



The Micropalaeontological Society

Annual Meeting of the Foraminifera and Calcareous Nannofossil Groups, June 2015



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**EXTENDED DEADLINE FOR ABSTRACTS AND BOOKING TO THE
22nd May 2015**

Register and pay via PayPal at <http://www.tmsoc.org/forum-nanno-2015>

Second Circular

The Micropalaeontological Society

Foraminifera and Calcareous Nannofossil Groups, Spring Meeting 2015 June

14th – June 18th 2015

This annual meeting will be hosted by the School of Geography, Earth & Environmental Sciences, Plymouth University. The university is one of the so-called post-1992 universities, having been Plymouth Polytechnic since 1971. Geosciences have been taught here since 1966, although the roots of the present university can be traced back to a School of Navigation that was founded in 1862. This foundation was both promoted, and assisted, by Captain Fitzroy who donated some of his navigational equipment to the new school. Fitzroy was, of course, the Master of the HMS *Beagle*, which carried Charles Darwin on his epic voyage that began in Plymouth in 1831. A plaque marks the area opposite Barn Pool where the Beagle was anchored, awaiting a favourable tide to depart just after Christmas. Sadly, Fitzroy committed suicide after the publication of '*Origin of Species*' as he was a devout Christian: ironic that the geologists and palaeontologists in the university are housed in the Fitzroy Building.

Plymouth University has a strong marine presence, with the Marine Institute forming a cross-university collection of staff, students and research groups. The Marine Institute is our 'formal' link with the other marine centres in the city, including the Marine Biological Association of the U.K. (MBA), Plymouth Marine Laboratory (PML), Sir Alastair Hardy Foundation for Ocean Science (SAHFOS), National Marine Aquarium and the Diving Diseases Centre. There are, spread throughout all these research centres, more marine scientists in Plymouth than any other location in the United Kingdom.

Micropalaeontology forms a key part of the undergraduate teaching programme and, since 1973, there has been a near-continuous stream of PhD students being trained for work on foraminifera, dinoflagellate cysts, etc. Many undergraduate students elect to study microfossils as a part of their research projects, and many of these students have subsequently studied for MSc, MRes and PhD degrees elsewhere in the UK

and abroad. At present, we have a growing presence in the 'molluscan world' with on-going research on pteropods, heteropods and statoliths (squid ear bones).

Prof. Kevin Jones (Dean of Faculty of Science and the Environment), Dr Mark Anderson (Head of School) and the staff extend a welcome to all those planning to attend this annual meeting that brings together those with interests in foraminifera and calcareous nannofossils (plus anyone interested in making a contribution on heteropods or pteropods).

The meeting will follow previous (successful) formats, with both oral presentations and posters. A limited number of key-note lecturers will be selected from the abstracts submitted by potential participants. Following the initial call-for-papers, there has been a considerable response, but there are still places available for further oral and, especially, poster presentations. Registration deadline is **22nd May 2015 at the latest**. Please register and/or pay your registration fees at the conference webpage: www.tmsoc.org/foram-nanno-2015. This will allow us to assemble the programme and inform all participants as early as possible of the potential content of the meeting. An example of the style of abstract required is given with this Circular. The Geological Society of London has kindly provided book tokens as a prize for the best student poster.

Getting to Plymouth

Plymouth is a city of 275,000 souls, but sits in a generally rural area, located between the moors (Varsican granites) of Dartmoor and Bodmin Moor and the coastline of South-west England. The city is fairly remote from other centres of population in the United Kingdom, but there are reasonable transport links. There are rail services from London (First Great Western), Southern England (South West Trains) and the rest of the UK (Cross Country Trains) direct to Plymouth, with many trains extending onwards to Penzance in Cornwall. Sadly, the UK pricing system for its rail services is complex and one can buy cheaper tickets in advance from websites, or at least ask for less expensive tickets (off-peak, saver, etc.) at stations. Air flights to Exeter International Airport are operated (mainly) by Flybe, with tickets available from their website. On arrival into Exeter Airport, there are buses or taxis to Paris Street Bus Station (then use X38 bus to Plymouth) or St David's Railway Station, from where Plymouth is one hour by train. Bristol International Airport is served by a much greater number of airlines (KLM, Easyjet, Ryanair, Flybe, British Midland, Lufthansa, Helvetic, etc.) and from the airport one can either rent a car or take the express coach direct to Bristol Temple Meads Station. Plymouth is 2 hours by train from Bristol. For those arriving into London Heathrow Airport (or London City), travel to Plymouth can be via train or coach. Trains to Plymouth depart from Paddington Station (taking 3.5 to 4 hours), while National Express Coaches depart direct from Heathrow Central Bus Station, taking approximately 4 hours. If arriving at

London City Airport, the coaches depart from Victoria Coach Station in Central London and take slightly longer (4.5 to 5 hours).

