



*Alexander
von Versen*



*Nicolas
Wittmann*

We welcome all our readers to this important issue of IFSA-news!

On the 2nd of February the IPCC (Intergovernmental Panel on Climate Change) published its fourth climate report. Since the publication of this report the anthropogenic influence on global warming can finally be termed a scientifically proven fact. Hopefully this will not only convince those who still doubt the correlation but will also be the bases of binding conventions set by the industrialised countries in order to reduce their green house gas emissions. As IFSA-news reported in its issue on "Forests as carbon sources and sinks" (No. 40), the Kyoto Protocol was already a big step towards a more conscious interaction with our environment. It was only a first step, though. We will need stringent international commitment, especially for the time after the year 2012 in order to minimize the detrimental effects on our environment. Right now politicians all over the world discuss what these further steps might be.

On an individual level at least as important as international political decisions, is the responsibility every one of us has towards the world we live in and its future. Differences on a global scale will not take place if the individual perception of the problem keeps dispelling it to something "too big to have influence on". With a little more awareness to our everyday habits everybody can make her/his contribution to the future. Especially we, as ecologically educated students of forestry, should use our potential and knowledge, not to raise our finger, but to act as role models ourselves.

This is the first issue we put together and we want to thank everybody who helped us during the progress by offering advice or contributing articles. Especially Elspeth Coker and Hanna Gleißner who always had an open ear for us. Thank you!

If you have any questions or recommendations do not hesitate to contact us. Please make sure you use our *new* email address: ifsa.news@ifsa.net

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Dear IFSA friends around the world,

In August 2006 many forestry students met at the International Forestry Students Symposium (IFSS) in Brazil and Argentina. It was a wonderful meeting where people from the five continents had the opportunity to learn about the reality of the forestry sector in the two countries, exchange experiences about forestry at home, get to know nice people and have a good time. Thanks very much to the Brazilian and Argentinian organizers for dedicating yourselves to the organisation of this great event! During the IFSS it was also the time to elect a new IFSA board for 2006-2007. We are a very diverse group of people: Elspeth (Australia), Paul (UK), Joseph (Germany), Geoff (Australia), Yuber (Venezuela), Chavdar (Bulgaria) and me.

My name is Susan, I come from Brazil but I am living in Germany right now. I am taking a master course in "Sustainable Forestry and Land Use Management" at the Institute for Forestry and Environment at the University of Freiburg. Before changing to the forestry field I finished my bachelor in economics in Brazil. In the near future, I will start my master thesis about how financial instruments can support a more sustainable use of tropical forests by small farmers in the Brazilian Amazon while providing them fairer living standards.

During the IFSS 06 one of the speeches motivated me a lot. The director of the Brazilian Forest Service, Tasso Azevedo, was present at the opening ceremony. He told us about the time he was in the IFSA, how he helped to establish the organisation and how much fun it was. And nowadays, he said, when he goes to international meetings, sometimes he meets IFSA friends and it is a huge pleasure to remember the good, old student times.

In addition, the week before Christmas, I was working on the grant application for the IFSA at the secretariat in Freiburg when, suddenly, Peter Sprang, ex-treasurer (he could not remember exactly which year he was at the IFSA but he thought maybe early 2000s) came to say hello. We went out for a beer with 3 other IFSA oldies. They remembered the nights they slept in the coach of the secretariat and many other funny stories of some workaholic ex-president who lost his flight and pretended he had been robbed to get into the plane to be able to go to the IFSS.

This is what the IFSA is about: about bringing forestry students from all over the world together, building new friendships, exchanging experiences ... however, it is not all about fun and friends! IFSA is a platform for us forestry students to enhance our education!

To achieve this goal you have many opportunities. You can promote events in your home town together with your Local Committee (LC), you can participate in IFSA local and international events, take part in international decision processes and scientific conferences related to forests, and practice your writing skills in writing articles for IFSA-news ...

It is important to make the most of these opportunities. When considering the education of a forester it is relevant to be not only prepared technically. Foresters have to understand the economical and political processes related to forests as well. Many political decisions made at the national, regional and international levels may influence the development of the forests. Thus, to ensure the sustainable development of them, we have to understand all the sides of the problem, in order to take steps to reverse a bad trend and to propose better options.

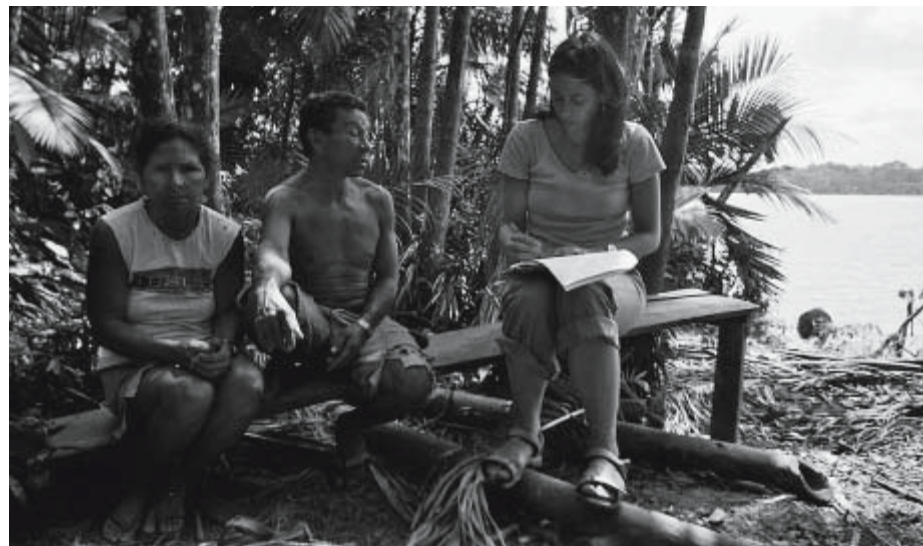
For that purpose IFSA has developed the Forest Policy Network (www.forestpolicy.net). There you can find articles that can help you to understand the political processes related to forests and a forum where you can exchange ideas with other students and (ex-IFSA) professionals. Borrowing the thoughts of the Greek philosopher Plato, if you con-

sider yourself too intelligent for politics you will always be lead by the ones that are less intelligent than you. Nowadays, there is a lack of good intentioned people who choose to involve themselves with politics, but it is important that if you believe that you could have the knowledge and decision making skills to make a difference, that you endeavour to act on these skills and take an active role in making a difference. If we think we would make better decisions than those who currently hold the power, we should build up our knowledge and skills and try to take the power. This may allow us to change something!

This is the message I would like to transmit to you. I hope that this IFSA news issue provides you with the opportunity to reflect on this. Global environmental changes cannot be denied anymore. Maybe they will happen slower than expected. Maybe faster. We do not know. But to reverse the undesired changes it depends not only on the US signing the Kyoto Protocol, rather it depends on each of us, on our own way of consuming and pressing for changes. And if you are a student, you are one of the few in the world who had the opportunity to go to a University. So take responsibility, use your knowledge, use your goodwill, (use the IFSA!), and together we will contribute to making a better world!

Looking forward to hearing about your IFSA activities!
I wish you a nice IFSA-news reading!

Yours sincerely,
Susan Edda Seehusen



Susan interviewing Mr. Domingos Trindade da Cruz during field research in Para, Brazil, October 2006. In the back → Acai palm trees (*Euterpe oleracea*)

Vice President
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Hello friends!
My name is Elspeth Coker and I am the Vice President for the year 2006/2007. I have been really enjoying this position and it is wonderful to be in contact with many IFSA members. I have been involved in IFSA since the end of 2004 when I began helping the Organising Committee with their preparations for the 33rd International Forestry Students' Symposium in Australia. I learnt so much about IFSA during this time and I knew that I wanted to increase my involvement in the association. Last year I became a part of the Publications and Promotions commission and I enjoyed liaising with the other students. This year I at-

tended the 34th symposium in Brazil and Argentina, which enabled students to truly enrich their forestry knowledge and discuss important issues. It was an incredible experience.

I am currently in my fifth year of a Bachelor of Forestry/Bachelor of Science and next year I will be completing my final year of undergraduate studies. At the same time, I will be doing an honours project and the topic centers around the idea of hydraulic roughness in streams and platypus. This is an area that really interests me.

It is wonderful to be a part of such a motivated and friendly group of people worldwide. All IFSA members and potential members are encouraged to contact me with any questions – I would love to hear from you!



Treasurer
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Greetings all!
My name is Paul Arnold and I am your new Treasurer for the year 2006/2007. I welcome you to a great new IFSA year and encourage your participation, feedback, questions and just general involvement. I will now tell you a little about myself. I have recently graduated from the University of Wales, Bangor in the United Kingdom with an undergraduate degree in Environmental Conservation. I am now about to start my Ph.D. with Southampton University but based at a governmental research centre known as Centre for Ecology and Hydrology, Wool. I got involved with IFSA when Bangor University was attempting to set up a local committee I was sent to IFSS Australia to report on what IFSA was

and what we were getting ourselves into. I instantly found myself smitten with the enthusiasm and great ideas that were flowing around me at that event and found myself becoming Head of the Fundraising Commission for 2005/2006. During this year I learnt much and knew I wanted to get more involved. It was at the IFSS in Brazil and Argentina when I put myself forward as Treasurer and here I am, amazing really! My interests extend far and wide but my main passion is for the environment and all things green, rocky, pointy, and crawly. Generally speaking I feel really motivated and encouraged by all the new officials and would ask you all to keep in contact with us so we can help you as best as we can.

