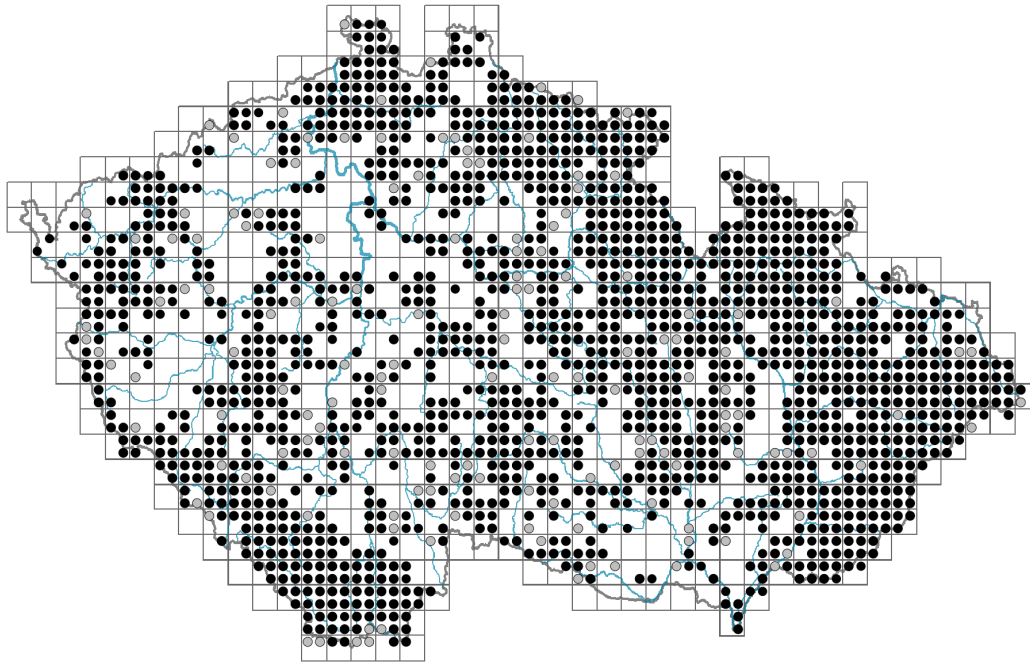


# *Paris quadrifolia*

## Distribution



Map info	
<span style="display: inline-block; width: 10px; height: 10px; background-color: black; border-radius: 50%;"></span>	revised records
<span style="display: inline-block; width: 10px; height: 10px; background-color: lightgrey; border-radius: 50%;"></span>	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]: **0.1-0.4**

Growth form: **clonal herb**

Life form: **geophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

Life strategy (Pierce method based on leaf traits): **R/CR**

Life strategy (Pierce method, C-score): **33.7 %**

Life strategy (Pierce method, S-score): **6 %**

Life strategy (Pierce method, R-score): **60.3 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **hygromorphic**

## Flower

Flowering period [month]: **April-May**

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**  
 Flower colour: **yellow-green**  
 Flower symmetry: **actinomorphic**  
 Perianth type: **homochlamydeous**  
 Perianth fusion: **free**  
 Inflorescence type: **flores solitarii**  
 Dicliny: **synoecious**  
 Generative reproduction type: **mixed mating**  
 Pollination syndrome: **wind-pollination, insect-pollination, selfing**

### Fruit, seed and dispersal

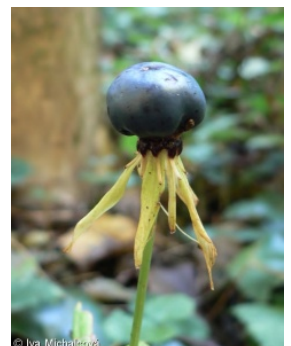
Fruit type: **fleshy fruit - berry**  
 Fruit colour: **blue, black**  
 Reproduction type: **mostly vegetatively, rarely by seed/spores**  
 Dispersal unit (diaspore): **seed, fruit, infructescence or its part**  
 Dispersal strategy: **Cornus (mainly autochory and endozoochory)**  
 Myrmecochory: **non-myrmecochorous (b)**

### Belowground organs and clonality

Shoot metamorphosis: **stolon-like rhizome**  
 Storage organ: **stolon-like rhizome**  
 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: **monopodial**  
 Primary root: **absent**  
 Persistence of the clonal growth organ [year]: **4**  
 Number of clonal offspring: **0.8**  
 Lateral spreading distance by clonal growth [m]: **0.18**  
 Clonal index: **4**  
 Bud bank  
 Number of buds per shoot at the soil surface (root buds excluded): **0**  
 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): **15**  
 Depth of the belowground bud bank (root buds excluded) [cm]: **5**  
 Number of buds per shoot at the soil surface (root buds included): **0**  
 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): **15**  
 Depth of the belowground bud bank (root buds included) [cm]: **5**

### Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**  
 Carnivory: **non-carnivorous**  
 Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



## Karyology

Chromosome number (2n): **20**

Ploidy level (x): **4**

2C genome size [Mbp]: **87802.75**

1Cx monoploid genome size [Mbp]: **21950.69**

Genomic GC content: **40.6 %**



## Taxon origin

Origin in the Czech Republic: **native**

## 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: **6 - transition between values 5 and 7**

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

Nutrient indicator value: **7 - occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor sites**

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.96**

Herb layer disturbance frequency indicator value: **-0.71**

Whole-community disturbance severity indicator value: **0.23**

Herb layer disturbance severity indicator value: **0.06**

Whole-community structure based disturbance indicator value: **0.1**

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: **2 - optimum**

4 Wetland and riverine herbaceous vegetation

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

11 Heathlands and scrub

11H Subalpine deciduous scrub: **2 - optimum**

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: **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: **1 - rare occurrence**

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

12R Acidophilous spruce forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **2 - optimum**

12V Spruce plantations: **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 associations: [ADC02 \*Pado borealis-Sorbetum aucupariae\*](#), [ADD04 \*Laserpitio archangelicae-Dactylidetum glomeratae\*](#), [ADE01 \*Daphno mezerei-Dryopteridetum filicis-maris\*](#), [LBC04 \*Athyrio distentifolii-Fagetum sylvaticae\*](#)

Constant taxon

Constant taxon of associations: [ADC02 \*Pado borealis-Sorbetum aucupariae\*](#), [ADD04 \*Laserpitio archangelicae-Dactylidetum glomeratae\*](#), [ADE01 \*Daphno mezerei-Dryopteridetum filicis-maris\*](#), [KCA02 \*Adenostylo alliariae-Pinetum mugo\*](#), [LBC04 \*Athyrio distentifolii-Fagetum sylvaticae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.6**

Ecological specialization index for non-forest vegetation: **4.3**

Ecological specialization index for forest vegetation: **5.7**

Colonization ability

Index of colonization success (ICS): **2**

Index of colonization potential (ICP): **1**

Optimum successional age [years]: **75**

## Distribution and frequency

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

Floristic region: **Europe, Siberia**

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

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: 584

taxon.data.freq\_in\_quad: 1646

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **1.8 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0 %**

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

Mean percentage cover in vegetation plots: **2 %**

Maximum percentage cover in vegetation plots: **13 %**

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: **8**

Number of broad habitats in which the taxon occurs: **4**

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**