

## New Chilean chiton-epizoophagus *Gallardoia valdiviensis* gen. et sp. nov. (Mollusca, Polyplacophora)

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**ABSTRACT.** A new genus and new species of the family Tonicellidae are described. This species inhabits Chilean waters near Provincia Valdivia at depths of 0.5-1.5 m where rough seas and nearshore currents are present. It lives among barnacles and feeds on them. This new genus has some features that are typical for genera of the family Mopaliidae, namely *Mopalia* and *Plaxiphora* (*Fremblia*), but it has no caudal sinus in the tail valve and has two petal-shaped processes between the valves.

of the family Tonicellidae. Below, the description of new genus and new species are given.

### Taxonomy

Class Polyplacophora Gray, 1821  
 Subclass Loricata Shumacher, 1817  
 Order Chitonida Thiele, 1910  
 Suborder Acanthochitonina Bergenhayn, 1930  
 Superfamily Mopaliioidea Dall, 1889  
 Family Tonicellidae Simroth, 1894

### Genus *Gallardoia* Sirenko gen. nov.

**Diagnosis.** Chitons of medium size, oval, tegmentum with granulose keel on the jugal area, with 8 radial ribs on the head valves, one radial rib on the lateral areas and more than 15 longitudinal ribs in the pleural areas, mucro of tail valve central, slit formula 8/1/many, gills abanal, girdle moderately wide with caudal notch covered with spicules distally crowned with a short ribbed spine and single or groups of 2-6 long curved spines.

The chiton fauna of Chile has been studied from the beginning of the XIX century when the first six species of this area were described [Frembly, 1827]. Since then more than forty species, all from the Chilean coast, have been described [Leloup, 1956, Castellanos, 1988]. At present, we know 38 valid species that inhabit Chilean waters from northern Chile to the Magellan Strait [Reid, Osorio, 2000; Osorio, Reid, 2004; Schwabe, Sellanes, 2004, Sirenko, 2006, Schwabe et al., 2006]. Up to now there are several groups of chiton species whose taxonomic positions are still indefinite. Among them are *Tonicia chilensis* (Frembly, 1827), *T. elegans* (Frembly, 1827) and *T. calbucensis* Plate, 1897, *T. smithi* Leloup, 1980 and *T. disjuncta* (Frembly, 1827), *Chatopleura hennahi* (Gray, 1828), *Ch. fernandensis* Plate, 1899 and *Ch. benaventei* Plate, 1899, *Chiton magnificus* Deshayes, 1827 and *C. bowenii* King et Broderip, 1831, and other species.

[**Диагноз.** Хитоны средних размеров, овальные, тегментум с зернистым килем на югальном поле промежуточных и последнего щитков, с 8 радиальными ребрами на головном щитке, одним радиальным ребром на боковых полях и более чем 15 продольными ребрами на каждом плевральном поле, последний щиток с центральным мукро. Формула разрезов 8/1/много. Перинотум с каудальной вырезкой, сверху плотно покрыт мелкими спикулами с заостренным шипом на дистальном конце и разбросанными по всей поверхности одиночными или чаще собранными в пучки по 2-6 в каждом изогнутыми шипами.]

At the beginning of 2005, the author was invited by Prof. Carlos Gallardo to lecture at the Instituto de Zoología, Universidad Austral de Chile, Valdivia, and simultaneously to collect chitons. During a field trip near Mehuin (Provincia Valdivia), the author found two specimens that looked very unfamiliar because they did not appear to belong to any known Chilean genus of chitons. Two weeks later, the author, with Prof. Carlos Gallardo, found 29 specimens of this strange species and more in another location at Provincia Valdivia (Punta Pilolcura). When the specimens were studied, it turned out that they represented a new species that belongs to a new genus

This new genus undoubtedly belongs to the family Tonicellidae because it has no posteromedian sinus in its tail valve but has some features that are typical of some genera of Mopaliidae (caudal notch in girdle, like in *Mopalia*, with distinct ribs in head valve and in lateral areas of intermediate valves, as in most of *Plaxiphora*, *Mopalia*, *Nuttallochiton*, *Plaxiphorina*) (Table 1).

Type species — *Gallardoia valdiviensis* sp. nov.