

## Anatomical characteristics of two enigmatic and two poorly known *Pisidium* species (Bivalvia: Sphaeriidae) from Southern South America

CRISTIÁN ITUARTE<sup>1</sup> & ALEXEI VICTOR KORNIUSHIN<sup>2\*</sup>

<sup>1</sup>División Zoología Invertebrados, Museo Argentino de Ciencias Naturales, Av. Angel Gallardo 470, C1405DJR Ciudad de Buenos Aires, Argentina.

<sup>2</sup>Institute of Zoology, National Academy of Sciences, Kiev, Ukraine

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### Abstract

The shell morphology and anatomy of two enigmatic *Pisidium* species, *Pisidium dorbignyi* Clessin, 1879, never re-examined after the original description, and *Pisidium lebruni* Mabilie, 1884, a species not reported again until 1995, are described. The type of *P. dorbignyi* (new name for *Cyclas pulchella* d'Orbigny, 1835) is lost, for which, and in order to define the taxonomic status of the species, a neotype is herein selected. Both species share as common features: the presence of only the anal siphonal aperture, only one pair of demibranchs, the inner and the type of nephridium, closed with lateral loop visible from dorsal view, consistently differing in shell morphology. Previously unknown details on the anatomy of *Pisidium sterkianum* Pilsbry, 1897 and *Pisidium vile* Pilsbry, 1897, particularly those concerning the type of nephridium and inner radial mantle musculature, are described and illustrated for the first time.

**Key words:** freshwater bivalves, Sphaeriidae, systematics, soft anatomy

### Introduction

Alcide Desalines d'Orbigny (1835, 1846) described under the genus *Cyclas* Lamarck, 1818, two species: *Cyclas pulchella* d'Orbigny, 1835, and *Cyclas chilensis* d'Orbigny, 1846. Both species are presently included in *Pisidium* Pfeiffer, 1921. Clessin (1877) proposed *Pisidium dorbignyi* as a new name for the preoccupied *Cyclas pulchella* d'Orbigny (not of Jenyns). In d'Orbigny's early 1835's account of the shells collected in his paramount travel in Southern South America, he reported under *C. pulchella* two