Kind regards (keep the fires burnin')
Paul



Councillor of Oceania, Asia and Southern Africa
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G'Day IFSA!

My name is Geoff Roberts; I have just graduated as a forestry student from the Australian National University, Canberra, Australia. At the last IFSS I was elected to council and given the regions of Oceania, Asia and Southern Africa. I have been involved with IFSA for nearly three years now, with my first IFSS being in Canada in 2004. Following this symposium I became assistant chair of the organising committee for the 2005 IFSS in Australia,

a rather intense but rewarding experience. I was then privileged with the title of Oceania regional representative 2005-2006, working with the spectacular people within my region to better profile of IFSA, amongst other activities. All in all my forestry degree has given me a plethora of opportunities and experiences that I hope I can use within my job as councillor, and I look forward to working with the direction, my fellow councillors and officials in the up coming IFSA year.

Cheers

Geoff Roberts
IFSA Councillor



Councillor of North and South European Regions and also North Africa
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My name is Chavdar Dinev Zhelev from Bulgaria. I study at the University of Forestry in Sofia, Bulgaria. I already graduated from my Bachelor studies and now I am in the first year of my Master studies, my major is Forestry, the same as my previous degree. I have participated in the South European Regional Meeting (SERM) in Belgrade, Serbia in 2005.

I was, as well coordinator of the organizing team for hosting SERM in Bulgaria this year in April and involved in some projects, con-

cerning LCs in the South European Region. I took part in 34th IFSS in Brazil and Argentina this year as representative from Bulgaria. On the meeting I was elected as Councillor. I am responsible in this position for North and South European Regions and also North Africa.

I really love to travel and to meet new people. So in this point I'll be more than happy if I can keep in touch with all of you and we work together to build an even stronger and motivated IFSA with better communication between us. So let's say good luck!



Councillor of America and the Caribbean
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Hello to all!

My name is Yuber Camacho and I am from Guaira, Venezuela. I study Forest Engineering at the University of The Sandes Merida. I am member of the Venezuelan Association of Students of Forest- and Environmental Sciences, AVECIFA. At the moment I am Council responsible for America and the Caribbean.

This Period of the IFSA we will work to increase to the participation of other countries of America and the Caribbean.

Working within IFSA is a really rewarding experience!

Yuber Camacho



Hi, I am Joseph Schulte the executive secretary.
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I am 22 years old and I study forestry in Freiburg, a nice town in the very south of Germany. I decided to study forestry because I want to better the world a little bit. In Europe I take part on many walking Tours, nearly everywhere. It was really interesting to get in contact with so many different people and different thinkings. Later in my studies I tried to find other people, which also like nature and exchanges, in many ways. Because of my interest it was only a little step to join the IFSA. At the beginning I only joined the LC meetings in Freiburg, later I got the possibility to hold

an appointment as executive secretary. And of course I jumped at the chance. At last I got voted for secretary on the IFSS 2006. From that day on it is my job to coordinate typical secretary stuff, things concerning the German bodies and laws, the communication between many groups of interest and many many other things. Of course sometimes it is a hard job but I really like it because you are in the midpoint of IFSA. As a secretariat you get Information's at first hand. Furthermore it is very interesting to talk and to write to so many people. My goals for my time as Secretary are to install a good working System in the secretariat. For that I have to organise the Computers, the Files, the E-mail system and many

other things. Another goal for me is to help Adrian Valerius to create and to publish the new Forum for IFSA. The last Think I want to do, is to visit as many Countries and as many people as possible, to get in contact with foresters all over the world. That's why I use this room to send my greetings all over the world.

Yours Joseph



Elspeth Coker*, Geoffrey Kay, Geoff Roberts, Joseph Henry, Kate Lancaster and Melissa Gordon from Australia
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Opening Ceremony (Curitiba, Paraná, Brazil)

The 34th IFSS commenced with a formal opening ceremony in the function centre at Barigui Park. After singing the Brazilian National Anthem, which includes the phrase 'our forests full of life', all participants were warmly welcomed by Carlos Augusto Moreira Júnior, the Director of the Federal University of Paraná. Students learnt that the Federal University of Paraná is the oldest university in Brazil and that it was the first to have a forestry school. Students then received general information about the forests of Brazil. He explained the importance that Brazil places on science and technology; it invests 70.5% of its revenues into this area. He concluded his speech with a quote from Aristotle: *"Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit."*

The IFSA President for 2005/2006, Wilrieke Uiterweerd from the Netherlands, spoke next and explained that every forestry student dreams of visiting South America and she said how fortunate we were to attend this symposium. She stated that the students present are the foresters and decision makers of the future and that this symposium provides the opportunity for students to come together to discuss global forestry issues. The Environmental Minister of Forest Services in Brazil also welcomed us and shared his past experiences with the IFSA as a forestry student. Karina Bazzo and Sebastián Benitez were the Organising Committee chairpersons for Brazil and Argentina respectively. They gave a short speech outlining their goals for the symposium and shared their excitement about it being the first IFSS to be held in Latin America and also the first IFSS to be hosted by two countries. Karina encouraged all students to believe in their dreams.

Environmental Education (Curitiba, Paraná, Brazil)

Students participated in an educational exercise designed for all ages, led by Juarez Michelotti. Juarez works with children and teaches them about the value of nature. This was a spiritual exercise for everyone where the students learnt native dances and songs that

were typical of the people indigenous to the area. Students were then led on a forest walk, which provided insights into the historical uses of some of the local plant species. Students were encouraged to absorb their surroundings and increase their awareness of different aspects of a forest through their sense of sound, smell and touch, via a blind fold exercise. This was a memorable activity for everyone involved.

Guest Speakers (Curitiba, Paraná, Brazil)

Students enjoyed a variety of lectures from presenters of different backgrounds. The first lecture was titled, 'Forest Policy in Brazil: rationale, strategy and results'. A representative from the Government explained the mission for the Forestry sector is to maintain a balanced triangle in forestry management that is economically viable, socially fair and environmentally adequate. He explained that currently, 90% of wood production is from native forest and 85% of this is consumed within Brazil. He commented that Sao Paulo consumes more tropical timber than the whole of Europe. The Government's strategic action plan for 2004-2007 includes aims to expand forest plantations based on reforestation of degraded lands and to expand the sustainable management of natural forest in harmony with the protection of high conservation value reserves. The speaker outlined public policy instruments for more sustainable forest management, which consists of regulations concerning management plans, water and stream protection, taxes, safety, and the overall enforcement and assessment of these regulations.

Research Workshop (Curitiba, Paraná, Brazil)

During the workshop, students provided their interpretations of the IFSS theme, Forests for Everything. The sessions provided an interesting introduction to the range and scope of issues facing forest managers. The theme of the IFSS was by explored by the students through the following topics:

- Forestry economics: international forest-markets;
- Forestry politics: national and international politics;
- People: social and community forestry, indigenous management, cultural values;
- Management tools: silviculture, GIS, roading, transport, design;
- Non Timber Forest Products: food, medicine, ecotourism, other products;

- Timber: wood technology, industry developments, plantations and private forests;
- Biodiversity and Conservation: wildlife, flora, national parks;
- Environmental Education: the forest engineer, the society and the environmental;
- Renewable energy: climate change, carbon trading, the Kyoto Protocol.

All posters and presentations were of an extremely high quality, covering a wide variety of subject areas. Students showed a high degree of interest and created pertinent discussions following the presentations.

Laboratório de Inventário Florestal (General Careiro, Paraná, Brazil)

In the afternoon, the students travelled to General Careiro, also in Paraná. There they received a presentation from Ana Pauli Dalla Côte of the Laboratório de Inventário Florestal on issues associated with native forest management, in particular with forest restoration. It was explained that in the native forests of Paraná, the Araucaria were not regenerating, and a native Bamboo species, taquara (Olyra taquara), was hypothesised to be a major cause of this problem. Following anthropogenic disturbances, such as harvesting, the taquara infests a site with densely mattered stems and foliage, suppressing all other plant species. Other species will have the opportunity to recolonise this site after 30 years, once the Taquara has flowered and died. Given that 23% of the 2.7 million ha of native forest have anthropogenic influences; taquara is a real threat to restoration of a depleted environment. The Laboratório de Inventário Florestal have carried out research into methods of forest restoration and the removal of taquara, and have found that cutting the site annually and removing debris is the most effective method of promoting regeneration from other species.

International Evening (Curitiba, Paraná, Brazil)

Each year, the International Evening is one of the most anticipated events of the IFSS. This event allows students from different countries to share some of their culture in song, dance, drama, poetry, food and drink. In conjunction with this event, the annual Tombola was also held. This involved auctioning off items, brought by the students from their countries, with all proceeds raised going to the IFSA Development Fund. The aim of this fund is to assist students from developing countries to attend events such as the IFSS.

