

At last at home: a correct taxonomic assignment and a proper repository for the holotype of *Acirsa corsicana* Nordsieck, 1974 (Caenogastropoda Epitonidae)

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ABSTRACT

The taxonomic composition of the family Epitoniidae Berry, 1910 (1812) in Italian waters underwent relatively few changes in recent decades: except some nomenclatural changes and one reinstatement, only few species have been recently added to this fauna. *Acirsa corsicana* Nordsieck, 1974 is the last taxon described in the area and its status is currently disputed or wrongly assessed. After the examination of the holotype and comparisons with similar species, the status of *A. corsicana* is here properly assessed as junior synonym of *Opalia coronata* (Philippi & Scacchi, 1840). The specimen, until now kept in private collections, is deposited in an institutional repository (MNHN).

KEY WORDS

Mollusca; Gastropoda; Mediterranean Sea; taxonomy; type material.

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INTRODUCTION

The taxonomic composition of Epitoniidae Berry, 1910 (1812) in Italian waters has been relatively stable since decades. The revision of North-East Atlantic and Mediterranean bathyal representatives of this family by Bouchet & Warén (1986) dealt with many species recorded from this area. Subsequently, a comprehensive national checklist summarized the knowledge of the time (Oliviero, 2008). Except for the addition of the genus *Janthina* Röding, 1798 (Beu, 2017), some nomenclature changes and one revalidation (Gittenberger & Gittenberger, 2005; Crocetta et al., 2015; Appoloni et al., 2018), only three taxa have been recently added to this fauna (Smriglio et al., 1996; Romani & Bogi, 2014; Scaperrotta et al., 2018), none of them new to science.

Acirsa corsicana Nordsieck, 1974 is the last

species described in the area. It was established on a single incomplete shell and its status was soon disputed and subsequently neglected or wrongly assessed. The holotype, until now kept in private collections, is here re-examined and compared with similar species. Its actual status is clarified and it is deposited in an institutional repository.

MATERIAL AND METHODS

Material was collected from bioclastic bottoms by SCUBA diving or obtained through the analysis of by-catch of commercial trawling. Comparisons were done with material figured in recent papers and samples from several localities (see below). Shells were examined through Lomo MBC-10 stereomicroscope and photographed with a Canon EOS 400D camera, while measure-

ments were carried out by means of an eyepiece micrometer.

Updated taxonomy and nomenclature follow MolluscaBase (2020) except where otherwise stated.

ABBREVIATIONS AND ACRONYMS. AP: Attilio Pagli private collection (Empoli, Italy); H: total height; ICZN: International Code of Zoological Nomenclature; LR: Luigi Romani private collection (Lucca, Italy); MNHN: Muséum National d'Histoire Naturelle (Paris, France); SB: Stefano & Maria Bartolini private collection (Firenze, Italy); W: total width.

RESULTS

Systematics

Phylum MOLLUSCA Cuvier, 1797
 Classis GASTROPODA Cuvier, 1795
 Subclassis CAENOGASTROPODA Cox, 1960
 Ordo [unassigned] CAENOGASTROPODA Cox, 1960
 Familia EPITONIIDAE Berry, 1910 (1812)
 Genus *Opalia* H. Adams et A. Adams, 1853

Opalia coronata (Philippi et Scacchi, 1840)

Acirsa corsicana F. Nordsieck, 1974 syn. nov.

EXAMINED MATERIAL. *Acirsa corsicana* Nordsieck, 1974: one shell (holotype), off Capo Comino (Nuoro, Sardinia), 1973, 200–220 m, found in a brachiopod-rich bottom sample (“detriti a *Terebratulita vitrea*” in the original label) (AP, ex Fulvio Giannini collection).

Acirsa subdecussata (Cantraine, 1835): 7 shells (4 adults and 3 juveniles), off Capraia Island (Livorno, Italy), 250 m (LR); 2 juvenile shells, off Motril (South Spain), 150 m (LR); one juvenile shell, Brač island (Dalmatia, Croatia), 60 m (SB); one shell, off Civitavecchia (Roma, Italy) 100 m (AP); 13 shells (adults and juveniles), off Capraia Island (Livorno, Italy), 150 m (AP); 2 shells, Barcellona (Catalonia, Spain), 45 m (AP).

Opalia coronata (Philippi et Scacchi, 1840): 5 shells, off Motril (Andalucia, Spain), 110 m (AP); 5 shells (one juvenile and 4 adults), Cannizzaro (Catania, Sicily, Italy), 40 m (LR and AP); 2 shells, off Gozo (Malta), 60 m (LR); one juvenile shell, off

E Crete (Greece), 70/110 m (LR); 7 shells (adults and juveniles), Haifa bay (Israel), 15 m (AP).

