

thickness is between 5 and 150 m. This series represents the first clastic-carbonate transition episode.

3. Quartzitic conglomerates, up to 800 m thick. They represent high-gradient fluvial deposits which have accumulated during episodes of high discharge. Intercalations of sandstones and mudstones are common.

4. Quartzitic sandstones and mudstones, corresponding to low-gradient fluvial deposits. A gradual deepening is assumed.

5. Lenses of neritic limestones with *Nerinea*, bivalves, echinoids, corals, *Palorbitolina* (*Palorbitolina*) *lenticularis*, *Sabaudia minuta*, etc. Towards the northern part of the syncline the thickness is up to 150 m. These limestones represent the second clastic-carbonate transition episode. It is suggested that they have been deposited during a relative drop of sea level. Palynological investigations have yielded the following association: *Oligospaeridium* complex, *Chytroisphaeridia spinosa*, *Michystridium dellandrei*, and *Classopolis* sp.

The age of the unit is probably Albian.

## CRETACEOUS BIOZONE CATEGORIES BASED ON PLANKTONIC FORAMINIFERA - SIGNIFICANCE AND PROBLEMS

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In the last 60 years several biostratigraphic zonations based on planktonic foraminifera have been proposed. Some of them were considered as standard zonations, e.g. these of Sigal (1977), VAN HINTE (1976), and more recently these of ROBASZYNSKI & CARON (1979), ROBASZYNSKI et al. (1984) and CARON (1985). Other authors prefer local biostratigraphic zonations (see: GASINSKI 1983, 1988). Consequently, different biozone categories have been used by almost every author: Interval Biozones, Partial Concurrent Range Zones, Concurrent Range Zones, Taxon Range Zones, etc.

The stratigraphic importance of a number of species is still controversial (e.g. *P. praebuxtorfi*;) the coexistence of others (e.g. *R. reicheli* and *R. greenhornensis*) is doubtful. The palaeo-biogeographical distribution of several planktonic index species is questionable, especially in the Tethyan realm. *W. archaeocretacea* may serve as an example. Its occurrence in the Carpathian through is still disputed although it is the marker of a biozone in many standard zonations.

Different concepts and interpretations must be harmonized in order to put the correlation with planktonic foraminifers on a sound basis.