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Proyecto subsidiado por: ANPCyT PICT-2021-GRF-TII-00236; NGS-92822R 22; CONICET PIBAA 1137.

## **END-CRETACEOUS CALCAREOUS NANNOPLANKTON AND RESPONSE TO THE K/Pg EVENT IN THE KAWAS EPICONTINENTAL SEA. INSIGHTS FROM CERRO BOMBERO SECTION, JAGÜEL FORMATION, NEUQUÉN BASIN**

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The K/Pg event represents the last of the great mass extinctions, especially affecting the marine environment. Since the Jurassic, calcareous nannoplankton has been one of the most important primary producers playing a key role in the marine trophic-web and the carbon cycle. Calcareous nannoplankton was deeply affected by the K/Pg event, with the extinction of 93% of the species and 85% of the genera; but with a relatively rapid recovery and radiation after the first 50 Kyr. Most of

what is known on the impact and response of calcareous nannoplankton around this event was provided based on material from the north hemisphere, in tropical to subtropical, oceanic conditions. The Cerro Bombero section record (Bajo de Santa Rosa, Neuquén Basin, Argentina) represents the opportunity to investigate the response of calcareous nannoplankton in the south hemisphere, in a mid-latitude epicontinental setting. The Cerro Bombero section consists of 1.60 m of the Jagüel Formation, comprising the K/Pg boundary, and in which remains of at least two mosasaurs were recovered. Sedimentological and geochemical (XRF) analyses were performed to better constrain environmental variations in relation to changes in the nannofossil assemblages before and after the K/Pg event. Calcareous nannofossil analysis (samples stored in the Museo de La Plata micropaleontological repository under the acronym MLP-NC) revealed a continuous succession from the CC26 Biozone (latest Maastrichtian) to the NP1 Biozone (earliest Danian). Late Maastrichtian assemblages start with high diversity indexes, that slightly decreases towards the K/Pg boundary, both due to a drop in the richness and an increase in the relative abundance of, mainly, *Micula staurophora* and the calcareous dinoflagellate *Cervisiella operculata*. The K/Pg boundary is 65 cm above the base of the section, close to the top of a silty-sandy bed. After the K/Pg, assemblages show an increase in the relative abundance of cretaceous-survivor species (*Placozygus sigmoides*, *Markalius* spp., *Cervisiella operculata*, *C. saxeae*) and record the first occurrences of the Danian marker-species *Biantholithus sparsus*, *Hornibrookina elegans*, and *H. indistincta*. Most abundant species in the late Maastrichtian assemblages are rarely present in the Danian ones, indicating very low to null reworking. Therefore, the high relative abundance of *Watznaueria* spp. in Danian assemblages would indicate that this species survived the K/Pg event. In the uppermost part of the section, *Micrantholithus entaster*, a low salinity tolerant species, becomes highly abundant. This coincides with an increasing proportion of sand in the sediment, probably indicating the initiation of a regressive cycle.

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## NUEVOS APORTES PALINOLÓGICOS PARA LA FORMACIÓN ALLEN (MAASTRICHTIANO) EN CANTERA ALEXIS, LAGO PELLEGRINI, CUENCA NEUQUINA, ARGENTINA

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Se dan a conocer nuevos datos palinológicos para los miembros medio y superior de la Formación Allen, en afloramientos del margen suroriental del Lago Pellegrini (Río Negro) en el sitio denominado