

European Champion Tree Forum

Arboretum Park Härle, Bonn, Germany, 7th to 9th October 2011

Edited by Gordon L Mackenthun

Following the initial and highly successful meeting of European big tree enthusiasts in Wespelaar, Belgium in 2010, the Deutsche Dendrologische Gesellschaft (DDG, *German Dendrology Society*), Gesellschaft Deutsches Arboretum (GDA; *German Arboreta Society*) and the Arboretum "Park Härle" decided to join forces and to invite enthusiasts to a follow-up in 2011.

The response was encouraging. Within days there were some 20 bookings from 10 countries. After a number of "yes" and "nos" and "maybes" these figures remained stable so that in the end the Bonn meeting was smaller than the Wespelaar meeting but probably slightly more compact and focused.

The meeting was held in and near the Härle Arboretum in Bonn, easily accessible by car, train and plane. In the evening of Friday, 7th we had an informal get together in the cosy "Kinkelstube", a traditional German winepub in the heart of the Oberkassel neighbourhood where the Härle Arboretum is located. A number of friends and colleagues had already arrived, especially most of those who had to travel long distance.

Next morning we were the guests of the Privates Ernst-Kalkuhl-Gymnasium, a boarding school which also runs the Kal-Cool-Forum serving as the school's assembly hall. In a productive atmosphere things got started with the first presentations of the day. The rule was that those initiatives that were already present in Wespelaar should just give an up-date of their work while newcomers should give a full account. We heard Roel Jacobs (Belgium), Hendrik Relve (Estonia), Gordon Mackenthun (Germany), David Alderman (GB), Miklós Kovács (Hungary), Susana Domínguez Lerena (Spain) and Jeroen Philippona and Leo Goudzwaard for what we call "The International Group".

Roel Jacobs spoke for the Belgian Dendrology Society (BDB).

He informed the meeting of the society's continuing work collecting data and keeping the tree inventory of Belgium and its database BELTREES up-to-date. Koen Camelbeke, director of Arboretum Wespelaar is the curator of the database.

The BDB does not only measure Champion Trees but also all other trees that are of interest in an Arboretum, a collection, a park or a private garden or in streets.

The database is posted on the website www.dendrologie.be in Dutch or French. Practical information about how to measure trees and how to collect the data is also available. From its start in 1987 the height to measure the girth of a tree has been established at 1.50 m.

At present it contains information on 26,461 living trees, of which 23,981 (91 %) trees are in good condition and 706 of these trees show exceptional measurements.

The dataset for each tree contains: A unique identification number, health condition,

champions rank according to girth, scientific name, height (if available), year of measurement, location (park, city and province) and remarks (e. g. more detailed information about the location).

The number of different taxa is now 1,787, of which 60% are species and 40% are hybrids and cultivars. More than 600 taxa have only one single specimen, these are very rare and rarely planted trees.

The champions are listed in category (1°), next three (2°), next six (3°) or next ten (4°). A fifth category (5°) lists trees that do not conform to the standards but are remarkable or very well known.

326 trees have a girth of more than 6 meters, 84 of those are bigger than 7 meters and 77 more than 8 meters.

Roel presented us his book "Trees of Belgium, Revisited", with an introduction by Philippe de Spoelberch.

As an artist, Roel started the "Monumental Trees Project" to allow trees to grow into centuries-old monuments. "Planting a tree should be like putting the first stone of a cathedral: Building for eternity" he says. In May 2010 he introduced his artwork "Cornerstone", a living sculpture, in the open-air sculpture park of the world famous "Middelheimmuseum" in Antwerp. This seedling of a Ginkgo tree is now part of the collection of the museum together with works of artists like of Brancusi and Rodin. The museum guarantees this work of art a life-span of some 600 years.

Roel would like the ECTF to succeed not only in gathering information about trees, but also to make people aware of the beauty of Champion Trees, what it needs to become a Champion Tree and to provide the right conditions for trees to be able to become Champions.

Hendrik Relve reported on the Remarkable Trees of Estonia.

The Estonian database of trees contains data of more than 2000 remarkable trees, mostly specimens of great dimensions. Some of the trees are of great cultural value. Leader of this project is the "Forest Brotherhood". We get lot help from local people all over Estonia.

