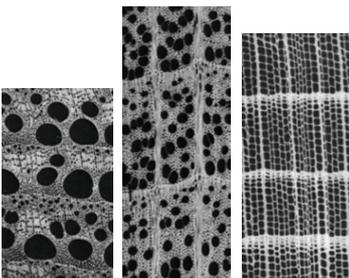


anthraco2015

Freiburg • Germany • 30<sup>th</sup> August to 6<sup>th</sup> September 2015

# 6<sup>th</sup> International Anthracology Meeting



Local to global  
significance of  
charcoal science

[anthraco@biologie.uni-freiburg.de](mailto:anthraco@biologie.uni-freiburg.de)  
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Baden-Württemberg

LANDES DENKMALPFLEGE



## Scientific committee

Eleni Asouti – University of Liverpool (UK)  
Ernestina Badal-Garcia – University of Valencia (Spain)  
Koen Deforce – Flemish Heritage Institute (Belgium)  
Emilie Dotte-Sarout - University of West Australia (Australia)  
Barbara Eichhorn – University of Frankfurt (Germany)  
Girolamo Fiorentino – University of Salento (Italy)  
Isabel Figueiral – University of Montpellier (France)  
Andreas G. Heiss – University of Vienna (Austria)  
Thomas Ludemann – University of Freiburg (Germany)  
Dominique Marguerie – University of Rennes (France)  
Oliver Nelle – Baden-Wuerttemberg State Office for Cultural Heritage (Germany)  
Jan Novak – University of South Bohemia (Czech Republic)  
St phanie Thi bault – University of Paris (France) *invited*  
Rita Scheel-Ybert – National Museum, University of Rio de Janeiro (Brasil)  
Werner H. Schoch – Laboratory for Ancient Wood Research (Switzerland)  
Ingelise Stuits – Discovery Research Program (Ireland) *invited*

## Organizing committee

Thomas Ludemann – University of Freiburg, Faculty of Biology, Dept. of Geobotany  
Oliver Nelle – Baden-Wuerttemberg State Office for Cultural Heritage, Tree-ring Lab  
Alexandra B ominghaus – University of Freiburg, Faculty of Biology, Dept. of Geobotany  
Insa Lorenz – Baden-Wuerttemberg State Office for Cultural Heritage, Tree-ring Lab  
Sebastian Million – Baden-Wuerttemberg State Office for Cultural Heritage, Tree-ring Lab  
Sandra M ller – University of Freiburg, Faculty of Biology, Dept. of Geobotany  
Charles Nock – University of Freiburg, Faculty of Biology, Dept. of Geobotany  
Michael Schneider – Baden-Wuerttemberg State Office for Cultural Heritage, Tree-ring Lab

supported by



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anthraco2015  - 6<sup>th</sup> International Anthracology Meeting  
**Local to Global Significance of Charcoal Science**

University of Freiburg, Germany, 30<sup>th</sup> August to 6<sup>th</sup> September 2015

[www.anthraco.uni-freiburg.de](http://www.anthraco.uni-freiburg.de) – [anthraco@biologie.uni-freiburg.de](mailto:anthraco@biologie.uni-freiburg.de)

We kindly invite you to the anthraco2015 , the 6<sup>th</sup> International Anthracology Meeting

### General congress information

Following the tradition of the past meetings – Montpellier 1991, Paris 2000, Lecce 2004, Brussels 2008 and Valencia 2011 – four years after the last charcoal congress,

the 6<sup>th</sup> International Anthracology Meeting - anthraco2015 

will take place at the University of Freiburg, SW-Germany, from 30<sup>th</sup> August to 6<sup>th</sup> September 2015.

Freiburg is a vibrant student city at the foot of the Black Forest in the heart of Western Central Europe in close vicinity to France and Switzerland, with rich cultural and academic life, and excellent recreational opportunities. Founded in 1457, the University of Freiburg is one of the oldest German universities and now is one of the nation's leading research and teaching institutions. The Faculty of Biology is renowned worldwide for its excellent research environment in multiple disciplines.

