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# Notes on a species of Cancellariidae (Mollusca Gastropoda) from the Lower Pliocene of Spain

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**ABSTRACT** The study of new paleontological material from the Lower Pliocene of Spain has allowed us to discover a rarely reported and sometimes misinterpreted species of gastropod belonging to the family Cancellariidae Gray J.E., 1853 (Mollusca Gastropoda): *Tribia sismondai* (D'Ancona, 1872), which is illustrated and discussed here.

**KEY WORDS** Gastropoda; Cancellariidae; Pliocene.

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## INTRODUCTION

During paleontological research in the fossiliferous basin near La Lobilla (Estepona, Spain), a interesting and uncommon species of Mollusca Gastropoda belonging to the family Cancellariidae Gray J.E., 1853 was found.

This species was identified as *Tribia sismondai* (D'Ancona, 1872) of which taxonomic and bibliographical observations are provided in the following work

## MATERIAL AND METHODS

The material examined was found manually by collecting it on the ground of a continental basin attributable to the Lower Pliocene near La Lobilla (Estepona, Spain).

For the generic attributions proposed in this work, Molluscabase (https://www.molluscabase.org/) has been followed where possible. For chronostratigraphy, the International Stratigraphic Chart (2022) has been followed.

The following abbreviations are used in the text: L = maximum length of the shell; ex. = specimen; MSNT = Natural Science Museum of Turin; MMPE = Municipal Paleontological Museum of Estepona, Estepona (Malaga, Spain), CGDB = Giano Della Bella Collection; CMF = Maurizio Forli Collection.

## RESULTS

### *Sistematics*

Classis GASTEROPODA Cuvier, 1797
Subclassis PROSOBRANCHIA Milne Edwards, 1848
Superfamilia CANCELLARIOIDEA Gray J.E., 1853
Familia CANCELLARIIDAE Gray J.E., 1853

Genus *Tribia* Jousseaume, 1887
TYPE SPECIES. *Tribia angasi* Crosse (= *Cancellaria angasi* Crosse, 1863)

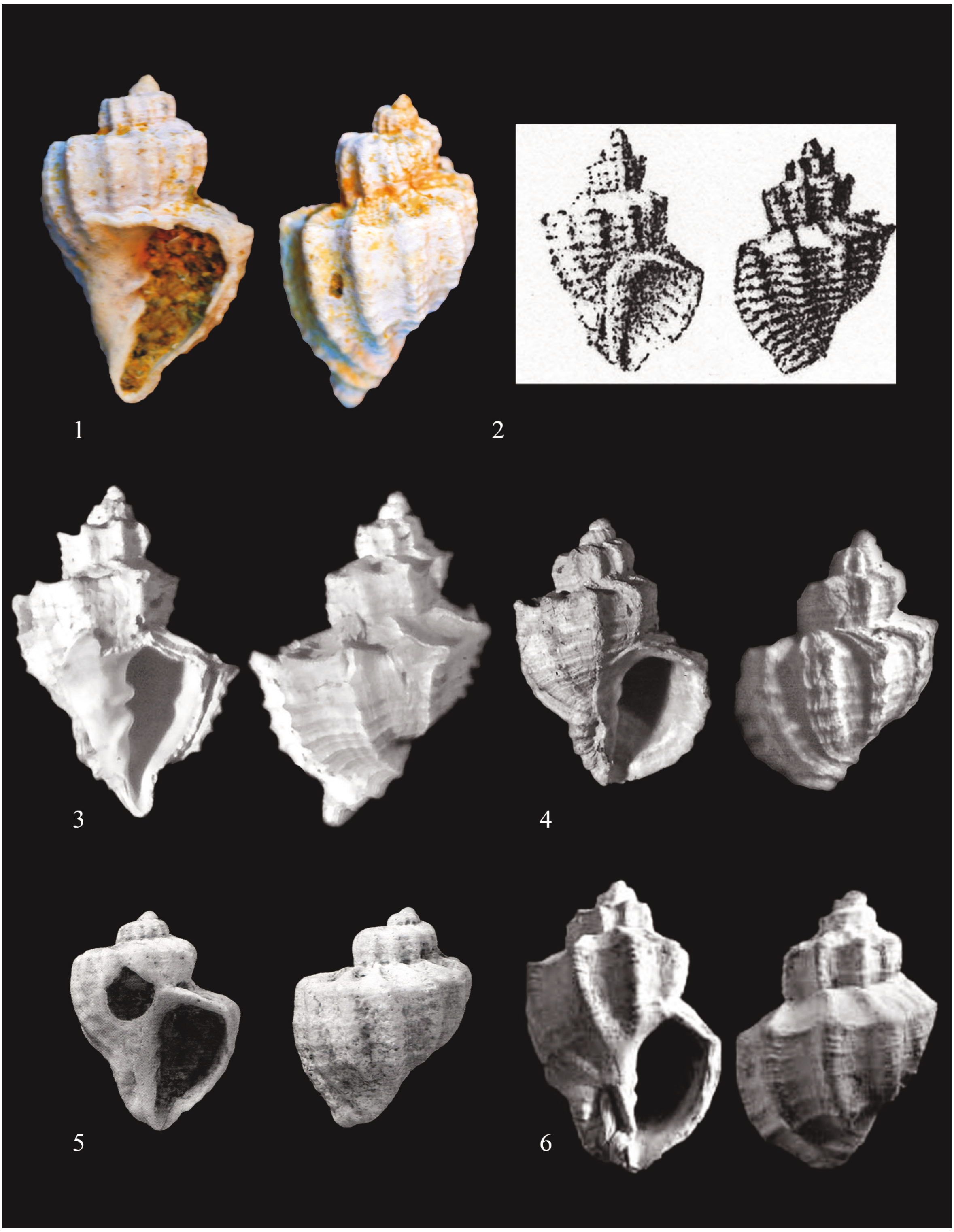
***Tribia sismondai*** (D'Ancona, 1872) (Figs. 1-6)

