

Arboretum Norr

A guide to the Arboretum in Baggböle, Umeå



A short description of the arboretum and its parts



Arboretum Norr in Baggböle is one of the northernmost plant collections of its kind and the goal is to collect and display as many of the world's woody species as possible. Compared to other northerly parts of the world, Scandinavia has a favorable climate, and the south-facing slope and the close proximity to the river make the conditions here extra favorable.

The arboretum divides into different parts that represent certain geographical regions and several kilometers of prepared footpaths leads you through wild forests that contain trees and bushes from all over the northern hemisphere. In the center of the arboretum, we also have Kvarnängen and the Japanese Garden that we manage like a park rather than a forest. This is also where you find our main entrance, parking areas and **Baggböle manor [19]**, which in the late 1800s, was the center in one of northern Sweden's biggest sawmill industries.

Europe

The European part of the arboretum is situated at the western border of the area and can be reached on several paths. One of these runs under big pines and spruces on the **Ridge [1]**, where you find some of the arboretums most stunning views; at one side the river in the background and European silver firs (*Abies alba*) in the foreground, and on the other side the area's biggest and wildest ravine. The **Auditorium [2]** with old pines and big aspen trees (*Populus tremula*) is a place for lectures and small performances. Above the auditorium and the ridge, you find car parks and another entrance to the arboretum, which is also one of the starting points of our handicap trail. Here, we have planted Serbian spruces (*Picea omorika*), a species that once covered large parts of Europe. Since the last glaciation, it is restricted to small mountain areas on Balkan where it was found in 1875. In addition, several other species planted nearby originate from the Balkan Peninsula; e.g. Balkan pine (*Pinus peuce*) and horse chestnut (*Aesculus hippocastanum*).

In the slopes of the European part, you find a lot of old trees which have been growing here since long before the arboretum. One of these is the **Old pine [3]** with visible scars caused by past wildfires in the area. **Oak hill [4]** offers an excellent view over the river. Here you find planted oaks (*Quercus robur*) and elms (*Ulmus glabra*) from southern Sweden intermingled with naturally occurring bird cherries (*Prunus padus*), grey alders (*Alnus incana*) and goat willows (*Salix caprea*). In this area, you also find several ashes (*Fraxinus excelsior*) moved in 2011 from former research areas in Umeå even though they were big trees at the time. To put special emphasis on species naturally occurring in Sweden, we have just started to highlight those with special signs.

Western North America

Western Canada and USA host many of the world's largest conifers and several of these species can survive in our climate. Here you can walk through small stands of white fir (*Abies concolor*), black spruce (*Picea mariana*), sitka spruce (*Picea sitchensis*), lodgepole pine (*Pinus contorta*) and tamarack (*Larix laricina*). douglas firs (*Pseudotsuga menziesii*) and subalpine firs (*Abies lasiocarpa*), which were planted when the arboretum was started, have already become big trees. We have also done extensive new plantings of these species in the last couple of years, especially along Lägdaleden. On **Hemlock hill [5]** grows the oldest planted tree in the arboretum. It is a 90 year old mountain hemlock (*Tsuga mertensiana*), which was 50 years old, but only 1m high, when it was moved here in the beginning of the 1980's.

Be sure not to miss the distinctive **Silver fir slope [6]** that show the importance of choosing hardy plant material for use in our climate. The provenience of Pacific silver firs chosen for this planting was apparently not suitable since most shoots above the snow froze back during the first 20 years, while the trees continued to broaden underneath the height of the protecting snow cover.

Western and eastern North America are divided by large grasslands in real life, and in Baggböle there is a meadow between these parts. There you can have a picnic in the sun or visit the **Riverside grill area [7]** right next to it.

Eastern North America

A visit to the **Woodland meadows [9]** in Eastern North America during the spring is one of the most stunning experiences the arboretum has to offer. Enjoy beautiful broadleaves such as hawthorn (*Crataegus intricata*), northern red oak (*Quercus rubra*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*) and silver maple (*Acer saccharinum*). If you follow the path from the meadow that leads up the hill you can find a large group of eastern white cedars (*Thuja occidentalis*), here growing in its natural form and not as the slender cultivars you see in gardens.

