

## EARLY CRETACEOUS GASTROPODS FROM WEST-CENTRAL ARGENTINA: PRELIMINARY INTERPRETATION OF PALEOBIOGEOGRAPHIC AFFINITIES

Cecilia S. Cataldo<sup>1</sup>

1. Instituto de Estudios Andinos Don Pablo Groeber (IDEAN), Universidad de Buenos Aires-CONICET, Int. Güiraldes 2160 1° piso, Pabellón II Ciudad Universitaria, Buenos Aires, C1428EGA, Argentina. ceciliacataldo@gl.fcen.uba.ar

Previous work on the Cretaceous paleobiogeography of gastropods has focused on the differences between low-latitude and northern mid- to high-latitude associations. This is probably related to a bias of information towards septentrional gastropod faunas that reveals poorly documented austral associations. Besides, the global distribution of gastropods was usually discussed in terms of a three-fold scheme of major paleobiogeographic units originally proposed on the basis of the endemism of bivalve species and the limits of coral-rudist facies. An equivalent model based on Cretaceous gastropods at a global scale has not yet been proposed, although some distinct areas of endemism were recognized for the latest Cretaceous. Over the last years, significant progress has been made in the knowledge of the composition of the marine gastropod fauna from the Lower Cretaceous of the Neuquén Basin. So far, 26 species -belonging to 20 genera and 18 families- were recognized in the Mulichinco (Valanginian) and Agrio (Valanginian–Barremian) formations, and several new records are still under study. Alongside, the palaeoecology and palaeobiogeographic affinities of this fauna were explored for the first time. The main results of the latter topic are presented here. Amongst the studied species, at least nine are endemic to the Neuquén Basin. So far, only three species were also recorded in Chile, and other three seem very close to records from Peru, Venezuela and the Argentinian Austral Basin. Only one species shows records in a very distant region. Despite its endemic elements, at the genus level this association shows a predominantly Tethyan influence. Moreover, the Neuquén Basin shares family-level gastropod taxa with the other basins in the western margin of South America and the Antarctic Peninsula. These results point to a faunistic exchange through open seaways established during the Berriasian–Barremian between the Neuquén Basin and both neighboring—*i.e.* the western margin of South America and the Antarctic Peninsula—and remote regions—*i.e.* the Tethys Sea and northern Europe. Also, they are consistent with previous findings, based on the distribution of other benthic and nektonic invertebrates, which claim that the basin stayed connected with the open sea during the Early Cretaceous. The mixed nature of this gastropod association contrasts with the highly provincial Late Cretaceous–Paleocene southern gastropod fauna. In terms of water temperature, the mass occurrence of one nerineoid species could be indicating a brief episode of warmer conditions in the northernmost part of the basin during the late Hauterivian. [Contribution C-76 of IDEAN].

