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CONCHYLIA

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FREAKS **PHALIUM BANDATUM**

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NEUE ARTEN **MEDORA, MITRA, ARCHIVOLVA, EROSARIA**

A new species of *Archivolva* from the Red Sea (Gastropoda: Ovulidae)

by FELIX LORENZ, Buseck-Beuern

Figs 1-4

Zusammenfassung

Archivolva kahlbrocki n. sp. wird von Hurghada, Ägypten, beschrieben und mit den zwei übrigen Arten der Gattung *Archivolva* verglichen.

Abstract

Archivolva kahlbrocki n. sp. is described from Hurghada, Egypt, and compared with its two congeners.

Keywords

Archivolva kahlbrocki, new species, Hurghada, Red Sea

Introduction

The area around Hurghada, Egypt, in the northern Red Sea is among the most popular spots for diving-tourism. Yet, the Ovulidae-fauna of the Red Sea is poorly known, mainly because of the lack of attention given to this interesting group of marine gastropods. When SVEN KAHLBROCK, dive-instructor and underwater-photographer, sent me photos of the new species described in the following, I was not surprised about the fact that it was new, but because it is so spectacular. It is described in honour of its discoverer.

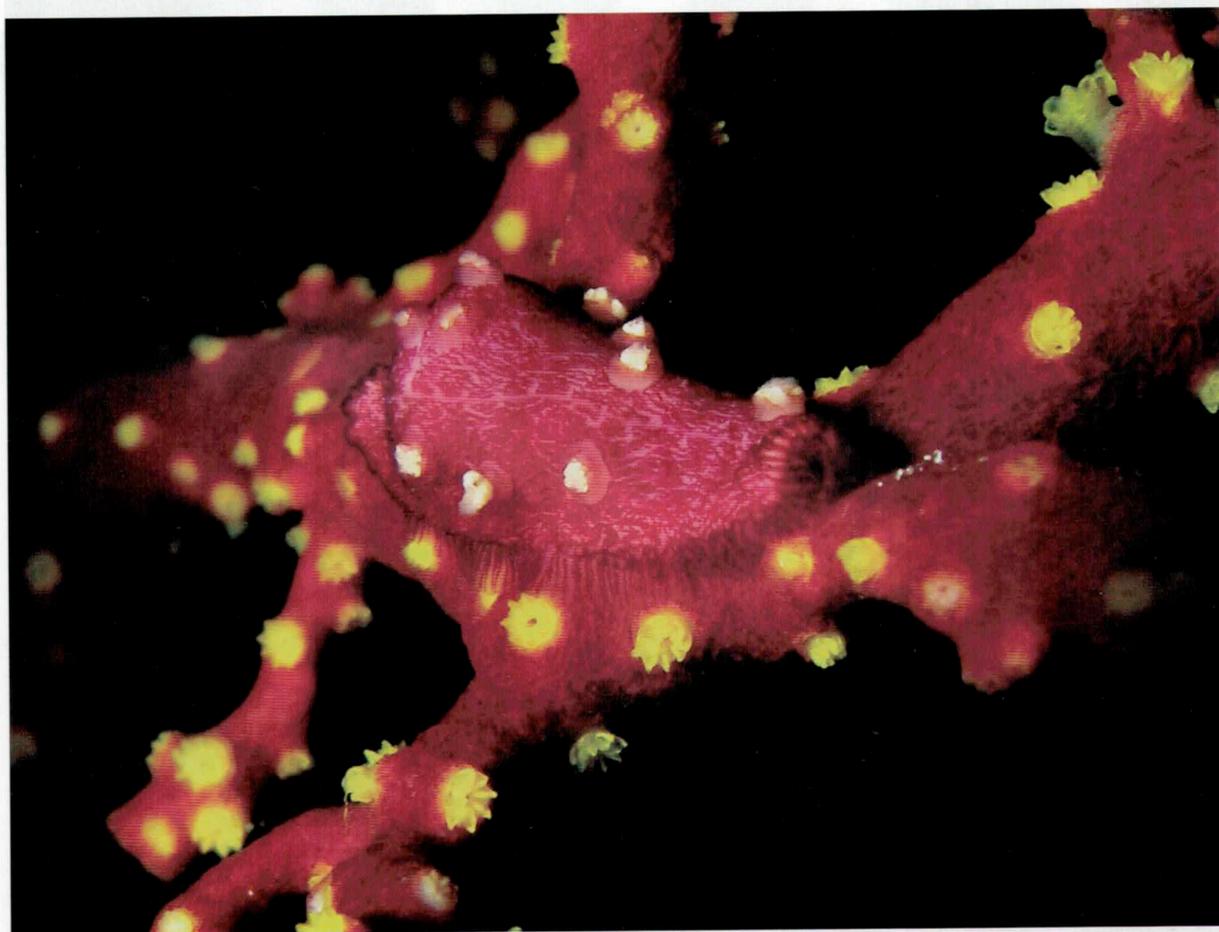


Fig. 1: Paratype 1 of *Archivolva kahlbrocki* n. sp., living animal with retracted papillae on its host *Acabaria* sp. (Photo: S. KAHLBROCK)

