

STVDIA GEOLOGICA SALMANTICENSIA

49 (1) - 2013

Analytic summary

KARL, H.-V. & KLASSEN, H. (2013): New material of the chelonian ichnotaxon *Emydichnium megapodium* (Walther, 1904) from the Kimmeridgian (Upper Jurassic) of Northern Germany. *Stud. Geol. Salmant.*, 49 (1): pp. 7-12, 2 figs., 1 plate, 19 bibliographic references. Salamanca.

ABSTRACT: New turtle-tracking material from *Emydichnium megapodium* (Walther, 1904) from the Kimmeridgian of Störmer quarry near Wallücke at Wiehen Hills (Wiehengebirge) in North Rhine-Westphalia/Northern Germany is described.

Key words: Kimmeridgian; Upper Jurassic; Wallücke; North Rhine-Westphalia; Northwestern Germany; *Emydichnium megapodium* (Walther, 1904); description.

BOGAN, S. & GALLINA, P. A. (2013): Considerations Hypolophodon (Chondrichthyes, Myliobatiformes) record on the top of the Jagüel Formation (Maastrichtian) Black River Province, Argentina. *Stud. Geol. Salmant.*, 49 (1): pp. 13-23, 3 figs., 35 bibliographic references. Salamanca.

ABSTRACT: The fossil record of the extinct ray *Hypolophodon* is restricted to the Paleogene marine sediments of Northern Hemisphere (in America and Europe) and North Africa. In this paper, a new tooth material from the higher level of Jagüel Formation, at Bajo Trapalcó Río Negro Province, Argentina, is described. This tooth is referable to *H. silvestris* based both in morphological and histological reliable evidence. This record also allows the reassignment of MML 228 to this genera and species, instead the original assignation to the genus *Pseudohypolophus*. Additionally, it represents the southernmost occurrence of the genus *Hypolophodon* and the first record for South America. The marine ichtyofauna of the Jagüel Formation from north Patagonia evidences a strong relationship with coeval ichtyofaunas from Brazil, Caribbean, North Africa and Madagascar, showing a clear distinction with selachian faunas from the Weddellian biogeographic Province.

Key words: *Hypolophodon silvestris*; *Pseudohypolophus*; Batoidea; Myliobatiformes; Jagüel Formation; Maastrichtian.

TWIDALE, C. R. & BOURNE, J. A. (2013): Contrasted morphologies of the Western and Eastern Piedmonts of the Mt Lofty Ranges, South Australia. *Stud. Geol. Salmant.*, 49 (1): pp. 25-45, 11 figs., 55 bibliographic references. Salamanca.

ABSTRACT: The Mt Lofty Ranges is a horst that evolved in two stages. The western margin developed as part of the South Australian Shatter Belt during the separation of Australia and Antarctica. Gulf St Vincent formed at this time. Though recurrently active the upland dates essentially from the Early Eocene with major uplift in the later Cenozoic. By contrast, the eastern faulted margin postdates the Middle Miocene. Also, whereas the western piedmont and upland were affected by Late Cenozoic sea level changes and all that those imply for river behaviour, the eastern sector was buttressed against such fluctuations by the massive Miocene limestone deposited in the Murray Basin immediately to the east. Consequently, the western piedmont is dominated by alluvial fans, but the eastern is complex, with well-developed scarp-foot depressions, exhumed landforms, and dunefields in some sectors.

Key words: Horst; piedmont; alluvial fan; desert dune; rain shadow; scarp-foot depression; exhumed forms.

MORENO MARÍN, C. A. & ALONSO GAVILÁN, G. (2013): Lithosismic units characterization and interpretation in the Cenozoic subsurface in the Santiuste de San Juan Bautista area (Segovia province, south Duero basin, Spain). *Stud. Geol. Salmant.*, 49 (1): pp. 47-73, 7 figs., 31 bibliographic references. Salamanca.

ABSTRACT: The analysis of natural gamma, spontaneous potential and resistivity survey well logs from the borehole of Santiuste de San Juan Bautista (Segovia), has identified several lithosismic units in the subsurface of this region to be able to differentiate lithology and a set of electrofacies. The correlation of discrete units in the survey using geophysical criteria lithostratigraphic units defined in surface based on lithological criteria, has helped define the geophysical parameters characterizing surface lithostratigraphic underground and the ability to identify the Cenozoic units in the subsurface while one of the conditions required by the International Stratigraphic Guide so that they can be considered as units with formal status is met.

Your sedimentological interpretation defines that formed by a set of prograding to be seen in the well log superimposing different lithosismic units with a sequential architecture marked coarsening upward and partners, possibly a front saw rising continuously during the Cenozoic fans.

Key words: Well logs; gamma ray; resistivity; spontaneous potential; electrofacies; lithosismic units; Cenozoic; south Duero basin; Spain.