1872. *Cancellaria sismondai* - D'Ancona, p. 102, tav. 13, fig. 5 a, b.
1894. *Tribia uniangulata* var. *dertopercostulata* - Sacco, p. 36, tav. 2, fig. 53.
1984. *Tribia uniangulata* var. *dertopercostulata* Sacco - Ferrero Mortara et. al., p.168, tav. 31, fig. 10.
2006. *Tribia* cf. *uniangulata* (Deshayes, 1830) - Landau et al., p. 80, tav. 7, fig. 1.
2008. *Sveltia uniangulata* var. *dertopercostulata* Sacco, 1894 - Brunetti M. et al., p.46, fig. 4 c.
2008. *Tribia* cf. *sismondai* D'Ancona - Brunetti M. et al., p. 55, figg. 4A-F.

The original description of the species is reported (D'Ancona, 1872; Brunetti M. et al., 2008): "*Conchiglia di dimensioni medio-piccole (< 15 mm) poco allungata, robusta e scalarata. Protoconca multispirale composta da 2,5 giri con suture poco profonde, lisci. L'inizio della teleoconca è segnato dalla comparsa di tre deboli cordoni spirali. Teleoconca formata da tre giri carenati, muniti di una rampa suturale molto larga, leggermente inclinata, quasi piana nell'ultimo giro, ornato da otto coste assiali subverticali, robuste, molto più strette degli interspazi, regolarmente intervallate, che si prolungano debolmente oltre la rampa formando delle spinosità cave lungo la carena. Scultura spirale poco evidente formata da cordoncini subuguali (6 sul penultimo giro) leggermente granulosi, presenti nella parte anteriore dei giri e intervallati da filetti minori, visibili sia sulle coste che negli interspazi. Nella parte posteriore dei giri sono presenti solo numerosi filetti irregolari. Sutura ondulata, profonda ma non incavata. Ultimo giro subtriangolare, costituito da circa tre quarti dell'altezza della conchiglia, ornato da una decina di cordoncini spirali subuguali. Apertura ampia, subtriangolare. Margine columellare quasi diritto, liscio recante due forti pliche subparallele. Canale sifonale corto, stretto e aperto, leggermente ripiegato a destra. Labbro robusto, regolarmente arcuato e angoloso in corrispondenza del filetto radiale che delimina la rampa suturale, internamente liscio. Callosità columellare moderantamente ampia, che in parte ricopre uno pseudombelico molto stretto e poco profondo* [Small to medium-sized shell (< 15 mm), slightly elongated, robust and stepped. Multispiral protoconch composed of 2.5 whorls with shallow, smooth sutures. The beginning of the teleoconch is marked by the appearance of three faint spiral ridges. Teleoconch formed by three keeled whorls, equipped with a very wide, slightly inclined sutural ridge, almost flat in the last whorl, adorned with eight subvertical axial ribs, robust, much narrower than the interspaces, regularly spaced, which extend weakly beyond the ridge, forming hollow spines along the keel. Slightly evident spiral sculpture formed by sub-equal cords (6 on the penultimate whorl) slightly granular, present in the anterior part of the whorls and interspersed with minor fillets, visible both on the ribs and in the interspaces. At the rear of the whorls there are only numerous irregular filaments. The suture is undulating, deep but not hollowed out. The last whorl is subtriangular, constituting about three-quarters of the height of the shell, decorated with about ten sub-equal spiral cords. Wide, subtriangular opening. Columellar margin almost straight, smooth with two strong subparallel folds. Short, narrow, open siphonal canal, slightly bent to the right. Strong lip, regularly arched and angular at the radial filament that delimits the sutural ramp, smooth on the inside. Moderately wide columellar callosity, partially covering a very narrow and shallow pseudo-umbilicus]".