ORIGINAL DESCRIPTION. The fonts of scientific names are reproduced as in the original text: Nordsieck, 1974: “*Acirsa* (*Plesioacirsa*) *corsicana* n. sp. 3,2/1,5 mm. Monotipo nella coll. Giannini. Questa nuova specie differisce dall'unica *Plesioacirsa* conosciuta (e precisamente *subdecussata* CANTRAINED = *pelagica* RISSO) per i seguenti particolari: 1) i giri più convessi, solo un po' compressi superiormente; 2) essi sono fittamente costulati, ma le costole, alcune delle quali formanti varici, sono obsolete: i 16 intervalli fra le costole sono larghi e piani; 3) invece di trattini spirali la nostra specie ha fini punteggiature spirali, circa 20 sull'ultimo giro. Il colore è da bianco a bianco-giallastro. Il monotipo (juvenile) ha circa 5 giri, ma l'apice è rotto. La conchiglia adulta può avere 9–10 giri e un'altezza massima di 8–10 mm. *Acirsa corsicana* n. sp. è strettamente collegata con la miocenica *Plesioacirsa mioplicatula* (KAUTSKY 1925) (v. Vol. IV “The Miocene Molluscs-fauna ecc. Nr. 42, p. 59) ma quest'ultima specie non ha le punteggiature spirali”.

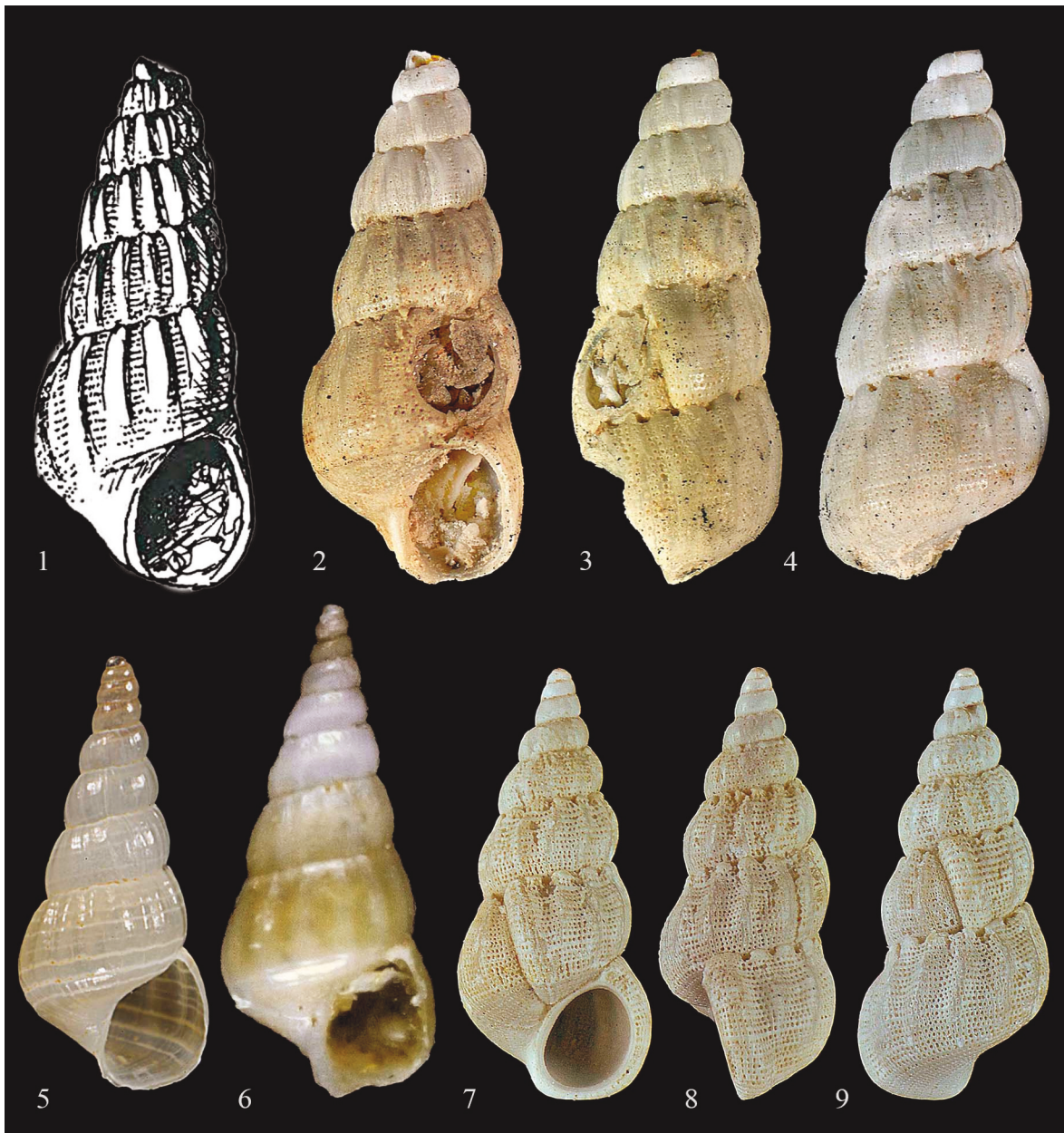
English translation. *Acirsa* (*Plesioacirsa*) *corsicana* n. sp. H: 3.2 mm, W: 1.5 mm. Monotype in the Giannini collection. This new species differs from the only known *Plesioacirsa* (and precisely *subdecussata* Cantraine = *pelagica* Risso) for the following details: 1) the more convex whorls, only slightly compressed at the top; 2) they are thickly ribbed, but the ribs, some of which forming varices, are obsolete: the 16 intervals between the ribs are wide and flat; 3) instead of spiral grooves, our species has fine spiral punctuations, about 20 on the last whorl. The color is white to yellowish-white. The monotype (juvenile) has about 5 whorls, but the apex is broken. The adult shell can have 9–10 whorls and a maximum height of 8–10 mm. *Acirsa corsicana* n.sp. is closely connected with the Miocene *Plesioacirsa mioplicatula* (Kautsky, 1925) (see Vol. IV “The Miocene Molluscs-fauna etc. Nr. 42, p. 59) but the latter species does not have spiral punctuations.

