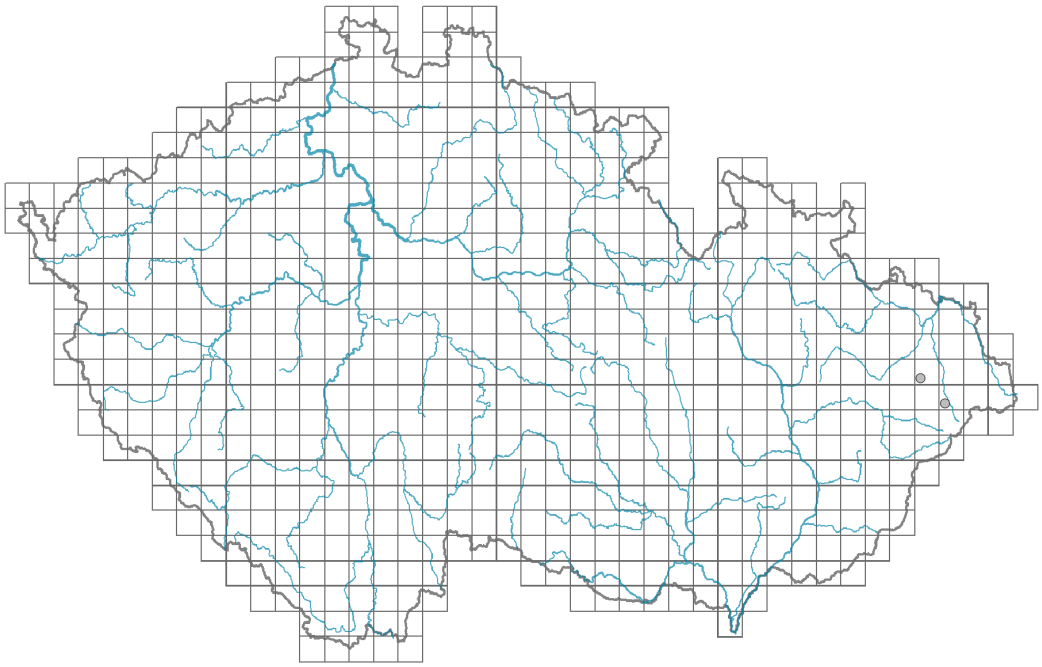
Asplenium ruta-muraria subsp. *ruta-muraria*

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]: **0.05–0.2**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **S/CSR**
Life strategy (Pierce method, C-score): **12.6 %**
Life strategy (Pierce method, S-score): **54.6 %**
Life strategy (Pierce method, R-score): **32.8 %**

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: **evergreen**
Leaf anatomy: **scleromorphic, mesomorphic**

Flower

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

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**
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 exluded) [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): **144**
Ploidy level (x): **4**
2C genome size [Mbp]: **11901.43**
1Cx monoploid genome size [Mbp]: **2975.36**
Genomic GC content: **47 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **8 – light plant, only exceptionally occurring at less than 40% 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: **3 – missing on damp soil**

Reaction indicator value: **8 – transition between values 7 and 9, occurring mostly in calcium-rich conditions**

Nutrient indicator value: **3 – occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.41**

Herb layer disturbance frequency indicator value: **-1.2**

Whole-community disturbance severity indicator value: **0.14**

Herb layer disturbance severity indicator value: **0.16**

Whole-community structure based disturbance indicator value: **0.72**

Herb layer structure-based disturbance indicator value: **0.45**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **2 – optimum**

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

1C Walls: **2 – optimum**

1D Mobile calcareous screes: **1 – rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **2 – optimum**

8B Submediterranean dry grasslands on rock outcrops: **2 – optimum**

8C Narrow-leaved sub-continental steppes: **1 – rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9F Basiphilous vegetation of spring therophytes and succulents: **1 – rare occurrence**

11 Heathlands and scrub

11N Low xeric scrub: **1 – rare occurrence**

12 Forests

12D Ravine forests: **1 – rare occurrence**

12F Limestone beech forests: **1 – rare occurrence**

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**

12O Peri-Alpidic pine forests: **2 – optimum**

12W Pine and larch plantations: **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 classes: **LE *Erico-Pinetea***, **SA *Asplenietea trichomanis***, **SB *Cymbalario muralis-Parietarietea judaicae***

Diagnostic taxon of alliances: **LEA *Erico carneae-Pinion***, **SAA *Cystopteridion***, **SAB *Asplenion cuneifolii***, **SBA *Cymbalario muralis-Asplenion***, **THC *Diantho lumnitzeri-Seslerion***

Diagnostic taxon of associations: **LEA01 *Thlaspio montani-Pinetum sylvestris***, **SAA02 *Asplenietum rutae-murario-trichomanis***, **SAB02 *Notholaeno marantae-Sempervivetum hirti***, **SBA01 *Cymbalarietum muralis***, **SBA02 *Corydalidetum luteae***, **SCA03 *Teucrio botryos-Melicetum ciliatae***, **THC01 *Carici humilis-Seslerietum caeruleae***, **THC02 *Minuartio setaceae-Seslerietum caeruleae***, **THC03 *Saxifrago paniculatae-Seslerietum caeruleae***

Constant taxon

Constant taxon of classes: **SA *Asplenietea trichomanis***

Constant taxon of alliances: **SAA *Cystopteridion***

Constant taxon of associations: **SAA02 *Asplenietum rutae-murario-trichomanis***, **SAB02 *Notholaeno marantae-Sempervivetum hirti***, **SCA03 *Teucrio botryos-Melicetum ciliatae***, **THC03 *Saxifrago paniculatae-Seslerietum caeruleae***

Dominant taxon

Dominant taxon of associations: **SAA02 *Asplenietum rutae-murario-trichomanis***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.3**

Ecological specialization index for non-forest vegetation: **3.5**

Ecological specialization index for forest vegetation: **5.1**

Colonization ability

Index of colonization success (ICS): **3**

Index of colonization potential (ICP): **3**

Optimum successional age [years]: **49**

Distribution and frequency

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

Floristic region: **Europe, Asia**

Distribution range extension along the continentality gradient: **6**

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: 488

taxon.data.freq_in_quad: 985

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%: **36.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **2.5 %**

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

Mean percentage cover in vegetation plots: **6.1 %**

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: **14**
Number of narrow habitats in which the taxon has its optimum: **5**
Number of broad habitats in which the taxon occurs: **5**
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**