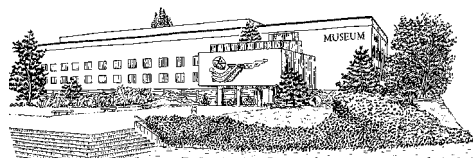


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Lowermost Bajocian marine gastropods from the Los Molles Formation at Picún Leufú, Neuquén-Mendoza Basin, Argentina

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Abstract

From lowermost Bajocian beds of a new section of the Los Molles Fm. at Picún Leufú (Neuquén, Argentina) a gastropod species is described. Specimens are incompletely preserved and belongs probably to the genus *Eucycloscala* COSSMANN, 1895.

Key words

Bajocian, Los Molles Fm., Picún Leufú (Neuquén), Gastropods, *Eucycloscala*?

Resúmen

Gastrópodos marinos del Bajociano inferior de la Formación Los Molles en Picún Leufú, Cuenca Neuquén-Mendoza, Argentina.- Se describe una especie de gastrópodo proveniente del Bajociano temprano de una nueva sección de la Fm. Los Molles en Picún Leufú, Neuquén. Los ejemplares están incompletos y probablemente pertenecen al género *Eucycloscala* COSSMANN, 1895.

Palabras-clave

Bayociano, Fm. Los Molles, Picún Leufú (Neuquén), Gastrópodos, *Eucycloscala*?

INTRODUCTION

The Middle Jurassic rocks of the Picún Leufú area (Fig. 1a-b) are commonly included in the Los Molles, Lajas, Challacó and Lotena Formations (LEANZA, 1990). The stratigraphy has been described by WEAVER (1931), HERRERO-DOUCLOUX & LEANZA (1943), LAMBERT (1956), GROEBER (1952), WESTERMANN & RICCARDI (1972, 1975), and, more recently in detail by LEANZA (1990). In these papers Aalenian-Bajocian ammonites have been cited and described profusely, and gastropods only cited occasionally.

During field works of mapping protected areas (Museo Olsacher, Zapala) and stratigraphic-paleontologic sampling and prospecting (Laboratorio de Paleontología, Universidad Nacional de Rosario), new sections were sampled. Samples contain abundant Aalenian-Bajocian molluscs: ammonites, belemnites, bivalves, and gastropods. In the present report we describe a sample of gastropods from lowermost Bajocian beds of the Los Molles Fm. (*sensu* LEANZA, 1990).

STRATIGRAPHIC REMARKS

The section (Los Molles Fm., Fig. 1c) comprises several beds grouped in two levels bounded and separated by coverings of debris. The lower part, level A1, consists of some 10 meters of dark gray to yellowish marls and limestones with intercalations of sandy coquinoid limestone. Ammonites: *Tmetoceras* cf. *scissum* (BENECKE), *Fontannesia*? cf. *austroamericana*. Remaining fauna: belemnites, ostreids, and gastropods. Ammonites indicate upper Aalenian, Malarguense Zone of the Andean standard scale (WESTERMANN & RICCARDI, 1975).

The upper part, level A2 containing the gastropods described herein, consists of some 8-10 meters of dark laminated or foliated marls and siltstones. Ammonites: large *Phylloceras*? sp., *Sonninia* cf. *amosi*, and ?*Eudmetoceras klimakomphalum*. Gastropods: *Eucycloscala*? sp. (described below). Remaining fauna: belemnites and ostreids. Ammonites indicate lower Bajocian, ?Malarguense-Singularis Zones of the Andean standard scale (WESTERMANN & RICCARDI, 1975). The

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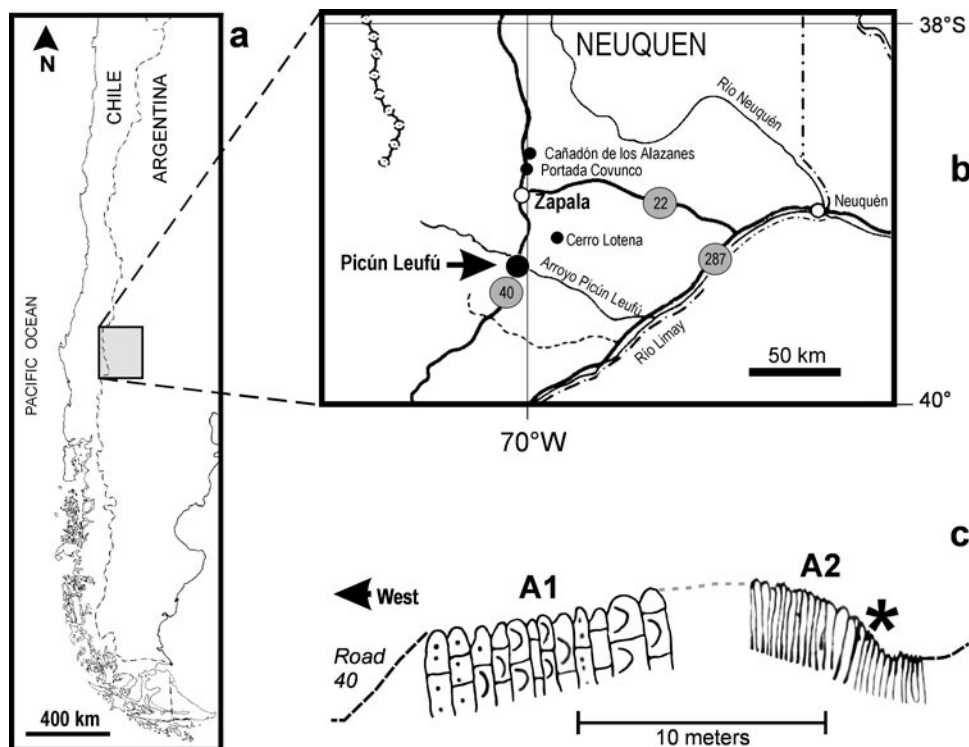
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Fig. 1: Geographic location (a-b) of the studied section of Los Molles Fm. (c) at Picún Leufú, Neuquén. The asterisk indicates the bed of collection of the described gastropods.