## DISCUSSION

*Tribia sismondai* was described by Cesare D'Ancona (1872) based on three specimens provided to him by Roberto Lawely and collected from Peccioli (in Val d'Era) in the province of Pisa (Italy), a location where sediments from the Piacenzian are mostly present, but also, to a lesser extent, from the Zanclean (Dominici et al., 2026). The three specimens were identified by D'Ancona as corresponding to *Cancellaria intermedia* Bellardi var. α. and therefore described as *Cancellaria sismondai*. However, this hypothesis was subsequently deemed erroneous by F. Sacco (1894), who, referring to his *Tribia uniangulata* var. *pluricostulata*, wrote: "*Le è affine, se non identica, la forma figurata dal D'Ancona come* C. uniangulata *(Malac. pi. it., Tav. 13, fig. 2); pure alquanto simile è la* Cancellaria Sismondai *D'Ancona (Malac. pi. ital., pag. 102, Tav. 13, fig. 5) la quale ha nulla che fare colla* C. intermedia *var.* minor *Bell, a cui il D'Ancona l'identifica* [It is similar, if not identical, to the form described by D'Ancona as *C. uniangu-*




Figures 1–6. *Tribia sismondai* (D'Ancona, 1872). Fig. 1: La Lobilla (Estepona, Spain), Lower Pliocene, L = 14.3 mm MMPE-25-1961. Fig. 2: original drawing by D'Ancona, 1872. Fig. 3: Monsindoli (Siena , Tuscany, Italy), Lower Pliocene, L = 15 mm CMF. Fig. 4: Tabiano Bagni (Parma, Italy) L = 12 mm, CGDB. Fig. 5: *Sveltia uniangulata* var. *dertopercostulata* Sacco, 1894, S. Agata (Alessandria, Italy), Tortonian, L = 13.5 mm, MSNT, Bellardi and Sacco collection, BS.045.08.005. Fig. 6: La Lobilla (Estepona, Spain), Lower Pliocene, L = 11.4 mm, from Landau et al., 2006 (modified).

*lata* (Malac. pli. it., Plate 13, fig. 2); C*ancellaria Sismondai* D'Ancona (Malac. pli. ital., p. 102, Tav. 13, fig. 5) is also quite similar, but has nothing to do with *C. intermedia* var. *mino*r Bell, with which D'Ancona identifies it]".

Only recently *Cancellaria sismondai* has been again described and figured as *Tribia* cf. *sismondai* by Brunetti et al. (2008), while previously a specimen of the same species from the Lower Pliocene of Estepona (Malaga, Spain) had been illustrated and discussed by Landau et al. (2006) as *T.* cf. *uniangulata*. *Tribia uniangulata* (Deshayes, 1830) does indeed bear a certain resemblance to *T. sismondai*, for example in the character of the straight columella with two folds, but it differs in many other characteristics, such as, to name but a few, the decidedly more elongated shape of the shell, the more acute ribs, and the presence of a barely visible spiral sculpture.

To date, the number of specimens known to me that can be attributed to *T. sismondai* is extremely low: one from the Upper Miocene (Tortonian) (Fig. 5), one from the Lower Pliocene of Tuscany (Fig. 3), one from the Lower Pliocene of Emilia (Fig. 4), and two found in the Spanish Zanclean, one of which is illustrated by Landau et al. (Fig. 6) and another recently found (Fig. 1) and deposited at the MMPE. Examination of this material has led to the conclusion that, despite marked variability, the species is quite recognizable both in its "extreme" forms and in its transitional forms. This leads me to consider *T. sismondai* (D'Ancona, 1872) as a valid species in all respects, in the hope, however, of further confirmation from the discovery of typical (or topotypical) material, which is currently untraceable (Stefano Dominici personal communication).

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