

First record of *Pseudorhaphitoma* cf. *iodolabiata* (Hornung & Mermod, 1928) (Mollusca; Gastropoda; Mangeliidae) off the Mediterranean coast of Israel

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Abstract

A live juvenile specimen of the mangeliid gastropod *Pseudorhaphitoma* cf. *iodolabiata* was noted off the Mediterranean coast of Israel on April 25, 2010, outside the port of Haifa. The occurrence of this Red Sea endemic raises the number of alien mollusk species recorded off the Israeli coast to 137.

Key words: *Pseudorhaphitoma* cf. *iodolabiata*, Mollusca, Gastropoda, Mangeliidae, Erythrean species, Mediterranean, Israel

Introduction

The Levantine coast, located northward and down-current of the Suez Canal mouth, is under intense propagule pressure and consequently, hosts the highest number of established Erythrean alien species (Coll et al. 2010). One hundred and thirty six marine alien mollusks have been recorded off the Mediterranean coast of Israel, mostly are of Indo-West Pacific origin and considered to have entered the Mediterranean through the Suez Canal (Galil 2007).

This study records the presence of yet another Erythrean alien gastropod mollusc, *Pseudorhaphitoma* cf. *iodolabiata* (Hornung and Mermod, 1928), in the SE Levant.

Materials and methods

A single juvenile specimen of *Pseudorhaphitoma* cf. *iodolabiata*, complete with soft parts, was collected on April 25, 2010, at Haifa Bay, Israel, 32°51'09"N, 35°01'23"E at depth of 20.5 m, shell height 4.0 mm, shell width 2.2 mm. The specimen is deposited in the National Collections, Tel Aviv University (TAU Mo-74884).

Results and discussion

Family Mangeliidae P. Fischer, 1883
Genus *Pseudorhaphitoma* Boettger, 1895

Pseudorhaphitoma cf. *iodolabiata* (Hornung and Mermod, 1928)
(Figure 1a-c)

Mangilia (*Clathurella*) *iodolabiata* Hornung and Mermod, 1928: 112, Figure 2)

Pseudorhaphitoma iodolabiata Kilburn, 1993: 326, Dekker and Orlin, 2000: 32.

Description (juvenile specimen): Shell biconic-claviform, with distinctly produced base and fairly acute, orthoconoid spire, left side of base strongly concave. Protoconch conical, acute, of about three convex whorls, first two whorls smooth, curved axial riblets as wide as intervals on last whorl. Teleoconch whorls four in number, suture marked and slightly undulated, shoulder slope of whorls slightly convex. Strong axial ribs, 8 per whorl, more or less continuous from whorl to whorl, slightly opisthoclinal, slightly curved at suture, ribs subequal to their concave intervals, reduced at the base. Two

Figure 1. *Pseudoraphitoma iodolabiata*, Haifa Bay, Israel. **a:** frontal view; **b:** detail of the microsculpture; **c:** detail of the protoconch.

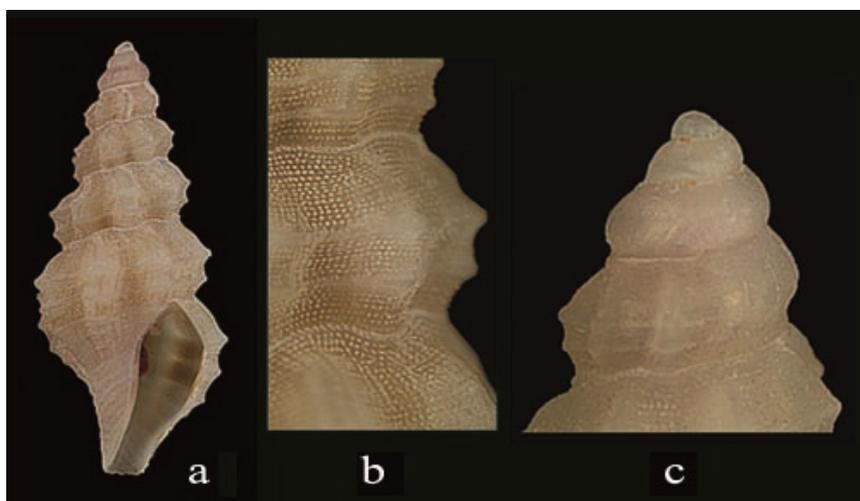
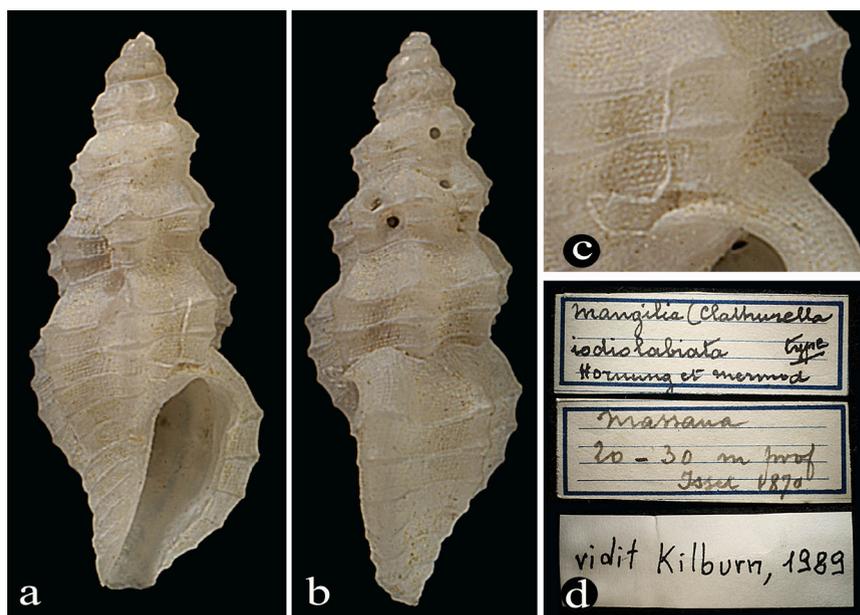


