



Onoba oliverioi n. sp. (Prosobranchia, Rissoidae), a new gastropod from the Mediterranean

Onoba oliverioi n. sp. (Prosobranchia, Rissoidae), un nuevo gasterópodo para el Mediterráneo

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ABSTRACT

Onoba oliverioi n. sp. (Prosobranchia, Rissoidae) is here described from material collected on muddy bathyal bottoms surrounding a deep-sea coral bank located off-shore Latium (Central Tyrrhenian Sea). The new species is known from shells only and it has been placed in the genus *Onoba* H. and A. Adams, 1852. *Onoba oliverioi* n. sp. is compared to *Onoba gianninii* (Nordsieck, 1974) (deep-shelf), *Onoba dimassai* Amati and Nofroni, 1991 (shallow water) and *Alvania wareni* (Templado and Rolan, 1986) (deep-shelf), which it resembles. A list of mollusc species found associated with the new taxon is also given.

RESUMEN

En el presente trabajo se describe, en base exclusivamente a caracteres de la concha, una nueva especie de *Onoba*, a partir de material recogido en un fondo batial de arena y fango, en las proximidades de una comunidad de corales blancos, localizada a lo largo de las costas del Lazio. El nuevo taxon, denominado *Onoba oliverioi* n. sp., se compara con las especies similares del género *Onoba*, *O. gianninii* y *O. dimassai* Amati y Nofroni, 1991, y *Alvania wareni* (Templado y Rolan, 1986). Se incluye la lista de las especies que se han encontrado en el mismo muestreo.

KEY WORDS: *Onoba*, new species, Mediterranean Sea.

PALABRAS CLAVE: *Onoba*, nueva especie, Mediterráneo.

INTRODUCTION

The genus *Onoba* H. and A. Adams, 1852 includes small size cylindrical species which share certain shell features with members of *Alvania* Risso, 1826 s. l. and *Crisilla* Monterosato, 1917 s. l., regarded as a genus, according to BOUCHET AND WARÉN (1993). Anatomical differences have been found between

some representative taxa of the two genera *Onoba* and *Rissoa*, leading to the idea that is an interesting case of shell morphological convergence (PONDER, 1985; OLIVERIO, 1988; BOUCHET AND WARÉN, 1993). The Mediterranean species of *Onoba*, well illustrated by GIANNUZZI-SAVELLI, PUSATERI, PALMERI

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AND EBREO (1996), consist of mainly shallow-water shells. In fact, the only deep-water taxon is *Onoba gianninii* (Nordsieck F., 1974), figured by SEM photographs by AMATI AND NOFRONI (1991), who also designate the lectotype, and BOUCHET AND WARÉN (1993). In this paper we describe, on the base of shell morphology, a new species of *Onoba* from material dredged on some muddy bathyal bottoms surrounding a deep-sea coral bank located off Latium coast and currently under investigation (SMRIGLIO AND MARIOTTINI, 1999). The new species

is compared to the similar *O. gianninii* and *Onoba dimassai* Amati and Nofroni, 1991. A list of mollusc species found in the same material is also given.

Abbreviations:

MZB: Museo di Zoologia dell'Università di Bologna, Italy.

MZR: Reparto Malacologico del Museo Civico di Zoologia di Roma, Italy.

CS: C. Smriglio private collection.

MO: M. Oliverio private collection.

PM: P. Mariottini private collection.

RESULTS

Family RISSOIDAE Gray J. E., 1847
Genus *Onoba* H. and A. Adams, 1852

Onoba oliverioi n. sp. (Figs. 1-6)

Type material: Holotype (MZB 14000), 1 sh., dredged, June 1987. Paratype D (MZR), 1 sh., type locality, June 1987. Paratypes A, B, C, E, F, G, H, I and L (CS), 9 sh., type locality, June 1987. Paratype M (MO), 1 sh., type locality, May 1990. Paratype N (PM), 1 sh., type locality, May 1990.