On the upper side of Eastern North America, where **Lägdaleden [8]** passes, we have made new plantings of several broadleaves, e.g. several of the many maples and birches found in the region. Here we also find our rarest tree, an American chestnut (*Castanea dentata*). Rare in the sense that it is almost extinct from its natural habitat and that it is not expected to survive this far up north. This region's most common conifer, the balsam fir (*Abies balsamifera*) grows here too. The wild flora in this part of the arboretum is in itself spectacular, especially in the **Fern valley [10]** with enormous stands of our biggest fern, the ostrich fern (*Matteuccia struthiopteris*). This species is circum-polar and common also in North America.

Information directly in your phone
-visit our interactive maps

www.arboretumnorr.se/karta/#!en



Siberia

Siberia and Lägdaleden are now separated from the field above with a classic Swedish wooden fence and a row of hawthorns (*Crataegus chlorosarca*) planted on the inside. This unusual and pretty tree from east Siberia was once planted among the avenues of St. Petersburg during the tsarist regime. Take a walk along the **Siberian trails [12]** and enjoy the wild and hilly forests reminiscent of Kamchatka, where one of our previous seed collecting expeditions took place. One species brought home was the rare “Kamchatka fir” (*Abies gracilis*). Others were Siberian fir (*Abies sibirica*), Erman’s birch (*Betula ermanii*) and Siberian alder (*Alnus fruticosa*). Have a seat at the **Siberia view [13]** before you proceed to the **Siberian larch forest [11]** with several larch trees that were 15-18 meters high when they were moved here. We started creating the Siberia part quite recently but since several of our native trees (e.g. spruce, birch, aspen, grey alder) also grows in Siberia, many big wild trees have been kept.

Lägdaleden – a trail for everyone



The Arboretum in Baggböle is situated in steep slopes where it sometimes can be hard or nearly impossible to get by with a baby stroller or a wheelchair. This is why we started to prepare Lägdaleden [8], which is a 900 m long handicapped accessible trail between Baggböle manor and the Europe part.

Lägdaleden runs on level ground alongside the fields in the upper parts of the arboretum and you can park your car at both ends. The trail is packed with rock flour which makes a hard and smooth surface. From the trail, there are plenty of viewpoints down into the slopes which makes it possible to see what other parts of the arboretum has to offer. There is also many new trees and bushes planted alongside the trail and several of them has signs with more detailed information.

If we can only find positive sponsors, we plan for more improvements in the future. These include increasing accessibility with more bridges, new detours into the arboretum, grill areas suited for wheelchairs etc.

Kvarnängen

Kvarnängen differs from other parts of the arboretum by the fact that it has kept its historical name from the time when there were mills in this area (kvarn = mill, ängen = meadow). Here we want to show some of the most spectacular plants the other parts has to offer, like many flowering species such as crab apples and lilacs.

Another thing that sets Kvarnängen apart is that we manage the area more like a regular park [15], unlike the geographical parts that should resemble natural forest environments. **Tvätthällstugan** [14], situated right next to the river, is a nice place if you want to find shelter and make a fire. Downstream you can rest in **Hammocks** [16] by the riverside and if you are lucky, a beaver might swim by.

One important goal with Kvarnängen is to show the big genetic variation that can be seen within species, both naturally occurring forms and varieties but also cultivars made through plant breeding. Examples of the previous are different forms of common Norway spruce (*Picea abies*) like the snake branch Norway spruce (*Picea abies f. virgata*) and red-needle Norway spruce (*Picea abies f. cruenta*) or the Finnish red downy birch (*Betula pubescens f. rubra*) which originally was found in northern Finland. A classic example of manmade cultivars is roses and in our **Rosarium** [18] we have gathered several sorts of roses, suitable for northern Sweden. Arboretum Norr is also part of the national gene reserve as a local clone archive with responsibility for preserving a number of cultivars. Right next to the roses we have the **Large poplar** [17], a Carolina poplar (*Populus x canadensis*) that was grown from a cutting taken in 1980. Almost 30 m in height today, it has had the best growth of all the trees planted in the arboretum. Several Amur chokecherries (*Prunus maackii*) also grows here, some planted in 1983 while most others are self-sown by those.

