

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

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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.

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