

***Conus hamanni* spec. nov. from the Red Sea  
(Gastropoda: Conidae)**

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**Abstract**

*Conus hamanni* spec. nov. is described from Jeddah, Saudi Arabia and Elat, Israel. The new species is compared with *Conus acuminatus*, another endemic species from the Red Sea.

During the course of a revision of representatives of the genus *Conus* living in the Red Sea, we encountered several specimens of an apparently undescribed species in two local collections in Elat, Israel. The only reference to this species was found in a short note published by Hamann(1983), who reported eight similar specimens from Jeddah, Saudi Arabia. Due to the cooperation of Gregg Hamann, Dany Blum and Shmuel Lavy we were able to study a total of eight specimens: four each from Jeddah and Elat. Having obtained in this way enough material from two widely separated localities in the Red Sea, this *Conus* species is described as new to science.

Abbreviations used:

- HUJ — Hebrew University of Jerusalem, Zoological Museum, Mollusc Collection;  
 ZMA — University of Amsterdam, Zoological Museum, Department of Malacology;  
 DB — Dany Blum, Elat;  
 GH — Gregg Hamann, El Cajon, California;  
 SL — Shmuel Lavy, Elat.

***Conus hamanni* spec. nov.**

*Conus* spec.: Hamann, 1983. *Hawaiian Shell News*, 31(9): 7, textfigs.

**Type material:**

Holotype: 29.4 × 13.0 mm, with periostracum (HUJ 35953); Paratypes: 25.7 × 11.1 mm (HUJ 35954), 12.3 × 5.8 mm, juvenile (HUJ 35955), 28.6 × 12.6 mm, dead collected (ZMA 386.002).

**Type locality:**

Saudi Arabia, entrance to large estuary known as "The Creek" near Jeddah, in a coarse mixture of sand and coral rubble, at a depth of 35–40 m.

**Description:**

Shell small, rather elongated, glossy. Outlines of body whorl convex, slightly concave towards the base; surface covered with incised spiral lines at least on lower third of body whorl. Aperture narrow, widening somewhat towards the base. Spire convex, forming a high (20–25% of total height) stepped spire; protoconch bulbous, with two visible whorls, distinctly protruding and usually still present in adult shells. The 8–9 postnuclear whorls show 3 distinct spiral grooves between suture

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and edge of shoulder. The resulting 4 spiral cords are crossed by regularly spaced axial sculpture, becoming weaker towards the well rounded shoulder.

Ground colour creamy pink; body whorl with light brown axial wavy lines, combining here and there to form tentlike flammules. These flammules form 2 or 3 indistinct bands on the body whorl. Traces of brown lines and flammules are also found on the spire in some specimens. Inside of aperture pink.

Periostracum thin, light brown and semi-transparent.

#### Measurements:

Adult specimens range in height from 25.0 to 30.1 mm; in width from 11.0 to 14.5 mm.

#### Animal:

According to Hamann (in litt.) the live animal has an uniform cream-pink colour, slightly darker than the shell, without any other markings.

#### Habitat:

Near Jeddah all specimens were found at depths ranging from 35 to 40 meters, on a sloping sandy bottom near a coral reef wall. The sand was a coarse grit sand mixed with coral rubble. Numerous specimens of *Conus acutangulus* Lamarck, 1810 were found in the same habitat. Near Elat the species was found in slightly less deep water.

#### Known material and distribution:

Red Sea: Saudi Arabia, "The Creek" near Jeddah, leg. G. and J. Hamann, 1978 and 1981 (HUI 35953/1, 35954/1, 35955/1, ZMA 386.002/1, GH/1<sup>+</sup>); Israel, Gulf of Aquba, Elat, leg. D. Blum (DB/2), *ibidem*, leg. S. Lavy (SL/2).

#### Etymology:

The species is named in honour of Gregg Hamann, who was the first to collect this species alive and who donated the type specimens to the Hebrew University of Jerusalem and the Zoological Museum in Amsterdam.

#### Discussion

This is a very distinctive species, not easily confused with any other Cone species. Its closest relative in the Red Sea would appear to be *Conus acuminatus* Hwass, 1792.

The shell height of adult specimens in the latter ranges usually between 35 and 50 mm (although even specimens of up to 80 mm seem to exist according to Jickeli, 1875), while in *hamanni* it ranges between 25 and 30 mm. *Conus acuminatus* is also relatively wider than *hamanni* from the Jeddah area, where both species occur. In *acuminatus* the width amounts to 49.7–57.5% of the total height (mean 53.2%; N = 23), while in *hamanni* it amounts to 43.2–47.6% (mean 45.1%; N = 5). However, in *hamanni* from Elat, where *acuminatus* does not occur, the width amounts to 44.0–54.5% of the height (mean 46.7%; N = 4). Specimens of *acuminatus* with the same size as *hamanni* are also distinctly heavier. The protoconch in *acuminatus* is sharp, slender and straight; in *hamanni* blunt, bulbous and convex. The top whorls of *acuminatus* are usually eroded which means that the protoconch is almost always lacking. In *hamanni* the top is always perfectly preserved and clean of any foreign growth, which means that the protoconch is usually preserved. The area between the suture and the shoulder is more or less smooth in *acuminatus*, while in *hamanni* it is incised by 3 deep spiral grooves. The edge

+ Hamann has sent 3 additional specimens from the same locality to other collectors. The present whereabouts of these specimens is unknown.



Figs. 1–3. *Conus hamanni* spec. nov., holotype, Saudi Arabia, “The Creek”, near Jeddah, height 29.4 mm (HJ 35953).

Figs. 4–6. *Conus acuminatus* Hwass, 1792, Ethiopia, Massawa, height 30.0 mm (GH 292).

of the shoulder is sharp in *acuminatus*, well rounded in *hamanni*. The incised spiral lines on the body whorl extend over 1/4 of the lower part in *acuminatus*, while in *hamanni* they extend over at least 1/3 of the lower part. In *acuminatus* the body whorl shows a distinct microsculpture consisting of closely set wavy lines, while *hamanni* is completely smooth. Finally *acuminatus* is usually much brightly coloured and has a better developed tentlike pattern.

The colour of the animal of *Conus acuminatus* seems also to differ markedly from that of *hamanni*. If we may rely on Ehrenberg (1828) then the animal of *acuminatus* is bright yellow with a cream to lightbrown foot. The proboscis and the syphon are yellow, too, however, the latter is adorned at its tip with a white and dito black band. The syphon shows also longitudinally red lines. In *Conus hamanni* the animal is uniformly pink-cream.

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## 紅海產新種芋螺——哈曼氏芋螺

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本文所記載的芋螺新種哈曼氏芋螺 *Conus hamanni*，在1983年最先被哈曼(G. Hamann)所紀錄，他在一篇科學短報中報導了此種芋螺標本。本種產自紅海的兩個距離頗遠的產地，亦即沙烏地阿拉伯的吉達 (Jeddah) 和以色列南部的愛拉特 (Elat)。

我們在檢討紅海全區所產的芋螺類時，發現了此一未被命名的芋螺新種標本。模式標本(29.4×13.0mm)保存於耶魯薩冷的希伯來(Hebrew)大學動物學博物館中。在紅海地區，與此新種最相似的是 *Conus acuminatus*。

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