The 7th International Conference on Fossil Insects, Arthropods and Amber

Edinburgh, Scotland
26th April – 1st May 2016

SECOND CIRCULAR

LOGO
Stylised reconstruction of the palaeodictyopteran Lithomantis carbonarius Woodward, 1876, from Ayr, Scotland. Drawn by Sarah Stewart.
CONFERENCE VENUE

National Museum of Scotland, Chambers St., Edinburgh, EH1 1JF, UK.
http://www.nms.ac.uk/national-museum-of-scotland/

ORGANISING COMMITTEE

Dr Andrew Ross, Principal Curator of Palaeobiology (a.ross@nms.ac.uk)
Dr Yves Candela, Curator of Invertebrate Palaeobiology (y.candela@nms.ac.uk)
Vicen Carrio, Palaeobiology Conservator/Preparator (v.carrio@nms.ac.uk)
Rachel Russell, Natural Sciences Departmental Administrator (r.russell@nms.ac.uk)
Dr Sarah Stewart, Assistant Curator of Palaeobiology (sarah.stewart@nms.ac.uk)
Dr Stig Walsh, Senior Curator of Vertebrate Palaeobiology (s.walsh@nms.ac.uk)

http://www.nms.ac.uk/about-us/collections-departments/natural-sciences/palaeobiology/
COLLABORATION

http://fossilinsects.net/

Committee:
Prof. Dany Azar, President
Prof. Dong Ren, Vice-President
Prof. Ed Jarzembsowski, Secretary
Prof. Jacek Szwedo, Treasurer
Prof. Michael Engel, Editor
Dr Vladimir Blagoderov, Webmaster
Dr Bruce Archibald, Conservation Rep.
Dr Olivier Béthoux
Prof. Ewa Krzeminska
Dr Xavier Martinez Delclòs
Dr Julian Petrulevicius
Prof. Alexandr Rasnitsyn
Dr Andrew Ross
GENERAL INFORMATION

The International Conference/Congress on Fossil Insects, Arthropods and Amber (abbreviated to Fossils x3) is the main conference for the scientific study of non-marine arthropods and amber and is usually held every three years.

During the 6th International Congress, held in Byblos, Lebanon in 2013, a vote took place to decide on the venue of the next conference and Edinburgh, Scotland was chosen.

Edinburgh (pronounced Ed-in-bur-rer), is the capital of Scotland and is a World Heritage Site, known as the ‘Athens of the North’ due to its fine architecture. It has a very long history dating back to the iron age and is renowned for being a centre of culture-
http://www.visitscotland.com/destinations-maps/edinburgh-lothians/

The Organising Committee has the pleasure of inviting you to attend the 7th International Conference on Fossil Insects, Arthropods and Amber in Edinburgh, Scotland from 26th April to 1st May 2016. The main venue for the three days of lectures will be the National Museum of Scotland, Chambers St.

SCHEDULE

25th April   Pre-conference website training in London (optional extra).
26th April   Evening Registration and Welcome Reception.
27th April   Registration and Day 1 of lectures (provisional theme- General and Palaeozoic).
28th April   Conference photograph and Day 2 of lectures (provisional theme- Mesozoic).
29th April   Day 3 of lectures (provisional theme- Amber and Cenozoic) and Dinner.
30th April   Day 1 field-trip- Stonehaven and Rhynie (optional extra).
1st May      Day 2 field-trip- Willie’s Hole, Burnmouth and Siccar Point (optional extra).
PRE-CONFERENCE WEBSITE TRAINING

A training/workshop on the use of the International Palaeoentomological Society website http://fossilinsects.net/ and Scratchpads in general will be held at the Natural History Museum, London on Monday 25th April, from 10am to 5pm.

Learn what Scratchpads can do for you!
• Easily create a taxonomic or biodiversity related website
• Publish your scientific data online and on paper
• Collaborate with your peers around the world
• Free to use and supported by the Natural History Museum, London

Specific IPS website tasks:
• Creating News and Announcements
• Creating and using bibliography
• Using Resources
• Using Forums
• Using Collection index
• Using Localities module

The training is free and open for everyone however participants are required to make their own accommodation and travel arrangements and bring a WiFi-enabled laptop.

Trainers: Vladimir Blagoderov, Laurence Livermore. The training is limited to 15 participants.

To register follow the link: http://scratchpads.eu/event/2015-04/natural-history-museum-london
EVENING REGISTRATION AND WELCOME RECEPTION

The Welcome Reception will consist of a whisky tasting at the prestigious Royal Society of Edinburgh, on the evening on the 26th April. Registration will commence at this venue.  
http://www.royalsocedvenue.co.uk/

LECTURES

There will be three days of lectures in the main auditorium of the National Museum of Scotland, with three small parallel sessions.