Freiburg is the so-called "green city Freiburg", well-known for its broad initiatives to create high ecological standards in diverse aspects of life while balancing social and economic sustainability.

anthraco2015  will be jointly organized by the Department of Geobotany, Faculty of Biology, University of Freiburg and the Tree-ring Lab of the Baden-Wuerttemberg State Office for Cultural Heritage.

Four years after the last meeting many new results have been worked out by anthracologists and charcoal scientists all over the world, with a broad range of scientific contexts and involved scientific disciplines. Consequently after four years of progress in charcoal science anthraco2015  will focus on

- (1) the present state of the art, innovative methods and new answers of (old) research questions,
- (2) promoting charcoal science and experience transfer as well as new interdisciplinary cooperation and collaboration,
- (3) identifying current and future research gaps and questions and initiating the corresponding studies in the close future.

It is intended to bring together scientists of the various fields and approaches dealing with charcoal and its analysis - archaeologists, botanists, (palaeo)ecologists, geologists, geographers, pedologists, historians, etc. ... from all over the world - the world's charcoal science community. Consequently we invite and strongly request those scientists interested in this field of science from all over the world to participate in the anthraco2015  meeting and submit a scientific contribution about new results (oral or poster) in the conference topics and present them at the University of Freiburg in late summer 2015. The central scientific program will be presented from Monday, 31<sup>st</sup> August, to Friday, 4<sup>th</sup> September 2015 with six oral and poster sessions.

Moreover, within the congress week we want to offer some opportunities to get to know the rich cultural landscape and study objects of vegetation history and anthracology in the close surrounding of the congress city, especially of the famous Black Forest holiday landscape by several field activities (pre-, mid- and post-congress excursions).

## General congress program – overview

The central scientific program will be presented from Monday, 31<sup>st</sup> August, to Friday, 4<sup>th</sup> September, 2015 with oral and poster sessions, subdivided into six sections. In addition, within the congress week we want to offer opportunities to get to know the rich cultural landscape and study objects of vegetation history and anthracology in the close surrounding of the congress city. Scientific field excursions will be planned for afternoon at Sunday, 30<sup>th</sup> August, and at Wednesday, 2<sup>nd</sup> September, as well as for Saturday, 5<sup>th</sup> September, and for Sunday morning, 6<sup>th</sup> September. A congress dinner is proposed for Thursday, 3<sup>rd</sup> September, in the evening.

## Preliminary timetable, Key dates

Sunday, 30<sup>th</sup> August, afternoon: Pre-congress welcome excursion; visiting historical charcoal production (perhaps a running charcoal kiln), the highest tree of Germany and/or a historical mining area at the west edge of the Black Forest.

Monday, 31<sup>st</sup> August, morning: Welcome of the participants, registration at the Faculty of Biology, University of Freiburg, distribution of congress documents and city information, etc.

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### Monday, 31<sup>st</sup> August, morning to Friday, 4<sup>th</sup> September, afternoon: Central scientific program: Oral and poster presentations of sessions 1 to 6.

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Wednesday, 2<sup>nd</sup> September, afternoon: Mid-congress field excursion Southern Black Forest, Schauinsland area; nature conservation area and cultural landscape of high (European; FFH) significance; historical mining area.

Thursday, 3<sup>rd</sup> September, evening: Congress dinner.

Saturday, 5<sup>th</sup> September, all-day: Post-congress excursion: Field trip to the Central Black Forest; strictly protected forest and nature conservation area with well-known land-use history, vegetation and cultural landscape.

Sunday, 6<sup>th</sup> September, morning: Post-congress good-bye excursion; visiting historical charcoal production (perhaps a running charcoal kiln 7 days later), the highest tree of Germany and/or a historical mining area at the west edge of the Black Forest.

