



ESSP-1: El Cretácico de Chile y Sudamérica

Ammonites from the Tithonian – Hauterivian (Upper Jurassic – Lower Cretaceous) Lo Valdés Formation in central Chile

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The Lo Valdés Formation in the Andes of central Chile contains abundant and well preserved ammonites, indicating a Tithonian-Hauterivian age (Late Jurassic-Early Cretaceous) for this unit. In the type locality at Lo Valdés, also in Cajón del Morado and Cruz de Piedra sections, a total of 39 species were distinguished referred to 22 genera. This faunal assemblage is here described and discussed for the first time. *Aulacosphinctes proximus*, *Micracanthoceras spinulosum*, *Corongoceras* cf. *koellikeri*, *Substeuerocheras koeneni*, *Argentineras fasciculatum*, *Pseudofavrella angulatiformis*, *Crioceratites andinum* and *Crioceratites diamantense* were informally recorded previously from the Lo Valdés Formation. *Frenguellicerias magister* is a new record for the unit and for central Chile. *Pterolytocras exoticum*, *Aspidoceras rogoznicense*, *Micracanthoceras microcanthum*, *Micracanthoceras vetustum*, *Corongoceras lotenoense*, *Corongoceras mendozanum*, *Spiticeras acutum*, *Spiticeras pricei*, *Spiticeras spitiense*, *Groebericerias rocardi*, *Berriasella jacobi*, *Malbosicerias malbosi*, *Chigaroceras bardensis*, *Tirnovella kayseri*, *Thurmanicerias thurmanni*, *Crioceratites perditum* and *Bochianites* sp. are first registers for Chile. *Lytroplites paredesi* n. sp., *Lytroplites zambranoi* n. sp., *Lytroplites varelae* n. sp. and *Lytroplites rauloi* n. sp. are new species. *Parodontoceras* is here considered a junior synonym of *Substeuerocheras*. Other lectotypes were designated for *Micracanthoceras spinulosum*, *Micracanthoceras vetustum*, *Spiticeras acutum*, *Substeuerocheras calistoide*, *Argentineras fasciculatum*, *Tirnovella kayseri*, *Crioceratites andinum*, *Crioceratites diamantense* and *Crioceratites perditum*. *Spiticeras acutum* is considered a morphologically variable taxon. *Berriasella "jacobi fraudans"* is considered a synonym of *B. jacobi*; nevertheless *B. jacobi* is a widely used index taxon for the base of the Berriasian and the name should be kept. This discussion should be solved through an article in the Bulletin of Zoological Nomenclature. The following upper Tithonian to upper Hauterivian index fossils are used to subdivide the Lo Valdés Formation: *Micracanthoceras microcanthum* (lower Upper Tithonian), *Corongoceras alternans*, *Berriasella jacobi*, *Groebericerias rocardi*, *Substeuerocheras koeneni* (lower Lower Berriasian), *Thurmannicerias thurmanni*, *Argentineras fasciculatum* and *Crioceratites diamantense*.