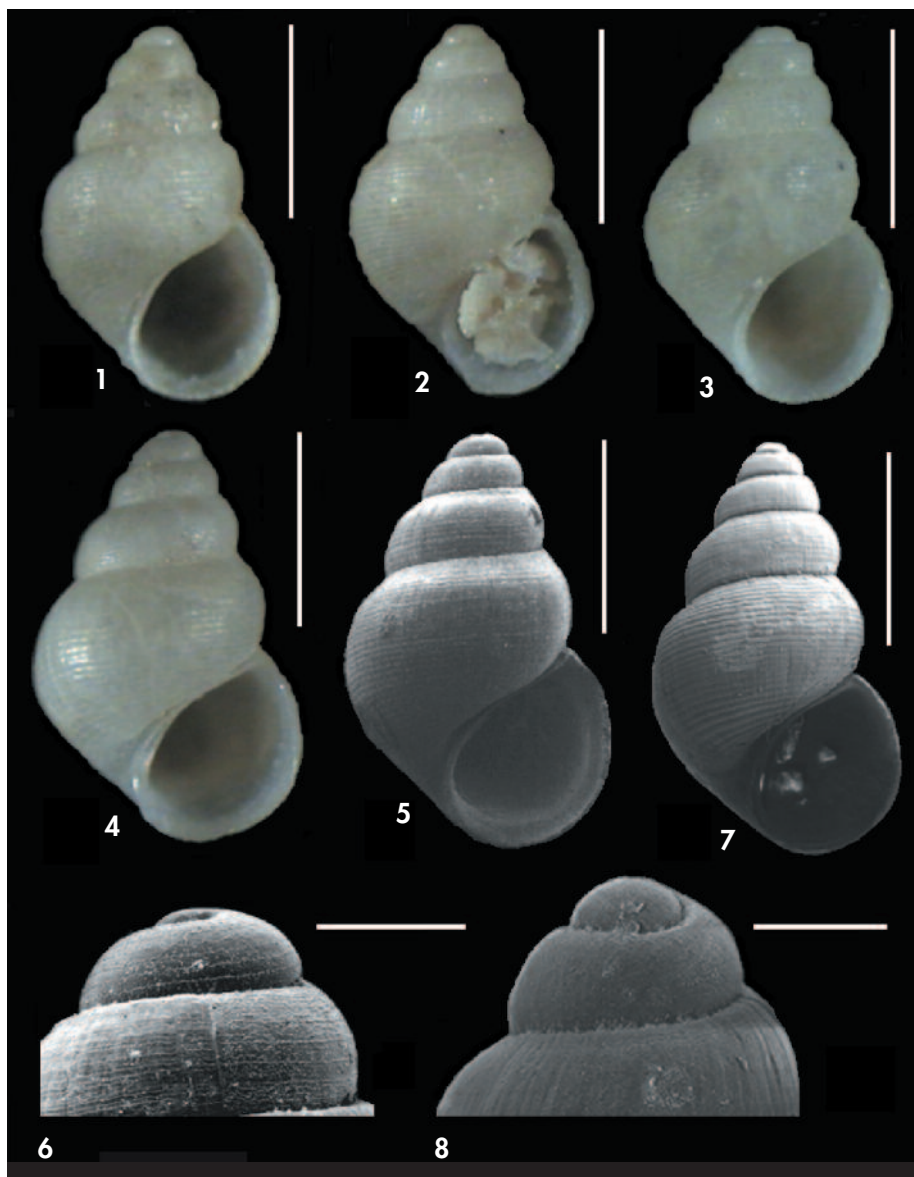
Type locality: Central Tyrrhenian Sea (41° 51' N, 11° 28' E), off coast of Latium, on muddy bottom in a deep-sea coral biocoenosis, [biocoenosis VB and CB *sensu* PÉRÈS AND PICARD (1964)], at a depth of 350-600 m.

Material examined: *O. oliverioi* n. sp., type locality, 32 sh. (CS).

Derivatio nominis: This species is named in honour of Dr Marco Oliveiro, expert malacologist and good friend of the authors, who has contributed a great deal to the knowledge of the Mediterranean malacofauna.

Description: Shell small (from 1.61 to 2.32 mm in height), conical-ovate, with a large aperture, blunt apex. Protoconch dome-shaped consisting of about 1.5 whorls, with a diameter of 400-440 μ m, sculptured with 6-8 fine and irregular spiral cordlets. Among them, several other interrupted fine furrows create a sort of micro-tuberculated sculpture. Teleoconch of about 3.0 rounded convex whorls, the last one is about $2/3$ of the entire length, average ratio H/W = 1.55, average ratio H/Ha = 1.99. Suture pronounced and shallowly channelled, axial growing lines evident, spiral sculpture consisting of about 27 evenly spaced ribs, with about 2-3 much smaller furrows in the inter-spaces. Aperture ovoid, umbilical crevice slightly visible. Colour milky-white or yellowish translucent. Operculum and animal unknown.

