

# ARBOGRAPHY

(the world' trees mapping and description system)

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Hi, we are [TreeWalkers](#)

We'd like to present the description system for trees and grades of routes to the canopies according to the techniques being applied, tree architecture, its height and other features.

The goal is to distinctly identify these specific features for each Unique Tree using **Uniform Tree Description Format (UTDF)**, to make e-catalog, and to wonder each other the beauty and majesty of the trees we've explored. Many of them are worthy to make a story or poem, aren't them?)

We hope this system could be useful for sharing information about trees (especially Giants!), to find and identify them, name them and make a global Treeclimbing Map for rectreeclimbers and canopy campers. This could be the e-Guidebook about living Creatures that we have contacted, suitable for climbing. Not actually a 'guide book' with tracks and routes (like go-and-climb), but a library of short stories where all the Trees are listed using UTDF which helps to sort the database according to certain fields. For example if you are searching for training OAKs in Italy just sort by <specie>+<TRN>+<IT> fields and see all the oaks best suitable for training climbs ...

Next step is to find its location (if it's not located on private land or it's a veteran Giant). In general, it can be accessible, but by default is hidden from unregistered climbers.

Concerning the aspect of overclimbing, the access to the map could be granted after certain registration of "approved" climber. (may be certification of [GOTC](#) member or [BCC](#) member will be enough, or we can offer to sign some ethical agreement ... let's think it together?)

The catalog entries should be linked with the world map.

we've already tried to [map the remarkable trees](#) using google service:

The UTDF looks like this:

*: # item number*

*: <Tree Name>*

*: <Tree Specie (lat.)>*

*: Country code (RU/UK/US/FR)*

: *Level of difficulty (A0 to D3)*

: *Tree risk assessment according to actual tree health (OK|BST|OLD|WARN)*

: *Unique features (PHAR|HIST|TRN|CHMP|ARCH)*

: *~ Apprx. / measured age (c. years)*

: *~ Apprx. / measured height (m)*

: *~ Apprx. / measured trunk circumference (m)*

Additional comments include: first climb date|team, technical recommendations, recTC advantages, risks and warnings, stories or legends etc.

Example of one of our local oak tree:

*#2 : «Водяной» : QUERCUS ROBUR : RU : A2-B1 : BST : TRN : ~50 : 35m : 2.1m*

## **Meaning of main fields:**

*: # item number*

The index number of a Tree in the catalogue/guidebook

*: <Tree Name>*

This field describes the specific name for the tree, according to its unique features. (like “General Sherman”, “Methuselah”, “Дедуля”, etc.)

*: <Tree Specie (lat.)>*

We should indicate the botanic specie of certain tree like Quercus Robur (QR), Fagus Orientalis (FO), Abies Normanniana (AN), Sequoia Sempervirens (SS), etc. This information is important because some species has weak structure and are not recommended for climbing or can cause some extra risks. We use Latin name to distinctly define the tree. The acronyms for popular species will be listed in appendix.

*: Level of difficulty (A0 to D3)*

Alpinists, rock and ice climbers, surfers and rafters - they all have grade system of routes - what about tree climbing? It's a really different thing to climb grannie's apple tree and 400-years-old, 80m Eucalyptus!

So this field indicates the **grade** of a treeclimbing route, intended to describe concisely the difficulty and danger to reach the tree tops and to perform activities up there (like organizing canopy campout, tree travers, mixed expeditions, etc.)

To diverse possible routes we use grades from A to D

**Level A** trees are safe and comfortable for free-tree climbing, using just hands and bare feet, no ropes and any gears actually needed, besides PPE. Low branches are reachable from the ground or neighbor tree.

**A0** (Training category. Free-Tree climbing in low and middle branches, height: 3-5m, recommended age: 7+)

**A1** (Training category. Free-Tree climbing in middle branches up to the canopy, [PPE](#)+safety lanyard,, height: 5-10m, recommended age: 9+)

**A2** (Free-Tree climbing using neighbor tree to reach the first low branches, [PPE](#)+safety lanyard, height: 10-15m, recommended age: 10+)

The access to mature trees is possible with rope techniques ( DdRT or SRT) only. Such trees are classified by levels **B and C**

**B0** (Training category. **pre-installed climbing line, ascending/descending: [SRT/DdRT](#) + top roping**, height: <10 m, recommended age: 10+)

**B1** (**[basal/canopy anchoring](#), ascending/descending: [SRT/DdRT](#)**, height: 10-20 m, recommended age: 12+)

**B2** (**[basal/canopy anchoring](#), ascending/descending: [SRT/DdRT](#)/2loops, limb walking**, height: 20-30 m, recommended age: 16+)

**Level C** describes not just ascending/discending, but also canopy camping and tree traverse between 2 or more trees.

**C0** (Training category. **ascending/descending: [SRT/DdRT/2loops](#), limb walking and travers techniques between codominant stems of the same tree. canopy campout for 1 night**, height: 15-20 m, recommended age: 16+. **Ground support is applicable**).