Archivolva kahlbrocki n. sp.

Material: Four live taken specimens.

Holotype: 8.3 mm. Erg Camel Reef, Hurghada, Egypt, at 25 m. Coll. MNHN 21256

Paratype 1: 12.9 mm. Abu Ramada Is., Hurghada, Egypt, at 22 m. Coll. LORENZ

Paratype 2: 8.6 mm. Erg Camel Reef, Hurghada, Egypt, at 25 m. Coll. LORENZ

Paratype 3: 10.9 mm. Erg Camel Reef, Hurghada, Egypt. Coll. LORENZ



Fig. 2: *Archivolva kahlbrocki* n. sp. Dorsal, basal, and lateral aspects and the posterior showing the protoconch; Top row: Holotype; Middle row: Paratype 1; Bottom row: Paratype 2.

Description: Shell thin, translucent, club-shaped, with a distinct bulge in the posterior quarter. Protoconch visible above the extremity. Posterior terminal narrow, rostrate, rather straight. Anterior broader, elongated. Posterior terminal tip denticulate. Dorsum finely and distinctly striated overall. Labrum narrow, sinuous, flattened, finely denticulate posteriorly. Aperture very narrow posteriorly, slightly widening anteriorly. Funiculum distinct and produced. Colouration saturate pink, labrum, extremities and dorsal bulge slightly paler.

The holotype and paratype 2 show identical features. Their small size compared to paratype 1 suggests that they are male shells. In the supposedly female paratype 1, the conchological peculiarities of the species are enhanced: The posterior is very rostrate and distinctly, coarsely denticulate, the funiculum is prominent and separated by a step, the labrum is distinctly and coarsely denticulate posteriorly. There is a yellow suture-line encircling the shell at its periphery. The dorsal bulge is reduced to an angular keel.

The living animal has a thick mantle densely ornamented with purple reticulations. The yellow papillae are large and dendritic when fully extended. The foot has a similar ornamentation as the mantle, with red, irregular stripes.

Distribution and Habitat: *Archivolva kahlbrocki* n. sp. was so far found only in a small area just offshore Hurgada, Egypt, on *Acabaria* sp. at depths ranging from 22 to 25 m.

Discussion: The genus *Archivolva* was introduced very recently (LORENZ & FEHSE 2009) because of its members having the protoconch situated posteriorly, not internalized: a unique feature within the family Ovulidae. The genus comprised two species which have only been discovered very recently either. *A. clava* (HABE, 1991) was known from a single specimen for about a decade until it was collected in fair numbers and in many different places by DIETMAR AMON and myself. Also the discovery of the rarer *A. lissenungensis* (LORENZ, 2005) was made by the attentive eye of DIETMAR. Today we know that both species have a wide distribution in Malaysia, Indonesia, Papua New Guinea and the Philippines. *A. lissenungensis* has been found also at La Reunion in the Indian Ocean. *A. kahlbrocki* n. sp. appears to be endemic to the Red Sea. The posterior terminal of *A. kahlbrocki* is longer, more distinctly denticulate and less curved than in *A. clava*. The dorsal bulge is not observed in *A. lissenungensis*. The aperture in *A. kahlbrocki* is narrower than in the other two species, the funiculum is more distinct and produced, the dorsal striae are more coarse and distinct. It also differs from its congeners by its peculiar pink instead of pale brown to red colouration. The mantle tissue of *A. kahlbrocki* is reticulate purple whereas that of *A. clava* and *A. lissenungensis* is uniform red. Finally, the host of the new species is *Acabaria* sp. and not *Solenocaulon* sp. as in the Pacific congeners.

