



First Circular

The Micropalaeontological Society

Foraminifera and Calcareous Nannofossil
Groups, Spring Meeting 2015

June 14th – June 18th 2015

PLYMOUTH UNIVERSITY

This year, the joint meeting of the Foraminifera and the Calcareous Nannofossil Groups of The Micropalaeontological Society will be hosted by the School of Geography, Earth & Environmental Sciences, Plymouth University. The university was established in 1992, having been a Polytechnic since 1971. 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, which was originally built to house merchant shipping officers and cadets. Until recently it housed a full simulator of a ship's bridge, but this is now located in the new, Marine 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., Plymouth Marine Laboratory, Sir Alastair Hardy Foundation for Ocean Science, 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.

Geosciences have been taught in Plymouth since 1966 and micropalaeontology has always been a key part of the undergraduate curriculum. Since 1973, there has been a near-continuous stream of PhD students being trained for work on foraminifera, dinoflagellates 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. Our research primarily focuses on foraminifera but, more recently, we have been investigating planktonic gastropods (pteropods and 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 nannofossil (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. Those intending to attend are asked to submit their abstracts for both oral presentations and posters (as Word doc. files) – by e-mail attachment – to Prof. Malcolm Hart [mhart@plymouth.ac.uk] as soon as possible, and **no later than 31st March 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.

Getting to Plymouth

Plymouth is a city of 275,000 people, 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. Unfortunately, the UK pricing system for its rail services is complex and one can buy cheaper tickets in advance from websites (www.thetrainline.com or www.firstgreatwestern.co.uk), 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 Railway 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 (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 bed/breakfast locations available shortly.

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. An E–W ridge of Middle Devonian limestone forms the southern end of the city, facing out from the Hoe towards Plymouth Sound. Several buildings on the campus are 'faced' with highly fossiliferous Middle Devonian limestone and are worthy of a close inspection. The Rolle Building – where will have the icebreaker – is one of these buildings. The floor of the Portland Square Building is floored with Middle Jurassic Limestone, with many ammonites and belemnites visible. The city was formed by the merger of Sutton Harbour, 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 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 overwhelmed by shoppers trying to park their cars.

The University Campus

The university campus is quite small, though largely new, and walking distances are very short. 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 Thursday workshop(s) may be held in

other locations depending on the numbers wishing to participate in these events. Maps of the campus can be downloaded from the university website (www.plymouth.ac.uk).

Draft Schedule for the Meeting

This draft schedule gives a brief summary of the meeting, although timings and locations may change as numbers of talks being offered, and the posters, will dictate the final programme. **Please regard this as a guide to the events.**

While there will soon be a formal registration (and payment) process in operation, we are trying to keep costs to a minimum especially for students. 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 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. We presently estimate registration, which includes coffees, teas, lunches, evening meal on Tuesday ('Fish and Chips' supper on campus), conference bag, badge and abstract volume will be approximately £100, with students slightly less. The conference dinner, field excursion and workshops will involve an extra charge that will be clear at the time of registration. Any participants not registered (and paid in advance) will be assumed to be non-attendees and removed from the programme, unless some special arrangements are in place and 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

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

Tuesday 16th June

0830 Registration opens, Robbins Conference Centre

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 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

Optional field excursion to the Jurassic Coast, including Budleigh Salterton, Beer area, and – if time – Lyme Regis. A packed lunch will be provided for participants with departures at 0900 from campus.

Thursday 18th June

There may be workshop(s) on campus (perhaps Fitzroy Laboratories with access to microscopes). There are presently two 'offers' of sessions on ecological modelling or taxonomy of modern benthic foraminifera. There may also be a workshop on discoasters. Catering will be arranged, and charged, as required.

NB. Potential workshop leaders as asked to provide information to be included with final registration information, in order that the participants can decide on their travel arrangements.

Preliminary Registration Form

Please return this pro-forma as an e-mail attachment (or by Fax to +441752584766), *as soon as possible*, to Professor Malcolm Hart [mhart@plymouth.ac.uk]. The **Final Registration Form** will require further details and payment to be made in advance of the meeting. Anyone with difficulties over advance payment will have to contact the organisers. Please provide the information requested below.

