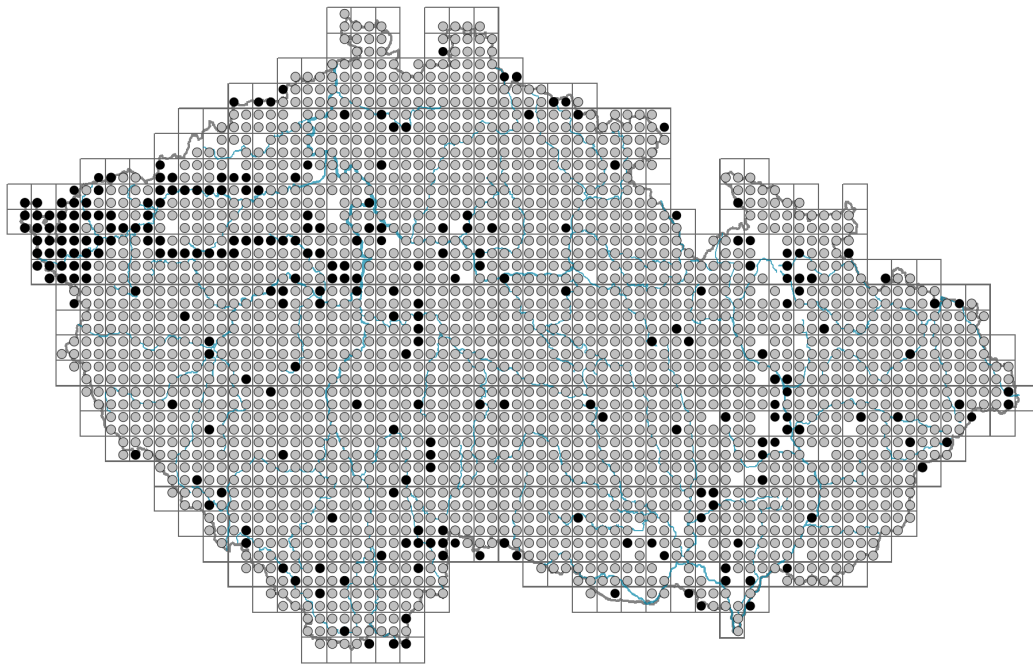


Pinus sylvestris

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]: **5-40**

Growth form: **tree**

Life form: **macrophanerophyte**

Life strategy: **C - competitor**

Life strategy (Pierce method based on leaf traits): **S**

Life strategy (Pierce method, C-score): **5.4 %**

Life strategy (Pierce method, S-score): **94.6 %**

Life strategy (Pierce method, R-score): **0 %**

Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf deciduousness in woody plants: **evergreen**

Leaf anatomy: **scleromorphic**

Functional leaf type in woody plants: **needle-like**

Flower

Flowering period [month]: **May**

Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**

Dicliny: **monoecious, gynodioecious, androdioecious**

Generative reproduction type: **allogamy, facultative allogamy**

Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

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

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

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

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**

Karyology

Chromosome number (2n): **24**

Ploidy level (x): **2**

2C genome size [Mbp]: **40961.05**

1Cx monoploid genome size [Mbp]: **20480.52**

Genomic GC content: **41.8 %**

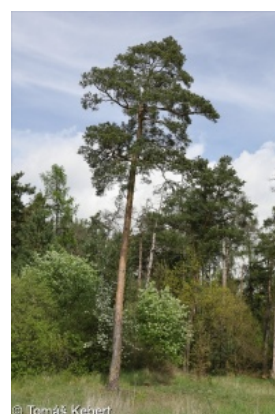
Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**



Temperature indicator value: **5x - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

Moisture indicator value: **5x - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out (generalist)**

Reaction indicator value: **5x - indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions (generalist)**

Nutrient indicator value: **2x - transition between values 1 and 3 (generalist)**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.95**

Herb layer disturbance frequency indicator value: **-0.93**

Whole-community disturbance severity indicator value: **0.22**

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

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

Herb layer structure-based disturbance indicator value: **0.1**

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

5F Transitional mires: **1 - rare occurrence**

5G Raised bogs: **1 - rare occurrence**

5H Wet peat soils and bog hollows: **1 - rare occurrence**

7 Acidophilous grasslands

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

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**

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

8D Broad-leaved dry grasslands: **1 - rare occurrence**

8E Acidophilous dry grasslands: **1 - rare occurrence**

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

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**

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

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

11I Willow carrs: **1 - rare occurrence**

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

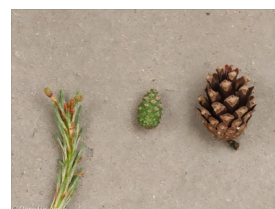
11N Low xeric scrub: **1 - rare occurrence**

