

International School on Foraminifera – Urbino Italy, 2018

Foraminifera, food, fun and friendships

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Each year the International School on Foraminifera provides students, academics and industry representatives with the opportunity to come together to learn and immerse themselves in all things foraminifera. In 2018 the 11th Course on Foraminifera (ISF11) continued this tradition, providing an atmosphere of collegiality for the gathering of over forty plus scientists from over twenty countries who met in Urbino, Italy. Over eighteen days from late May we undertook lectures, tutorials and field trips and focused on the diverse study of Foraminifera. In between working hard, we managed to enjoy the wonderful Italian cuisine and culture while making good friends.

Italy is a long way from my home in Australia where I am completing my Master of Research on foraminifera. With the support of my university, Macquarie University, I was able to attend ISF11 in Urbino, a beautiful and historic UNESCO World Heritage Site. The course was expertly organized and run by Prof. Michael Kaminski (King Fahd University of Petroleum & Minerals, Saudi Arabia) and Dr. Fabrizio Frontalini (Urbino University, Italy). These two excellent teachers, along with other respected academics and industry experts, were always on hand to help answer questions. In addition, each student was given a comprehensive library of references and published literature on foraminifera, including many works that are no longer in print.



Our first group photo for ISF2018

We stayed in modern accommodation at the Collegio Internazionale, surrounded by the stunning renaissance buildings where our social functions were held. Urbino has many wonderful restaurants and bars with a good range of pricing options, all offering delicious food and drinks, not to mention the best gelato I have ever eaten. Throughout the course several group social events were arranged to help participants meet, and each also provided the opportunity to sample local traditional food. These functions helped to foster a friendly and cooperative atmosphere which enabled everyone to get to know each other better.

The full course was broken into four modules, each between four and five days long. The first module was the introductory session, followed by larger benthic (LBF), then the smaller benthic and finishing up with the planktonic foraminifera component. The introductory block provided a very detailed overview of the study of foraminifera. Starting with the history of foraminiferal research and taxonomy we quickly moved on to ecology, test morphology and molecular genetics, and the application of foraminifera in both scientific research and industry. This valuable introduction brought participants up to date with any changes in current methodologies and classification and also helps solidify morphological identification criteria. As well as lectures from Prof. Kaminski we were fortunate to have sessions with Prof Johann Hohenegger, Prof. Andrew Gooday, Dr. Claudia Cetean and Prof. Jan Pawlowski.

I am fascinated by the LBF with their exquisite tests and complicated life histories, so the second module was probably my favourite. We investigated LBF forms through the Phanerozoic, learning about modern genera as well as the most important groups used in stratigraphy and paleoenvironmental studies. We had wonderful additional teachers including, Prof. Cesare Andrea Papazzoni, Prof. Michal Kucera, Prof. Geraint Wyn Hughes and Dr. Antonino Briguglio. This module finished with a field trip to the Mesozoic and Cenozoic exposures in the Umbria-Marche area, including the K/Pg boundary sequence at Bottaccione. The field trip was very informative and detailed stratigraphic information was provided at each stop, however it was also a lot of fun and we all found fossils! We finished off a wonderful day spent at interesting geological sites with a delicious social dinner, of course followed by dancing and karaoke.

The modules on smaller benthic and planktonic foraminifera were just as detailed and interesting. In addition to the study of all the major taxonomic groups and their importance in many forms of paleo studies we looked at their application in stratigraphy and environmental studies. Industry specialist Dr. Danielle Foy discussed life on board a drilling rig and the roles available to micropalaeontologists

interested in a career in industry. Prof. Laia Alegret as well as taking us though the Paleogene fauna also discussed her involvement in the IODP JOIDES Resolution expedition. This module also had a wonderful field trip and provided an opportunity for participants to share their research by presenting at the Pizza Party in a truly stunning setting. It was very informative to see the range of research being undertaken using foraminifera.

I am very grateful to the teachers and sponsors of this course. The depth of learning, the range of material available to study and their support was incredible. I would recommend this course to any student interested in studying these truly amazing creatures. I would also like to say that for me, the opportunity to stay and learn in a place as beautiful as Urbino will be cherished.

Sponsors who helped make this course happen included The Micropalaeontology Society, Micropress Europe, CGG, Network Stratigraphic Consulting, and PLOS One.



ISF2018 participants enjoying the sun and beauty of Urbino before presentation night.