The tallest tree of Estonia is a spruce (*Picea abies*) in Järvselja county, South Estonia at 44.10 meters. 40 years ago in the same forest there was a much taller a spruce of 48.00 meters. The second tallest tree is a European larch (*Larix decidua*) at 43.90 m that grows in Loodi, South Estonia. It was planted 200 years ago and grew very well. Probably in a next decade it will be the tallest tree in Estonia. The third tallest tree is a Scots pine (*Pinus sylvestris*) in Järvselja county, South Estonia, 43.30 m tall.

The oldest tree in Estonia is the Tamme-Lauri Oak (*Quercus robur*) in South Estonia. By annual ring count the tree is 700 years old. The second oldest tree is a pine in North Estonia. By ring count this tree is 470 years old.

Measuring trees in a non-standard way, i. e. at a point lower than breast height, we found the largest tree in Estonia to be a white willow (*Salix alba*) in Rasina with has a girth of 11.57 m, 0.40 m above ground level.

The largest tree in Estonia measured at breast height (1.30 m) is the Tamme-Lauri Oak with a girth of 8.35 m. The second largest tree is the Pühajärve Oak ("Sacred Lake") in South Estonia, measuring 7.15 m at breast height.

More champion trees of Estonia – all measured at breast height (1.30 m above ground) – are:

- The Täre lime (*Tilia cordata*) which grows in Saaremaa Island, it has a girth of 6.90 m.
- A European ash (*Fraxinus excelsior*) in Sargvere, Middle Estonia with a girth of 6.48 m.
- The Saarniite wych elm (*Ulmus glabra*) in South Estonia measuring 6.50 m in circumference.
- The largest European white elm (*Ulmus laevis*) grows in Eastern Estonia, it is called the Lümüti European white elm and it has a girth of 6.34 m.
- The Jaani-Hansu pine in Middle Estonia is the largest Scots pine (*Pinus sylvestris*) with 4.50 m girth.
- The champion birch is the Sireuse birch (*Betula pendula*) in South Estonia with 4.01 m circumference.
- Finally, the largest crap apple in Estonia is the Oti apple in South Estonia with a girth of 4.80 m at breast height.

Gordon Mackenthun spoke on behalf of the German Champion Tree Initiative.

He pointed out that some progress was made during the last 12 months. Quite a number of mistakes, errors, typos and the like were erased from the tree lists on the website. On the other hand, there are still quite large regional gaps in the database. For example, 167 champion trees known in the state of North Rhine-Westphalia but only 16 in the bigger state of Bavaria. The estimate is that it will take another 3 years until the Initiative can with some authority say: These are the champion trees in our country.

For us, Gordon said, a champion tree has a simple definition: The largest tree of its kind, expressed as circumference at breast height, in one Bundesland or across the German Federation.

The group is happy to have good response from tree hunters all over the country. The website gets known and friends and colleagues are eager to contribute their trees.

Unfortunately, the group includes no computer wizard. The program behind the German Champion Tree website served the purpose well for a start, but there are severe limitations. For example, a search engine is needed.

The Initiative is not a self-referring affair; it is rather seen as a tool to promote the awareness for and the protection of monumental trees. One early spin-off was to celebrate each year on Arbor Day a "Champion Tree of the Year". The first one was a beautiful Ginkgo in Saxony with 5.36 m girth; the second one a monumental Metasequoia with 4.73 m girth. This year, 2012, it is a sweet Chestnut in Rhineland-Palatinate.

Another important factor in the work of the German Champion Tree Initiative is co-operation. In this context Gordon mentioned his own society, the Deutsche Dendrologische

Gesellschaft. Over the last couple of years it integrated an number of groups with special interests. There are the "Friends of the Yew Tree", colleagues who care about sweet chestnut, just lately, Lutz Krüger, founder of the "Projekt Mammutbaum", which deals with redwoods, became a board member of the society. The exchange of data is as yet not fully developed but things will improve over the next couple of months.

David Alderman, director of the Tree Register, reports on the Ancient Tree Hunt:

The Ancient Tree Hunt (ATH) has been a 5 year project to discover and map 100,000 trees throughout the UK on the website www.ancient-tree-hunt.org.uk. The project ends on 31st October 2011 having achieved its target. The ATH has been a partnership between The Tree Register of the British Isles, the Woodland Trust and the Ancient Tree Forum. £506,000 (about €625,000) in funding was provided by the Heritage Lottery Fund which was match funded by the Woodland Trust for a project total of over £1M (€1.25M).

