

New record of *Cuspidaria patagonica* Smith, 1885 (Bivalvia: Cuspidariidae) in northern Chile

Nuevo registro de *Cuspidaria patagonica* Smith, 1885 (Bivalvia: Cuspidariidae) en el norte de Chile

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Deep water mollusks have been sparsely studied in Chile and, apart from some classic works (e. g. Smith 1885; Dall 1889, 1890, among others) and studies done mostly in central-southern Chile (Sellanes & Krylova 2005, Holmes *et al.* 2006, Fraussen & Sellanes 2008, among others), only a few recent works have reviewed species from the northern areas of the country (Bernard 1988, Guzmán *et al.* 1998, Véliz & Vásquez 2000, Pacheco & Laudien 2008, Araya 2013). Among the deep-water bivalves, genus *Cuspidaria* Nardo, 1840 encompasses several small species with nearly equivalve but markedly inequilateral smooth shells, with the posterior end rostrate to spoutlike and a hinge with one posterior lateral tooth (Keen 1971). This genus is represented in Chile by three species, all of them found in deep waters: *Cuspidaria infelix* Thiele, 1912 and *Cuspidaria tenella* Smith, 1907, both species found in Antarctic waters and in southern Patagonia (*C. infelix*) and *Cuspidaria patagonica* (Smith, 1885), which has been previously recorded in the Strait of Magellan (Smith 1885, Valdovinos 1999).

As part of ongoing studies reviewing the macroinvertebrates from the bycatch of deep-water fisheries off northern Chile (Araya 2013, 2016, Reiswig & Araya 2014, Araya *et al.* 2016b), we present here the first confirmed record in northern Chile of *Cuspidaria patagonica* (Smith, 1885), extending its previous distribution in the country in more than 2570 km to the north. This record is based on two specimens of *C. patagonica* collected in shrimp trawls along the continental margin off Coquimbo (29°57'00" S; 71°20'00" W, 485 m), Región de Coquimbo, northern Chile. A voucher specimen (MPCCL 15316) is deposited at the Museo Paleontológico de Caldera (MPCCL), in Caldera, Chile.

FAMILY CUSPIDARIIDAE DALL, 1886

GENUS CUSPIDARIA NARDO, 1840

TYPE SPECIES: *Cuspidaria typus* Nardo, 1840; type by original designation.

Cuspidaria patagonica (Smith, 1885)
(Fig. 1a-e)

Neaera patagonica Smith, 1885: 39, pl. VII, figs. 5, 5a-b.
Cuspidaria patagonica Dall, 1889: 443. Dall, 1890: 279.
Keen, 1971: 300. Bernard, 1983: 66.

DESCRIPTION OF EXAMINED SPECIMENS: Shell large (42 mm in largest dimension), inflated, rostrate, equivalve, subequilateral, whitish, covered with a yellowish-brown periostracum, paler toward the middle of the disk; surface sculptured by minute commarginal lines, more marked toward the borders; rostrum long and rather narrow, a little recurved and gaping at its extremity; beaks inflated, opisthogyrate; long and smooth escutcheon, lunule absent; interior of shell white, porcellanous; pallial sinus absent.

DISTRIBUTION: This species was originally described from off the West mouth of the Magellan Straits in a depth of 675 m (Smith 1885) and was further recorded from the same areas in southern Chile and from off St. Kitts, West Indies, off Manta, Ecuador, in the Gulf of Panama and up to Lower California (Dall 1889, 1890, 1908). The distribution of this species in Chile was assumed to be continuous from 15° to 55° S, by considering the type location at the Magellan strait and the records from Ecuador by Valdovinos (1999); however, the present record is the first confirmed report of this species in northern Chile.

This rather large *Cuspidaria* species is easily distinguished from other bivalves by its long, distinctly defined and constricted rostrum. The specimens herein examined show little difference with the holotype of the species (USNM96241), differing only in having a slightly narrower rostrum probably due to the larger size of the northern Chilean specimens (see for example Fig. 1e). The lack of records for this deep water bivalve (and for several other deep water macroinvertebrates) probably arises from a lack

of sampling surveys in deep water rather than representing a true absence of these organisms in the area. This has been exemplified by several recent works, which have revealed new records and new species of marine invertebrates from northern Chile (e.g. Araya & Aliaga 2016, Araya & Araya 2015, Araya *et al.* 2016a, Labrin *et al.* 2015) and thereby, further sampling in similar areas may reveal the presence of other unrecorded organisms.