General Assembly, Session 2 of 4 (Curitiba, Paraná, Brazil)

During the second session of the GA, topics of discussion included the fiscal matters of the IFSA, proposals by students for positions within the association, and suggestions for possible host nations of the IFSS 2008.

Welcoming Ceremony (El Dorado, Misiones, Argentina)

During the evening, the Argentine members of the IFSS Organising Committee treated the students to a ceremony that welcomed the arrival of the IFSS to Argentina, with a dinner and performances from the university's choir and samba dancers, as well as other local musicians.

National Institute of Agricultural Technology (INTA) Agroforest Management

The National Institute of Agricultural Technology (INTA) was created in 1956 with the aim of improving rural life and competitiveness through research and extension. The organisation, which covers all of Argentina, has private and government funding (derived from tax on timber imports). It is governed by a board of directors that include government representatives, experts from science, farmers, and agro-industry organisational representatives. The institute uses findings from its research to train professionals, farmers, and rural workers.

The Silvopastoral Systems (SSP) became established in 1995 and focuses on trees, pasture and animals coexisting. There has been strong demand for information and technology generation, as farmers perceive positive economic (maximising internal rate of return), social and environmental benefits of SSP. There is also an opportunity for these management regimes to enable certification of the timber to improve marketing. Some reasons for the positive perceptions of SSP are due to demonstrations carried out on trial plots, joint management opportunities with INTA, the opinions voiced by genuine leaders, access to markets in the short term on a local and regional basis, and the price offered for higher value cattle and timber.

INTA has created predictive models through many years of research. The models indicate that overall total wood production must be reduced up to 30% in order to accommodate for forage production. The intensive thinning regimes applied allow a tree category change from the range of 25 cm (pruned or not) to 35–55 cm (pruned) diameter at breast height. Students observed sites where the models' application enabled the successful management of a 666 ha farm consisting of cattle, *P. taeda*, yerba maté (*I. paraguayensis*), native forest (there is no grazing under the na-

tive forest) and *Sacharum* spp. The thinning regimes, used on *P. taeda*, enabled the option of continuing or discontinuing with the SPP when the trees reached an age of about 13 years. Around this age, the grass will not have enough light unless significant thinning is undertaken.

In some areas, the cattle are removed when the pine plantation reaches an age of 13 years; the trees are then thinned to about 200 trees/ha and are left to reach a diameter of approximately 35 to 45 cm at breast height, which takes about 18 to 22 years. In some areas the trees are intensively thinned with cattle grazing underneath the canopy. In these cases, the trees could reach a diameter of about 60 cm at breast height, with a stocking of about 80 stems/ha. At the last site visited on the property, many of the students were amazed by the fast growth of the pine. At 10 years of age, the diameters of most pines were approximately 32 cm at breast height.

Guaraní Village (Guaraní Reserve, Misiones, Argentina)

The Guaraní community (a village of approximately 28 people) have chosen a life of subsistence, relying on forest derived products. Unlike most communities in the region, which move every 5–6 years in search of new resources, the Guaraní aim to minimise their impact on the forest and have remained at the same location for 30 years. The Guaraní grow beans, corn, manyoka and several other grains for their own consumption.

Danzer Forestations Mixed Forest Plantations (Pto Iguazú, Argentina)

The morning was hosted by Danzer Forestations, a plantation company established in 1949. As the world's largest producer of sliced veneer, the company spends a considerable amount of time and money investigating the viability of different species for plantations within Argentina. Such plantations include kiri (*Paulownia* spp.), with harvest used for export to Asian markets. Danzer Forestations half cut the kiri at the age of one, as this produces a larger, thicker trunk due to improved development of the root system. This method has an 80% success rate in obtaining a more desirable stem. The company is also trialling the establishment of yerba maté (*I. paraguayensis*) plantations in the understorey of the kiri plantation to produce high quality maté. Danzer Forestations has also begun trialling Australian red cedar (*T. ciliata*), using *P. elliotti* as a shade tree. This is achieved by removing outrows and thinning a *P. elliotti* plantation from 1250 to 300 stems/ha, and planting the cedar in the outrows, with one tree every 20 m. After 15–20 years, all of the pine will be removed, and at around 20 years, the cedar

will be harvested. The company has also established plantations of *Grevillea* spp. to supply veneer markets.

Another standout feature of Danzer Forestations is their successful integration of grazing into the plantation estate. Currently, they run approximately 5000 head of cattle on the grass within the plantations, producing an astonishing 400 g/cow/day, which is an estimated dry sheep equivalent of 7.

Iguazú Falls (Pto Iguazú, Argentina)

On the last day the students were given the opportunity to spend the day exploring the majestic Iguazú Falls, which, in terms of volume, are the largest falls in the world. Although it was a particularly dry year, the beauty and power of the falls was not lost on the students.

The official closing ceremony commenced that evening. This provided an opportunity for the students to view a presentation on the success of this year's symposium, and show their gratitude towards the Brazilian and Argentine Organising Committee.

The conclusion of the IFSS 2006 in Brazil and Argentina was filled with emotional farewells as participants expressed their delight at having been involved in the program, where they witnessed and learnt many new ideas to take back to their respective countries and share with fellow students. Many new friendships were established and the IFSA network has been strengthened and reinvigorated for an eventful year ahead. The symposium ended, with some reluctance from many students, but also with much anticipation of the IFSS 2007 in South Africa, which all students showed a strong desire to attend.

The whole report can be read on our homepage: www.ifsa.net under: "Past Events"

IFSA INTERIM

Elsbeth Coker
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The IFSA Interim took place from the 25th to the 28th of January, 2007. All members of the IFSA Direction, Regional Representatives, Heads of Commission and Commissioners were invited to attend this meeting in the Mathisle Hut in the Black Forest, in Hinterzarten near Freiburg. The Interim is the meeting in the middle of the IFSA year where officials come together in order to plan the second half of the IFSA year. Up to 20 Officials participated in this gathering of forestry students. The agenda was filled with topics to discuss and the meeting was very productive. We shared our achievements to date and spoke about our main difficulties in our roles. Together we brainstormed and developed practical ways to tackle some of the problems we are facing.

Some of the issues included the process of handing over information to newly elected IFSA officials (change over), possibilities of improving the website, a strategy for developing the North Africa region and to increase the representation of Africans in the next IFSS. Moreover, several commissions were discussed, including the role of the Exchange Program and how to enhance the profile of the International Processes Commission. In addition to the discussions, students partici-



pated in games that encouraged people to reflect on their own personality traits and the importance of team work. It was valuable to develop our communication skills and to enhance our understanding of each other.

There were also opportunities for the participants to take a walk in the beautiful Black Forest. It was lucky that there was snow in the area because it was the first snow for this Winter. We had a lot of fun sliding down steep mountains with garbage bags and managed to travel at exhilarating speeds. There were a few aching bodies the next morning! The organising committee for the Interim did

a marvellous job of ensuring that all participants had a memorable time in the Black Forest. Johannes, the chef, prepared delicious meals for us throughout the meeting. As a result of the interim meeting, the IFSA Officials feel positive and motivated to continue making great progress in their roles for the second half of their IFSA year.

By Elsbeth Coker

P.S. If you are interested to read more about the proceedings of the interim, please refer to <http://www.ifsa.net>, where a pdf version of the minutes is available.

Drastic climate change: How vulnerable is Africa?

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Background

We are at a fairly critical time in the history of mankind where man is struggling to deliver himself from the repercussion of his care-less destruction of the environment in which he has thrived for at least two millenniums. The truth is dawning on every entity across the globe that our delicate ecosystem is endangered to collapse under the force of drastic climate change. Governmental and Non-governmental agencies from different nations across the globe are trying to bring the situation under control and revive the fading hope of the human race. But the milk has been spilt; is there still a good chance for resuscitation? How shall we escape the consequences of our own failures?

Over the 20th century the average surface temperature has increased by about 0.6°C ($\pm 0.2^\circ\text{C}$). Temperatures have risen during the past four decades in the lowest 8 kilometers of the atmosphere. Snow cover and ice covered areas have decreased in extent. The sea level has risen by 10 to 20 cm (4 to 8") during the 20th century. Ocean temperature has increased since the late 1950s. Desert encroachment into forest zones is increasing. In the near future, global warming might culminate in decreases in food production, floods and inundation of its coastal zones and deltas, spread of waterborne diseases such as malaria, and dramatic changes in natural ecosystems and loss of biodiversity.

Africa, a continent accommodating about 13% of the world population, is known to contain member countries which are underdeveloped or developing, hence less technologically de-

veloped compared to countries in continents like Europe, Australia, North and South America. Causes of global climate change have been attributed to the increasing concentration of green-house gases (which warms it up) and anthropogenic aerosols in the atmosphere (which tends to cool it), due to increased technological inventions ranging from industrialization to improved bio-chemical agricultural processes (which is more pronounced in developing countries). It will naturally be questionable to come up with conclusions like that of United Nations Climate Convention Conference (UNCCC) in Nairobi, 2006 which stipulates that "Africa is the continent most vulnerable to the impacts of climate change" except it can be profoundly proven. Why should Africa pay the price? Africa has the least significant contribution to global industrial emission of greenhouse gases (2–3% of the global emission) with an average emission of 0.8 metric

tons per person compared to a global average of 3.6 metric tons per person. What is the hope for the African continent?