Over 9,000 people have registered on the website and over 2,500 individual people and 97 organisations have recorded trees. The website includes 1:50k Ordnance Survey mapping and old historical maps from 1843-1893, which plotted mature trees accurately and provide evidence of ancient trees. 60,000 photographs have been uploaded to the website.

130 enthusiastic volunteers were trained to be Verifiers to check the records being added by members of the public and to help, train and inspire local groups and organisations. Verifiers had special access on the website to approve images, comments and edit the records. Training events for Verifiers and volunteer tree recorders were held throughout the UK. Guidelines were produced to help identify and record ancient trees and to ensure continuity of the data.

The first tree recorded was the famous Major Oak in Sherwood Forest, Nottinghamshire, England and the 100,000th was a beech tree in Ashridge Park, Hertfordshire, England. The volunteer Verifiers gave over 10,000 hours of their time to help ensure the data was as robust and accurate as possible. Several volunteers won awards for their valuable work. By the end of the project 90% of the trees had been verified, either by the volunteers or by organisations supplying batches of records from local veteran and ancient tree surveys.

Although the project focused on recording veteran and ancient trees, of heritage value and important as wildlife habitats, over 1,000 new champion trees were discovered! Some amazing trees were discovered and volunteers went to some wonderful places. Extreme tree recording included reaching some dwarfed cliff trees in Wales where some yew trees had been cored and found to be over 900 years old!

From November 2011 the ATH will continue, supported by the Woodland Trust, but with less funding. The data and volunteers will be managed by the Tree Register. The targets are to support a network of at least 50 volunteers and to keep recording 20,000 trees a year. The Woodland Trust will be using the data to inspire and protect ancient trees in the UK. New technology will provide the maps and trees as iPhone applications and for GPS units. There are many more undiscovered ancient trees to discover! The ATH and its partners support a European Champion and Ancient Tree Hunt!

Miklós Kovács gave us an overview over the Register of Hungarian Champion Trees.

The intention to create a Hungarian Champion Tree Register had existed already for a long time. The first call with this aim came from Nándor Illés in 1879. Several books were the result of this early movement. Another result was a list of old and big Hungarian trees, compiled by József Papp in 1961 which was never published.

Finally in 1994 the register of the oldest and largest Hungarian trees was created, which contains the data of more as two thousand tree specimens.

In order to create this register, fifty volunteers made a well prepared, systematical, nationwide data collection about the oldest and largest trees of Hungary from 1992 to 1994. The leader of this data collection was Prof. Dénes Bartha, who is the Director of the Institute of Botany and Nature Conservation of Forestry Faculty of the University of West Hungary.

Within the framework of this data collection, the following data of the trees were collected: identifying code, scientific name, location (county, settlement and topographical number), local name of the tree, owner of the tree, estimated age, height, circumference and health condition of the tree.

The register was published in a book. It is continuously extending and the number of registered trees has increased to more than four thousand so far. The data of old and big trees are reported by volunteers. These data are checked and evaluated carefully by Prof. Bartha and his scientific crew, before it is recorded in the register.

There are a number of activities and movements, which are connected with the register. Viktor Verebély writes about the history of the register and Róbert György recently evaluated the data of the register in different aspects. The "Tree Species of the Year" movement exists since 1996 and the "Tree Specimen of the Year" movement exists since 2010.

In recent years several books were published about the oldest and largest trees of Hungary.

Susana Domínguez Lerena from Spain talked about "Bosques sin fronteras":

Bosques sin fronteras / Forests without Borders is an NGO which works for the protection of big trees and old forests in Spain since 2001. Until now it has developed several projects such as: "Trees", "Living Legends", "Hug your Trees", "Tales from the Forest" and the "Tree and Forest of the Year" award.

"Arboles – Leyendas vivas" / "Trees – Living Legends" was our first and most famous project. There were more than 1000 contributors from all over Spain who sent in information about trees by mail, web or post. A database was created with nearly 4000 records of trees, including a selection of about 200 outstanding trees chosen by their age, size, special form or history. They promote the implementation of research and conservation initiatives on both the national and the local level. Furthermore, by means of an educational forest nursery an education scheme around trees and forests was developed for children. Also, a lot of educational material like an exhibition, books, websites were produced and there was an intensive campaign in the media.

"Tales from the Forest" is an educational project for children between 6 and 12 years old with three books with five tales each, featuring trees and forests as protagonists. At the end of each book there are funny additional activities conceived by education professionals.