Art in Arboretum Norr



Currently there are two permanent art installations in our arboretum in Baggböle. Along the handicap trail (in Western North America) you will come across **"In between"** by Carina Olsson, Ulla Thøgersen and Rebecka Adelhult Feklistoff. The old abandoned power station inside the Japanese garden contains a sculpture named **"8 11"** by Fredrik Wretman [21].

Japanese Garden

Be sure to visit our newest part, the **Japanese garden [20]** where we have been inspired by traditional Japanese horticulture. Come here to meditate next to the ferns by the pond and enjoy a fine selection of Japanese trees and bushes. Here you can find Japanese wingnuts (*Pterocarya rhoifolia*) with their beautiful foliage and several oriental bittersweets (*Celastrus orbiculatus*) that are climbing on erected logs.

The terrace above is built with bark and old birch logs, here we have planted several specimens of Sargent's cherry (*Prunus sargentii*) among other trees and bushes. From the middle of the slope there is a small stream tumbling down on smooth rocks, down the old stone wall to finally reach the pond in the middle of the garden. More information about the garden and the species growing here is available on our website and on an information board next to the entrance.

Testing the hardiness of trees and shrubs

One of the goals of our foundation is to find new species and hardy plant material for northern Sweden. For our geographical parts of the arboretum, the ambition is to collect the seed material in the wild and within their natural distribution. Since we are situated more northerly than those areas we often have to look for more mountainous regions for collecting seeds and to find hardy proveniences. The seedlings spend their first years in our nursery; this in itself is a first test of their hardiness before it is time for them to relocate to the arboretum.

East Asia

This part of the arboretum mostly consists of species planted alongside a 500 m long stretch of the main trail. The **East Asia path [22]** always delivers a pleasant view with the **River rapids [23]** steadily flowing in the background. Manchurian walnut (*Juglans mandshurica*), Manchurian ash (*Fraxinus mandshurica*), katsura (*Cercidiphyllum japonicum*) and stone birch (*Betula ermanii*) stands next to the path together with about 50 other Asian species. The slopes above the path has been classified as a **Key habitat [25]**, important for biodiversity, and is not used for our plantings. Below Baggböle manor we have a group of what is regarded as the world's hardest pear tree, Manchurian pear (*Pyrus ussuriensis*). They are beautiful during their flowering in early spring. One of the arboretum's previous seed collecting expeditions took place in the Changbai Mountains on the border of China and North Korea. Results from that trip are now growing below **Tore's staircase [24]**. Here you can taste the berries from the edible honeysuckle (*Lonicera caerulea* var. *edulis*) and kolomikta vine (*Actinidia kolomikta*). Tasteful cultivars from both species are now readily available to buy from different plant nurseries.

Foundation Arboretum Norr

The foundation Arboretum Norr was formed in 1984 through a collaboration between Umeå Municipality, Umeå University and the Swedish University of Agricultural Sciences, in order to manage the Arboretum that had recently been set up in the village Baggböle. The history of the arboretum actually started ten years earlier when the Danish forester Carl-Gustaf Thøgersen, then a student at Umeå University, presented a plan to establish the world's northernmost arboretum in Umeå.

Besides the main arboretum in Baggböle, we also run two smaller arboreta, on campus in Umeå and in Gällivare far up north. The arboretum in Gällivare was established, to test plants in a tough climate. On the campus in Umeå, C.G Thøgersen planted the first trees with the intention to use them for teaching. With those collections as a base, we are now trying to build a new and interesting arboretum also there.

In addition to the care and management of the collections, two distinctive goals are stated in the foundations bylaws:

- to gather knowledge about the hardiness and growth of trees and bushes for the purpose of selecting interesting species and varieties for our northern climate.
- to communicate dendrological knowledge to students and the public (dendrology; the science and study of wooded plants).

Arboretum Norr is financed through contributions from Umeå municipality and other municipalities in Norrland. Funding also comes from private donors, companies and various institutions.

Guided tours of the arboretum can be arranged if our schedule is open. Feel free to contact us for more information.

www.arboretumnorr.se/en



Contributions to our foundation are greatly appreciated!
Either by **Giro: 5167-1451** or **Swish: 123 132 37 73**

© Stiftelsen Arboretum Norr 2019

The cover photo of this pamphlet shows the bud development of a hawthorn (*Crataegus chlorosarca*). From an original oil painting by Sonja Strömkvist (www.ateljefridhem.com).

