

Marine Jurassic gastropods of Argentina. IV. A new species from the Middle Tithonian (*Internispinosum* Biozone) of Barda Negra, southern Neuquén-Mendoza Basin

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With 2 figures

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Abstract: A new heterobranch gastropod species, *Tornatellaea mendozana* n. sp., is described from Bardas Blancas, Neuquén, found in association with several ammonites of the *Internispinosum* Biozone of the Andean Middle Tithonian.

Key words: Gastropods, Tornatellidae, Argentina, Tithonian, Jurassic.

1. Introduction

During a survey of marine Tithonian sections with ammonites in the southern Neuquén-Mendoza Basin (Argentina), a small sample of gastropods was collected in the locality Barda Negra (Fig. 1). Gastropods of this locality have never been described before. Following our research program on the Jurassic gastropods of the basin, a new species is described below.

Descriptions of Late Jurassic gastropods of the southern Neuquén-Mendoza Basin are very scarce (see GRÜNDEL & PARENT 2001). In the Lower and Middle Tithonian the typical patterns of preservation are: (1) relatively small adults (and juveniles?) in the bodychamber of ammonites, (2) small concentrations

associated with abundant ammonites and small (juvenile) bivalves. After study of several sections through several areas of the southern portion of the basin it has never been found any bed with gastropods in isolation.

2. Stratigraphic framework

The studied sample comes from a bank of yellow limestone of the Vaca Muerta Fm. at Barda Negra (Fig. 1). The gastropods were extracted from the bodychambers of specimens of *Aspidoceras* cf./aff. *altum* BIRO-BAGOCZY, 1980. The associated ammonite fauna includes: *Windhausenicerias internispinosum* (KRANTZ, 1926), *Aspidoceras* aff. *neuquensis* WEAVER, 1931, and *Zapalia?* sp. This ammonite assemblage

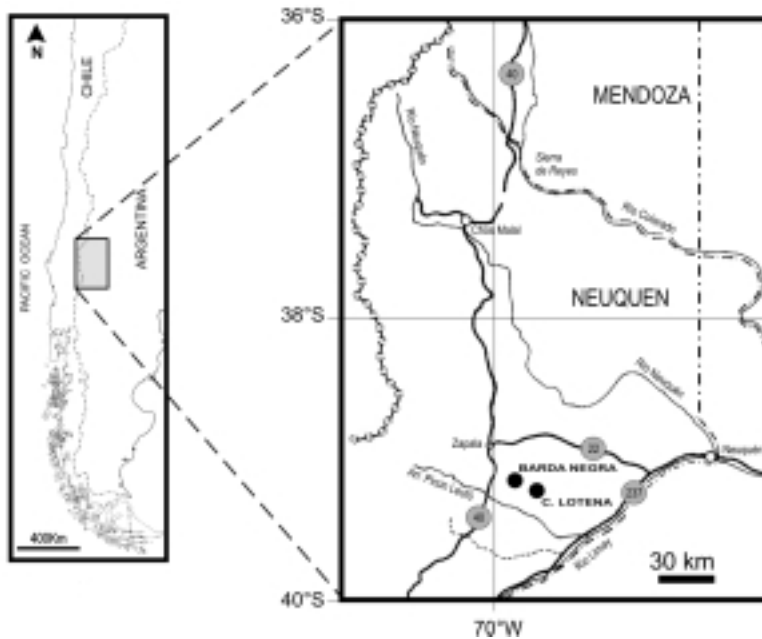


Fig. 1. Geographic map showing the type locality of the studied material.

indicates clearly the *Internispinosus* Biozone of the Andean Middle Tithonian (see LEANZA & ZEISS 1992; PARENT 2003).

3. Systematic paleontology

The studied specimens are housed at the Museo Olsacher, Zapala, Neuquén (MOZP).

Subclass Heterobranchia GRAY, 1840
 Order Cephalaspidea FISCHER, 1883
 Family Tornatellidae FLEMING, 1828
 Genus *Tornatellaea* CONRAD, 1860

Type species: *Tornatellaea bella* CONRAD, 1860; Eozän; USA (Alabama).

Tornatellaea mendozana n. sp.
 Fig. 2 A-E

Etymology: After its occurrence in the Neuquén-Mendoza Basin.

Holotype: Specimen MOZP 7552, illustrated in Fig. 2 A-E.