The "Tree and Forest of the Year" award has the objective to promote trees and forests which are worthy of social recognition and respect for different reasons. The Award should help owners to preserve their trees or woodlands. There are six categories: giant tree, long-lived tree, well maintained tree or forest, emblematic tree or forest, tree or forest in danger and historic tree.

Finally, "Hug your Trees" is a new initiative. A pioneer in Spain, it is proposing a trip to visit the oldest, biggest, historical, rare and beautiful trees all around the world, always in a sustainable way with small groups. It is an exclusive travel experience, far from the regular tourist routes, permitting the participants to study nature, history, culture and the traditions connected with trees and woodlands in an entertaining and pleasant way.

Jeroen Philippona presented the International Group, an association of contributors to the website www.monumentaltrees.com.

Jeroen told us that the website was developed by Tim Bekaert, the web master. Leo and Jeroen are among the most active members. It is an international, interactive website in five languages, anyone can become a member by creating a user name and password and send in trees with photos and information. The website is in fact a database of trees, which can be arranged by country, location, species, height, girth and age.

The emphasis is on correct measurements. For location, the site works with Google maps with symbols pointing to the girth category of the trees.

Leo and Jeroen contributed to a new book on monumental trees in the Netherlands and made lists of oldest, largest and tallest trees. For this they started with data of the Register of Monumental Trees of the Netherlands, kept by the "Bomenstichting", the Dutch Tree Foundation. The data of tree heights proved to be unreliable, so measurements by laser were started. Inspired by American groups, the group felt that good height measurements and making of a database of the tallest trees of Holland as well as of Europe is valuable and interesting. Tree heights give information on the quality of the soil / microclimate / location and about the growth-possibilities of tree species in different environments.

On www.monumentaltrees.com only heights measured by laser or by climbing with direct tape drop are accepted as reliable. Our aim is to make a European champion tree register, not only by girth but also by height for all species.

Following a discussion with Belgian forest-researchers on the height of beeches and oaks in a forest reserve in the Sonian Forest, measurement tests were made together in March 2011. The group measured a huge beech by climbing with direct tape drop: 45.65 m! The same was done with the tallest tree of the Netherlands, a Douglas fir of 49.75 m!

In April 2011, together with the tree hunter Tomasz Niechoda, members of the group spent several days in the primeval forest of Bialowieza, Poland, to measure the largest and tallest trees. European height-records for nine species were found, including: *Pinus sylvestris*: 45.30 m, *Quercus robur*: 43.60 m, *Populus tremula*: 41.40 m, *Alnus glutinosa*: 39.20 m, *Acer platanoides*: 37.20 m, *Betula pendula*: 36.40 m.

In our opinion the website www.monumentaltrees.com is very suitable to create a European Champion Tree Register. Trees of National Registers could be placed on it, so that the trees

of different countries can be compared. There is room for many more trees and the champions automatically stand out when the database is arranged by girth, height or age.

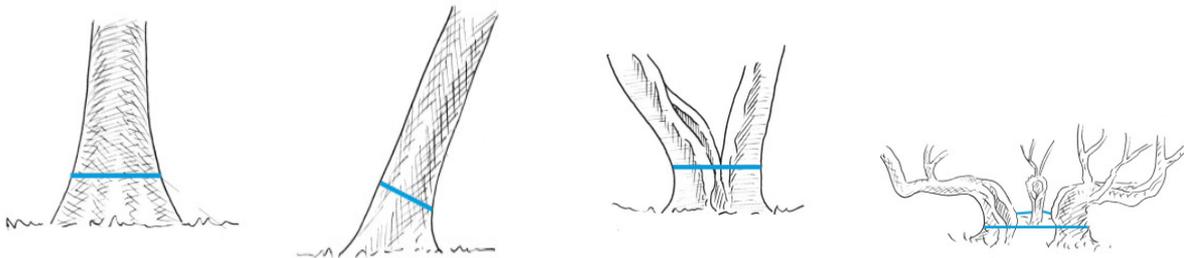
After a hearty lunch, we divided into three "workshops", each one charged with discussion of a particular topic: the measurement of big trees, the organisation of databases and websites and the future of the European Champion Tree Forum.

The first group, Measurements, probably had most fun. They went out to demonstrate their skills coming back with five different numbers for the girth of a *Sequoiadendron giganteum* in the school yard out of five measurements (4.82, 4.94 and 4.97 m at breast height, 4.76 and 4.81 at 1.50 m above ground).