In the summer months there are also ferries operating between Santander (Spain) and Roscoff (Brittany). These boats arrive just to the west of – but still within – the city centre and provide a relaxing way of travelling to the conference for those in Spain or France. For those in the UK, and who may be contemplating travel by car, there will be **no parking available on campus** as the university has a parking allocation and charging system in place all year. Anyone wishing to travel by car may want to consider accommodation at one of the hotels outside the immediate city centre (Premier Inn, Travelodge, etc.) and use public transport to/from the university. As the university is located in the centre of the city, most bus services into the city come near to the campus. Some of the larger hotels in the city (e.g., Copthorne, Jury's Inn, Duke of Cornwall, Holiday Inn) have underground car parks for residents, and all are within walking distance of the campus. Please contact the conference organisation if you have any specific queries about travel. We will make lists of hotels, guest houses and b/b locations available shortly. Some of the hotels will make a discount to those on university business.

Plymouth City Centre

Despite the population size, the city centre is quite small and walking times between accommodation and the university will normally be 15–20 minutes at most. The E–W ridge of Middle Devonian limestone forms the southern end of the city, facing out from the Hoe towards Plymouth Sound. The city was formed by the merger of Plymouth, Devonport and Stonehouse: the so-called three towns. Close to the centre of the city is the area known as the Barbican, an old Elizabethan quarter that is now host to a range of eating (and drinking) locations. This is the home of the famous Plymouth Gin Distillery, from which you can buy a range of gin, including the local delicacy of sloe gin! The university is right in the centre of the city, close to the railway station, bus and coach station, and the main shopping centre. This is largely the reason for the university having to restrict parking: we are located just 5 minutes walk from Drake Circus Shopping Centre and would be overrun by shoppers trying to park their cars.

The University Campus

The university campus is quite small, though new, and walking distances are quite modest. The meeting will be in the Robbins Conference Centre, with poster spaces, lecture theatre and coffee/food area all within the same area (on one floor). There is disabled access to this facility. The Wednesday workshop(s) may be held in other locations depending on the numbers wishing to participate in these events, with

details of locations provided during the meeting. Maps of the campus can be downloaded from the university website (www.plymouth.ac.uk).

Revised Schedule for the Meeting

This revised schedule gives an outline summary of the meeting, although timings and locations of the workshops may change as numbers will dictate the final programme.

The costs for the meeting have been set at a relatively low level and payment/registration must be made by 22nd May 2015 (after which there will be an increased level of cost). Some of the industrial sponsorship initially envisaged has been reduced by the collapse in the oil price, which is making many companies 'tighten their belts' at the present time. We will, therefore, be operating a **no-frills** conference, so do not expect to receive gifts, ornaments, rucksacks, expensive pens, hats, etc., and this will allow the costs to be controlled. The registration fee (£100 for the majority and £80 for undergraduate and postgraduate students) will carry an increased charge (£120 and £100 respectively) after the 22nd May 2015. The registration fees include icebreaker, coffees, teas, lunches, evening meal on Tuesday ('Fish and Chips' supper on the university campus), conference bag, badge and programme/abstract volume. The conference dinner, field excursion and workshops will involve an extra charge, as indicated below. Any participants not registered (and paid) by the 22nd May 2015 will be assumed to be non-attendees and removed from the programme, unless some special arrangements are in place that have been agreed by the organisers.

Outline Programme (for planning purposes)

Sunday 14th June 2015

1600 Registration opens, 6th Floor Rolle Building

1700 – 1900 Icebreaker, with buffet/nibbles, etc.

Monday 15th June 2015

0830 Registration opens, Robbins Conference Centre. Will those speaking in the first session please ensure that their talks are up-loaded (from USB sticks) prior to 0900. Posters can also be installed during this time so as to be available during the coffee breaks and at lunch time. Materials will be provided

for the installation of posters, which must be in 'portrait' and NOT 'landscape' format.

0900 – 0915 Welcome & Introduction

0915 – 1230 Talks of 15 minutes or 20 minutes, with coffee break

1230 Buffet lunch in Robbins Conference Centre, including a poster session

1400 –1730 Talks of 15 minutes or 20 minutes, with coffee/tea break

1730 Discussion

1800 End of sessions

1930 (for 2000) Conference Dinner at Rhodes@The Dome

This meal, though informal, is a 3-course meal – for which you have to make choices in advance – in a stunning location on Plymouth Hoe. There is a spectacular view out over Plymouth Sound (a Special Area of Conservation under the EU Habitats Directive). Gary Rhodes is a well-known 'TV chef' and an author of many books on cookery and fine food. This restaurant has, most probably, the "best view in Plymouth". Please indicate your menu selection from the list provided.

