

# Quercus rubra

## 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]: **20-30**

Growth form: **tree**

Life form: **macrophanerophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **50.1 %**

Life strategy (Pierce method, S-score): **38 %**

Life strategy (Pierce method, R-score): **11.9 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire, simple - pinnately divided**

Stipules: **present**

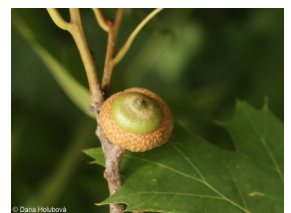
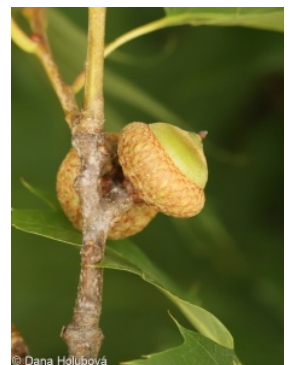
Petiole: **present**

Leaf life span: **summer green**

Leaf deciduousness in woody plants: **winter deciduous**

Leaf anatomy: **mesomorphic**

Functional leaf type in woody plants: **broad deciduous or semi-deciduous**



## Flower

Flowering period [month]: **May**

Flower colour: **green**

Perianth type: **reduced**

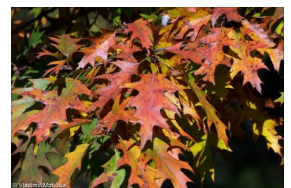
Perianth fusion: **reduced**

Inflorescence type: **amentum e floribus masculis, flores solitarii feminei**

Dicliny: **monoecious**

Generative reproduction type: **allogamy**

Pollination syndrome: **wind-pollination**



## Fruit, seed and dispersal

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

Fruit colour: **brown**

Reproduction type: **only by seed/spores**

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

Dispersal strategy: **Cornus (mainly autochory and endozoochory)**

Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

### 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): **0**

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): **0**

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): **0**

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): **0**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Taxon origin

Origin in the Czech Republic: **neophyte**

Invasion status: **invasive**

Geographic origin: **North America**

Period of introduction: **Late Modern Period (1800-1950)**

Introduction pathway: **intentional - ornamental, intentional - nature, intentional - forest**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **5x - semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area (generalist)**

Temperature indicator value: **6 - transition between values 5 and 7**

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

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**

### Habitat and sociology

#### Occurrence in habitats

7 Acidophilous grasslands

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

8 Dry grasslands

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

9 Sand grasslands and rock-outcrop vegetation

9C *Festuca* grasslands on acidic sands: **1 - rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **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

12C Oak-hornbeam forests: **1 - rare occurrence**

12G Acidophilous beech forests: **1 - rare occurrence**

12I Sub-continental thermophilous oak forests: **1 - rare occurrence**

12K Acidophilous oak forests: **2 - optimum**

12L Boreo-continental pine forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **3 - dominant**

12W Pine and larch plantations: **2 - optimum**

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**

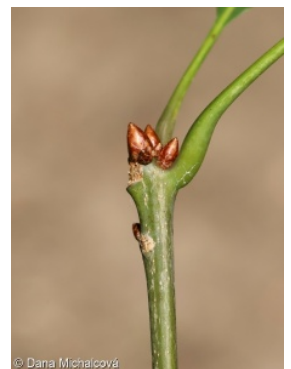
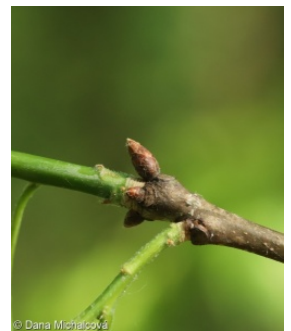
#### Ecological specialization indices

Ecological specialization index for all vegetation types: **4.3**

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

#### Colonization ability

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



Index of colonization potential (ICP): **9**  
Optimum successional age [years]: **34.5**

### **Distribution and frequency**

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

Floristic region: **Eastern America**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 588

taxon.data.freq\_in\_quad: 1726

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0 %**

Occurrence frequency in vegetation plots with a cover above 5%: **20 %**

Occurrence frequency in vegetation plots with a cover above 25%: **10 %**

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

Mean percentage cover in vegetation plots: **5.9 %**

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: **3**

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**