Necessities laid upon the continent

Never ending debates do not solve the problem. The demarcation in land which we define as individual countries does not as a matter of fact exist in the atmosphere where the net reaction takes place to affect the global climatic pattern. Hence we cannot assume that the other continents whose extensive industrial activity expedites climate change will bear the brunt. The absolute truth is that drastic climatic change is a phenomenon which affects the global village without taking into account each continent's role individually. Despite this, different continents have different degree of vulnerability to its effects based on the buffer mechanism available either naturally or artificially, and based on the complexity and delicacy of their ecosystem. Africa harbors about one-fifth of all known species of plants, mammals, and birds, as well as one-sixth of all amphibians and reptiles. Biodiversity in Africa, which principally occurs outside of formally conserved areas, is threatened by climate change and other stress factors. Savannahs, tropical forests, coral reef marine and freshwater habitats, wetlands and East Africa montane ecosystems- they all are at risk.

Poor people, especially those living in marginal environments and in areas with low agricultural productivity in Africa, depend directly on genetic, species and ecosystem diversity to support their way of life. As a result of this dependency, any impact that climate change has on natural systems will threaten the livelihoods, food intake and health of the population.

The International Panel on Climate Change (2001) explains that there are six situations, which make Africa particularly vulnerable to climate change:

1. Water resources, especially in international shared basins where there is a potential for conflict and a need for regional co-ordination in water management.
2. Declines in agricultural production resulting in lack of food for the population.
3. Natural resources productivity and biodiversity at risk.
4. Vector- and water-borne diseases, especially in areas with inadequate health infrastructure.
5. Coastal zones vulnerable to sea-level rise, particularly roads, bridges, buildings, and other infrastructure that is exposed to flooding.
6. Exacerbation of desertification by changes in rainfall and intensified land use.

Taken altogether Africa is in a desperate situation facing its susceptibility to the present trend of global warming while trying to preserve its unique treasure of abundant biodiversity and human resources.

The Pathway Out For Africa

As this is not the first time that issues relating to this nagging problem are objectively discussed, several promising steps have been taken by different initiatives to rescue this unique continent. In the UNCCC which took place in Nairobi in 2006, some of these steps were highlighted. These are:

African governments work through a number of regional and global institutions to strengthen their response to climate change. They coordinate their regional positions and national policies on climate change through the African Ministerial Conference on the Environment (AMCEN), whose secretariat is provided by the Nairobi-based UN Environment Program. Another important regional forum is the New Partnership for Africa's Development (NEPAD), which promotes projects and action plans relevant to climate change. At the global level, African countries can tap a variety of funds and institutions for support, including the Special Climate Change Fund and the Least Developed Country Fund created under the United Nations Framework Convention on Climate Change (UNFCCC), the Adaptation Fund under the Kyoto Protocol, the Global Environment Facility, the World Bank, other UN and intergovernmental organizations and programs. African countries can also participate in the Clean Development Mechanism (CDM), an innovative market-based instrument of the Kyoto Protocol that finances sustainable development projects in developing countries, which reduce greenhouse gas emissions.

A number of adaptation projects have been started in Africa to address a range of climate change impacts. These include projects on incorporating climate change in water resources management in Tanzania, improving food security in Mozambique, and coping with coastal flooding and drought in East and Southern Africa.

UN agencies have embarked on a wide array of projects throughout the continent to improve energy efficiency that reduces greenhouse gas emissions, such as through the solar power, hydropower, alternative fuels and sustainable construction.

Observing and monitoring Africa's weather and climate is vital to understanding global trends. According to the World Meteorological Organization, greater investment is needed in

Africa's meteorological and hydrological services and weather tracking stations, both to ensure complete global coverage of weather and climate and to provide local data to plan for climate risks. Other regional indicators of climate change that need to be monitored include the shrinking of glaciers on Mount Kilimanjaro, Africa's highest peak, from an estimated 12 sq. km. in 1900 to some 2 sq. km. today.

Other proactive measures and counter-measures are underway like combating against desert encroachment through massive reforestation of depleted forest-lands, planting of trees on strategic water sheds and coastal regions, introducing elaborate agro forestry practices to rural dwellers for efficient land use and so on. The magnitude of the vulnerability of the African continent calls for both control of emissions and fortification of Africa's delicate ecosystem. Hence seeking refuge in the management and development of our forest resources is inevitable as we join hands with other continents in concerted effort.

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Volunteers



Corrimony

Pines for Scotland - and against global warming

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Being supposed to do internships in forest or environment related fields to complete my degree, I started last year during the summer break. I went to Scotland for three weeks and for one week participated in a volunteer programme offered by the conservation organization "Trees For Life".

The aim of TFL is to recreate the Caledonian Forest, which nearly covered the whole area of what today is Scotland until the Middle Ages. Nowadays Scotland has lost 99% of its natural forest cover due to clearcutting for timber production, clearing the land for crops, to graze animals or producing fire wood. So the typical landscape of Scotland as we know it, an almost completely heather (*Calluna vulgaris*) covered country, is a product of the past centuries.

The natural forest would, depending on the site, mainly consist of Scots Pine (*Pinus sylvestris*), Aspen (*Populus tremula*), Downy Birch (*Betula pubescens*), Elm (*Ulmus laevis*), Grey Alder (*Alnus incana*) and Black Alder (*Alnus glutinosa*), Hazel (*Corylus avellana*), Rowan Tree (*Sorbus aucuparia*), Pedunculate Oak (*Quercus robur*) and Sessile Oak (*Quercus petraea*).

I was picked up together with eight other volunteers at Inverness main train station by two members of Trees For Life, who coordinated the work week. Before they took us to Plodda Lodge, a stone cottage typical for the Scottish highlands, where we stayed for the whole week, we visited famous Glen Affric to have an introduction, hearing about the past achievements of TFL, the plans for the week and about the forest ecosystem in the area.

Glen Affric is one of the last places having a natural forest cover dominated by Scots Pine and Rowan Trees, but also this last retreat area of wildlife is in danger. Most of the 150 years old trees have vast canopies, indicating that even these grew up in a rather bright stand and there is no natural recreation underneath them.

We walked up to Coille Ruigh, an enclosure of about 50 hectares which was fenced by volunteers in 1990 and since then regularly monitored. Inside the fence, in the beginning there were approximately 100.000 seedlings of *Pinus sylvestris* of an average age of 9.9 years but only an average height of 8.5 centimeters. Knowing that in parts of the highlands there are red deer populations of 25 individuals per hectare, this showed me very impressively what unbelievable amount of overgrazing this means.

One part of the concept of TFL is to provide only regional organic and vegetarian food for the volunteers, to foster a sustainable development of land use in the area they are engaged in. So when arriving at Plodda Lodge we found the kitchen stuffed over and over with vegetables, supposed to feed eleven treeplanters for seven days.

Next morning we started off at six o' clock, driving to the Corrimony Bird Sanctuary. This area is owned by the Royal Society for the Protection of Birds (RSPB), which wants to establish a habitat especially for the Black Grouse (*Tetrao tetrix*). The Black Grouse is strongly endangered in the United Kingdom and only two stable populations are left in Scotland, one of them in Corrimony. As it needs a vast variety of different habitat types (open and forested places) in a small area and there is at the moment absolutely no forest cover nearby, there is an ur-

gent necessity of tree planting in the reservation.

So we started to plant trees. Everyone got a bag to put in seedlings and a spade to bring them into the peaty soil by making a T-shaped cut opening it, putting a seedling in and compacting the soil again. We planted 2500 trees during the week, mostly Aspen, Scots Pine and Hazel and on the last day near a small burn Grey Alder and Eared Willow (*Salix aurita*). One and a half day we cut down Sitka Spruce (*Picea sitchensis*), which was planted by private land owners for timber production but only had poor growth and started invading the last natural forests.

Coming back from a hard days work, we all enjoyed it very much to sit around the fire place and there was lots of interesting conversation between the participants, pleasantly agreeing on environmental issues. Already on these evenings we talked about the sense of the work we had done. It was obvious to us, that apart from preventing soil erosion and creating new habitats, the planting of trees in such a high number (TFL has planted over 500.000 trees from 1990 to 2006) is a direct contribution to the fight against climate change, especially regarding the fact, that the natural vegetation in Scottish forests mostly consists of fast growing trees with a high potential to absorb CO₂ from the atmosphere. Looking back, I can really recommend the participation in a work week with TFL (www.treesforlife.org.uk), as it is scientifically monitored and proven to have a very positive impact both on the local landscape and on global climate. Additionally the participants get a very founded overview about the ecology of the Caledonian Forest, which to repeat here as a whole would be beyond the scope of this article.



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threat to some species. Seabirds and mountain, island and arctic region species will be primarily affected.

How do birds respond to climate change?
“Shifts in timing of important life cycle events, and shifts in ranges, are two major ways in which birds and their ecological communities are already displaying a strong response to climate change.”