We had to realise that we have different standards. In some countries and by some people the girth is taken at 1.00 m above ground, more common is 1.30 m in Germany and 1.50 m in Great Britain and Ireland. It was agreed that the local rules should be applied. I. e. if a Dutch person measures in England he or she should also take the 1.50 m measurement so that the data can be fed conveniently into the GB database.

For height measurements it is recommended to use laser equipment as standard method.

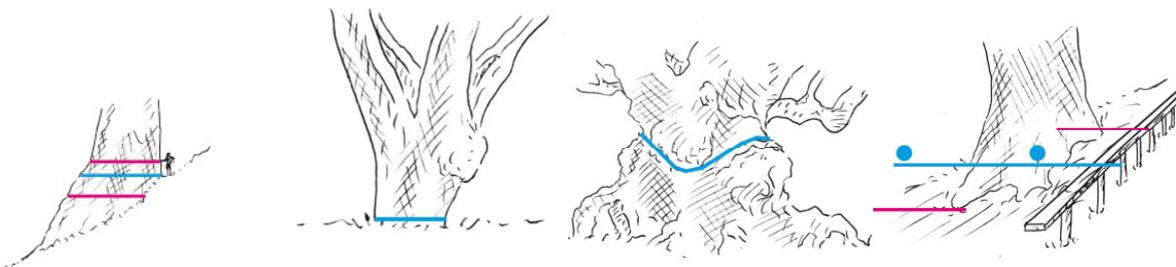
Also, it is recommended to use the British and Irish system of classification and to put trees into classes A, B, C and D.



From left to right: A-, B-, C- and D-trees (all drawings: Michel Brunner)

In the future, a detailed sheet with recommendations on how to record Champion Trees for all ECTF countries should be written. The British and Irish method of recording trees is proposed to become the European standard.

Also the discussion will continue on how to record difficult trees in difficult situations like these:



Jeroen Philippona and Leo Goudzwaard chaired jointly the Database group and followed by a group discussion.

In the presentation they showed a list of European tree databases. At least 12 lists and websites from 12 different countries are presented by NGO's or private persons. Not all the databases are online.

The Dutch Bomenstichting list offers a certain protection.

Two sites are international, which are The Ginkgo Pages and Monumentaltrees.com.

Beside the Ancient Tree Hunt in Great Britain, Monumentaltrees.com is the only database which is interactive with persons who can upload trees.

Today Monumentaltrees.com provides information of over 7500 registered trees in 25 countries, and is growing with an average of 5 trees per day.

The possibility of going towards a coordinated European database has been discussed, and Monumentaltrees.com (MT) is proposed as an overall tree database.

The advantage would be an open database, universal, accessible to anyone who is registered by one manager.

Discussion points:

A.) Which kind of data are/can be included.

MT provides information on: coordinates, address, species, variety, stem diameter (or circumference), tree height, date of measuring, measurer, planting year, single or multiple trunks, description of location, description of tree and a photograph.

It is possible to include in near future: crown diameter, habitat (e.g. street, park, woodland, river valley, etc.), soil type; status monumental, dendrological, cultural history, phenology data.

B.) Protection status.

It is desirable to give monumental trees official protection status; this is probably a choice from local governments to accept a list or shortlist from trees, registered at MT. Then all important trees per municipality/province/ countries should be registered. The loss of monumental trees is high.

C.) How can trees be registered and data be included.

Conclusions:

- 1.) To include more data could be interesting, but in most cases would be too much time consuming.
- 2.) Protection status is important; more people need to register trees.
- 3.) Data can be included with single trees or by uploading excel sheets sent to the manager.

The third workshop considered the most open-ended topic, that of the structure and function of the ECTF. The main points for discussion, generating lively debate, can be summarised as follows:

Do we want or need the ECTF to become a formal association of like-minded national organisations? Or will informal contacts and liaison – between organisations as well as individuals – continue to be sufficient for us, notably for the organisation of ECTF meetings?

The main benefits of a formally structured ECTF would probably be threefold: it would manage ECTF meetings (or co-ordinate their management by national organisations); it should be competent to influence European Commission activity (notably legislation and regulation) more effectively than could national organisations; and it would qualify to apply for funds from EU and other international sources that would not be available to national organisations alone. It could also serve – once well established - as a focal point, and source of advice, for national organisations, especially recently created groups that were seeking advice and support from more experienced colleagues in other countries.