Figure 2. *Pseudoraphitoma iodolabiata*, Holotype, Massawa, Eritrea. **a:** frontal view; **b:** side view; **c:** detail of the microsculpture; **d:** accompanying labels.



spiral ridges on lower half of each spiral whorl, projecting markedly across ribs, rendering them distinctly bicarinate, upper keel prominent, forming a distinct median angle, lower keel equidistant between suture and upper keel. No subsutural crest. On the body whorl two more distinct ridges over the aperture and about 10, less well marked, to the base of the shell. Surface of teleoconch covered by dense granulate microspirals (7-8 between the two ridges, 14-15 between the suture and the upper ridge). Aperture uterine, greatest width at upper third; inner lip slightly convex medially;

outer lip preceded by a moderate varix, lip slightly patulous, with sharp edge, weakly crenulated in side view by the termination of spiral ridges, no denticles on interior of lip. Siphonal canal moderately long, oblique, distally truncate. Uniform light brown shell, dark stain on inner curvature of aperture.

Remarks: *Pseudoraphitoma iodolabiata* was described by Hornung and Mermod (1928) from Massawa in the southern Red Sea (20-30 m), from material collected by Arturo Issel, in 1870, in the course of a scientific expedition to Assab and Massawa organized by the Societa

Geografica Italiana and deposited in the Museo civico di Storia naturale at Genoa. The holotype, a badly corroded specimen, measures 3,9 mm rather than 7,5 mm (Hornung and Mermod 1928) (Figure 2a-d). We also note that the name is written on the hand written label as “*Mangilia* (*Clathurella* *iodolabiata*”, possibly referring to the color of the stain on the lip. A label confirms the specimen was examined by Kilburn (Figure 2d). No other information of the species exists, although it was mentioned in subsequent studies (Kilburn 1993; Dekker and Orlin 2000). It is considered a Red Sea endemic (Dekker and Orlin 2000). The genus is known from the tropical and subtropical Indo west Pacific, and has not been hitherto represented in the Mediterranean Sea. In his revision of the genus Kilburn (1993) distinguished three different protoconch types depending on their structure, shape and number of whorls (1993: 321). Our specimen belong within Type B: “Protoconch conical, of about 2,5-3,5 whorls, the last whorl (at least) axially ribbed”. The protoconch of *P.* cf. *iodolabiata* differs from that of the closely allied *P. sienna* Kilburn, 1993 (p. 323, Figure 2), in that in the former the first whorl is not depressed and the two first protoconch whorls are smooth. According to Kilburn (1993), adult *Pseudorhaphitoma* have a blunt labral tooth anterior to anal sinus and sometimes additional denticles anteriorly. The inner lip usually has a parietal nodule and occasionally 1-2 denticles on the columella. Edge of columella flattened, somewhat horny. The specimen collected off the Mediterranean coast of Israel lacks those characters, being immature. Therefore it is recorded as “cf” pending collection of mature individuals. A smaller specimen (2.6 mm high), identified as *P. iodolabiata*, was collected in 2011 in Iskenderun Bay, Turkey (Öztürk 2012).

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