The Pied Flycatcher (*Ficedula hypoleuca*) is a typical breeding bird of Central Europe. It winters in Central Africa and arrives in its breeding territory in spring when insect density reaches its peak. An earlier start to spring displaces the period of optimal food availability so that nestling diet is scarcer. Some populations across Europe have decreased by up to 90% as a result.

What is the scale of climatic impact on birds?

“Local weather and regional climate patterns strongly influence birds’ behaviour and survival in both their breeding and non-breeding seasons, and numerous studies link climate change to recent or future declines in bird populations around the globe.”
The reproductive success of four Californian arid-land birds (the Rufous Crowned Sparrow

Aimophila ruficeps, Wrentit *Chamaea fasciata*, Spotted Towhee *Pipilo maculatus* and California Towhee *Pipilo crissalis*) declined by 97% during a record drought in 2002.

Conclusion

“Having served as reliable indicators of environmental change for centuries, birds now indicate that global warming has set in motion a powerful chain of effects in ecosystems worldwide.”

It is not too late to slow down global warming, but we must be aware that it is impossible to halt it completely. The effects of climate change can be already felt today. Through nature, and especially bird conservation, we can study the correlation with anthropogenic behaviour and its effects for our ecosystem.

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Special thanks go to the “Verein Sächsischer Ornithologen e.V.” (Saxon Ornithologists’ Association) and David Conlin.

On November 14, 2006, the WWF published a report “Bird Species and Climate Change”, which analyses the current and future impacts of global climate change on birds.

The report reaches three important conclusions:

1. Behaviour, ranges and population dynamics of birds are affected by climate change.
2. There has already been a marked negative impact on some bird species.
3. Large numbers of bird species will be at risk of extinction in the future.

Why does climate change affect birds?

“Altered temperature, precipitation and moisture, a generally more variable climate, and more extreme weather conditions are hallmarks of climate change that directly affect birds.”

Changes to bird habitats also play an important role. Rising sea levels, the expansion of desert areas, and extension of the taiga region northwards, could all present a real

Short-rotation Populus Plantations on Agricultural Land in Germany

A first attempt to figure out the relations between annual increment and climate

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the thesis work was Prof. Dr. habil. H. Röhle (Institute of Forest Growth and Forest Computer Science, Dresden University of Technology). The topic of the dissertation was part of a joint project by the Agency of Renewable Resources, Gülzow; the Institute of Fast Growing Tree Species, Hannoversmünden; the StoraEnso Kabel GmbH & Co. KG, Hagen and the Chair of the Federal Forest Administration Saxonia.

The experimental site is located in Methau, Saxonia. It was established in April 1999 for pulpwood production with a planned rotation of 10 years. After a few years the aim changed into bioenergy production. Twelve different hybrid poplar clones were established. Six of these twelve clones were analysed for the dissertation. The analysed clones are Max1, Max4, Matrix, Androscoggin, Beaupré (sec. *Tacamahaca*) and Münden (sec. *Leuce*). The plantation grows without fertilization and irrigation.

Methods

Biomass estimations were based on a regression method relating total dry weight (TDW) to the diameter at breast height (DBH) of single trees. On every plot the DBH of circa 100 trees and five heights on a sample plot for each clone were recorded. After that, five sample trees from each clone were selected. From every sample tree two stem disks (for recording the radial increment from the trunk cross-sectional area) and a few stem and branch samples (→ TDW) were taken and the increments of height for the last four years were assigned. For the biomass estimation an allometric relationship was used:

$$BM = a_0 * DBH^{a_1}$$

(BM= biomass, a_0 , a_1 = parameters)

For the relationship between increment and climate, a correlation method was applied. Four different climate-indices for different pe-

riods per year were used (temperature average, precipitation sum, index of aridity, index of climatic humidity)

Results and Discussion

Biomass after 7 years (Table 1)

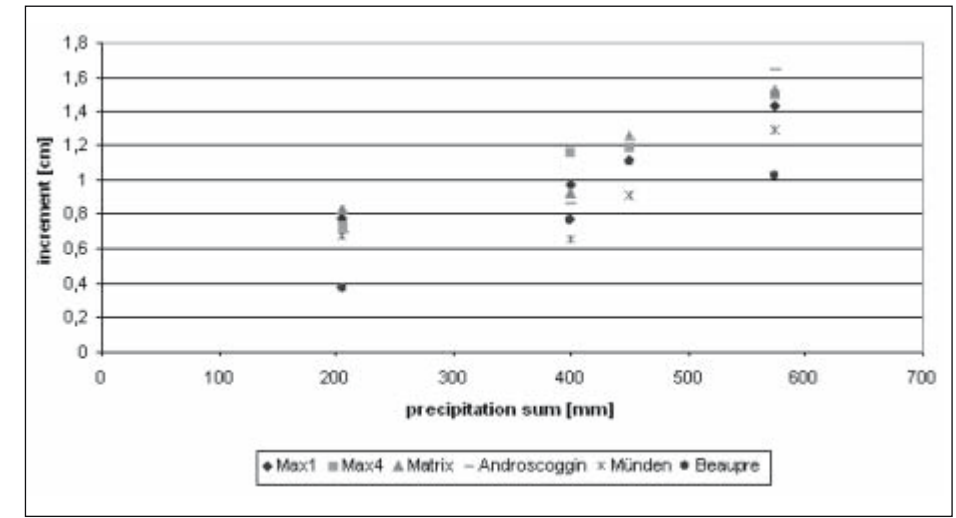
At first you can see that sometimes plots with the same clone and the same spacing reached clearly different results. Varying soil conditions are a possible explanation for that, but they were not subject of this thesis work. In table 1 you can also tell that for some plots the survival rate after 7 years is more than 100%, an effect that is caused by bifurcations.

The most interesting part of table 1 is the MAI. The first result is that the spacing chosen has to depend on the planned rotation length. Nevertheless the six clones show very different results amongst the plots with equal spacing. For the average of MAI about all plots with the spacing 3x2m for every clone the clone Beaupré with 2,63 Mg/ha/yr has the lowest MAI. In contrast to that, clone Münden reached 7,71 Mg/ha/yr and clone Max1 6,92 Mg/ha/yr.

Climate-increment-relation

The main result for the climate-increment-relation was, that the precipitation sum has a linear influence on the increment. For this relation every clone shows high correlation coefficients (r).

(In detail: Max1: r=0,963; Max4: r=0,995; Matrix: r=0,909; Androscoggin: r=0,930; Münden: r=0,832; Beaupré: r=0,902)



Relation between increment at DBH and precipitation sum (april–september)

For all other climate-indices it was not possible to find out as close interrelations. The forecast for the future climate in Saxonia predicts a rise in temperature and a decrease in precipitation, summers like 2003 could become normal. And so the increment and with that the MAI will decrease, too.

Given that as a precondition, the economic future of short rotation plantations could be unsure. But on the one hand fertilization and irrigation and on the other hand new or better adapted Populus-clones can raise the increment.

As a conclusion you can say, that bioenergy from short-rotation plantations is a very interesting and exciting project and in future the meaning of such plantations will grow. We will have to use these potentials.



Experimental-site Methau, Saxonia, Nov. 2005

clone/plot	Spacing [m]	individuals/ha	Survival Rate [%]	diameter [cm]	height [m]	MAI [Mg/ha/yr]
Max1/14	3x2	1814	108,9	10,5	10,2	5,89
Max1/37	3x2	1619	97,2	13,1	10,7	7,87
Max1/41	3x2	1569	94,2	12,5	10,6	7,01
Max4/28	3x2	1567	94,1	10,1	10,2	5,04
Max4/29	3x2	1517	91,1	10,6	10,3	5,33
Max4/30	3x3	1178	106,0	12,5	10,8	5,49
Max4/31	3x1	3183	95,5	9,4	10	9,18
Matrix/16	3x2	1333	80,0	10,8	12,3	5,18
Matrix/12	3x2	1175	70,5	11	12,3	4,69
Androscoggin/7	3x2	1681	100,9	11,4	11,2	5,92
Androscoggin/17	3x2	2374	142,5	11	10,9	7,83
Münden/45	3x2	1583	95,0	11,3	13	7,71
Beaupré/38	3x2	1179	70,8	11,5	11,3	3,81
Beaupré/13	3x2	865	51,9	8,3	10	1,44

Table 1: stand mensurational data 2005

Introduction

Fossil energy is no endless resource and the process of global-warming, as a direct result of using fossil fuels in a way the industrial countries do, has already begun. Today short-rotation plantations often seem to be part of the solution for these problems. But today in Germany short-rotation plantations have no economic meaning, it is still research work.

