

## FORAMS 2023: International Symposium on Foraminifera

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The International Symposium on Foraminifera, FORAMS 2023 was held from 26<sup>th</sup> to 30<sup>th</sup> June 2023 at Perugia, Italy. It was organised under the aegis of the Società Paleontologica Italiana, and convened by Antonino Briguglio, Giulia Margaritelli, Cesare Andrea Papazzoni, Maria Rose Petrizzo, Roberto Rettori. The symposium started off with the ice-breaker at Palazzo Murena, Rectorate of the Università degli Studi di Perugia on 25<sup>th</sup> June 2023, while the formal inauguration was held on 26<sup>th</sup> June 2023. The symposium kicked off with formal welcome to the delegates and an overview of the proceedings of the next five days. A welcome step was the initiation of the FORAMS Medal for honouring path breaking work in the field of micropaleontological research, with the inaugural medal being awarded to Prof. Isabella Premoli Silva for her lifetime achievements in the field of foraminifera micropaleontology.

The symposium had a foot fall of over 300 participants from all over the world. A total of over 200 oral and more than 160 poster presentations were hosted in 25 scientific sessions. The sessions witnessed abstracts from a wide range of works related to extant as well as fossilized, benthic and planktic foraminifera. The research work on systematics, taxonomy, morphology, molecular phylogeny and genetics were discussed in great detail through the deliberations. The works related to reconstruction of shallow to deep water environments as well as paleoceanographic reconstructions during the Cretaceous, and Cenozoic (Paleogene, Neogene and Quaternary) using foraminiferal proxies were also presented. The presentations related to the evolution, stratigraphy and geological crises highlighted the multidisciplinary uses of foraminifera. The factors responsible for foraminiferal preservation as per the latitudinal provincialism were discussed through a series of papers on tropical, mid and polar latitudes. The extremophile nature of certain foraminiferal groups was an interesting point of discussion.

The use of foraminifera as geochemical proxies was one of the most talked about theme, highlighted in several oral and poster presentations, which discussed the novel approaches, unique applications and poorly-understood problems. The use of foraminifera as seawater oxygen proxies, biology and behaviour of foraminifera and the uses of foraminifera as proxies for understanding the ecological functioning were interesting sessions which attracted a large audience. The impact of threats of climate change on foraminifera was discussed in a dedicated session, which assessed the impact of various types of pollutants and stresses through simulated experiments. Some novel techniques of automated image recognition in microscopic analysis

for foraminifera studies discussed the incorporation of various softwares, image models and even artificial intelligence in the foraminiferal research. The papers on freshwater and soil foraminifera were highly appreciated. It was a wonderful gesture to honour legends like Prof. John Murray, Prof. Dick Kroon and Prof. Martin Buzas by dedicating sessions related to works of their interests.

The author presented his work on Quaternary variation of the strength of Agulhas Current using planktic foraminifera through an oral presentation, while the Quaternary paleoceanography of the Sulu Sea through a poster.

Two field trips were also organized to visit the Carso area (near Trieste) and the world-famous Bottaccione section (close to Gubbio), pre and post symposium respectively.

Apart from the symposium, the venue became host to several meetings. The meetings of Cretaceous Planktonic Foraminifera Working Group and Neogene and Quaternary Planktonic Foraminifera Working Group were convened on 25<sup>th</sup> June. The meeting of the Forams group of the Micropaleontological Society was held on 26<sup>th</sup> June, while the meeting of the Deep-Sea Benthic Foraminifera Working Group was convened on 28<sup>th</sup> June. A reception was sponsored by the Cushman Foundation of Foraminiferal Research on 27<sup>th</sup> June.

Each session was overwhelmed with a large audience including scientists and research scholars. The sessions were aptly planned and sufficient time was allotted to each speaker for making the presentation and discussion. The meeting was a wonderful amalgamation of experienced researchers, early- and mid-career scientists, young research scholars and master's students. A wonderful initiative was the mentorship program, which brought the youngsters face-to-face with an experienced personality of the field.

The arrangements were marvellous and the organizers deserve a huge applaud for the same. The venue of the conference, Hotel Giò, was also made available for the stay. It was an amazing venue with state-of-the-art auditoriums for oral presentations, halls for poster presentations, and a reception area for lively discussions. The hotel was always beaming with live jazz music, which made it even more enjoyable. The conference dinner was organized at a resort in the historical town of Umbria in Perugia.

The closing ceremony was held on 30<sup>th</sup> June 2023. Seven oral and equal number of poster presentations made by the students were awarded by the organizing committee, on the recommendations of a jury. The meeting ended with the decision for the next edition of FORAMS at University of Massachusetts Amherst, USA in 2026.