Incidentally, a single specimen of an undescribed *Archivolva* was found on *Acabaria* sp. in the Spratly Islands

(see LORENZ & FEHSE 2009: pl. 60:9, A78). Sadly, only one specimen is known, but it shows interesting resemblance to the species described herein in terms of colouration and the degree of ribbing on the extremities, while other features resemble *A. lissenungensis*. Obviously, the genus *Archivolva* is far more diverse than anticipated, and it will take attentive divers to learn more about it.

Acknowledgements

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Literature

- HABE, T. (1991): A strange new species of the family Ovulidae. — *Venus*, **50** (3): 179-180.
- LORENZ, F. (2005): A new species of Ovulidae from New Ireland (Gastropoda - Prosobranchia). — *Visaya*, **1** (3): 11-15.
- LORENZ, F. & FEHSE, D. (2009): The living Ovulidae - A manual of the families of Allied Cowries: Ovulidae, Pediculariidae and Eocypraeidae. — 651 pp; Hackenheim (ConchBooks).

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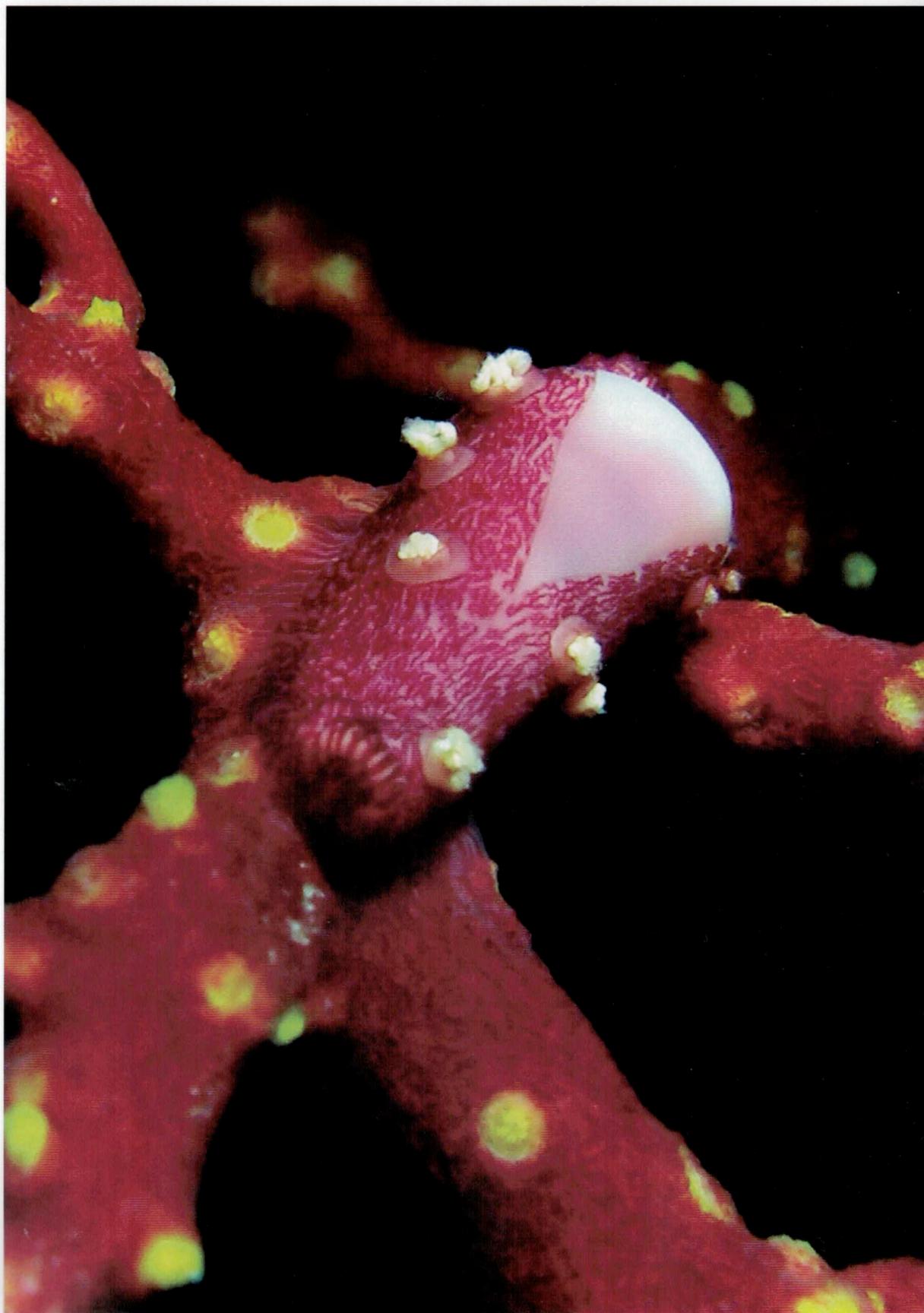