This article is based on a diploma thesis and thus is intended to only give a short overview and introduction into the subject. One task of the work was an attempt to forecast the future potentials of short rotation plantations for fuel wood as influenced by the climatic change in Saxonia. The professor supervising



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Let's start with something about us: We are students at TU Dresden in Tharandt studying forest science in the 7th semester. In June 2006, 45 students mainly of our semester went out on an eight-day excursion through Central and South Germany. The leader and head organizer of this tour was our silviculture professor, Prof. Dr. Wagner, and Dr. Wollmerstädt (working at the Institute of Silviculture in Tharandt, too). Furthermore we were escorted by the Institute of Management Planning (Prof. Dr. Bitter), Forest Utilization (Dr. Richter, Dr. König), Forest Technology (Dr. Hückel, Mrs. Weiß), General Ecology and Environmental Protection (Prof. Dr. Schmidt, Dr. Denner), Forest Protection (Prof. Müller), Forest Growth and Timber Mensuration (Prof. Röhle) and last but not least Forest Policy and Forest Resource Economics (Prof. Weber). Another very important person on this tour was our busdriver, Ralph, a constant companion on nearly all tours we did during our time in the university. He knows how to drive a bus in a way it is not constructed for. Special thanks to Ralph at the beginning. But now something about the excursion ...

The regions of interest - there were seven - are distributed in the Middle and in the South of Germany. During this excursion we visited Thuringia, Bavaria, Hesse, Saxony-Anhalt and Lower Saxony. Special destinations were the "Thüringer Becken", the "Harz" and its surrounding landscape, the "Spessart", the "Hessische Senke" and the "Fichtelgebirge". In these regions we observed main and special forest formations, regional silvicultural methods and a lot of different companies working with and processing wood. The first three days of our excursion we spent at the "Harz" and the landscape surrounding it. The Harz is a low mountain range extending from Northwest to Southeast in the

northern region of Central Germany. The different parts of the Harz are very unlike in climate. There is the higher region with more precipitation and lower temperatures and the lower region of the Harz with warmer temperatures and less precipitation. Thus, the silvicultural methods are different as well. In the higher region we found forest communities with beech and spruce, in the lower regions oaks and beeches were dominating. Our main focus at this site was the silvicultural behaviour to produce high quality oak wood, useful for example as veneer or for furniture. Visiting the Harz National Park (part of the Harz with zones of maximum protection) was the next point of our programme. The highlight here was the "Harzfichte" ("Harz spruce"). It is a special form of *Picea abies* which evolved from the normal form because of special adjustment and competition. So it developed an own geno- and phenotype. Spruces with wide loaded cylindrical crowns, big branches, high vitality and regeneration, specially shaped needles (like a brush or a comb) and an elevated root form (the spruces regenerate on the dead stumps; a kind of carrion - regeneration on other dead plants) you can find there. The Harz and its climate helped to develop "his own" best adjusted spruce since the evolution. The National Park Harz is, that is the first time ever in Germany, a national park that is not limited because of borders. It developed from two separate National Parks, situated in the federal states of Lower Saxony and Saxony, sealed in a contract between these two states. So it has become one big National Park with an area of 24.700 hectares. With this project, the unique nature is intended to be totally protected and tourism to be navigated. Within the totally protected core, all usage of wood is halted. Here the only human activity is trying to prevent bark beetle invasions out of the core onto other forests. With the LÖWE Programme (it is an abbreviation for langfristige ökologische Waldentwicklung, which means long-term ecological forest development), the people try to reconstruct the natural forest communities and built some kind of network of protected areas. Only in the higher altitudes of the Harz there is classical forestry with spruce. In not totally protected areas forestry with high quality broadleaved trees (*Fraxinus excelsior*, *Acer spec.*, *Prunus spec.*) is possible and done. The second destination was the "Thüringer Becken". It is a region which is bordered towards the Southwest by the Thüringer Wald, in the Southeast by the "Thüringer Schiefergebirge" and in the Northwest we have the "Eichsfeldschwelle". So it is a kind of sink

(Becken means sink in English). The typical soils consists of lime, loam and sand. So we have natural forest communities mainly with beech, oak, and lime. The first attraction here was the plenter system in Keula. It is a special one, since only broadleaved species are used there, which is very rare in Europe. Mostly we found beech, other species, with sometimes very good quality, were maple (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), elm (*Ulmus glabra*) and chequer tree (*Sorbus torminalis*). So this region has a good potential to produce high quality timber. What happens with forests or landscapes when the management ends, we could see in the Hainich National Park, with an area of 160 km² with broadleaved species on shell lime. All felling operations are stopped. So you can see how the nature comes back for example at old military bases or non managed forests. As a consequence, very rare forest communities, mostly with beech, but also swamp forests with black alder are coming back. The most famous inhabitant in the National Park - just this one is no plant - is the wild cat (*Felis silvestris*). To see one of these can take days or weeks, sometimes months. Within these few hours, when we went through the forest, it is not surprising that no wild cat crossed our way. So we decided to take a look at the forest in another way: Since August 2005, the Hainich National Park has one more attraction, a kind of bridge through the crowns of the trees. While walking along this way you see the forest in another exciting way. The last station was the "Hörselberge", near Eisenach. It is a nature reservation area and one of the most important gene resources of wild fruit species, chequer tree, whitebeam and downy oak. Moreover, the region accommodates - as the only one - an interbreed between chequer tree and whitebeam named *Sorbus isenaciensis*. So I would say it is the epitome of being unique. Back to the roots was the topic at our next destination. We travelled to Zillbach, the birthplace of the founder of the academy of forestry in Tharandt, Heinrich Cotta. After signing the guest book and visiting the museum we went to the "Cotta Wäldchen", a kind of plantation with 357 different tree species, founded by Heinrich Cotta before 1810. After some storm damages in the 1990ies, only 35 species survived. In Hesse we were travelling in the South-Eastern part, a region with a sandstone pedestal bunter of 1100 m in height and a surface influenced by volcanism. The "Vogelbergmassiv"

with a size of 2500 km² is the biggest coherent basalt mass all over the European continent.

We were invited to come to the third biggest private forest company in Germany, the forest company of "Riedesel Freiherren zu Eisenbach". The forestry area was about 14.000 km² (including 500 km² supervisory forest), with 35% spruce, 10% Douglas fir, 15% pine/ larch and 40% beech. We watched some technical methods of harvesting, but mostly it was the harvester which was used. It was a contrast compared to the sites we saw before! From natural forests and nature reservations, you come back to the managed and anthropogenically influenced reality. Later that day we visited a stand of the famous "Schlitzer Lärche", some kind of larch provenance with an exclusive quality and a higher immunity against cancer. Schlitz is the place where people have been working with this kind of larch in a long tradition since 1740. Where the seeds once came from still today is not really clear. Perhaps they come from the region of the Sudeten. In Bavaria, there is a similar tree species like the "Harzer Fichte" or the "Schlitzer Lärche" which is typical for the region. It is the "Selber Kiefer", a type of autochthon highland pine in the "Fichtelgebirge". It is a straight headed pine with fine branches, relatively slow but permanent growth in height and dimension and a long pointed crown. The few pine stands



Cotta memorial Zillbach © Nicole Dietz

existing today in this region - there are only 3% young pine stands - are a very important reservoir for rare genes. Another speciality in Bavaria is the production of high quality oak wood in the Spessart region. It has been the traditional way of oak management for 150 years. Mature trees are mainly 240 years old and have a breast height diameter of about 60 cm (minimum). A typical feature is the shelter wood felling and seeding, and later the under planting with beech, white beech or lime as servant tree species. So you get after a very long production time branch free, big dimen-

sioned and expensive oaks, usable for example for veneer. To see where the wood goes to after cutting, we visited a veneer producing company and the saw milling industry. At the end I would say, it was a very well organized excursion with a high education factor.

A special thank-you to our university and all the people who allowed us to watch them working.

Greetings from Tharandt,
Jana + Marcel

Local group meeting in Tharandt/Germany



IFSA members from Eberswalde and Tharandt

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On the weekend between 8th and 10th of December the recently re-established IFSA group of Eberswalde followed an invitation of the local-group Tharandt to a first informal meeting. The meeting arranged as a first step to improve both, relationship and interchange be-

tween different local groups in general and in addition to the regular regional meetings of the IFSA.

In the meeting itself, 8 members from Tharandt and 7 members from Eberswalde took part.

The hosts arranged a broad program of activities, such as hiking in the mountains of the national park "Sächsische Schweiz", a visit of the City of Dresden and hiking in the botanical garden of Tharandt.

Summary of the meeting:

The meeting was very interesting and informative for both groups. Everyone had fun and the most important aims, to learn about the others and to initiate an exchange of experiences, were achieved.

Background information Eberswalde:
Eberswalde is located in Eastern Germany, 60 km to the north-east of Berlin. The univer-

sity is not only limited to forestry and related topics, thus there is a fine tradition in forestry of nearly 160 years. It can be chosen from 14 different study programs at four faculties. Actually there are about 1500 students matriculated at the University of Eberswalde. This makes it the smallest university in the federal state of Brandenburg.



Sächsische Schweiz

Matthias Baldus,
IFSA Alumni

In November 2006 the European Bioenergy Business Forum (EBBF) took place in Brussels.

The meeting under the headline of "European Legislation to promote Bioenergy" brought together people from the business community with representatives from the European administration and scientists.

