

XII Congreso de la Asociación Paleontológica Argentina

RESÚMENES XII CAPA
23 - 26 de Noviembre, 2021

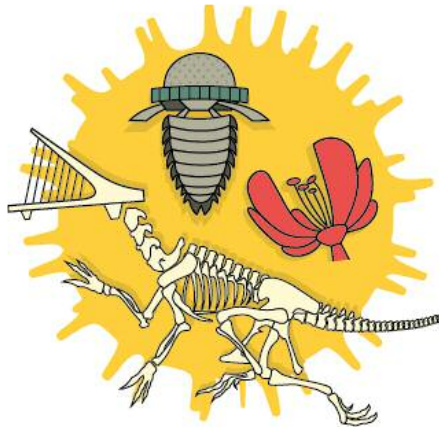


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Diseño y maquetación:
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III SIMPOSIO SOBRE ECOSISTEMAS TRIÁSICOS – SU PALEOBIOLOGÍA Y EL CONTEXTO DE RECUPERACIÓN DE LA GRAN EXTINCIÓN



Debido a la expansión del conocimiento de los ecosistemas triásicos, es que proponemos la realización de este simposio que creemos será un ambiente propicio para el intercambio de las nuevas hipótesis que proporcionan una nueva perspectiva en el estudio de los ecosistemas triásicos. Asimismo ofrece un espacio fructífero para el desarrollo de futuros proyectos de investigación de interés para toda nuestra comunidad.

Coordinadoras

Dra. ADRIANA CECILIA MANCUSO

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Pseudobeaconiidae, along with macromorphological data from new material. The studied specimens were recovered from the center lake facies of the Santa Clara Abajo Formation (El Peñasco Group, Santa Clara sub-basin, northern Mendoza province) with detailed stratigraphic control. The material has not been assigned to any known species yet and is housed in the Paleovertebrate Collection of the Instituto Argentino de Nivología, Glaciología y Ciencias Ambientales (IANIGLA). Material includes: IANIGLA-PV 881, 883a, 884a, 890, 891a, 891b, 892a, and fragmented not cataloged specimens: M13, M66.1, M59. The specimens were mechanically prepared, and some of them were also prepared for histological and scanning electron microscopy microstudies. Macromorphology shows ganoid-type scales with a distinct concentric pattern of ganoid ridges on the surface near the borders. These features have been reported for the scales of the family before. We also described new relevant characters like the presence of a well-developed peg-and-socket articulation and the presence of a medial keel. Regarding micromorphology, paleohistological slides show a lepisosteoid-type scale with the presence of multilayer ganoine and isopedine with canaliculi of Williamson, vascular canals, lacunae, and possibly Sharpey's fibers. Scanning electron microscopy studies reveal smooth and no microtubercle surface. Detailed morphological data about scales in its stratigraphical context provides valuable information concerning postcranial patterns, such as type and shape variation of scales along the body, and sets the basis for further evolutionary trends assessment in basal Actinopterygii.

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A PRELIMINARY ASSESSMENT OF THE PERMIAN AND TRIASSIC INSECT RECORDS FROM SOUTHERN SOUTH AMERICA

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During the late Paleozoic–early Mesozoic, southwestern Gondwana comprised extensive areas that are nowadays represented in southern South America throughout significant continental deposits bearing abundant and diverse invertebrate fossils. The insect record is however, mostly known from Argentina, being less common in Brazil, Chile and Uruguay, probably due to poor exploration and lack of identification of deposits with insect fossils. Currently, there are a total of 37 fossil insect species described from Permian units in South America, in which only forewing impressions are preserved. For the Triassic, the entomological picture is completely different; approximately 97 species have been identified to date, based on more than a thousand specimens (mainly forewings and isolated elytra) collected from different outcrops. A thorough compilation of the literature, together with the addition of abundant, new fossil insect material collected after several fieldwork seasons by this research group, indicates that the entomofaunas recorded in South America are consistent with the proposal of a "Paleozoic Evolutionary Fauna" shifting to a "Modern Evolutionary Fauna" after the Permo–Triassic mass extinction event. This transition is reflected in the South American faunas by the turnover of the Paleozoic basal clades (*e.g.*, archaerhopteranans, megasecopterans, diaphanopteroideans, palaeodictyopterans, "protorhopteranans", protophasmids, blattodeans, hemipteroids, among others), by more 'modern' and derived taxa in the Triassic (*e.g.*, dipterans, hymenopterans, odonatans, scorpionflies, aquatic heteropterans, etc.). Despite this apparent faunistic replacement, some Permian insect groups crossed the P/T limit and remained well into the Triassic (*e.g.*, Scytinopteridae, Dymorphoptilidae), further supporting a gradual turnover between these two entomofaunas. The entomological differences observed in the numerous Permian and Triassic units considered in this preliminary study, could be related to floristic, environmental, and climatic changes, as this time interval is crossed by salient events of both local and regional extent, such as extreme temperature fluctuations, intense magmatism and the major extinction event ever recorded. Nonetheless, collection and taphonomic biases should not be ruled out, as paleoentomology is rarely considered as a line of investigation in South American countries, resulting in lack of exploration and delayed knowledge of past invertebrate faunas.

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