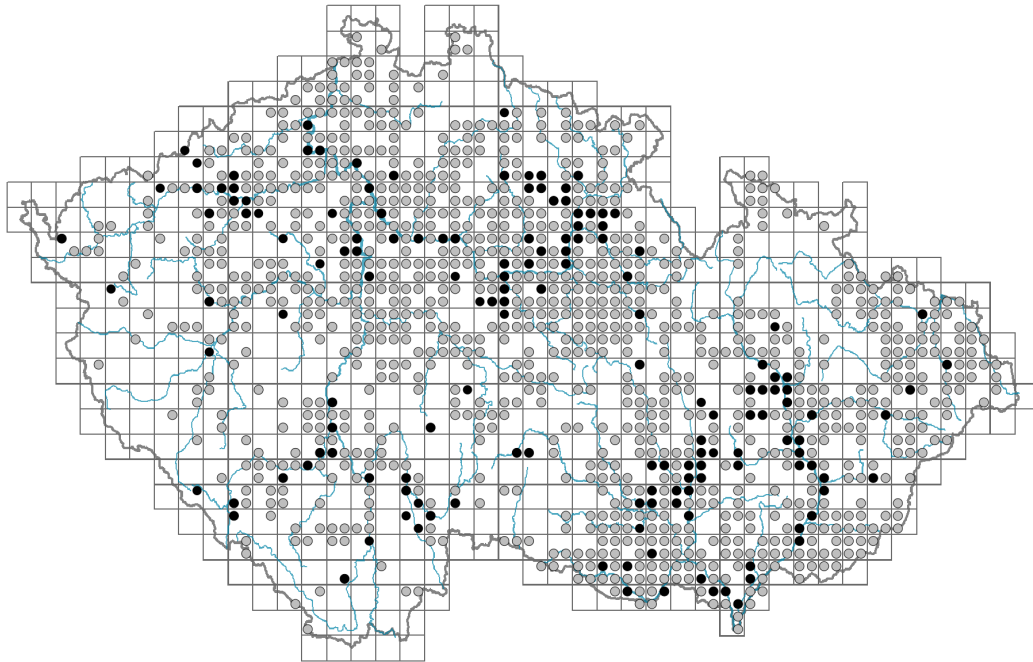


# *Ulmus laevis*

## Distribution



© Pavel Veselý

### 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]: **8-35**

Growth form: **tree**

Life form: **macrophanerophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **42.7 %**

Life strategy (Pierce method, S-score): **17.7 %**

Life strategy (Pierce method, R-score): **39.7 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

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**



© Dana Mělníčková



© Markéta Těšková



© Veronika Kalníková

## Flower

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

Flowering phase: **1 Corylus avellana-Leucojum vernal (pre-spring)**

Flower colour: **green**

Perianth type: **reduced**

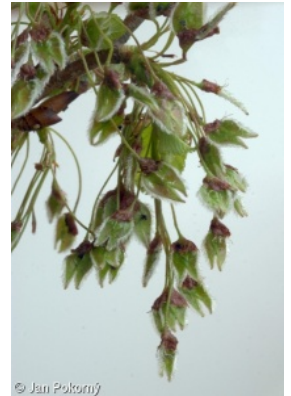
Perianth fusion: **reduced**

Inflorescence type: **panicula**

Dicliny: **synoecious**

Generative reproduction type: **alogamy self-incompatibility**

Pollination syndrome: **wind-pollination, insect-pollination, selfing**



## Fruit, seed and dispersal

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

Fruit colour: **green, yellow, brown**

Reproduction type: **mostly by seed/spores, rarely vegetatively**

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

Dispersal strategy: **Epilobium (mainly anemochory and autochory)**

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



## Belowground organs and clonality

Root metamorphosis: **root shoot, buttress root**

Position of root buds: **lateral roots**

Role of root buds in life-history of a plant: **additive**

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**

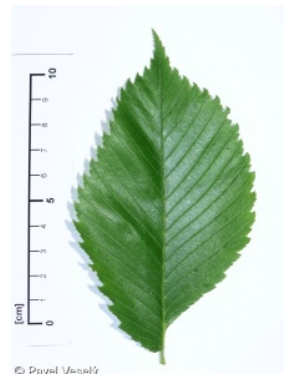
Number of buds per shoot at the soil surface (root buds included): **0**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **15**

Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**

Size of the belowground bud bank (root buds included): **30**

Depth of the belowground bud bank (root buds included) [cm]: **10**



## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **28**

Ploidy level (x): **2**

2C genome size [Mbp]: **2701.41**

1Cx monoploid genome size [Mbp]: **1350.71**

Genomic GC content: **37.5 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

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

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

Moisture indicator value: **7 - humidity indicator, focus on well moistened, but not wet soils**

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: **-1.83**

Herb layer disturbance frequency indicator value: **-0.85**

Whole-community disturbance severity indicator value: **0.27**

Herb layer disturbance severity indicator value: **0.14**

Whole-community structure based disturbance indicator value: **0.09**

Herb layer structure-based disturbance indicator value: **0.19**

## Habitat and sociology

Occurrence in habitats

11 Heathlands and scrub

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

11L Tall mesic and xeric shrub: **1 - rare occurrence**

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: **2 - optimum**

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

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

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

13 Anthropogenic vegetation

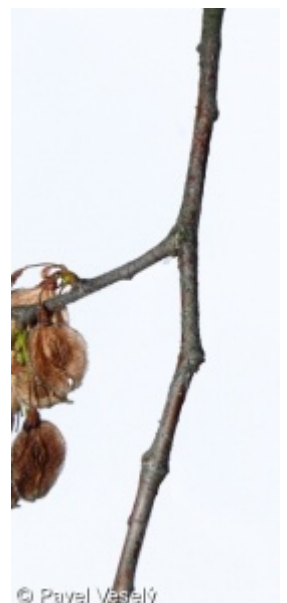
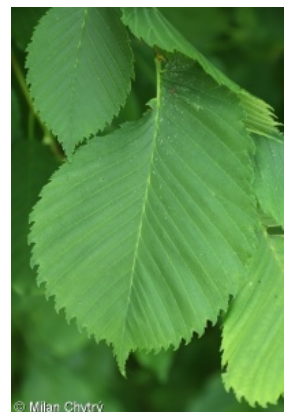
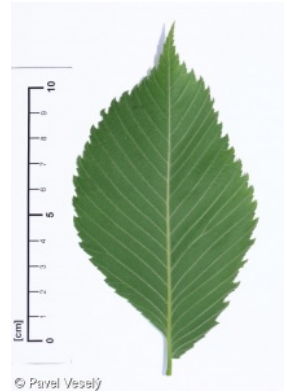
13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**

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**

Diagnostic taxon



Diagnostic taxon of associations: [LBA07 Fraxino pannonicae-Ulmetum glabrae](#)

## Ecological specialization indices

Ecological specialization index for all vegetation types: **5**

Ecological specialization index for non-forest vegetation: **3.7**

Ecological specialization index for forest vegetation: **5.2**

## Colonization ability

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

Index of colonization potential (ICP): **8**

Optimum successional age [years]: **41**

## Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **6**

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

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **480**

taxon.data.freq\_in\_quad: **1144**

## Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **30.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **5.6 %**

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

Mean percentage cover in vegetation plots: **7.6 %**

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: **10**

Number of narrow habitats in which the taxon has its optimum: **1**

Number of broad habitats in which the taxon occurs: **3**

Number of broad habitats in which the taxon has its optimum: **1**

## Threats and protection

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**

