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delle Ricerche di Bologna. Présentée par le Pr R. SELLI.

A preliminary investigation was carried out on some neogenic series outcropping along the Tyrrhenian coast between Salerno and Livorno and the results of such are reported below. This investigation was undertaken in order to gain a more thorough and better knowledge of the Pliocene of the Tyrrhenian coasts and also to collect valid data to interpret the Pliocene series sampled in the Tyrrhenian Sea (Selli & Fabbri 1971).

Five sections are described here from both a lithological and a biostratigraphical point of view, and i.e.: 2 in the Campania (the T. Branete section near Benevento and the Brignano section near Salerno); 1 in Latium (the M. Riccio section near Tarquinia) and 2 in Tuscany (the Parrana S. Giusto section and the C. Sodoni section).

The biostratigraphical schemes adopted in these note are already well known in literature and correspond to those proposed by Cati et al. 1968 (for the middle Miocene), Colalongo 1970 (for the Messiniano) and Colalongo, Elmi and Sartoni 1971 (for the Pliocene).

The faunal associations and the vertical sequence of the most important species in the T. Branete and the Brignano sections are analogous to those of the Messiniano of Romagna, Marche and Sicily (Colalongo 1970); Catalano & Sprovieri 1971). In particular, the Cenozone Globorotalia tumida plesiotumida follows in succession to the Cenozone Globorotalia menardii. At the bottom of this unit the zonal marker and the Globorotalia cenomiozea, the G. miocenica mediteranea and the G. nicolae appear, as occurs in Sicily (Catalano & Sprovieri 1971).

Therefore, the Cenozone G. tumida plesiotumida which was defined in Marche and Romagna (Colalongo 1970) appears to be very widespread in Italy, geographically speaking, and seems to be typical enough to locate the Messiniano plane (Selli 1960). The appearance of the G. tumida plesiotumida is by now accepted as an important datum for Mediterranean (Mazzola 1971) and extra-Mediterranean correlations (Banner & Blow 1965; Blow 1968; Berrgren 1971). The appearance of the G. tumida plesiotumida that occurs during the progressive differentiation between Mediterranean and extra-Mediterranean microfaunas that gradually takes place during the Neogene, represents one of the latest factors for comparison between the above mentioned regions. In fact, during the Pliocene, the microfaunas assume such different characteristics that it is difficult or sometimes even impossible to make a reliable correlation between the areas.

An ostracofauna, mainly composed of Cyprideis gr. pannonica has been identified in the upper part of the Messiniano (the Parrana S. Giusto section) in Tuscany. The type of this species, the relative morphotypes and subspecies have already been shown in the same stratigraphical position in Sicily and Romagna (Decima 1964; Colalongo 1968) and also found by one of the Authors in Western Emilia and Marche. The latest findings point to the fact that the Cyprideis gr. pannonica is even more geographically widespread and its stratigraphical value increases in importance as this species seems to typify the upper part of the Messiniano.

In the M. Riccio section (Latium) and the C. Sodonì section (Tuscany) the micropaleontological research has emphasized a stratigraphical gap that includes, generally speaking, the upper part of the lower Pliocene and the lower part of the middle Pliocene. It corresponds mainly to the "middle Pliocene gap" which was pointed out some time ago on the Adriatic side of the central-southern Appennines (Selli 1955, 1962) and which was more recently quoted for the Tyrrhenian Sea (Selli & Fabbri 1971). This contributes to emphasize the vast geographical extension of a phenomenon that is of great importance to the Italian peninsula.

Intervention à la suite du 10-9.

RYAN - You mention that the Cenozoic Globorotalia tumida plesiotumida (Colalongo 1970) can be used to locate the Messiniano plane. But is not the bottom of this zone actually in the upper Tortonian (N16/N17 boundary) before the diastrophism of the faunas which was used by Selli (1960) to mark the beginning of the "salinity crisis" and the beginning of the Messinian in its strato-type? Prof. Selli mentions that there is a continuous marine passage from the Messinian to the lower Pliocene (Sphaeroidinellopsis zone). However, your very wide-spread occurrence of the Cyprideis gr. pannonica horizon characteristic of the upper most Messinian suggests a laterally extensive (but brief) episode of brackish to fresh water conditions and very shallow lagoonal environments at this time which seems to me to contradict a continuity. What is your opinion of the sudden change from the environment with abundant eury-haline ostracods (Upper-most marine) to the "trubi"-like Lower Pliocene with open marine pelagic faunas and psychrospheric ostracods (deep water) very rich in calcium carbonate? Can you explain this complete change of faunas by subsidence alone, or must there also be an opening of communication with the Atlantic Ocean?

Rep. SELLI : Probablement les deux - En outre sur la côte adriatique les coupes sont rares et la micropaléontologie déjà ancienne.