**C1** (**ascending/descending: [SRT/DdRT/2loops](#), travers between 2 trees**, height: 20-30 m, recommended age: 18+)

**C2** (**autonomous multi day routs. ascending/descending: [SRT/DdRT/2loops](#), travers > 2 trees, canopy campouts >1day**, height: 30-40 m, recommended age: 18+)

**Level D** trees are the old growth Giants. Commonly they are located in a deep forest and u need to bushwalk for some kilometers with all the gear upon your shoulders. The goal of such expeditions could be canopy science projects, statistic measurements, etc. Qualified team and rescue equipment are strongly recommended.

**D0** (trekking < 10 км, **ascending/descending: [SRT/DdRT/2loops](#)**, height: 35-45 m, recommended age: 18+)

**D1** (trekking >10 км, **ascending/descending: [SRT/DdRT/2loops](#)**, height: 35-45 m, **canopy campout**, height: >45 m, recommended age: 18+)

**D2** (Champion Trees. Multi-day expeditions. Not for recreational treeclimbing. Location is hidden to keep canopy biodiversity intacted. Maximum technical grade.

Note: According to treeclimbing ethics, no gaffs or other bark damaging tools are applicable for climbing. Use cambium-savers wherever it possible!

*: Tree risk assessment according to actual tree health (OK|BST|OLD|WARN)*

The next field indicates the risks for the climber according to the current tree health

Before climbing, careful tree inspection is needed. The main aspects to detect are signs of wilt, mushrooms on the trunk, hangers (“widow makers”), tree hollows, mechanical damages or other diseases. A special attributes mark the tree as safe for climbing or not.

**OK** — Young healthy tree, carefully pruned from dry wood and hangers before climbing. Special attention to young thin branches and summary load to the trunk. Avoid lateral walks. Recommended for training.

**BST** — Mature healthy tree with a wide canopy. Best suitable for recreational treeclimbing practices and canopy campouts.

**OLD** — old growth health tree. Safe for treeclimbing but at the same time, special attention is paid to the strength of old overloaded branches, the presence of dead and hanging branches in the crown. Small dry branches may collapse during climbing operations. A preliminary inspection of the current state is mandatory. Climbing is recommended only for experienced tree climbers as part of a team capable of organizing rescue work in case of an emergency.

**WRN** — for some reasons, the tree is recognized as potentially dangerous. Only experienced tree climbers are allowed to climb, taking extra precautions. A preliminary inspection of the current state is mandatory. Collapse of overloaded lateral branches or co-dominant trunks is possible. Permissible motives for climbing: scientific purposes or preventive tree care. Not recommended for recreational tree climbing.

*: Unique features (PHAR|HIST|TRN|CHMP|ARCH)*

The next field indicated certain specific characteristics and features of a tree.

Each tree is unique but we often choose the most remarkable among others – extraordinary tree architecture or height, advantageous location on the hill or crest, historical or legendary trees. Its also important to mark training trees for newbies.

**PHAR** So called ”Pharos Trees”, with a unique location on the terrain, from the top of which you can view a 360 deg panorama of the surroundings.

**HIST** the tree has historical or cultural significance.

**CHMP** a tree that has unique characteristics for its species (the tallest or having maximum trunk circumference, the only one in the certain region, the last on the planet, etc.)

**ARCH** a tree with a unique architecture (spreading crown, arched and bridge side branches, aerial roots, etc.)

**TRN** a training tree, previously cleared of dead wood, having stationary canopy anchors for top rope or platforms in the canopy. The crown of the tree is sufficiently thinned out allowing to practice any climbing technique.