## Scientific sessions

Since the last international anthracology meeting many new anthracological results have been provided by archaeologists, botanists, palaeoecologists, geologists, geographers, pedologists, historians, etc. ... from all over the world and in a broad range of scientific contexts, in various scientific fields and involved scientific disciplines. So the congress program has been structured and subdivided into six sections dealing with several topics of current interest. The corresponding sessions will take place from Monday, 31<sup>st</sup> August to Friday, 4<sup>th</sup> September 2015 with oral and poster presentations. During these five days, a great diversity of anthracological and palaeobotanical topics will be offered at the congress sessions. Each session will be opened by a **keynote**.

### Session 1: New methods and challenges

This session is intended for contributions tackling primarily questions of (new) methodology like isotope research, as well as taphonomy and dating. New challenges might concern anthracology in hitherto “untouched” regions of the planet where wood anatomical ground work is still in its beginnings. Other concerns may address field work (excavation, extraction, ...), representation of sampling quantities, determination of specific characters (e. g. wood anatomy), preservation of charcoal in different taphonomical contexts, the taphonomy of macro- and microcharcoals in lake sediments, stable isotope research, problems of dating charcoals in an archaeological context, etc.

### Session 2: Geo- and Pedoanthracology

Charcoal is everywhere. Beyond the archaeological context, soils and sediments are ubiquitous archives storing information on fire frequency, species occurrence and stored carbon in the form of carbonised plant material. This session focuses on pre-Quaternary charcoal in all kind of archives, as well as Quaternary charcoal in soils, soil sediments (colluvisols), peats, lake and marine sediments (sedimentary anthracology). Soil charcoal analysis or pedoanthracology, allows the investigation of past occurrences of fire events and the identification of the correlated burnt woody vegetation, which is an important research field now, in the view of global climate change. The approach is based on the

extraction of wood charcoal pieces from on-site-formed soils or soil sediments (e.g. colluvial soils), and their subsequent quantification (charcoal concentration per weight unit of sampled earth) and taxonomic identification, usually combined with radiocarbon dating. Pedoanthracology also contributes to the glacial refuge vs. early spread debate. Discussion will continue whether we keep talking of “pedoanthracology” for soil charcoal analysis which is usually done in a geoanthracological context. Regional contributions as well as syntheses or methodological issues are very welcome.

### **Session 3: Archaeo- and Ethnoanthracology**

The first studies on archaeological charcoals date back to the 19<sup>th</sup> century. In the absence of wet preserved wood, analysis of wood charcoals from caves and settlements, camp fires and graves brings to light the human use of fuel and timber wood, thus addressing the wood economy. Beyond, environmental interpretations of archaeological charcoal assemblages are still controversially discussed in the light of the human filter effects. Contributions from any cultural period and any place of the world are welcome, as well as studies from experimental archaeology and ethnology.

### **Session 4: Charcoal production and Archaeometallurgy**

Charcoal produced intentionally by humans is both resource and proxy. Research on former charcoal production becomes increasingly important. Kiln site anthracological work – the use of left-over charcoal from charcoal production sites to address questions of woodland composition reconstruction – dates back to the 1930s, while the last decade saw an augmented interest by archaeology, geography and landscape ecology. With modern techniques of airborne laser scanning, the historical importance in the wood economy becomes impressively clear, especially to produce charcoal for metal extraction and processing. Thus, contributions dealing with all aspects of charcoal production, as well as with the use of charcoal in metallurgy, are welcome. We especially encourage researchers dealing with social, economic or political aspects of charcoal production and metallurgy beyond or independent of charcoal analysis to join the session.

### **Session 5: Dendroanthracology**

Dendroanthracology is the study of tree rings in charcoals. Besides dating charcoals if species and number of growth rings allows it, tree ring patterns reveal information on growing conditions of the charred wood, thus contributing to the interpretation of the size of the used wood (stems vs. branches vs. coppicing) and aspects of woodland management (e.g. coppicing, pollarding). Dendroanthracological information is on its way to become a standard asset in archaeoanthracological studies, however standardised methodologies (including subsampling, recording and analysis protocols) that are both applicable, economic as well as reliable and reproducible have yet to be established and agreed on.