Remarks: *O. oliverioi* (Figs. 1-6) is conchologically very similar to *O. gianninii* (Figs. 7, 8), resulting in the new taxon having been already recorded in the past by BOUCHET AND WARÉN (1993: fig. 1520, p. 663), but misidentified as *O. gianninii*. M. Oliverio already mentioned the possibility to face a complex of species when dealing with *O. gianninii*: "Studying the specimens usually classified as *gianninii* it resulted that more than one species could be involved" OLIVERIO (1988). Indeed, *O. oliverioi* can be separated from the last species on the ground of some protoconch and teleoconch features. In particular, the protoconchs differ in the two species, being the one of *O. oliverioi* much flatter, more sculptured and slightly smaller. The teleoconch outline of *O. oliverioi* differs from the one of *O. gianninii* being less slender



Figures 1-6. *Onoba oliverioi*. 1: holotype, 2.0 x 1.3 mm, (MZB 14000); 2: paratype D, 1.8 x 1.2 mm, (MZR); 3: paratype C, 1.8 x 1.2 mm, (CS); 4: paratype E, 2.2 x 1.3 mm, (CS); 5: paratype A; 6: protoconch, paratype A, 2.2 x 1.4 mm, (CS). Figures 7, 8. *O. gianninii*. 7: lectotype; 8: protoconch, lectotype, 2.2 x 1.2 mm, (MZR). Strait of Bonifacio, off Capo Comino (200-220 m). Lectotype figure after AMATI AND NOFRONI (1991). Scale bars, shells: 1 mm; protoconchs: 200 mm.

Figuras 1-6. Onoba oliverioi. 1: holotipo, 2,0 x 1,3 mm, (MZB 14000); 2: paratipo D, 1,8 x 1,2 mm, (MZR); 3: paratipo C, 1,8 x 1,2 mm, (CS); 4: paratipo E, 2,2 x 1,3 mm, (CS); 5: paratipo A; 6: protoconcha, paratipo A, 2,2 x 1,4 mm, (CS). Figuras 7, 8. O. gianninii. 7: lectotipo; 8: protoconcha del lectotipo, 2,2 x 1,2 mm, (MZR), Estrecho de Bonifacio, Capo Comino (200-220 m). Lectotipo figura original de AMATI Y NOFRONI (1991). Escalas, conchas: 1 mm; protoconchas: 200 mm.

(H/W = 1.55 versus H/W = 1.75, respectively), having a smaller average number of whorls (about 2.5-3 versus 3.5-4, respectively) and a bigger aperture (H/Ha = 1.99 versus H/Ha = 2.40, respectively). On the contrary, the sculpture of the teleoconch in the two species results very similar, consisting in rounded spiral ribs of equal breadth and number (26-31). *O. oliverioi* also differs from *Alvania wahreni* (Templado and Rolan, 1986), a species closely related to *O. gianninii*, as stressed by BOUCHET AND WARÉN (1993: 663): "They may prove to be conspecific, when material becomes known from the intermediate area". The differences outlined between the new species and *O. gianninii*, hold when comparing the new species to *A. wahreni* as well. Furthermore, the shell of *A. wahreni* has an additional and diagnostic sculpture feature at the protoconch-teleoconch demar-

cation (BOUCHET AND WARÉN, 1993: 646; fig. 1462); in fact, the last part of the protoconch whorl shows about 20 fine cordlets irregularly interrupted, which are not present in *O. oliverioi* nor in *O. gianninii*. The new taxon is distinguishable from *O. dimassai* too, a shallow water species which has a similar shell shape. *O. dimassai* has a smooth protoconch with no evident microsculpture, of about 1.20-1.25 whorls and a diameter of about 300-380 μm . Its teleoconch sculpture shows 24-30 major spiral ribs which present 4-5 fine furrows, together with the 3-4 furrows at the interspaces, the shell surface appears to be more tightly covered by these spiral ribs; furthermore, the last whorl does not show any umbilical crevice (AMATI AND NOFRONI, 1991). These shell features pointed out allow an easy separation of *O. dimassai* from *O. oliverioi*.

