DIPARTIMENTO DI SCIENZE DELLA TERRA
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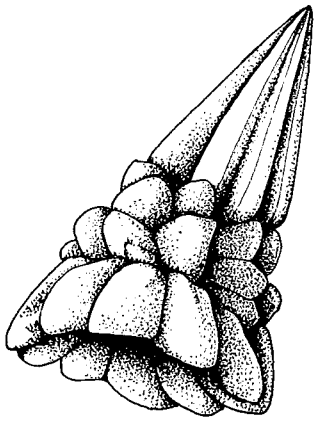
INTERNATIONAL NANNOPLANKTON ASSOCIATION *MEETING*



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ABSTRACTS

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TAXONOMIC CONCEPT IN THE GENUS RETICULOFENESTRA

by L. BEAUFORT (Departement de Sciences, de la Terre, Universite C. Bernard 27-43 Bvd du 11 Novembre 69622 Villeurbanne, France and Wood Hole Oceanographic Institution, Wood hole, MAS 02543, USA).

Distinction between species assigned to the genus *Reticulofenestra* is largely based on size differences. This is particularly true for the Neogene taxa which are commonly placed in the *Reticulofenestra pseudoumbilica* group but which have been separated in as many as 6 species. Analysis of calcareous nannofossil assemblages from upper Miocene sediments recovered at Site 552A (ODP, leg 81, North Atlantic Ocean, 56° N) reveals a great abundance of placoliths of *Reticulofenestra* in all assemblages. Their size ranges between 2µm and 13µm. In an attempt to distinguish between groups, the coccolith length was measured. In a large number of samples, two size classes were observed: l) A small placolith group in which the size varies between 2 and ~7 µm. 2) A large placolith group ranging from ~7 to 13 µm. The median values and the size at which the classes separate varied between samples. In the other samples the coccolith length presented a more uniform distribution and no subdivision of the assemblage based upon size was possible. The measurement of the short axis diameter did not add further information to the results of the long diameter analysis.
These results do not support the use of the size as a main specific character to separate the Miocene *Reticulofenestra* group into species.

NEOGENE TECTONIC EVOLUTION OF THE SOUTHERN APENNINES. NEW BIOSTRATIGRAPHIC CONSTRAINTS

by M. BELLATALLA, E. PATACCA, N. PERILLI, U. SANTINI, P. SCANDONE (Dipartimento di Scienze della Terra dell'Universita di Pisa. Via S. Maria, 53. 56100 PISA).

The investigated area corresponds to the northern segment of the Southern Apenninic Arc, a complex bended structure which estends from the Maiella-Gaeta lineament to Sicily, through the Calabrian Arc. The mountain chain is constituted primarily of largely-displaced thrust sheets piled up with Adriatic vergence; as a consequence of the progressive migration of the thrust belt-foredeep-foreland system, some hundred kilometres of the Paleogene Apulian margin were affected by shortening during Neogene times. The complexity of the present-day structure, together with too many stratigraphic uncertainties in the surface geology, makes the construction of reliable balanced sections very difficult. Large disagreements, therefore, still exist among geologists concerning the possible palinspastic restorations of the tectonic units, the timing of the

deformation and the amount of the shortening. Nevertheless, some important biostratigraphic constraints, such as:
-age definition, for every tectonic unit, of the uppermost part of the sequence underlying the siliciclastic flysch-deposits (age of the elastic flexure of a rigid foreland area);
- age determination of the flysch deposits conformably overlying the different sequences representative of the recognized tectonic units (age of the foredeep-basin subsidence);
- time definition of the sedimentological events recording in far field, during the flysch deposition, major peaks of tectonic activity (time-space migration of the foredeep-foreland system);
- age determination of the sedimentary sequences deposited between consecutive compressional phases can eliminate a lot of persisting ambiguities and may drastically reduce the number of possible solutions.
Aim of this paper is to present new micropaleontological data based on forams and calcareous nannoplankton which will oblige regional geologists to revise some established "certainties" on the timing of the deformation and on the style of the forewards migration of the compressional fronts.
The most interesting results concern:
- the time definition and the extent of the so-called Burdigalian tectonic phase. The tectonic phase took place, in reality, close to the Langhian-Serravallian boundary, involving in the orogenic transport "internal" thrust sheets, as well as the carbonate units of the Campania-Lucania domains, and producing regional metamorphism in the Verbicaro and S. Donato nappes;
- the time definition and the extent of the Tortonian tectonic phase, which took place in late Tortonian and not in early Tortonian times as usually accepted in the geological literature;
- the meaning of the so-called Irpinian Flysch units, whose age is upper Tortonian-Messinian and not Langhian-lower Tortonian;
- the time difinition and the extent of the Messinian and Pliocene tectonic phases.
The discrepancies between many published data and the new biostratigraphic results mostly derive from widespread reworking processes which caused an extreme dilution of the autochthonous biocoenosis.

COMPARISON OF SILICEOUS ASSEMBLAGES WITH CALCAREOUS NANNOPLANKTON IN THE UPPER MIOCENE OF CAPPELLA MONTEI (SERRAVALLE SCRIVIA)

by M. C. BONCI & C. PIRINI RADRIZZANI (Universita di Genova - Dip. Sc. Terra - Sez. Geologia Palazzo delle Scienze - Corso Europa, 26 - 16132 Genova).

The upper part of the S. Agata Fossili Marls Formation outcropping at Cappella Montei, near Serravalle Scrivia, is characterized by the presence of levels of spongolites with Diatoms. The microfaunal and microfloral assemblages are