Tuesday 16th June

0830 Registration opens, Robbins Conference Centre. Will those speaking in the first session please ensure that their talks are up-loaded (from USB sticks) prior to 0900.

0900 – 1230 Talks of 15 minutes or 20 minutes, with coffee break

1230 Buffet lunch in Robbins Conference Centre, including a poster session

1400 Talks of 15 minutes or 20 minutes, with coffee/tea break

1730 Discussion, choice of venue for 2016 meeting, presentation of prizes and close.

1800 End of sessions, removal of posters from boards, etc.

1830 Fish' n' Chip supper in Drake's Café (on campus)

Wednesday 17th June

There will be a number of workshops on the Wednesday. Please indicate selected workshop from the list provided. These will be housed at locations on campus, probably in the Fitzroy Building

Thursday 18th June

Optional field excursion to the Jurassic Coast, including Budleigh Salterton, Beer area and, if access is allowed (following winter landsliding), Lyme Regis. A packed lunch will be provided for participants with departures at 0900 from campus. The cost of the field excursion covers transport, field guide and packed lunch. Travel from Plymouth will be by coach, returning around 1800 hrs in the evening.

East Devon is approximately one hour on the coach from Plymouth and, therefore, the day will involve a period of travel. At all locations to be visited there is limited walking and no rough terrain, scrambling, etc. The Field Guide will provide all the necessary details on the geology. As all the locations to be visited are **Sites of Special Scientific Interest**, collecting material from the cliffs is not allowed without permission. The locality at Budleigh Salterton (of mid-Triassic age) is formed of continental sandstones, but the successions at Beer (mid-Cretaceous) and Lyme Regis (Lower Jurassic) are marine in origin. If anyone wishes to collect samples for micropalaeontological research, please let the conference organisation know in advance and we will try to make arrangements with Natural England. Please do not assume that you will be able to collect small samples without permission. A packed lunch is provided: please indicate if you require a vegetarian option if booking to attend the excursion.

List of planned workshops on the 17th June

Schedule: Wednesday 17th June, from 0900–1700, with a lunch break.

Workshop (W.1) on calcareous nannofossils (Discoasters)

The Micropalaeontological Society (**TMS**) in association with the International Nannoplankton Association (**INA**) are holding a workshop on the **Discoaster** group.

Through talks from some experienced workers, we will spend the morning reviewing the state of the art of Discoaster taxonomy and evolution, then spend the afternoon looking at groups of discoasters and comparing

taxonomic schemes, primarily from Nannotax. Confirmed speakers include **Claudia Agnini, Marie-Pierre Aubry, Jean Self-Trail, Mike Styzen** and **Jeremy Young**.

Therefore the objectives are mixture of allowing newer users to get an idea of where the knowledge lies and to define priorities for taxonomic revision. There will be plenty of time for fruitful Discoaster discussions.

This event is open to all nannofossil workers; academic, industrial and students. If you are interested in attending and/or giving a presentation then **please contact TMS Nanno Group reps** (below) by **Friday 22nd May** at the very latest. We would appreciate if you could do this even if you have already registered for the conference:

Simon Cole (simon.cole@petrostrat.com) or/

Cherry Newsam (cherry.newsam.11@ucl.ac.uk)

Workshop (W.2) on modern benthic foraminifera

The Plymouth area and adjacent areas of South Devon and South Cornwall have been studied since the early 19th century, with contributions from Montagu, Millett, Heron-Allen, Earland. Later work by Prof. John Murray, Dr Catherine Manley and Dr Paul Castignetti, as well as current Plymouth University academic staff, has continued this interest in the local assemblages. We have material from Plymouth Sound, Restronguet Creek (Cornwall), Fal Estuary (Cornwall) and Fowey Estuary (Cornwall). The Fal Estuary includes the nationally famous areas of maerl (rhodophyte algae) and sea grass meadows (which are also known from Tor Bay and the Fowey Estuary).

This will, therefore, be an 'Open Taxonomy Workshop on Recent benthic foraminifera', convenors Joachim Schönfeld (GEOMAR, Kiel) Christopher Smart and Malcolm Hart (Plymouth University) and a number of other participants.

Aim: Molecular methods to define and discern foraminiferal species are rapidly evolving. None-the-less, classical taxonomy is still valid and necessary to precisely identify a living specimen to be genetically sequenced. With this workshop, we intend to bring together experts, post-graduates, and professionals working on Neogene to Recent benthic foraminifera. We will provide an open forum for the exchange of ideas, species concepts, and different views about significant characters for a secure identification of species. A harmonisation of species concepts among the different groups

working on this field is desired. Everyone is welcome to bring along slides and samples for examination and discussion.