### **Session 6: Multiproxy studies**

This session addresses studies that seek to integrate anthracological datasets with other palaeoecological proxies in order to reconstruct past human impacts on the environment, ecosystem dynamics, and climate-people-landscape interactions. The integration of charcoal and pollen analysis is still not broadly enough practised, thus presentations bringing together these two sources of palaeoecological data are particularly welcome.

## **Preliminary session program**

Final timing and duration of sessions and thus the definite time schedule of the individual presentations will depend on the number of contributions submitted for each session and will be adapted correspondingly after registration deadline.

Monday, 31<sup>st</sup> August: Welcome of the participants at the Faculty of Biology; Congress opening and welcome speeches; Sessions 1 (and 2); Welcome reception

Tuesday, 1<sup>st</sup> September: Sessions 2 (and 3)

Wednesday, 2<sup>nd</sup> September: Sessions 3 (or 4); Mid-congress excursion

Thursday, 3<sup>rd</sup> September: Sessions 4 (and/or 5); Conference dinner

Friday, 4<sup>th</sup> September: Sessions 6 (and 5); Closing of the presentation program

Saturday, 5<sup>th</sup> September: Post-congress excursion

Sunday, 6<sup>th</sup> September: Good-bye excursion

## Call for scientific contributions, abstract submission

We invite all scientists interested in the field of charcoal science to submit a contribution to the scientific program and the conference topics of anthraco2015  (sections listed above). The authors may contribute to the meeting by oral or poster presentations. Abstracts must be submitted by Monday, 13<sup>th</sup> of April 2015. Abstracts are subject to review by members of the scientific committee. First authors will receive a notification for their approval before 15<sup>th</sup> of May 2015.

## Instructions for abstract submission

All abstracts for oral and poster presentations are to be submitted by e-mail at the time of registration of the first author, through the electronic file attached (*6iamregist.doc*) following the rules given in this document. Please follow these rules as they will help us considerably in preparing the conference material.

The final program will be planned on the basis of the abstracts. Abstracts will be published exactly as submitted and will not be proofread by the congress organizers. Thus, the person submitting the abstract is fully responsible for checking it for accuracy, spelling, correct grammar usage, and format prior to submission. Each abstract should describe the content of the presentation to be given and should be concise, technically accurate, and well written. The abstracts will be published in a special abstract book, which will be distributed to the participants at the congress.

## General guidelines for abstracts

- The entire abstract is limited to a maximum of one A4 page with 2.5 cm margins.
- The whole abstract should be written in Times New Roman standard (without any other formatting), minimum 11 pts, in the following order including:
  - abstract title
  - authors' names (each first name and last name in full)
  - institution, address and e-mail of the first author
  - abstract text (formatted as a single paragraph, without any indentation)
  - references
  - keywords (maximum seven single words)
- Figures and tables, if essential, can be included in the abstract provided that they don't exceed the A4 page allowed.

Language of oral and poster presentations as well as abstract and publication is English. The deadline for abstract submission is Monday, 13<sup>th</sup> of April 2015. Each abstract should be classified by indicating the most appropriate congress session on the registration submission form attached. Only one session can be selected. Please, classify your abstract by indicating the appropriate session. However, as the number of speakers for the congress is limited, the organizing committee might decide to place a paper/poster into an alternative session. Abstracts may be nominated as either an oral or poster presentation. The scientific committee might change accepted papers from oral to poster presentation, depending on the time schedules' capacity.

## Selection of abstracts and oral communications

Abstracts are subjected to review by the scientific committee and will be approved on the basis of their merit (scientific/technical quality and relevance). Abstracts may be submitted for either an oral contribution or a poster presentation, but the scientific committee will decide on the final form of presentation dependent on the temporal capacities of the congress. There is only time in the program for about 70 oral presentations so we might propose to change some lectures to posters. We will inform you before 15<sup>th</sup> May 2015 whether your communication has been accepted as oral or poster presentation. Information regarding abstract acceptance, the form of presentation (oral contribution or poster presentation), program scheduling, and other such details will be communicated by e-mail to only the person entered as the first author.