Fig. 3: Paratype 1 of *Archivolva kahlbrocki* n. sp., living animal with retracted papillae on its host *Acabaria* sp. (Photo: S. KAHLBROCK)

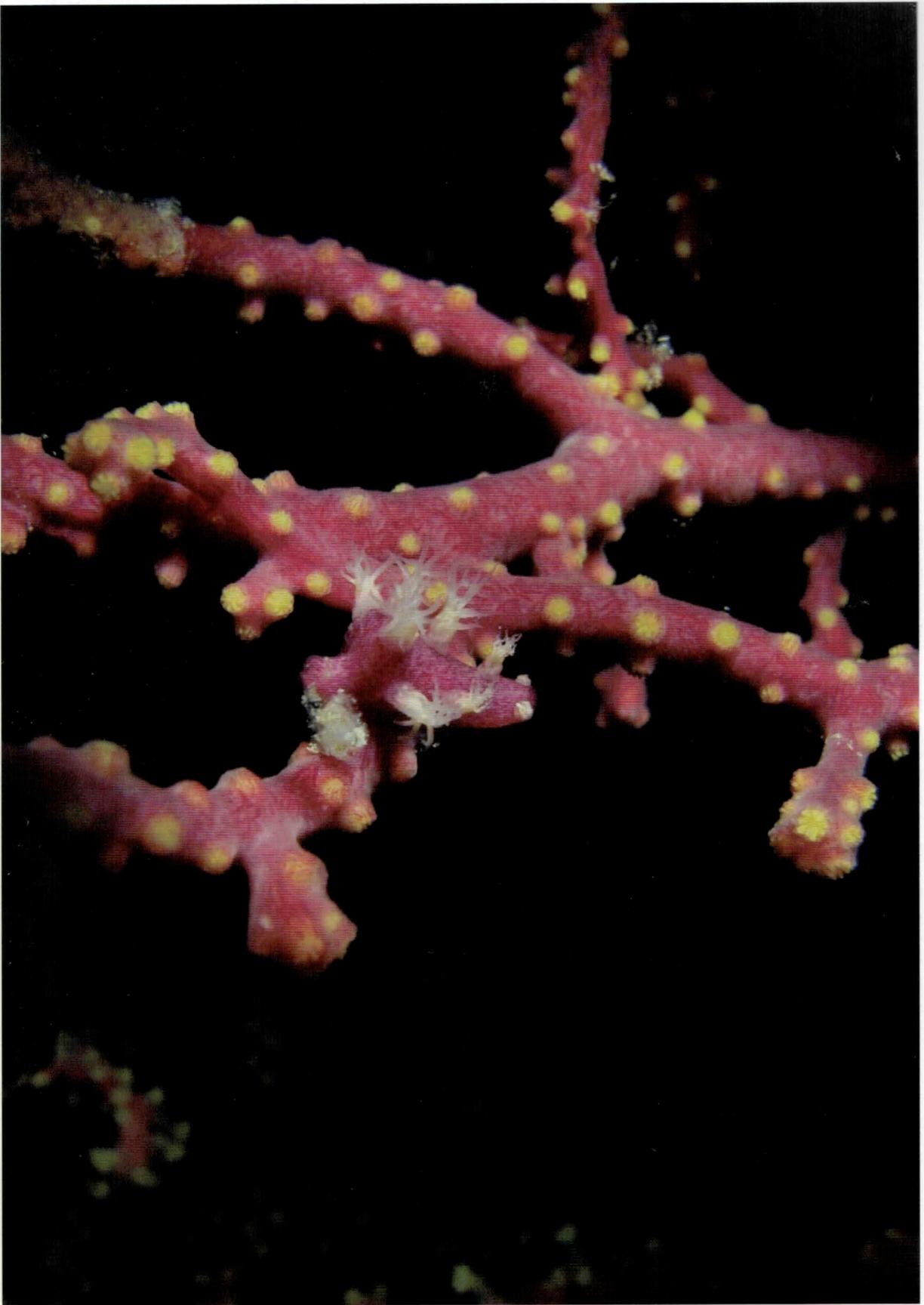


Fig. 4: Holotype of *Archivolva kahlbrocki* n. sp., living animal with fully extended papillae. (Photo: S. KAHLBROCK)