Quercus robur

Distribution

Map info

revised records

unrevised records

On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.

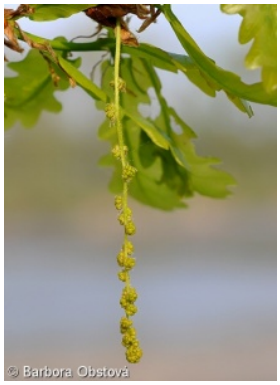
Habitus and growth type

Height [m]: **15–45**
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): **37.6 %**
Life strategy (Pierce method, S-score): **45.1 %**
Life strategy (Pierce method, R-score): **17.3 %**

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]: **April–May**
Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**
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

Position of root buds: **lateral roots**
Role of root buds in life-history of a plant: **regenerative**

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**

Karyology

Chromosome number (2n): **24**
Ploidy level (x): **2**
2C genome size [Mbp]: **1559.6**
1Cx monoploid genome size [Mbp]: **779.8**
Genomic GC content: **38.5 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6x – transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area (generalist)**
Temperature indicator value: **6 – transition between values 5 and 7**
Moisture indicator value: **6x – transition between values 5 and 7 (generalist)**
Reaction indicator value: **6x – transition between values 5 and 7 (generalist)**
Nutrient indicator value: **5x – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.93**
Herb layer disturbance frequency indicator value: **-0.77**
Whole-community disturbance severity indicator value: **0.24**
Herb layer disturbance severity indicator value: **0.08**
Whole-community structure based disturbance indicator value: **0.05**
Herb layer structure-based disturbance indicator value: **0.14**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

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

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 – rare occurrence**
5B Lowland to montane soft-water springs: **1 – rare occurrence**
5D Calcareous fens: **1 – rare occurrence**

8 Dry grasslands

8D Broad-leaved dry grasslands: **1 – rare occurrence**
8E Acidophilous dry grasslands: **1 – rare occurrence**
8F Thermophilous forest fringe vegetation: **1 – rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **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: **2 – optimum**
11N Low xeric scrub: **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: **3 – dominant**

12C Oak-hornbeam forests: **4 – constant dominant**
12D Ravine forests: **2 – optimum**
12E Herb-rich beech forests: **1 – rare occurrence**
12F Limestone beech forests: **2 – optimum**
12G Acidophilous beech forests: **1 – rare occurrence**
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**
12I Sub-continental thermophilous oak forests: **2 – optimum**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12K Acidophilous oak forests: **3 – dominant**
12L Boreo-continental pine forests: **1 – rare occurrence**
12O Peri-Alpidic pine forests: **2 – optimum**
12Q Peatland birch forests: **2 – optimum**
12T Robinia pseudacacia plantations: **2 – optimum**
12U Plantations of broad-leaved non-native trees: **2 – optimum**
12V Spruce plantations: **1 – rare occurrence**
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: **2.1 – taxon occurring both in the forest and open vegetation**
Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 – taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: **LD *Quercetea robori-petraeae***
Diagnostic taxon of alliances: **LCB *Aceri tatarici-Quercion***, **LDA *Quercion roboris***
Diagnostic taxon of associations: **LBA06 *Ficario vernae-Ulmetum campestris***, **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **LCB02 *Carici fritschii-Quercetum roboris***, **LDA04 *Holco mollis-Quercetum roboris***

Constant taxon

Constant taxon of alliances: **LCB *Aceri tatarici-Quercion***
Constant taxon of associations: **LBA05 *Pruno padi-Fraxinetum excelsioris***, **LBA06 *Ficario vernae-Ulmetum campestris***, **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **LCB02 *Carici fritschii-Quercetum roboris***, **LDA04 *Holco mollis-Quercetum roboris***

Dominant taxon

Dominant taxon of associations: **LBA06 *Ficario vernae-Ulmetum campestris***, **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **LBB01 *Galio sylvatici-Carpinetum betuli***, **LBB02 *Stellario holosteae-Carpinetum betuli***, **LBB03 *Carici pilosae-Carpinetum betuli***, **LCB01 *Quercetum pubescenti-roboris***, **LCB02 *Carici fritschii-Quercetum roboris***, **LCC03 *Melico pictae-Quercetum roboris***, **LDA01 *Luzulo luzuloidis-Quercetum petraeae***, **LDA02 *Viscario vulgaris-Quercetum petraeae***, **LDA03 *Vaccinio vitis-idaeae-Quercetum roboris***, **LDA04 *Holco mollis-Quercetum roboris***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.3**
Ecological specialization index for non-forest vegetation: **3.2**
Ecological specialization index for forest vegetation: **4.4**

Colonization ability

Index of colonization success (ICS): **8**
Index of colonization potential (ICP): **8**
Optimum successional age [years]: **33**

Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional**
Floristic region: **Europe**
Distribution range extension along the continentality gradient: **5**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 653
taxon.data.freq_in_quad: 2362

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.4 %**
Occurrence frequency in vegetation plots with a cover above 5%: **51.1 %**
Occurrence frequency in vegetation plots with a cover above 25%: **29.8 %**
Occurrence frequency in vegetation plots with a cover above 50%: **13.4 %**
Mean percentage cover in vegetation plots: **19.5 %**
Maximum percentage cover in vegetation plots: **90 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **33**
Number of narrow habitats in which the taxon has its optimum: **12**
Number of broad habitats in which the taxon occurs: **6**
Number of broad habitats in which the taxon has its optimum: **2**

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**