The main drawbacks to a formal group structure are that it would require rules and regulations, probably some level of financial contribution, and quite a lot of management and administration (undertaken preferably by volunteers, to keep expenses low). Furthermore it could be difficult to mingle organisations and individuals in membership, meaning that those countries that do not (yet) have national organisations could not easily be represented and would be at a disadvantage.

The workshop participants agreed that they are not in favour of a formal group structure, at least not at this stage. Our organisations vary considerably in size, age, focus, objectives and existing affiliations, and the organisations need to get to know each other much better before seeking agreement on matters where very different views exist (e.g. is funding from the EU desirable or not?). Seeking common ground on an informal basis is a safer and potentially less contentious way to proceed at present.

It was agreed, however, that it would be useful to begin to create a database of both organisations and individuals who share our enthusiasm for champion trees, and to search for other individuals, especially in countries in Europe where no suitable organisation exists. However, without a central secretariat, volunteers will be needed among individuals and national organisations to do this. That is the next task.

The next question would be – if we decided to create a formal ECTF – what would be its objectives, role and means? And how would it be established? Since the group decided not to proceed in the direction of a formally structured ECTF at this stage any detailed consideration of such questions was postponed.

Later in the afternoon we used a gap in the clouds to do a short tour of the Arboretum Härle, guided by Michael Dreisvagt. The park is an enchanted place with a fascinating history. It was conceived with dendrological as much as esthetical ideas in mind. Michael pointed out that it is not always easy to hold the balance between preserving the spirit of the place and modern scientific necessities. From what we saw he is doing a very fine job. The arboretum, by the way, holds one single champion tree, a *Juniperus deppeana* var. *pachyphlaea* with a girth of 0.77 m.

Afterwards there was a reception in the arboretum headquarters with a lot of individual talk and Michel Brunner showing pictures of big trees across Europe.

Talks were continued when we moved to the "Karawane" restaurant to have dinner. The Levant style of cuisine was obviously enjoyed by everybody.

Next morning a bus picked us up to take us to the Bonn Botanical Garden where we were greeted by Stefan Giefer, head gardener of the Arboretum, who showed us around. The garden is nicely laid out around the former residence of Prince Clemens August of Bavaria. And there are big trees. Tape measures, laser devices and cameras ran hot taking in all the data available. Here are some of the more prominent trees:

	girth	height
Acer opalus (Schneeball-Ahorn)	2.48 m	17.60 m
Carya cordiformis (Bitternuss-Hickory)	~ 2.00 m	32.20 m
Carya ovata (Schuppenrinden-Hickory)	2.44 m	34.40 m
Parrotia persica (Persischer Eisenholzbaum)	2.93 m	22.00 m
Sequoia sempervirens (Küstenmammutbaum)	3.29 m	30.60 m
Torreya californica (Kalifornische Nusseibe)	2.54 m	24.80 m
Zelkova carpinifolia (Kaukasische Zelkove)	3.90 m	23.40 m

data taken from www.monumentaltrees.com

Except the Sequoia sempervirens and the Carya cordiformis all of them are German National Champions.

Since some of our friends already had to leave and more were to leave soon the official European Champion Tree Forum 2011 picture was taken on the terrace of the palace.

After lunch a smaller group moved on to the Forstbotanischer Garten Köln (Cologne Forest Botanical Garden), another special place. It was established in 1962 by IDS member Hans Berg, then city director of Cologne, to show people a great diversity of woody plants. There was nobody in the municipality to show us around so Michael did the tour himself. The garden holds some champions like:

	girth	height
Acer griseum (Zimt-Ahorn)	0.77 m	7.00 m
Magnolia campbellii var. mollicomata	0.80 m	?

data taken from www.champion-trees.de

By mid-afternoon, Michael and Gordon had trains and planes to catch so they left with apologies, saying their good-byes in the thick of the undergrowth of the Forstbotanischer Garten. By then the group had melted down to just four tree hunters. All found their way back to the bus which carried them to their individual destinations.

Afterwards there was a wave of emails commenting positively on the meeting. Obviously almost everybody was happy with the weekend, learning new things, making new friends. One factor that made the success was probably that there were no "attendees" in the sense of passive consumers of presentations and talks. Everybody contributed something, big or small, everybody had something to give. Let's carry on in this spirit.