**TMS Palynology Group meeting report – 13th June 2012, University of Sheffield**

**Phil Jardine**

This year’s meeting of the TMS Palynology Group took place at the University of Sheffield on the 13th June. The meeting was hosted by **Charlie Wellman**, and was attended by 25 participants. We began by congregating for lunch in the University Arms pub, before moving over to the lecture theatre for the first session of talks.

**Ian Harding** (University of Southampton) chaired the first session (and at just a moment’s notice – sorry about that squire), which was started off with a talk by Palynology Group chair **Fabienne Marret-Davies** (University of Liverpool). Fabienne presented research on the reconnection of the Black Sea with the Mediterranean at the beginning of the Holocene, and the use of dinocysts as palaeoenvironmental indicators to distinguish between sudden and gradual reconnection scenarios. The results from Fabienne and her co-workers strongly support a more gradual sequence of environmental changes over ~1500 years.

A contingent from the University of Southampton provided five of the afternoon’s nine talks, and very pleasingly two of these were from MSci (undergraduate masters) students. **Sam Morrison** provided the second talk of the afternoon, with a presentation on his MSci project that focused on a new high-latitude Paleocene Eocene Thermal Maximum (PETM) record from the Spitsbergen Central Basin. Sam combined sedimentary logging with palynological analyses to reconstruct hydrological and sea-level changes during the PETM, and has identified an interval of sustained bottom water anoxia during the event.

**Onema Adojoh** (Plymouth University) gave the next talk, on Eocene to Pliocene pollen and spore distributions across the Niger Delta. Onema has used the sporomorph record as a proxy to study the development and movement of different vegetation types across the delta in response to changing sea levels and climates.

**Joe Emmings** (University of Southampton) then gave a presentation on his recently finished MSci project, which concerned the burial of organic carbon in slope apron turbidite systems. Using the Moroccan Turbidite System as a case study, and palynology as a means of determining the composition of organic carbon, Joe showed that slope apron turbidite systems are inefficient mechanisms for organic carbon sequestration compared to submarine fan systems.

The first session of talks was rounded off by **Phil Jardine** (University of Birmingham), who presented research on climatic controls on low latitude floral diversification. This showed that while the neotropical speciation rate increased in concert with early Eocene global warming, a similar pattern was not observed in the transiently megathermal mid-latitudes. The implications for the maintenance of the latitudinal diversity gradient over extended timescales were discussed.

Afternoon tea was taken in the student union café. We then headed back to the lecture theatre for the second session of talks, which was chaired by Charlie Wellman. **Geoff Warrington** (University of Leicester) gave a review of the palynostratigraphy of the Triassic Mercia Mudstone Group in the Cheshire Basin, which integrated existing records with newly documented ones.

The remaining three talks were provided by the Southampton delegation. **Jon Lakin** presented research on the late Devonian Strunian glaciation in Bolivia. This rapid interval of global cooling is being investigated with detailed sedimentological and palynological analyses, and will generate a detailed, and well-dated, record of environmental, climatic and floral change from high palaeolatitudes.

**Pin-Ru Huang** then showcased the use of palynology in a civil engineering application. This work is focusing on the origins of organic matter in Oxford Clay deposits that now form the setting for landfill sites, and seeks to relate this to heavy metals and organic pollutants in the landfill and the Oxford Clay itself.

Closing the programme of talks, **John Marshall** presented work on the microflora of Devonian volcanic arcs that were present between East Gondwana and Siberia. These deposits show that the dispersal capabilities of different plant groups shaped both the floral assemblages of these isolated volcanic arcs, and the biogeographic spread of taxa between Gondwana and Siberia.

The meeting ended with a discussion session on ‘Future research in palynology’. Rather predictably this centered on the current challenges in securing funding for research, and the lack of younger palynologists being trained for industrial and academic careers. We then relocated back to the University Arms for a quick snifter, before heading into Sheffield for a curry. Thanks to Charlie and his helpers for hosting a highly successful and enjoyable meeting.