Conservation and biodiversity

We take biodiversity of all species into consideration during our work at Arboretum Norr, even though most focus are spent on the trees and bushes.

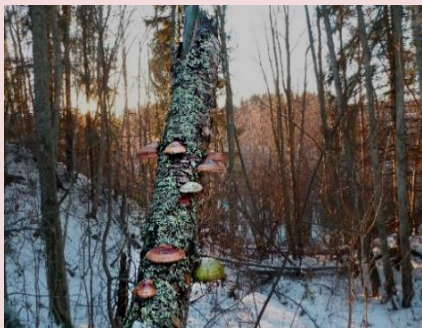


Photo: Alexandra Högberg

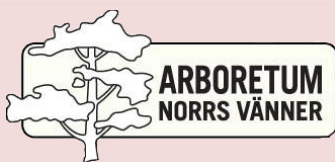
In the geographical parts of the arboretum, we want to present something as close to a natural forest as possible. Around the world, one of the most important components of those forests are the amount of decaying wood, in form of standing and lying dead trees. During our work, we always try to preserve and restore this important resource. Fungi that needs decaying wood to develop can sometimes appear in just a few years on newly felled trees.

Studies carried out in the arboretum has also shown a rich diversity of insects, some of which are dependent of decaying wood. An abundance of insects also means that there is a lot of food for birds and other animals.

We constantly fell the already existing trees to make room for the planted ones, providing them light and nutrients. When felling these trees we leave the dead trees as either standing stumps or lying on the ground. We do this to promote biodiversity but also to try to restore the conditions where these species would naturally regenerate (often in a fire field). In the arboretum and on our homepage, you can find more information on forest ecology and conservation.



Our work with biodiversity have received economical support from the Swedish environmental protection agency.



Friends of Arboretum Norr is an association, which gives interested people an opportunity to contribute and support the development of the arboretum. This is done in several different ways; the association works with forming public opinion, arranges workdays in the arboretum and gives smaller economic contributions. Friends of Arboretum Norr also arranges national and international tours for studying trees.

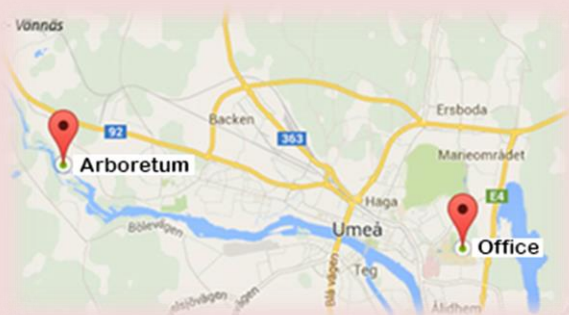
Read more about the association and membership at:
www.arboretumnorrsvanner.se



The word **arboretum** comes from the Latin word *arbor*, which means tree. It is in short a botanical garden containing living collections of woody plants such as trees, bushes and vines. In the small village Baggböle about 10 km from Umeå city centre, you can find one of the world's northernmost arboreta.

In the mid-1970s the idea to establish the world's northernmost arboretum was born. Ten years later Arboretum Norr was founded through a collaboration between Umeå Municipality, Umeå University, and the Swedish University of Agricultural Sciences. The organization now manages three arboreta in the northern part of Sweden.

Our main arboretum is situated 10 km outside of Umeå city in the small village Baggböle. The 16 ha large area is situated right next to the Ume River in a southern facing slope. There are over 2800 planted trees, bushes and vines growing here of over 400 taxa (species, subspecies, cultivars etc).



The arboretum stretches along the Ume River with Baggböle manor in the center. It is easy to find and above the manor there are parking spaces. This is also, where most of our visitors arrive. You can also reach us by foot or by bike using the small road that runs west from central Umeå along the river, and continues all the way to the arboretum. For current bus schedules please visit www.tabussen.nu/ultra/english

Foundation Arboretum Norr, Skogsmarksgränd, 901 83 Umeå
Telephone: +4670-6312519 - +4672-2384439

arboretum.norr@slu.se
www.arboretumnorr.se/en