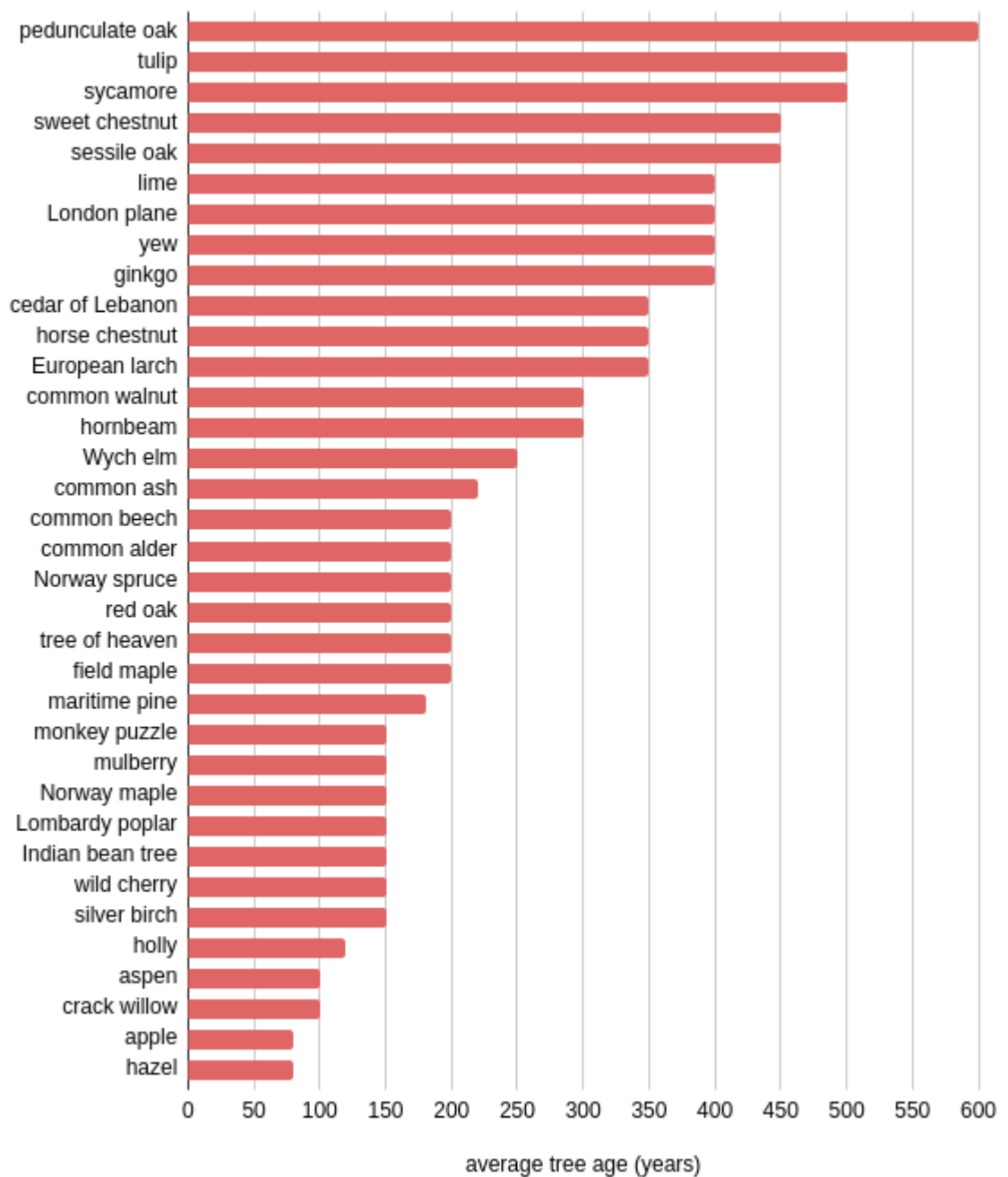
The last group indicates base taxation characteristics like height, trunk circumference and age. Usually its enough to make approximate evaluation but sometimes we can measure them accurately using simple methods and instruments.

**Height** The height of a tree can be measured in different ways. The most accurate is the measurement with a tape measure or a working rope from the canopy to the ground. In some cases, a drone or laser rangefinder can be used. If an exact measurement is not possible, then the height is indicated approximately (~). The measurement error is not so critical. Tree height predetermine the choice of anchor point setting technique (BigShot, crossbow, throwball, 2loops), the required amount of ropes, and the climbing scenario in general.

**Trunk circumference** Measurements are taken at a height of 1.3m (DBH). For trees on a slope, the reading is taken from the side of the slope. In the case of co-dominant stems, the diameter is indicated for each of them. Tree trunk circumference predetermines the choice of climbing technique.

**Age** The most accurate dating of a living tree can be determined with a Pressler borer (by counting growth rings), however, this method is not applicable to all species, due to its hardwood structure. Approximate dating gives more complete characterization of a particular tree. When dating, it is important to consider the differences in the life cycle for each species. Age table is listed below. Sometimes, exact dating is possible on the basis of historical information, in such cases the exact age is indicated.

## Natural Tree Ages (average). Compiled by Gabriel Hemery



Thus and so, we have quite enough information about the Tree to share with each other worldwide.

Waiting for your comments!

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Appendix:

The google map of remarkable trees of Russia is here

<https://treewalkers.ru/giants>

The google map of Big Canopy Campout trees is here

<https://www.google.com/maps/d/edit?mid=1Mm8G3H-Fyj6BSVA66gonQzAXbT5b1yw&usp=sharing>

 ДРЕВОЛАЗАНИЕ - Система описания деревьев

Catalog of remarkable trees

<https://treewalkers.ru/routes>