Fig. 1: Localización geográfica (a-b) de la sección estudiada de la Fm. Los Molles (c) en Picún Leufú, Neuquén. El asterisco indica el estrato de colección de los gastrópodos descritos.



succession is very similar in lithology and fauna to the upper part of that described by WESTERMANN & RICCARDI (1975: 244).

SYSTEMATIC PALEONTOLOGY

The specimens are housed in the Museo Prof. OLSACHER of Zapala (PI-MOZ), Dirección Provincial de Minería de la Provincia Neuquén.

Subclass Archaeogastropoda THIELE, 1925
Order Vetigastropoda SALVINI-PLAWÉN, 1980
Superfamily Trochoidea RAFINESQUE, 1815
Family Eucyclidae KOKEN, 1896
Genus *Eucycloscala* COSSMANN, 1895

Eucycloscala? sp.
 Fig. 2A-C

Material: 4 specimens respective fragments (PI-MOZ 6711-6714; *ex*-LPB 624/1-4), inner molds with remains of test from level A2 (Fig. 1C), Picún Leufú, Los Molles Fm., lowermost Bajocian.

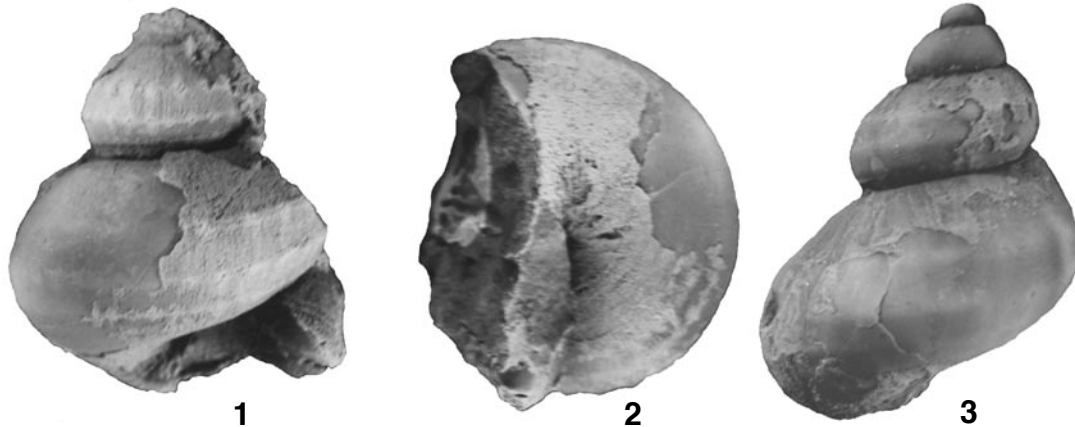
Description: Only internal moulds with weakly

recognizable sculpture and badly preserved remnants of the shell are present. The most complete specimen has 3.5 whorls and is 33 mm high. The whorls are convex and the sutures deepened. Two strong spiral ribs are developed; the upper situated above the middle of the whorl and the lower between this rib and the abapical suture. Both ribs angle the flanks of the whorls. A weaker third spiral rib directly below the adapical suture (typical of *Eucycloscala*) is not recognizable (possibly caused by the incomplete preservation). Numerous axial ribs (only weakly visible on the available material) cross the spiral ribs and form small nodes on the crossing points. The base is moderately convex and covered with several spiral ribs. The border rib between the flank and the base is the strongest and has also nodes. A small umbilicus is present.

Remarks: The shell shape and the recognizable sculpture agree at best with the genus *Eucycloscala*. Therefore the species is tentatively assigned to this genus because of the incomplete preservation. *Eucycloscala* includes several species, often similar in shell shape and sculpture to the form here described (see COSSMAN, 1918; WENZ, 1938; FISCHER & WEBER, 1997; GRÜNDEL, 2000). Since this latter feature is incompletely preserved in our specimens closer comparison is not possible.

Fig. 2: *Eucycloscala?* sp. A-B: specimen PI-MOZ 6712 (ex-LPB 624/2), shell in side (A) and ventral (B) views (width of the shell 21 mm). C: specimen PI-MOZ 6714 (ex-LPB 624/4), shell in side view (height of the shell 33 mm). All specimens from the Los Molles Formation at Picún Leufú.

Fig. 2: *Eucycloscala?* sp. A-B: espécimen PI-MOZ 6712 (ex-LPB 624/2), vistas lateral (A) y ventral (B) de la concha (ancho de la concha 21 mm). C: espécimen PI-MOZ 6714 (ex-LPB 624/4), vista lateral de la concha (altura 33 mm). Todos los especímenes provienen de la Fm. Los Molles, Picún Leufú.



CONCLUSION

The lowermost Bajocian beds of the Los Molles Fm. at Picún Leufú contain a rich fauna of cephalopods, bivalves and gastropods. The gastropod fauna includes several species. The form described above as *Eucycloscala?* sp. exhibits shell shape and preserved sculpture in agree with the typical features of *Eucycloscala*.

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