ACTA PALAEONTOLOGICA POLONICA

Palaeoenvironment and palaeoecology of three Cretaceous snakes: *Pachyophis, Pachyrhachis*, and *Dinilysia*

Michael W. Caldwell and Adriana M. Albino
Acta Palaeontologica Polonica 46 (2), 2001: 203-218

The palaeoecology of three Late Cretaceous snakes is evaluated. *Pachyophis woodwardi* Nopcsa, 1923 and *Pachyrhachis problematicus* Haas, 1979, are Cenomanian in age and are found in carbonate rocks deposited in marine inter-reef basin environments of the European and African Tethys Sea. *Dinilysia patagonica* Woodward, 1901, Coniacian in age, is considered closely allied to living anilioid snakes, and is found in clastic rocks deposited in a terrestrial inter-dune basin environment in northern Patagonia, Argentina. All three snakes are known from well preserved and articulated specimens found in sediments where detailed sedimentological and taphonomic analyses are possible. *Pachyophis* and *Pachyrhachis* were laterally compressed, have pachyostotic ribs and vertebrae, and small, narrow heads. These two snakes are interpreted as aquatic predators living in and around the margins of reef mounds on a shallow water carbonate platform. *Dinilysia* was a large bodied snake with a relatively large head, and is interpreted here as a terrestrial predator that lived in a dry, interdune basin environment dominated by aeolian sedimentation. Sedimentary units preserve ichnological evidence of burrowing insects and rooting plants.

Key words: Key words*: Dinilysia, Pachyrhachis, Pachyophis*, snakes, phylogeny, palaeoecology, palaeobiogeography, palaeoenvironment, Cretaceous.

Michael W. Caldwell [mw.caldwell@ualberta.ca], Departments of Earth and Atmospheric Sciences & Departments of Biological Sciences, CW-405 Biological Sciences Building University of Alberta, Edmonton, Alberta, Canada, T6G 2E9;
Adriana M. Albino [aalbino@mdp.edu.ar], Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Dpto Biología, Universidad Nacional de Mar del Plata, Funes 3250, 7600 Mar del Plata, Argentina.


Full text (496.0 kB)