Most people who filled in the 1st Circular form would like to give a lecture however unfortunately this will not be possible for everyone. There are 26 slots for standard talks (excluding keynotes), 11 slots for short talks, and three parallel sessions for Hymenoptera, Diptera and Coleoptera, with 5 slots each. Thus there are 52 lecture slots available. If you wish to give a talk then this will be a case of first come first served, on payment of the Registration fee. There will be 5 reserve slots in case anyone drops out. Delegates will only be permitted to give one lecture or poster as senior author (you can be included as a co-author on other talks and posters).

Talks will be in PowerPoint. A Keynote talk (all slots already allocated) will be 30 minutes (including questions, maximum 30 slides). A standard talk will be 20 minutes (incl. questions, max. 20 slides). A short talk will be 15 minutes (incl. questions, max. 15 slides), e.g. for just describing one new taxon.

Please provide a provisional title for your talk on the Registration form. Once the form is submitted you will receive a confirmation e-mail so say your slot is reserved. This slot will be set when you have paid the Registration fee. Non-payment after 14 days have elapsed will mean that you could lose your slot. In the event that all the lecture slots have been filled then you will be asked to join the reserve list or produce a poster instead.
POSTERS

The format for the posters will be provided in the 3rd Circular.

CONFERENCE DINNER

The Conference Dinner will be held at The Hub, near Edinburgh Castle, on the evening of the 29th April- http://www.thehub-edinburgh.com/

The cost of the dinner is included in the Registration fee for delegates.

Delegates are expected to pay for all other meals. There are many eating venues close to the museum and some will provide discounts to delegates.

FIELD-TRIPS

There will be 2 one-day field-trips, originating from the museum, to visit important Palaeozoic non-marine localities. Day 1, limited to 90 people, will be easy going with a small amount of walking on level surfaces. Day 2, limited to 45 people, will include longer walks on uneven ground and scrambling over rocks. Note that there will not be any opportunity to collect fossils, and hammering is forbidden at these protected sites. These trips will be more like a pilgrimage. The trips will cost £25 per person, per day, for Early-bird, raising to £30 for Standard and £35 for Late Registration.

Day 1, 30th April
1) Stonehaven- site of the oldest terrestrial animal in the world, the Silurian diplopod Pneumodesmus.

2) Rhynie- site of the oldest fossil hexapods in the world, the early Devonian Rhyniella, Rhyniognatha and Leverhulmia.

Day 2, 1st May
1) Willie’s Hole- site of a new earliest Carboniferous terrestrial fauna.

2) Burnmouth- coastal section showing a complete sequence through non-marine latest Devonian and earliest Carboniferous sediments.

3) Siccar Point- famous site of Hutton’s Unconformity.
REGISTRATION FEES

The organisers are pleased to announce the following registration fees (with 50% reduction for student, retired or unemployed participants) -

**Early-bird Registration, deadline 30th June 2015 - EXPIRED.**
£200 for professional participants.
£100 for student, retired or unemployed.

**Standard Registration, 1st July 2015 to 31st December 2015.**
£240 for professional participants.
£120 for student, retired or unemployed.

**Late Registration, 1st January 2016 to 29th February 2016.**
£280 for professional participants.
£140 for student, retired or unemployed.
(The Abstract book may not be available if delegates register too late.)

Please fill in the attached Registration form, save it under your Surname and e-mail it to a.ross@nms.ac.uk.

If you already put your full address on the 1st Circular form and are happy for that to be used in the delegates list, then just tick the box, there is no need to re-enter it. Upon receipt of the form a confirmation e-mail will be sent back with a reference and bank account details. **Please arrange for payment within 14 days using the reference provided and add any bank transfer and foreign exchange fees so that they are not deducted from the Registration fee.**

We are sorry but we are unable to process credit card payments. The final deadline for registration and payment is **29th February 2016**, no money can be accepted after that date and no cash will be taken at the conference. The 3rd Circular will be e-mailed out by the end of 2015.

In the event of a cancellation after the Registration fee has been paid, a refund (minus bank charges) can be made up until 31st December 2015. Unfortunately it will not be possible to provide refunds after that date, but the Abstract book and Proceedings volume will still be sent out.
ACCOMPANYING PERSONS

There will not be a programme for accompanying persons (partners and relatives), however a list of local attractions, with discounts, will be supplied. Persons can meet at the museum at the start of the day and then decide what they want to do from there.