Workshop (W.3), eVolutus Workshop: Crossing Scales in Modelling of Foraminifera

This workshop will be led by Jaroslaw Tyszka¹, Pawel Topa², Agnieszka Mensfelt³ & Maciej Komosinski³ [¹ING PAN - Institute of Geological Sciences, Polish Academy of Sciences, Research Centre in Cracow, ul. Senacka 1, 31002 Kraków, Poland; ²AGH University of Science and Technology al. Mickiewicza 30, 30-059 Kraków, Poland; ³Institute of Computing Science, Poznan University of Technology, ul. Piotrowo 2, 60-965 Poznan, Poland].

Aim: Foraminifera are best suited for studying multiscale genotypic, phenotypic, ecological and macroevolutionary trends. Their algorithmic architecture, exceptional fossil and extant record make them excellent model organisms. This workshop presents state-of-the-art in foraminiferal modelling and stimulates brainstorming discussions focused on future prospects of modelling. We welcome all scientists interested in contributing by sharing, summarising and publishing all essential ideas to develop a novel algorithmic framework. Its novelty is based on an agent-oriented software solution designed for simulation of foraminifera as individual objects (“agents”) that live and interact within a microhabitat. All essential rules will be described and implemented to run the model and verify its usability. We plan to focus on three major scale levels:

1. Genotypic and phenotypic level
2. Microhabitat level
3. Population and macroevolutionary level

Based on our collective input, the eVolutus software will be developed to simulate simplified genetic, morphogenetic, physiological, ecological, and microevolutionary interactions. Workshop participants are invited to become active contributing co-authors to the eVolutus Project.

Alternatives to the Workshops

For those not wishing to attend any of the workshops, there are a number of alternative activities for the Wednesday (or even the Thursday if not on the field excursion). You may wish to arrange a private visit to colleagues at PML, MBA or SAHFOS, or visit the National marine Aquarium (entrance charge).

For those wishing to be ‘tourists’ there are a number of possibilities which include:

- Taking the bus or train to Exeter, Truro or Penzance (1 hour to 1 hour 30 minutes);
- Taking the bus or train (very scenic!) to Looe or Polperro (small fishing villages on the Cornish coast to the west of Plymouth);
- Taking the short ferry crossing (from Stonehouse) to Mt Edgecumbe Park (house and gardens) just across the River Tamar from Plymouth;
- Taking the bus or the train to Torquay (1 hour), the centre of the 'English Riviera' and a host to a UNESCO Global Geopark. It must be noted that there is a yacht race leaving that week and the area may be quite busy!
- Taking the bus from Plymouth across Dartmoor. There is a bus service that crosses the moor, passing Yelverton, Burrator and Princeton;
- Taking the bus (or a car) from Plymouth to Kingsbridge and Dartmouth; or
- Looking at some of the local features of historical interest (Citadel, Mayflower Centre, Barbican) in Plymouth.

Conference Dinner at Rhodes@The Dome

The menu is given below, from which you should make a selection. There is a vegetarian option for those that require this type of meal. If you have any special dietary requirements please contact the conference organisation. Ordering in advance allows participants to have a degree of choice, but also ensures a more efficient service. It also enables us to reduce the cost slightly!

Starter Course: Smoked salmon (fish) terrine with fresh herb cream cheese, potato and chive salad (S.1)

Cauliflower soup, with warm cheese and caramelised onion toasties (S.2) (vegetarian option)

Chicken liver parfait, toasted bread and grape chutney (S.3)

Main Course: Filet of West Country beef with wild mushroom mousse, red wine gravy and glazed greens served with potato fondant (M.1)

Seared bream (local fish), spring onions, leeks, candied ginger, mushrooms and pak choi with sautéed new potatoes (M.2)

Ratatouille tart with melting mozzarella and vegetables (M.3) (vegetarian option)

Desert: Sticky toffee pudding (D.1)

Ice cream selection (D.2)

Baileys Crème brûlée and tangerine salad (D.3)

Cost of meeting and payment details

As indicated above, there are four components to the conference:

Registration: which includes icebreaker, coffees, teas, lunches, evening meal on Tuesday ('Fish and Chips' supper on the university campus), conference bag, badge, programme/abstract volume and use of conference facilities (with technical support).

Full registration: £100 (£120 after 22nd May 2015)

Student registration: £80 (£100 after 22nd May 2015)

Workshop Participation: which includes attendance, coffee, tea, buffet lunch and use of facilities with technical support.

Full registration: £12.00

Student registration: £10.00

Field Excursion Participation: which includes travel, field guide and packed lunch.

Full registration: £20.00

Student registration: £18.00

Conference Dinner:

Full/Student cost: £35.00

Registration and payment of fees

Please register and/or pay your registration fees at the conference webpage:

<http://www.tmsoc.org/foram-nanno-2015>