In a nutshell it can be said that legislation in the EU to promote Bioenergy is still a good step away from being harmonized and equally successful. As countries like Austria, Germany and Sweden have applied effective tools to boost renewables, other countries have not learned that lesson so far. But, although the policy framework is still of importance when it comes to the rentability of renewables, the steady increase in prices for fossil fuels makes renewables potentially, and

in many cases already now, competitive without any state support. Major take-away for foresters: The sleeping-giant bio-energy is stretching his legs. Europe is ahead when it comes to policy tools, technology (gasification, pelett-produktion etc.) and marketing. So it is worthwhile to consider to writing papers and having internships in that sector. To download the presentations of the conference please visit: www.aebiom.org



The Grand Exit of a great Cook



IFSA: Who is Johannes?

Johannes: My full name is Johannes Jakob, a German by nationality. I am 26 years old and a fifth year student of forestry science at the Freiburg University in Germany. The third child of a family of four children, I regard myself as an extrovert and a somewhat emotional person. My emotional nature stems from the feeling of the love of God that I see and perceive in everything around me. My strong Christian faith is evident in every area of my life down to my relationship with my girlfriend. I also love to be around people so I guess that's the extrovert in me. My father is a professor of soil science.

IFSA: You have been serving as IFSA's chef at its interim meeting for six years. How it all did begin?

Johannes: It all started in 2002 when Marteen, one of IFSA's ex-treasurers made an enquiry requesting for a chef. Well, I got back home, gave it a bit of thought and decided to take up the challenge. I called Maarten and told him I will be glad to cook for the officials at the meeting. Since then, it's been cooking all the way. I have cooked five times at the interim and this is my sixth year.

IFSA: why is cooking a passion for you?

Johannes: I see cooking as a pleasant meditation. The body reacts on food and when you feed well, you can sleep well, read well and feel generally relaxed. I take delight in cooking because it's pretty amazing to make something great out of something so simple and watch people enjoy the food.

IFSA: Any special preferences for your cooking?

Johannes: I am in love with the Arabic Kitchen. I love to cook exotic dishes. Nonetheless, I am also very comfortable with German, French and Italian cuisines.

IFSA: Aside cooking, do you have other interests?

Johannes: Ten years ago, I developed a knee problem and my doctor recommended swimming and biking. I opted for the latter and apart from keeping people happy with food, I enjoy biking through the earth and exploring all that nature has to offer.

IFSA: Any special achievements with biking?

Johannes: Indeed, I have traveled over a 120.000 km in 10 years; I would say I have been around the earth three times. In Europe, I have biked through France, Spain, Switzerland, Italy, Germany, Great Britain, Slovenia and Hungary, just to mention a few.

IFSA: You have proven your cooking expertise during the last three days. Now that you are making a final exit, what next?

Johannes: I am very much interested in the alumni network and would love to see how it turns out. I also hope that I can transport the knowledge of IFSA into my working career. Through IFSA, I have met very wonderful people and I hope to share my experience with many others. I am of the opinion that IFSA has a great future and wish many more students to be a part of that future.

IFSA: Parting words to fellow IFSA students?

Johannes: (thinking a bit) ... Enjoy yourself, enjoy your food, take it easy and do everything you do with passion and patience.

Interview conducted by Patience Mayaki
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The ease and confidence with which he moves around the kitchen, very much in control of his culinary environment makes one wonder what drives the cooking passion of this young intelligent forestry student who has undoubtedly earned the unbeatable record of serving as IFSA's chef for the past six years at the association's interim meetings. Sitting close to a warm fireplace in the beautiful small German town of Hinterzaten, still savoring the after-taste of a delicious dinner as white snow decorates the entire landscape, I finally was able to have some time alone with him and ended up having this small interview that you are all about to read. I hope that by the time you get to the last sentence, you would in the least, have known more about Johannes Jakob and what makes cooking a special delight for him.

Euroforester – an international MSc in forestry for international students

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What is Euroforester?

Euroforester stands for an international MSc programme in forestry, conducted as a joint effort between 13 universities. The name of the programme is not accidental since it is targeted primarily to European forestry students. The programme deals with European forestry issues, with focus on countries in the Baltic Sea region. The programme annually enrolls around 30 students from Estonia, Latvia, Lithuania, Poland, Russia, and Ukraine, who receive scholarships from IKEA and Stora Enso. And about dozen students from Sweden, Germany and other European countries join the programme using Socrates Erasmus Exchange programme or other kinds of funding.

How did it evolve?

The decisive decision was made in 1997 when Southern Swedish Forest Research Center, a department of Forest Faculty at SLU, adopted a strategy to develop an international MSc programme (Brukas 2006). Already next year field trips to Lithuania and Poland have been organised for Swedish MSc students. Year 2000 brought a testing project within which 6 Lithuanian MSc students attended 4-month courses in Alnarp. The 1-year MSc course "Sustainable Forestry around the Southern Baltic Sea" was launched in 2001 and continued until 2006. The first 20 annual scholar-

ships for Baltic students were committed by IKEA. In subsequent years, forestry faculties from Russia and Ukraine joined the partnership. The academic network has been growing in size and in commitment, thanks to support by the Nordic Council of Ministers and the Swedish Institute. Since 2004, IKEA and Stora Enso have granted 5 additional annual scholarships each.

Structure of the programme

In its current shape the programme consists of 2 years. The first year is divided into four wide thematic courses:

- Silviculture and ecology of conifers are the subjects of the 1st course focused on the stand level. The course deeply examines the influence of silviculture on forest development.
- The 2nd course moves up to the estate level, addressing the principles and practice of sustainable management and multiple-use of forests. Also the students prepare long-term forest management plans for a large estate.
- The 3rd course regards forest policies at national, regional and global levels. Much attention is put to comparative policy analyses between countries in the Baltic Sea region.
- Ecology and use of broadleaved forests are the themes in the 4th course. The impact of modern forestry on biological diversity is discussed together with measures and strategies for preserving rich flora and fauna.

During the second year students work with master thesis and attend suitable courses at any of the partner universities. In many cases, the master thesis is conducted in co-operation between faculties with supervisors from more than one country.

High-level education

A prerequisite for the programme is a good command of English as well as a decent knowledge of forestry subjects. During the qualification interviews, Euroforester coordinators thoroughly test every scholarship candidate via written tests and individual conversations. Only students with highest scores are qualified for the programme. The teaching process itself requires systematic participation in the courses given. Students engage in both thorough individual studies and extensive group work aimed at expanding students' flexibility and creativity. Numerous lectures given by either company representatives or academic teachers from various universities from all over the world providing students with a wide spectrum of international issues as well as information on current forestry and timber market situation. Students take part in frequent trips in Sweden as well as in study tours to other countries in the Baltic Sea region. It is not an exaggeration to say that all Euroforester students are given lots of administrative support and pedagogical attention.

What is so unique about Euroforester?

We had a fortune to attend the programme since September 1, 2006. Four months of studies made us wonder that an MSc programme can be developed into such an innovative form with a new outlook on forestry education. In contrast to many typical forestry educations, Euroforester gives a broad overview of European forest-related topics while not restricting itself to any single-country issues. Lecture topics are often worked through practically during field-trips, group works and presentations prepared by students. International atmosphere created by students from multiple countries supports the intention of building a network as well as acquir-



ing a better understanding of other countries' forestry problems. Working together with different students from other countries makes us more tolerant and we have a chance to learn about other cultures. It is not common in a typical forestry education that numerous teachers from around the world give top lectures in their areas of expertise. It is important to mention that the curriculum is focused on practical matters. Even though there is always a pile of materials to read through, students do not have to be bookworms since the courses are aimed at the development of an independent logical thinking, communicational skills, creativity and practical knowledge. Students learn how to distinguish the

most important information from the ones of little significance. We are very satisfied with the academic staff here in Alnarp. Our teachers are always willing to offer help, they create an exceptional atmosphere in so-called 'teacher-student relations' and give us most appreciated motivation. Working together at school and joint-events during our free time has made our course a big and happy family.

What's in it for me?

There are multiple advantages of the Euroforester programme. Not only does it serve as a means for improving the forestry knowledge (e.g. forestry terms, economics and a global approach) but also for establishing an inval-

uable network with students and future colleagues from other countries. Our experiences make us to give you the following tip: don't hesitate and become a member of the Euroforester family by joining the course of high quality! For more information, visit www.euroforester.org

References

Euroforester website:
<http://www.euroforester.org/>

Brukas, V. 2006. An example of developing joint MSc programmes: Euroforester, http://www.euroforester.org/Bilder/History_Vilis.doc

can also be used for regional climate projections within the study program. The GCM-course was developed by the Biologist Prof. Dr. Pierre Ibisch, who is also head of the program. He comments: "Global Change Management includes more issues than the change of climate and environment." - which means, students will also gain knowledge about economical and political circumstances of environmental change and develop tools to manage global change aspects. The mission is to educate specialists who are able to manage natural resources under rapidly changing conditions and evolve targeted and science-based solutions to face climate change and loss of biodiversity. This study course lasts four semesters and addresses students that hold a diploma or bachelor degree in ecology-related studies. There is a "numerus clausus" and the courses are limited to 25 students per semester.

