **6088.17**

1Cx monoploid genome size [Mbp]: **3044.08**

Genomic GC content: **38.9 %**

## Taxon origin

Origin in the Czech Republic: **native**

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

Moisture indicator value: **8 - transition between values 7 and 9**

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

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

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.33**

Herb layer disturbance frequency indicator value: **-0.24**

Whole-community disturbance severity indicator value: **0.3**

Herb layer disturbance severity indicator value: **0.33**

Whole-community structure based disturbance indicator value: **0.59**

Herb layer structure-based disturbance indicator value: **0.73**

## Habitat and sociology

### Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

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

4D Riverine reed vegetation: **1 - rare occurrence**

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

4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

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

5 Vegetation of springs and mires

5D Calcareous fens: **1 - rare occurrence**

5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

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

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 - rare occurrence**

6B Montane mesic meadows: **1 - rare occurrence**

6C Pastures and park grasslands: **1 - rare occurrence**

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

6E Wet Cirsium meadows: **2 - optimum**

6F Intermittently wet Molinia meadows: **2 - optimum**

7 Acidophilous grasslands

7B Submontane Nardus grasslands: **1 - rare occurrence**

11 Heathlands and scrub

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

11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

12 Forests

12K Acidophilous oak forests: **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: [TDF04 \*Crepido paludosae-Juncetum acutiflori\*](#)

Constant taxon

Constant taxon of associations: [TDF04 \*Crepido paludosae-Juncetum acutiflori\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.9**

Ecological specialization index for non-forest vegetation: **6**

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

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **2**

Optimum successional age [years]: **13**

## Distribution and frequency

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

Floristic region: **Europe, Asia**

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

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 527

taxon.data.freq\_in\_quad: 1319

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.8 %**

Occurrence frequency in vegetation plots with a cover above 5%: **11.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **3.6 %**

Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **18**

Number of narrow habitats in which the taxon has its optimum: **2**

Number of broad habitats in which the taxon occurs: **6**

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**