## Instructions for oral presentations

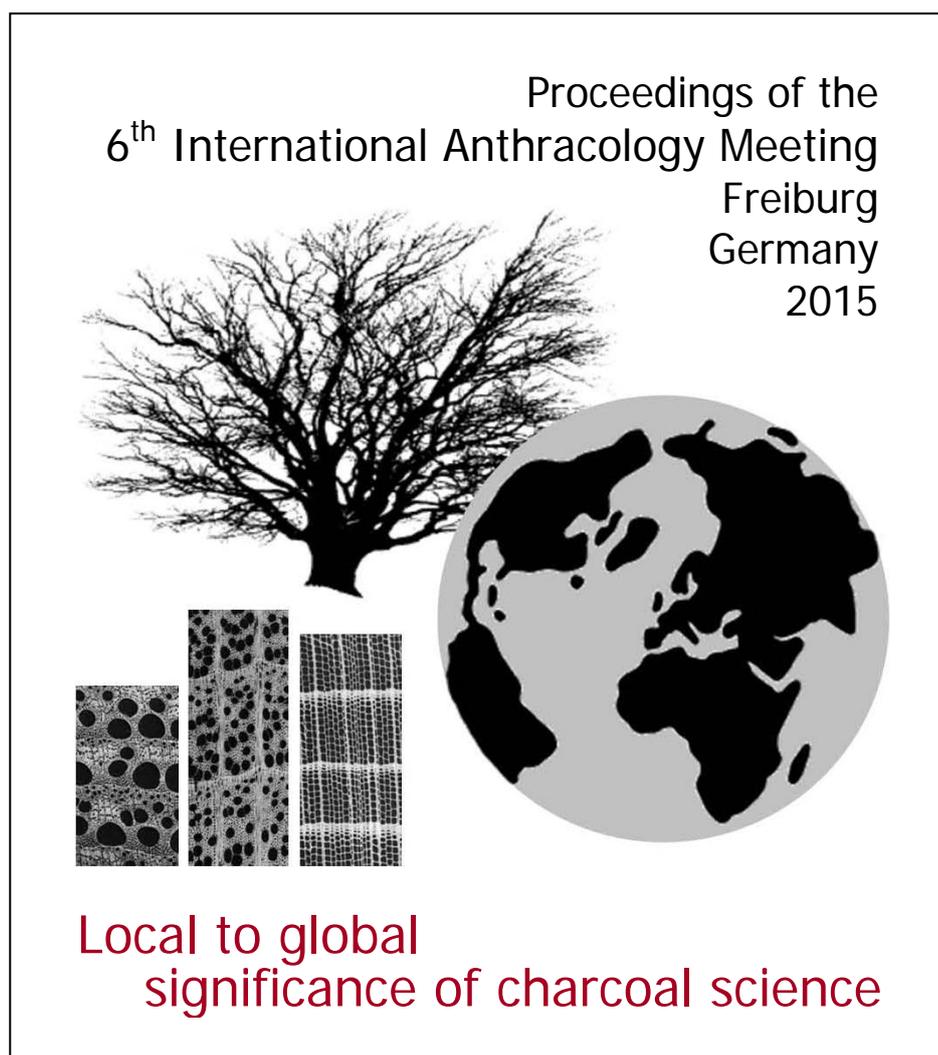
Talks are scheduled to last for 15 minutes, each followed by 5 minutes for questions/discussion. The usual audio-visual equipment will be available, but please indicate when you send your abstract if special equipment is required. Powerpoint presentation is highly recommended. Oral congress presentations are only accepted in English language.

## Instructions for poster presentations

Posters should not exceed 84 cm wide by 118 cm high (A0 portrait). The posters will be on display for the whole congress corresponding to each session. Poster sessions will give the authors of the posters an opportunity to be able to talk about his/her poster and discuss these presentations. These sessions will be scheduled before coffee breaks in the middle of the morning or of the afternoon for everybody to have the opportunity to visit the poster exhibition and talk to the authors.