ADDITIONAL DESCRIPTION. The single *A. corsicana* specimen is a quite worn, incomplete shell (Figs. 2–4), whose overall features were outlined in the original description (see above) and drawing (Fig. 1). Some corrections and further details can be added: the actual height is 3.6 mm. An apparent

“basal keel” on the last part of the body whorl is indeed the remnant of the fractured shell wall. On the last whorl there is a predation hole not reproduced in the drawing. The suture is deep. The slightly sigmoid axial ribs protrude adapically and adhere to the previous whorls, so producing an evident crenulation at the suture level. The external surface appears

chalky and sculptured due to the presence of an evident intritacalx. This, although partially abraded, consists of microscopic holes spirally arranged that give a pitted appearance to the surface.

REMARKS. Soon after its description, *A. corsicana* was synonymized with *Acirsa subdecussata*



Figures 1–9. Fig. 1: *Acirsa corsicana* holotype drawing, from Nordsieck (1974) modified. Figs. 2–4: *Acirsa corsicana* holotype, 3.6 mm, off Capo Comino (Nuoro, Sardinia, Italy), 200–220 m. Fig. 5: *Acirsa subdecussata* juvenile shell, 2.7 mm, Brač island (Dalmatia, Croatia), 60 m. Fig. 6: “*Acirsa* cf. *corsicana*” (= *Acirsa subdecussata*) shell, 3.4 mm, Tuscan Archipelago (Italy), 400 m, from Smriglio et al. (1996), modified. Figs. 7–9: *Opalia coronata* juvenile shell, 2.7 mm, off Siracusa (Sicily, Italy), 50–75 m.

(Cantraine, 1835) by Franchini (1975) who deemed it as a mere juvenile specimen of the latter, apparently without a direct examination of the type. Smriglio et al. (1996) reported two shells found in bathyal sediments in Tuscan Archipelago and northern Corsica and illustrated one (Fig. 6), but refrained from conclusively ascribing this material to the species as lacking the distinctive punctuated sculpture. Later on, some authors simply depicted (Giannuzzi-Savelli et al., 1999) or drew (Repetto et al., 2005) the same shell under the name “*Acirsa corsicana*”, instead of “*Acirsa cf. corsicana*” as done by Smriglio et al. (1996). Other authors only cited *A. corsicana* without comments (Weil et al., 1999; Oliverio, 2008; Brown et al., 2015). Cossignani & Ardovini (2011), without comments, depicted under the name *A. corsicana* two juvenile shells of *A. subdecussata*, asserting they are synonym. Currently, MolluscaBase (2020a) holds the aforementioned opinion.

Indeed *A. subdecussata* juveniles (Fig. 5) are quite distinct from *A. corsicana* specimen, having thinner shells with a more conical spire, often coeloconoid, and a subquadrate aperture. The glossy shell surface is devoid of intritacalx and shows more or less developed spiral grooves. The shell identified as “*Acirsa cf. corsicana*” by Smriglio et al. (1996) can be assigned to *Acirsa subdecussata*, as the absence of spiral sculpture, a feature also observed in other juvenile specimens of *A. subdecussata*, falls within the morphological variability of this species. On the other hand, the *A. corsicana* holotype, despite its imperfect state of preservation, can be assigned to *Opalia coronata* (Philippi et Scacchi, 1840), having the same spire outline, macrosculpture (number and form of axial ribs, crenulated suture) and microsculpture (spirally pitted intritacalx) (Figs. 7–9). *Acirsa corsicana* Nord-sieck, 1974 becomes accordingly a junior synonym of *Opalia coronata* (Philippi et Scacchi, 1840) (ICZN, 2012: Article 23).

After the description, *A. corsicana* holotype remained in the late Fulvio Giannini private collection that was later partially acquired (included that specimen) by the second author and incorporated in AP. According to ICZN, holotypes deposition in institutional repositories is not compulsory but recommended, in order to preserve and make them accessible for study (ICZN, 2012: Recommendation 16C). Following this recommendation *A. corsicana*

holotype will be deposited in MNHN with the following catalogue number: MNHN-IM-2000-35770.

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