Accompanying persons can also attend some lectures (but not receive the Abstract or Proceedings volumes), Conference Dinner and field-trips for supplementary fees payable by the main delegate (see Registration form). Please note the lecture and dinner fees are discounted for the Early-bird Registration, and will increase for the Standard and Late Registrations.

CALL FOR ABSTRACTS

The deadline for final title and abstract submission for talks is 30th November 2015 and for posters 31st December 2015. See the template at the end of this circular for the format.

Please e-mail your abstract to- david.penney@manchester.ac.uk with FOSSILS X3 ABSTRACT in the subject field.

PRESS RELEASES

For any presentations that have an exciting newsworthy story, it may be possible to get press coverage. If so, please contact a.ross@nms.ac.uk

PROCEEDINGS VOLUME

The proceedings of the conference will be published as a special volume of the Earth and Environmental Science Transactions of the Royal Society of Edinburgh. Deadline for submission is at the conference, 29th April 2016 and papers can be submitted on a CD rather than going through the on-line submission process. Priority will be given to those papers based on lectures or posters presented at the conference. Maximum 8,000 words per paper. Additional papers that are not presented at the conference are welcome, however if the volume reaches the page limit then these will not be included in the Proceedings volume, but could still be published in a later volume of EETRSE.
**TRAVEL TO EDINBURGH**

Edinburgh is well equipped by transport. The main way to get to Edinburgh for international travellers is by flight to Edinburgh Airport-
http://www.edinburghairport.com/

From the airport there is a tram and choice of buses into the city centre-
http://www.edinburghairport.com/transport-links

The Airlink 100 bus (£4.50 single, £7.50 return) and the Tram (£5 single, £8 return) are the quickest and most convenient. They take about half an hour, though the bus takes longer in rush hours (before 9am and after 4.30pm). Note the Tram ticket machines only accept credit cards and coins, not notes. For those on a budget, the Lothian No. 35 bus is the cheapest (£1.50 single) but it takes twice as long and there is little luggage space so be prepared to put your bag on your lap to make room for other passengers. There is also a N22 night bus (£3 single). Airlink 100 return tickets are available in advance with a 10% discount from-
https://kiosk.iristickets.co.uk/k?lothianbuses&ECB&ka=ECB&TRACKER=ECB&promo=ECB

There is a train station in the centre of the city, Edinburgh Waverley, with direct trains from London Kings Cross (four and half hours journey time) and from other main UK hubs. There is also Edinburgh Haymarket station, but this is further away from the city centre and museum.
http://www.networkrail.co.uk/edinburgh-waverley-station/
http://www.nationalrail.co.uk/

Taxis are expensive in Edinburgh. To get a taxi from the airport to the city centre is likely to cost about £30.
**ACCOMODATION**

It will be the delegate’s responsibility to book and pay for their own accommodation (except for Keynote speakers). Edinburgh is very well provisioned for places to stay (1 million visitors come to the Edinburgh Festival in August). Marketing Edinburgh Ltd has negotiated rates for the conference and is pleased to offer a free online accommodation booking service to delegates attending this meeting. An additional hotel (Travelodge) has been listed below for those on a budget.

To view and book the various accommodation options please click on the link below-
https://cabs.conventionedinburgh.com/ei/cm.esp?id=150515&pageid=_4CA0OMA0L

Credit card details are required to make a booking and confirmation shall be sent to your e-mail address. Payment should be made directly with the accommodation provider at the time of your stay. If you want to extend your stay beyond the dates of the conference, then book the main dates and then contact Marketing Edinburgh Ltd, either by e-mail:
bookings@conventionedinburgh.com
or telephone on +44 (0) 131 473 3874

A. Ross has walked to all the hotels and this is his opinion (he walks fast so you may wish to add a few minutes)-

**From £42 per night (for those on a budget)**

**Travelodge Hotel Edinburgh Central.** 10 minute walk to the museum.
Part of the walk to the museum is steep uphill (with a handrail).
Not far from Waverley train station or Airlink 100 bus.
Breakfast not included, available for extra cost.
This option is not available via Marketing Edinburgh, so delegates will need to book direct-
https://www.travelodge.co.uk/hotels/205/Edinburgh-Central-hotel
**Tune Hotel.** 25 minute walk (or get the bus) to museum.
Although it does not have the nicest view, it is inexpensive and has good transport links - the hotel is opposite Haymarket train station and very close to Airlink 100 bus and Tram stops.
It is a long walk to the museum and city centre, however there is a Lothian No. 2 bus that goes from here to the museum (£1.50 single) which would be a good option for those who do not want to walk far. Breakfast not included, available for extra cost.