One of the prospective "change agents" is Kristin Gerber. Before she enrolled in the new Master program she studied International Forest Ecosystem in Eberswalde: "IFEM motivated me to work for the nature conservation sector and now I want to learn more about

processes that could influence environmental protection." A special thing about the study program is that it includes activities like trainings and courses beyond the campus, which are offered by the official partners. For instance seminars at the Munich Re Group, one of the world's largest reinsurers. They want to give the students the possibility to learn about risk calculation of natural disasters. Furthermore the Master students will obtain knowledge about development aid projects in lectures given by experts from the GTZ (Deutsche Gesellschaft für technische Zusammenarbeit). Other partners like the Nature Conservancy Association of Germany (Naturschutzbund Deutschland, or NABU) and the non-profit, non-governmental association GermanWatch demonstrate how to support and strengthen the environmental lobby and equal distribution of economic capital. Scientists from Potsdam Institute for Climate Impact Research will also be involved in the teachings. All these associate partners that contribute to this master study program will bear their costs themselves, because they acknowledge the need for global change managers and could



Prof. Dr. Pierre Ibisch

also imagine to employ students from Eberswalde in the near future.

All in all GCM is not only a seminal study program which offers excellent career opportunities for students, but also a interdisciplinary, adaptive and precautionary approach to solve at least some of the planets most severe problems. There is something going on in Eberswalde ...

Unique study program to face global change!



The new Global Change Managers

Marcus Waldherr;
Universität Eberswalde, Germany;
mwaldherr@fh-eberswalde.de

There's a new Master study program at the University of Applied Sciences in Eberswalde! The new study program is called "Global Change Management" (GCM) and started this winter semester (06/07).

The grand opening on December 11th 2006 was accompanied by Brandenburgs minister of science Johanna Wanka and many more prominent representatives of the society. For example Jörg Kachelmann, Germany's most famous TV moderator for the weather forecast, who inaugurated a new meteorological station on the campus. The weather station

CALENDAR

IFSA Events

06.03.2007–10.03.2007 | **Palermo, Italy**
Desertification processes in Mediterranean area

AUSF-Palermo (University Forestry Students' Association) and the University of Palermo are glad to invite you to the International Forestry Students' Meeting that will be held in Palermo.

During the meeting is planned:

- A seminar day,
- Two days of Technical excursion

If you need some information, please contact: Fabio Pastorella, fabiopasto@yahoo.it
Dario Vespertino dariovespertino@yahoo.it

03.04.2007– 08.04.2007 | **Estonia**
Northern European Regional Meeting

Estonian Forestry Students Union is glad to announce that we plan to do NERM from the 3rd to the 8th April in 2007. The topic would be "Storm and fire- beginning and the end".

NERM organizing team
emeus@eau.ee

17.04.2007–22.04.2007 | **Krtiny, Czech Republic**
21st Forestry Versatility
Register before: 18.03.2007

Association of Students' of the Faculty of Forestry and Wood technology, Mendel University of Agriculture and Forestry, Brno, Czech Republic would like to invite teams of forestry students all over world to come and test their knowledge, exchange experiences, learn little bit about Czech forestry and built up new international friendships.

Teams are going to compete in following disciplines:

- Knowledge of shooting (shotguns and small-bore rifles)
- Orienteering with identification of plants, trees, insects, animals, birds, rocks, minerals and fungi
- Knowledge of the hunting of significant game (aging and identification of tracks)
- Use of chainsaw (directional felling, snedding, slot making, etc.)
- Knowledge of forest management and inventories

Competing teams are composed of 4 forestry students (2 girls - 2 guys). The accomodation site can hoste only 10 teams! So, get ready :o) The participants cover only their travel expense to Brno and back.

Any questions? Do you want to come?
Please ask or register at the e-mail address psh0504@simpanz.com

26.04.2007–29.04.2007 | **Poznań, Poland**
XVIIIth International Forestry Students Competition
Register before: 23.03.2007

Foresters Students Association of Agricultural University of Poznań invites all forestry students for XVIIIth International Forestry Students Competition Poznań 2007. The competition is organised at 19–22 april 2007 in Poznań.

All teams interested in competing are asked to send a short message confirming their willing before 15th of March to kolesnikow@wp.pl. As reply we will send then a full application form and regulations.

10.05.2007–12.05.2007 | **Nancy, France**
European Students' Meeting on Forestry Education

This meeting is to talk about the new European Forest Action Plan and the questions it raises for the european forestry education. Students, professors, and responsables of educational programs will be gathered around working groups to discuss about precise themes like assessment of establishments and programs, the link between education and work, and more. Students will also have to present briefly the forestry educational system in their country.

A web site is devoted to the meeting:
<http://ifsa-meeting-2007.neuf.fr/>
PLEASE NOTE CHANGES TO THE DATE

16.05.2007–19.05.2007 | **Gelsenkirchen, Germany**
10th European Forum on Urban Forestry
Register before: 28.02.2007

IFSA have been invited to participate of the 10th European Forum on Urban Forestry. We will be able to send two students to the conference. The conference and accomodation costs for the conference will be covered by the Ministry of Environment from Nordrhein

Westfalen (State in Germany) and in return, the students should help in some organising activities during the event. Moreover, the participants will eventually have the opportunity to present their research or a poster.

If you are interested in participating, please send me your application with your CV, motivation letter (pointing out your theme of research). This information will be sent to the organising committee of the conference to select the two participants.

For further information about the conference, please check the webpage:
<http://www.industriewald-ruhrgebiet.nrw.de/>
Susan Edda Seehusen
IFSA President
susan_ifsa@yahoo.com

05.06.2007–10.07.2007 | **South Africa**
International Forestry Students' Symposium (IFSS), the triple bottom line

Host Member: Saasveld Timber Association (Nelson Mandela Metropolitan University-George Campus, Western Cape).
see also IFSS page at the left.

06.09.2007–07.09.2007 | **Warsaw, Poland**
IUFRO European Congress "Forests and Forestry in the Context of Rural Developmen"

Warsaw University of Life Sciences would like to invite IFSA students to participate in the IUFRO Congress. Subject of the event: "Forests and Forestry in the Context of Rural Development".

The organizers of the Congress would like one IFSA official to make a short presentation and prepare a poster.
Participation fee is free of charge for all IFSA students.
Additionally, organizers will be able to cover travelling expenses for the official who will make a contribution.

For further information about the congress, please contact:
Mike Bobik, iufrocongress@wp.pl

The official website of the event:
<http://conference2007.wl.sggw.pl/>

30.09.2007–06.10.2007 | **Joensuu, Finland**
Northern European International Summit 2007

The University of Joensuu would like to invite people from Finland, Sweden, Norway, Denmark, Estonia, Lithuania, Latvia (5 persons/country) to attend the Northern European International Summit carrying the theme of "Forest as a source of well-being".
The entry fee is 50 /person.

For more informations please contact:
Heli Kymäläinen, hostess
heli.kymalainen@joensuu.fi
Janne Vaittinen, host
janne.vaittinen@joensuu.fi

Professional Partners Meetings

29.10.2007–02.11.2007 | **Taipei City, Taiwan**
IUFRO Division 5 Conference

The IUFRO Division 5 Coordinator, Dr. Dave Cown, and the Chief Coordinator of 2007 IUFRO Conference Taipei, Susan Shiau, invite us all to actively participate in the meeting of the Division 5 of IUFRO. Division 5 is the name for the group of IUFRO scientists that focus on Forest Products and Environment.

This conference will serve as a forum for the exchange of knowledge and experience in forest products research at national and international levels. Participants will discuss recent research progress, exchange information and collaborate on research related to the conference theme of " Forest Products and Environment; a Productive Symbiosis".
If you are interested in participating in this event, please send an email Wilrieke Uiterweerd (wilrieke_ifsa@yahoo.com). If you have any questions, she would be more than happy to help you out.

Other Events

11.12.2006–15.12.2006 | **UN headquarters, New York**
ad hoc expert meeting

To prepare the work for the next session of the UNFF, there will be a so called Ad hoc Expert meeting. This means that all governments will send some representatives (experts) that will discuss about the possibilities of a NLBI (Non-legally binding instrument). Major groups (like IFSA) are invited to send their focal points.

13.02.2007–16.02.2007 | **Bali, Indonesia**
Country Led Initiative for UNFF

This meeting is organized by the government of Indonesia (and therefore called a Country Led Initiative) and will be about the multi year program of work, which the UNFF is. There will be several IFSA students from Indonesia attending the event as the Ministry of Forestry has agreed on IFSA's participation. We hope that the students from LC GMU and IPB will be able to represent youth and children major group and share their stories to the IFSA yahoo groups mailist.

14.04.2007–15.04.2007 | **Freiburg, Germany**
The Role of Individual Leadership in Environmental Governance

Students of the international M.Sc. program Environmental Governance are inviting you to participate their student organized event. Well-known environmental leaders such as Dr. Vandana Shiva from India, Paul Estrada-Oyuela from Argentina, Mark Moody-Stuart from UK and prof. Dr. Elinor Ostrom from USA are their keynote speakers. All the students from 16 different countries properly frame the Forum and are looking forward changing ideas with you.

16.04.2007–27.04.2007 | **UN headquarters, New York**
UNFF 7

In april 2007 the governments of all states will discuss the Non-Legally Binding Instrument during the 7th session of the United Nations Forum on Forests. About the registration deadline we don't know anything yet. For more info Pieter@forestpolicy.net