Paratypes: Two un-figured specimens, MOZP 7553-7554.

Type locality: Barba Negra, Neuquén-Mendoza Basin, Argentina.

Type horizon: Vaca Muerta Formation (Middle Tithonian, *Internispinosus* Biozone).

Diagnosis: Shell with a low spire and a ramp. Visible part of the flank lacking sculpture or with a single spiral rib. On the last whorl the lower part of the flank has 6-7 spiral furrows with broad interspaces. The furrows are not pitted. Base covered with 12-15 spiral furrows separated by ribs of equal width. Aperture with nearly straight outer lip.

Description: The holotype consists of about 5 whorls. The shell is 12 mm high and 8 mm wide. The protoconch is poorly preserved. The spire is low with broad whorls. A narrow ramp is developed with rounded transition to the flank. The visible part of the flank is smooth or has a weak spiral furrow in the adapical part. The lowermost part of the flank (covered by the following whorl) bears 6-7 spiral furrows with broad interspaces between them. The interspaces are partly subdivided by a very weak spiral furrow. The base is strongly convex and sculptured with 12-15 distinct spiral furrows separated by ribs of equal width. The furrows are not pitted. The

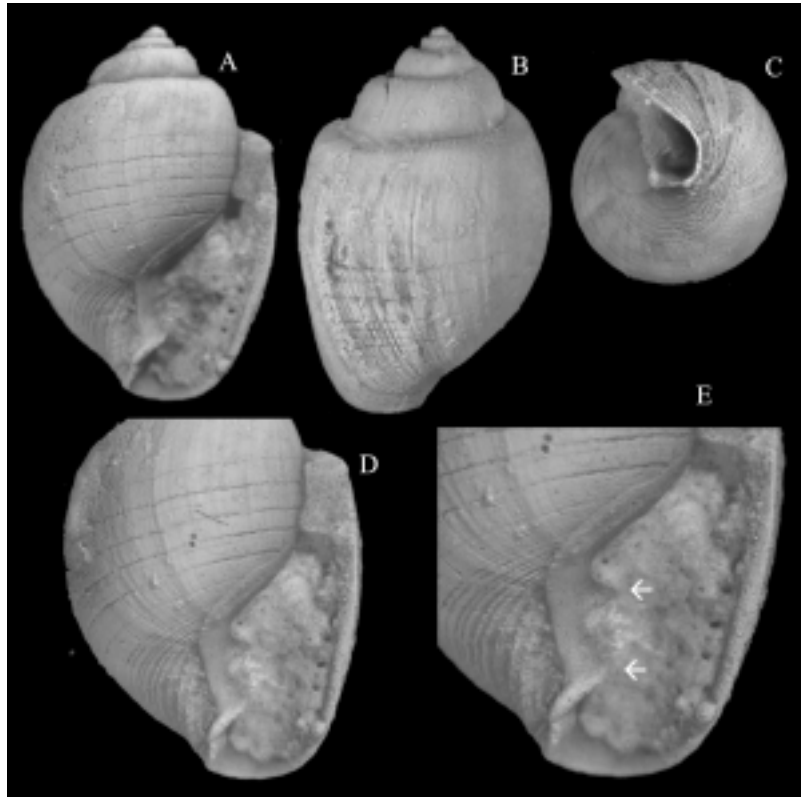


Fig. 2. *Tornatellaea mendozana* n. sp, holotype (MOZP 7552); Barda Negra, Middle Tithonian. **A-B, D** – shell in two side views and in basal view (height 12 mm, width 8 mm); **C** – apertural view (height of the aperture 10 mm); **E** – detail of the aperture with columellar folds (arrows) (height 7.9 mm).

growth lines are prosocyrct, only on the ramp weakly opisthocyrct. The narrow aperture has a nearly straight outer lip. The columellar inner lip bears two distinct folds.

Comparisons: *Sulcoactaeon?* sp. sensu GRÜNDEL & PARENT (2006) (Tithonian) exhibits 14 spiral furrows on the last whorl without a smooth area; the spiral furrows are pitted. A ramp is lacking. Both *Tornatellaea microsphaera* COSSMANN, 1895 (Oxfordian) and *Tornatellaea* cf. *microsphaera* COSSMANN, 1895 sensu HÄGELE (1997) (Late Tithonian) lack a distinct ramp, several spiral furrows on the visible part of the flanks without a smooth area, and the outer lip is distinctly convex.

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