



Lunedì 9 Dicembre 2019

Ore 16.00 - Aula Ruffini

Dipartimento di Scienze della Terra, via Valperga Caluso 35 - Torino

Paleoenvironmental reconstruction of Marmorito (NW Italy) diatomites based on microfossil assemblages

Kazuki Hoshina

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Kazuki Hoshina is a visiting Master student from Yamagata University, Japan.

His fields of expertise are biostratigraphy and paleoecology based on calcareous nannofossils and fossil diatoms. He is currently learning late Miocene- Pliocene calcareous nannofossils taxonomy, interpretation, and ideas from Professor Lozar, in the frame of the Unito-Yamagata agreement.

Under the supervision of Prof. Richard Jordan, he studied the Himalaya region and Marmorito (Northwest Italy). The Himalaia (Tibet) project detected the initial collision timing of India-Asia as 53.67-52.64 Ma using calcareous nannofossils. In addition, he reconstructed the sedimentation history of the Qumiba section in southern Tibet.

Recently he studied the Marmorito diatomite (Burdigalian, lower Miocene), based on the sampling performed with Professor Lozar during a previous visit to the Department in February 2019. The diatomite samples were studied under the light microscope and scanning electron microscope, especially for nannofossils and diatoms. This study allowed to reconstruct the paleoenvironment of the Marmorito diatomite based on microfossil assemblages.

Among common fossil taxa, a unique coccosphere was occasionally found, *Tergestiella*, which is reported only from shelf environment in Croatia and Japan as living species. Specimens with the same morphology of *Tergestiella*, known as *Cyclagelosphaera*, have a fossil record spanning from Jurassic to Paleocene. The founding of this taxon in Miocene sediments add a very important information to the evolution lineage and paleoecology of this taxon.