Name:

Preferred Title (Prof., Dr, etc.):

Full Address (including postcode, country, etc.):

Telephone Number (including national code):

Fax Number (including national code):

E-mail address:

Title of proposed oral presentation or poster:

List of authors involved, but please underline the person giving the oral presentation or responsible for attending with the poster:

Do you wish this to be ORAL (Yes/No), a POSTER (Yes/No) or EITHER (Yes/No)

Are you considering attending the field excursion: Yes/No

Are you considering attending any of the Thursday workshops: Yes/No

Do you have any special dietary issues (e.g., vegetarian, vegan, gluten-free diet, or other):

The name badges we will use will be simple, with bold – readable – printing. Please indicate here the name (given and family) and location (e.g., Bristol University), that you wish to have on the badge:

Are you intending to bring someone with you who will not be attending the meeting, but who may wish to be involved with some aspects of the social events?

Abstract Submission

Abstracts for both talks and posters should be sent as Microsoft Word (doc., not docx. please) files using the following format. Please send as an e-mail attachment to mhart@plymouth.ac.uk

Title (14 pt Arial, bold, centred)

< blank line >

Authors (12pt, bold, centred, presenting author underlined, using given name, initial, family name for all authors; use superscript numbers to identify addresses)

< blank line >

Addresses (11pt, centred, identified by superscript numbers, in the order department, institution, address, city, post-code, country)

Presenting author E-mail (centred)

Abstract (12pt, no indentation, right and left justified, fossil names italic, references may be included, written in full in 11pt at the end of the written abstract). If you wish to substitute a ***simple*** diagram (black/white) within the abstract this can be done provided that the total length stated below is not exceeded.

NOTE THAT THE TOTAL LENGTH MUST NOT EXCEED ONE PAGE A4 PAPER, BUT MAY BE LESS THAN THIS. NOTE THAT THE FOLLOWING IS AN EXAMPLE OF THE STYLE AND SIZE OF LETTERING.

The Holocene separation of Jersey from mainland Europe

Malcolm B. Hart¹, Paul Chambers², Graham Evans², Ralph Nichols² & Christopher W. Smart¹

¹School of Geography, Earth & Environmental Sciences, Plymouth University, Drake Circus, Plymouth PL4 8AA, U.K.

²Société Jersiaise, 7 Pier Road, St Helier, Jersey JE2 4XW, U.K.

E-mail: mhart@plymouth.ac.uk

The island of Jersey receives most of its electrical power from France by way of two submarine cables. These are now nearing a time when replacement must be considered and a new cable is now planned. More than fifty marine boreholes have been drilled into the seabed between France and the east coast of Jersey and these are being used to plan the route of the new cable by consultants. Aside from rare, mainly terrestrial, Pleistocene and Holocene sediments, Jersey is formed of Precambrian to Devonian 'basement' and the off-shore area, at low tide, is dominated by E–W trending rock platforms including, to the north, Les Ecréhous and, to the south, Les Minquiers and the Isles Chausey. The Baie du Mont-St-Michel, in which Jersey sits, is macrotidal with an exceptionally large tidal range and the planned cable must be buried within the very limited sediment cover. The sediment succession of the post–Last Glacial Maximum is only present between Grouville, on the east coast of Jersey, and the immediately adjacent coastline of France.

The cores, which are now stored on Jersey, provide a complete record of this Holocene sedimentary record and core OVC-18 is being used as a reference because it contains a near-complete record of the transition from woodland, with peats and plant beds, to inter-tidal mud flats and, eventually, marine sediments with abundant marine fossils and highly significant occurrences of the calcareous alga *Phymatolithon calcareum* (known locally as maerl). This core, therefore, contains a record of Holocene sea level rise through to the invasion of the slipper limpet *Crepidula* in 1962. Many of the samples contain well-preserved assemblages of foraminifera and ostracods that allow the reconstruction of a range of sub-environments through to fully marine. Below the terrestrial sediments in core OVC-18 is a thickness of carbonate-rich, marine sands that may be of Eocene age or derived from pre-existing Eocene sediments.