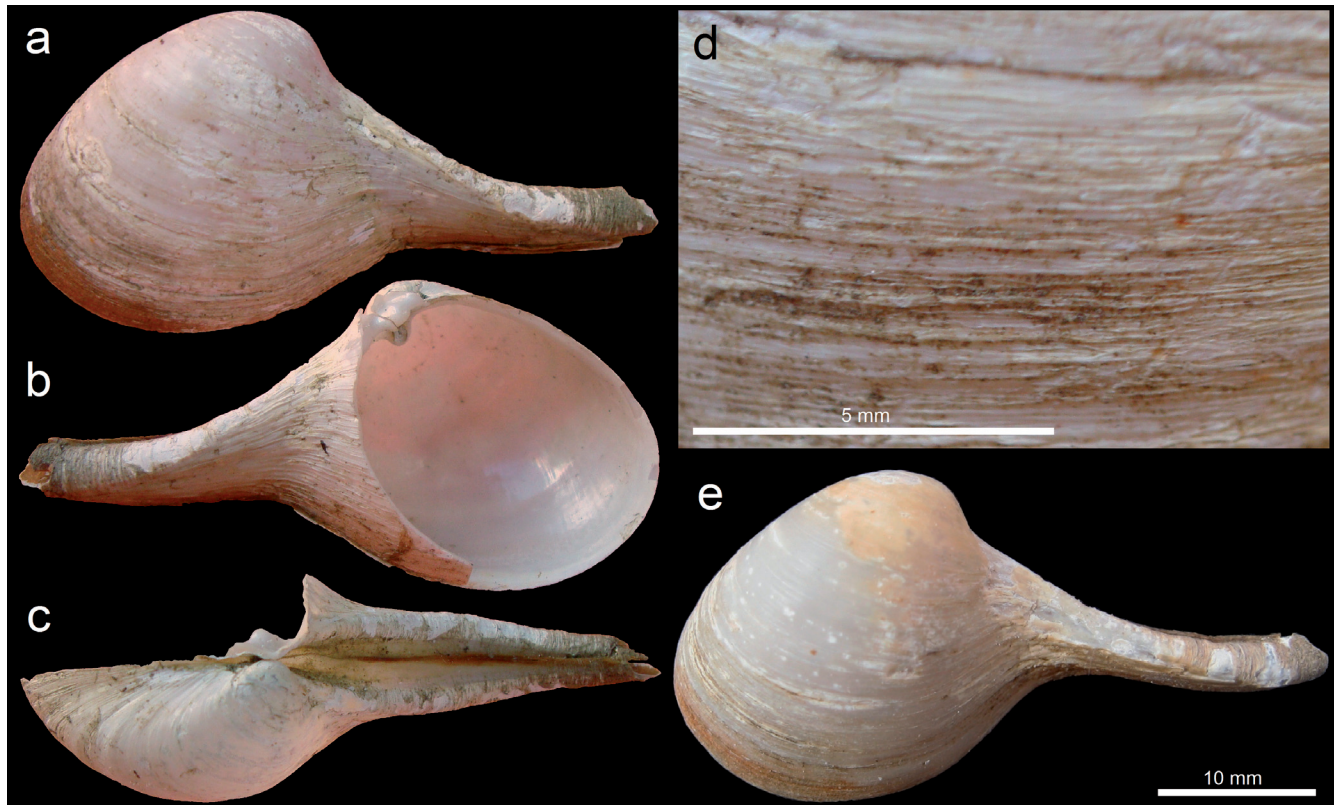


FIGURE 1. *Cuspidaria patagonica* Smith, 1885, off Coquimbo, Chile, 485 m depth (MPCCL 15316); a: exterior of left valve; b: interior of left valve (broken); c: posterior view; d: detail of commarginal sculpture; e: exterior of left valve of second specimen examined.

FIGURA 1. *Cuspidaria patagonica* Smith, 1885, fuera de Coquimbo, Chile, 485 m de profundidad (MPCCL 15316); a: exterior de valva izquierda; b: interior de valva izquierda (quebrada); c: vista posterior; d: detalle de escultura conmarginal; e: exterior de valva izquierda del segundo ejemplar examinado.

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