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CRETACEOUS PALYNOLOGY OF THE SANHUR-IX BOREHOLE, NORTHWESTERN EGYPT

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Abstract

Cretaceous miospores and dinoflagellate cysts were recovered from the Sanhur-IX borehole, northern Western Desert. Based on marker palynomorphs the Aptian, Albian, Early Cenomanian, late Cenomanian-Turonian and Campanian-Maastrichtian stages have been recognized. Three new informal pollen-spore zones were also suggested. These are: Zone PS-I (*Duplexisporites generalis-Murospora-Concavissimisporites variverrucatus*-Tricolpates Assemblage Zone, Aptian), Zone PS-II (unnamed, Albian) and Zone PS-III (*Elaterocolpites castelainii* Total Range Zone, Early Cenomanian). The palaeoenvironment was interpreted on the basis of the identified palynomorphs, in the light of their ecological preferences. It was fluctuating between marginal to open (inner shelf) marine. Minor terrestrial episodes were thought to have occurred during Aptian time.

Key words: Dinocysts, Miospores, Cretaceous, Biostratigraphy, Palaeoenvironments, Egypt.

Resumen

Se describen las mioesporas y los quistes de dinoflagelados de los sedimentos cretácicos del sondeo Sanhur-IX, norte del Desierto Occidental. Considerando los marcadores palinomorfos, se han podido reconocer materiales de edad Aptiense, Albiense, Cenomaniense inferior, Cenomaniense superior-Turoniense y Campaniense-Maastrichtiense. Se sugieren tres nuevas zonas informales de polen-esporas: la Zona PS-I (Zona de Asociación de pólenes Tricolpados *Duplexisporites generalis-Murospora-Concavissimisporites variverrucatus,* Aptiense), Zone PS-II (sin nombre, Albiense) y la Zona PS-III (Zona de Rango *Elaterocolpites castelainii*, Cenomaniense inferior). El medio ambiente fue interpretado considerando las preferencias ecológicas de los palinomorfos identificados. Estas fluctuaron entre ambiente marginal y marino abierto (plataforma interna). Episodios terrestres menores pudieron ocurrir durante el Aptiense.

Palabras clave: Quistes de dinoflagelados, Mioesporas, Cretácico, Bioestratigrafía, Paleoambientes, Egipto.