**<10 minute walk (for less able delegates who do not want to walk far)**

**IBIS Edinburgh Centre South Bridge.** 5 minute walk.
Although it does not have the nicest view, it is very close to the museum.
The No. 35 bus from the airport stops very close; also not far from Waverley station and Airlink 100 bus, however part of the walk from the 100 bus to the hotel is steep uphill.

**Ten Hill Place Hotel.** 5 minute walk.
This is a more expensive option but is 4 stars, very close to the museum and in a quiet setting.
You can get buses from the city centre to near here, though you may prefer to take a taxi from the city centre to the hotel, and also from the hotel to the Reception and Dinner.

**£75-£100, 10-15 minute walk**

**Motel One Edinburgh Royal**
10 minute walk, however part of the walk is steep uphill.
Very close to Waverley train station and Airlink 100 bus.

**Motel One Edinburgh Princes**
15 minute walk.
Very close to Waverley station, Airlink 100 bus and Tram.

**Premier Inn Edinburgh Central Lauriston**
10 minute walk.
Very close to No. 35 bus.
**Jury’s Inn Edinburgh**
10 minute walk, however part of the walk is steep uphill with steps.
Very close to Waverley station and not far from Airlink 100 bus.

**Edinburgh City Hotel**
10 minute walk.
Very close to No. 35 bus.

**COLLECTIONS VIEWING**

The collections are held in a purpose built store on the north side of Edinburgh, 3 miles from the conference venue, accessible by bus. There is a good collection of amber, particularly Baltic, Mexican, Burmese and Dominican, plus pieces from other localities. The compression fossil collection contains a good collection of Palaeozoic diplopods and scorpions, and many other kinds of arthropods. The compression fossil insect collection is small with specimens from Australia (Permian), UK (Lias), Solnhofen and Rott (including a few Heyden types).

Unfortunately given the distance from the venue, it will not be possible to provide tours of the collection; however the collections will have limited access, before, during and after the conference. There are only three microscopes, so only three people at a time (or more if you are willing to share) can study there and the store is not accessible at weekends. Before the conference, the collections will be accessible up to 22nd April, but not on the 25th and 26th as the entire team will be required to help get things ready for the conference. During the three days of lectures there will be six slots (am and pm), and the collections will also be accessible after the conference from the 3rd May onwards (the 2nd is a bank holiday so the store will be closed). It will be possible to borrow specimens, though if you are intending to do so, please give advance notice as it will not be possible to cater for spontaneous loan requests. If anyone is interested in particular taxa, please e-mail a.ross@nms.ac.uk who will be able to tell you if any are present. If you are interested in studying the collections please mark your intention on the Registration form.
WEATHER

The weather is very changeable in Scotland. We have a saying that you can get four seasons in one day, so please be prepared for all weathers and temperatures, particularly if you are coming on the field-trips. That time of year it can be dry and sunny or cold, windy and wet.

INVITATION LETTERS

For those requiring invitation letters for a visa please e-mail Rachel Russell r.russell@nms.ac.uk

NEXT CONFERENCE

If anyone would like to give a short 10 minute proposal for the next conference venue (for 2019), please contact a.ross@nms.ac.uk, so this can be included in the programme.
Amber Palaeobiology: Research Trends

David Penney*, Fred Blogs & John Smith

*Faculty of Life Sciences, The University of Manchester, M13 9PT, UK; email:david.penney@manchester.ac.uk

Within the last few decades technological advances such as the internet and new imaging techniques (e.g. computed tomography and synchrotron scanning) have revolutionized how we do research in the 21st century. High quality publications resulting from international, interdisciplinary collaborations are now commonplace, though there is still much scope for improvement in certain branches of amber palaeobiology. The most important trends in amber research over the past decade are reviewed and areas highlighted that could warrant more focused research. Topics covered include summaries of our current knowledge of palaeodiversity of the major world deposits, important new Cenozoic and Mesozoic amber deposits, taxonomy (and over-interpretation of fossil inclusions), advances in imaging technologies, quantitative palaeoecology, extinctions and radiations (including predator–prey co-radiations), molecular palaeobiology, and climate change and biogeography. The potential scientific value of inclusions in copal are also discussed, a source of sub-fossils that is often considered unimportant due to its relatively young age.

PLEASE SUPPLY IN WORD.DOC not DOCX FORMAT