DISCUSSION

The shell features observed in the specimens of *O. oliverioi* from the Central Tyrrhenian Sea, summarised in Table I, are clearly visible in the individual figured by BOUCHET AND WARÉN (1993), which is from the Strait of Bonifacio (off Capo Comino, 200-300 m). So, it seems that the morphological characters shown by *O. oliverioi* are very constant regardless the collecting spot. Since shells of both *O. gianninii* and *O. oliverioi* have been collected together in that area (BOUCHET AND WARÉN, 1993), the two species could be sympatric in the Strait of Bonifacio, corroborating the idea that are indeed two different taxa and not just two extreme forms of the same species. The shells of *O. oliverioi* from the Central Tyrrhenian Sea were dredged on a bathyal bottom, at a depth of 350-600 m, resulting in a deeper record than the ones of the specimen from Capo Comino and of *O. gianninii* (AMATI AND NOFRONI, 1991). The new taxon probably belongs to the biocoenosis VB *sensu* PÉRÈS AND PICARD (1964), the other mollusc species found in the same dredged material seem to support this assumption. The identified species occurring with *O. oliverioi* are: *Propi-*

lidium exiguum Thompson, 1843, *Lepetella* cf. *laterocompressa* (De Rayneval and Ponzi, 1854), *Emarginula tenera* Locard, 1892, *Clelandella miliaris* (Brocchi, 1814), *Danilia otaviana* (Cantraine, 1835), *Putzeyisia wiseri* (Calcara, 1842), *Alvania cimicooides* (Forbes, 1844), *Alvania subsoluta* (Aradas, 1847), *Orbitestella dariae* (Liuzzi and Stofla Zucchi, 1979), *Trophon muricatus* var. *barvicensis* (Johnston, 1825), *Nassarius lima* (Dillwin, 1817), *Amphissa acuteocostata* (Philippi, 1844), *Granulina gofasi* Smriglio and Mariottini, 1996, *Gymnobela abyssorum* (Locard, 1897), *Microdrillia loprestiana* (Calcara, 1841), *Pleurotomella demosia* (Dautzenberg and Fischer P., 1896), *Pleurotomella gibbera* Bouchet and Warén, 1980 ex Jeffrey's ms., *Teretia teres* (Reeve, 1844), *Conopleura aliena* Smriglio, Mariottini and Calascibetta, 1999, *Heliacus alleryi* (Seguenza G., 1876), *Mathilda cochlaeformis* Brugnone, 1873, *Japonacteon pusillus* (McGillivray, 1843), *Asperarca nodulosa* (Müller, 1776), *Chlamys bruei* (Payraudau, 1826) and *Cadulus subfusiformis* (Sars M., 1865). At the present time, the distribution of *O. oliverioi* is limited to the Tyrrhenian Sea: off Latium and Sardinia (Strait of Bonifacio) coasts.

Table I. Shell morphological measurements of *Onoba oliverioi* type material. Abbreviations. H: height in mm; W: width in mm; Ha: height aperture in mm; Pd: protoconch diameter in μm ; Sr: spiral ribs of the last whorl; ND: not determined.

Tabla I. Medidas morfológicas de la concha del material tipo de *Onoba oliverioi*. Abreviaciones. H: altura en mm; W: ancho en mm; Ha: altura de la boca en mm; Pd: diámetro de la protoconcha en μm ; Sr: estrias espirales en la última vuelta; ND: no determinado.

Specimen	H	W	Ha	H/W	H/Ha	Pd	Sr
Holotype	1.85	1.20	0.97	1.54	1.91	440	26
Paratype A	2.17	1.38	1.08	1.57	2.00	400	31
Paratype B	2.26	1.47	1.08	1.53	2.09	420	27
Paratype C	2.05	1.26	0.94	1.62	2.18	440	28
Paratype D	1.79	1.17	0.88	1.53	2.03	400	28
Paratype E	2.23	1.35	1.05	1.65	2.12	440	26
Paratype F	1.91	1.29	1.00	1.48	1.91	440	26
Paratype G	1.79	1.20	0.94	1.49	1.90	440	26
Paratype H	1.79	1.20	0.94	1.49	1.90	440	28
Paratype I	2.17	1.41	1.11	1.54	1.95	400	ND
Paratype L	1.73	1.20	0.94	1.44	1.84	420	26
Paratype M	1.61	1.08	0.85	1.49	1.89	400	23
Paratype N	2.32	1.47	1.11	1.57	2.09	400	29

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