## Proceedings of the 6<sup>th</sup> International anthracology meeting 2015

The organizers have been arranging for the papers presented at the conference to be published in a special issue of a relevant international journal. "Quaternary International" has already agreed to publish a special volume "Local to global significance of charcoal science" as proceedings of the 6<sup>th</sup> IAM 2015. The instructions for authors will be set out on the conference website and explained during the conference itself. Please note that both types of presentation - oral and poster - will be equally eligible for publication in this thematic volume of "Quaternary International".



## **Excursions: General information and instructions**

Good hiking boots and standard **outdoor equipment**, especially against rain, are strongly recommended for all excursions! The Black Forest could have rather cold and humid conditions (maximum annual average precipitation in the upper montane belt about 2000 mm; maximum annual average temperature about 3 to 4 °C!). Despite this the Black Forest is a very nice holiday landscape! Registration needed for excursions.

### **Pre-congress welcome excursion**

A pre-congress welcome excursion is planned for Sunday afternoon, 30<sup>th</sup> August 2015. A bus will start with the participants in front of the Institute of Biology I, Hauptstr. 1, at 1.00 pm and bring them back to the same place around 7.00 pm. With this trip, we would like to offer the opportunity to get some deeper insights in our kiln site anthracological and mining archaeological research field and field work at the western edge of the Black Forest. Depending on the weather and on the possibility to construct and run an experimental charcoal kiln just in time as well as the progress of the charcoal burning process, we will visit a running traditional charcoal kiln, a pilot area of historical mining and/or the highest tree of Germany. The program will differ from the program the following Sunday. A guide book of the excursion will be provided to the participants.

### **Mid-congress excursion**

A mid-congress excursion is planned for Wednesday afternoon, 2<sup>nd</sup> September 2015. A bus will start with the participants in front of the Institute of Biology I, Hauptstr. 1, at 1.00 pm and bring them back to the same place around 7.00 pm. This trip gives the opportunity to get some deeper insights in the historical cultural landscape and traditional land-use practices of the Southern Black Forest. Depending on the weather we will climb up (mainly by cablecar) on the mountain top of the city of Freiburg, one of the highest mountains of the Black Forest, visit some typical well-prepared sites of historical charcoal burning, cross the heart of a valuable nature conservation area of high (European; FFH) significance and enter an old traditional farm and especially the well-conserved farmhouse. Moreover, the area visited has also a long tradition of historical mining with a large mine. A guide book of the excursion will be provided to the participants.

### **Post-congress excursion**

An all-day post-congress excursion is planned for Saturday, 5<sup>th</sup> September 2015. A bus will start with the participants in front of the Institute of Biology I, Hauptstr. 1, at 8.30 am and bring them back to the same place around 7.00 pm. We would like to offer the opportunity to get some deeper insights in the settlement, land-use and vegetation history of a very remote area of the Central Black Forest. The participants will visit a late-settled steep, rocky and stony area of the Central Black Forest, which was agriculturally used only for a few centuries after the middle ages and is mainly abandoned since decades, having the status of a nature conservation area and a strictly protected forest area today and since nearly half a century – representing the highest degree of conservation in the state of Baden-Wuerttemberg as well as a (relatively) low degree of anthropogenic influence in Western Central Europe (conservation of natural processes). It is an area of well-known land-use history, vegetation and cultural landscape elements. A guide book of the excursion will be provided to the participants. At the end of the excursion we will try to schedule a stop at a Black Forest farm inn.

### **Post-congress good-bye excursion**

A post-congress good-bye excursion is planned for morning at Sunday, 6<sup>th</sup> September 2015. A bus will start with the participants again in front of the Institute of Biology I, Hauptstr. 1, at 8.30 am and bring them back to the same place around 1.00 pm. With this trip, we would like to offer (again) the opportunity to get some deeper insights in our kiln site anthracological and mining archaeological research field and field work at the western edge of the Black Forest. Depending on the weather and on the possibility to construct and run an experimental charcoal kiln just in time as well as the progress of the charcoal burning process (7 days later!), we will visit a running traditional charcoal kiln, a pilot area of historical mining and/or the highest tree of Germany. The program will differ from the program on Sunday a week before. A guide book of the excursion will be provided to the participants.