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

12A Alder carrs: **1 - rare occurrence**

12B Alluvial forests: **1 - rare occurrence**



- 12C Oak-hornbeam forests: **2 - optimum**
 12D Ravine forests: **1 - rare occurrence**
 12E Herb-rich beech forests: **1 - rare occurrence**
 12F Limestone beech forests: **2 - optimum**
 12G Acidophilous beech forests: **2 - optimum**
 12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**
 12I Sub-continental thermophilous oak forests: **2 - optimum**
 12J Acidophilous thermophilous oak forests: **2 - optimum**
 12K Acidophilous oak forests: **4 - constant dominant**
 12L Boreo-continental pine forests: **4 - constant dominant**
 12O Peri-Alpidic pine forests: **4 - constant dominant**
 12P Peatland pine forests: **4 - constant dominant**
 12Q Peatland birch forests: **2 - optimum**
 12R Acidophilous spruce forests: **1 - rare occurrence**
 12T Robinia pseudacacia plantations: **1 - rare occurrence**
 12V Spruce plantations: **2 - optimum**
 12W Pine and larch plantations: **4 - constant dominant**
 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](#), [LE Erico-Pinetea](#), [LF Vaccinio-Piceetea](#)

Diagnostic taxon of alliances: [LDA Quercion roboris](#), [LEA Erico carneae-Pinion](#), [LFA Festuco-Pinion sylvestris](#), [LFB Dicrano-Pinion sylvestris](#), [LFD Vaccinio uliginosi-Pinion sylvestris](#)

Diagnostic taxon of associations: [LDA03 Vaccinio vitis-idaeae-Quercetum roboris](#), [LEA01 Thlaspio montani-Pinetum sylvestris](#), [LFA01 Festuco-Pinetum sylvestris](#), [LFB01 Cladino-Pinetum sylvestris](#), [LFB02 Vaccinio myrtilli-Pinetum sylvestris](#), [LFB03 Hieracio pallidi-Pinetum sylvestris](#), [LFB04 Asplenio cuneifolii-Pinetum sylvestris](#), [LFD02 Vaccinio uliginosi-Pinetum sylvestris](#), [RCA04 Sphagno-Pinetum sylvestris](#), [THC04 Asplenio cuneifolii-Seslerietum caeruleae](#)

Constant taxon

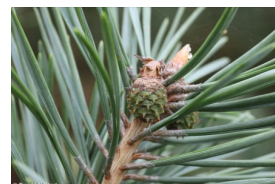
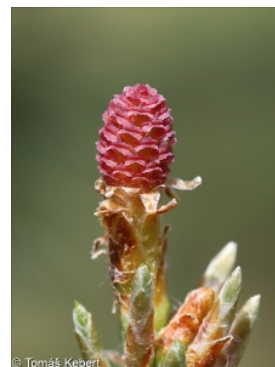
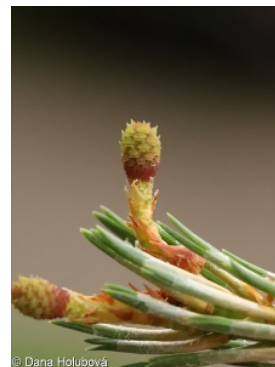
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Constant taxon of associations: [LDA03 Vaccinio vitis-idaeae-Quercetum roboris](#), [LEA01 Thlaspio montani-Pinetum sylvestris](#), [LFA01 Festuco-Pinetum sylvestris](#), [LFB01 Cladino-Pinetum sylvestris](#), [LFB02 Vaccinio myrtilli-Pinetum sylvestris](#), [LFB03 Hieracio pallidi-Pinetum sylvestris](#), [LFB04 Asplenio cuneifolii-Pinetum sylvestris](#), [LFD01 Vaccinio uliginosi-Betuletum pubescentis](#), [LFD02 Vaccinio uliginosi-Pinetum sylvestris](#), [RCA04 Sphagno-Pinetum sylvestris](#), [THC04 Asplenio cuneifolii-Seslerietum caeruleae](#)

Dominant taxon

Dominant taxon of associations: [LDA01 Luzulo luzuloidis-Quercetum petraeae](#),



[LDA02 Viscario vulgaris-Quercetum petraeae](#), [LDA03 Vaccinio vitis-idaeae-Quercetum roboris](#), [LEA01 Thlaspio montani-Pinetum sylvestris](#), [LFA01 Festuco-Pinetum sylvestris](#), [LFB01 Cladino-Pinetum sylvestris](#), [LFB02 Vaccinio myrtilli-Pinetum sylvestris](#), [LFB03 Hieracio pallidi-Pinetum sylvestris](#), [LFB04 Asplenio cuneifolii-Pinetum sylvestris](#), [LFD02 Vaccinio uliginosi-Pinetum sylvestris](#), [RCA04 Sphagno-Pinetum sylvestris](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.6**

Ecological specialization index for non-forest vegetation: **2.9**

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

Colonization ability

Index of colonization success (ICS): **9**

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

Optimum successional age [years]: **15**

Distribution and frequency

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

Floristic region: **Europe, Asia**

Continental degree: **6**

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

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt (montane belt)**

Expansive taxon in the region: **Bohemian Thermophyticum, Bohemian Moravian Mesophyticum, Pannonian Thermophyticum, Carpathian Mesophyticum**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **666**

taxon.data.freq_in_quad: **2423**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **62.1 %**

Occurrence frequency in vegetation plots with a cover above 25%: **44.9 %**

Occurrence frequency in vegetation plots with a cover above 50%: **20.4 %**

Mean percentage cover in vegetation plots: **27.3 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **39**

Number of narrow habitats in which the taxon has its optimum: **13**

Number of broad habitats in which the taxon occurs: **8**

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)**

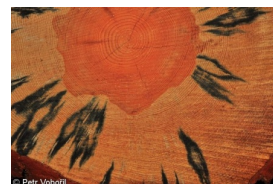
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