## Registration and fees

For registration please fill in the attached registration form (6iamregist.doc), add your last name and return the form (6iamregist"yourlastname".doc) before 13<sup>th</sup> April to [anthraco@biologie.uni-freiburg.de](mailto:anthraco@biologie.uni-freiburg.de) (by e-mail preferred) or to anthraco2015, University of Freiburg, Faculty of Biology, Department of Geobotany, Schaenzlestrasse 1, D-79104 Freiburg, Germany

Registration fees apply to all participants, either as first author (present or not) or co-authors present at the meeting. Final registration for the anthraco2015  is by payment of the appropriate registration fees. Because the conference will be held in buildings of the University of Freiburg, we will be able to accomplish our goal of keeping conference fees as low as possible; before the deadline, they will not exceed 150 € for professionals, 100 € for students or unemployed person\*. The deadline for payment of registration fees is 31<sup>st</sup> May 2015. Payment received after that date may result in a 30 % surcharge.

<b>Congress fees</b>	until 31 <sup>st</sup> May 2015	after 31 <sup>st</sup> May 2015
Participant	150 €	200 €
Student/unemployed*	100 €	130 €

\*Registration must be accompanied by an official certificate accrediting your status as an official student or unemployed person (Send copy or scan attached to your registration mail!).

Conference fees includes participation in the meeting (attendances at all sessions), a briefcase (with the congress documents, final program, abstract book, list of participants and contact data, touristy documents etc.), the welcome reception and the coffee breaks from Monday to Friday, 31<sup>st</sup> July to 4<sup>th</sup> September 2015.

### Excursion and dinner fees

Pre-congress welcome excursion, Black Forest, west edge (Sunday, 30<sup>th</sup> August 2015, afternoon):  
students 10 €, others 15 €

Mid-congress excursion, Southern Black Forest (Wednesday, 2<sup>nd</sup> September 2015, afternoon):  
students 15 €, others 20 €

Meeting dinner (Thursday, 3<sup>rd</sup> September 2015, evening): students 20 €, others 30 € (without drinks)

Post-congress excursion, Central Black Forest (Saturday, 5<sup>th</sup> September 2015):  
students 20 €, others 30 €

Post-congress good-bye excursion, Black Forest, west edge: (Sunday, 6<sup>th</sup> September 2015, morning):  
students 10 €, others 15 €

Excursion fees include travel/bus transfers from Freiburg to excursion areas and back, excursion guides; moreover at Wednesday: cablecar and museum admission; at Saturday: picnic lunch.

### Payment of fees

Only payment by bank transfer is accepted. Once your payment has been effected you will be informed and receive your receipt. Registration fees are neither transferable nor refunded.

Bank transfer to

IBAN: DE73 6805 0101 0002 1540 71 (Prof. Scherer; Geobotanik Uni Freiburg)

SWIFT/BIC: FRSPDE66XXX

Sparkasse Freiburg

Entitled "*anthraco2015*" and "*lastname of participant*"

Important: You should receive confirmation of the payment of your registration fees. If for any reason you do not receive confirmation please get in touch by e-mail with the organizing committee ([anthraco@biologie.uni-freiburg.de](mailto:anthraco@biologie.uni-freiburg.de)). All accommodation is paid by the participants directly to the hotels.

### Registration Desk

Congress documents can be received at the registration office. Registration desk will be placed in the main entrance hall of the Institute of Biology I, Hauptstr. 1 and will be open on Sunday, 30<sup>th</sup> of August from 11 am to 1 pm and from 6 to 8 pm and on Monday 31<sup>st</sup> of August from 8 to 12 am. For late arrivals registration will be via members of the organizing committee during the presentation program.