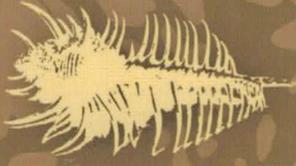


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CLUB CONCHYLIA

INFORMATIONEN



PORZELLANSCHNECKEN
NEUES AUS
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FEHLERSUCHE MITRA- & OVULIDEN-BÜCHER

GRENZGÄNGER ONCHIDELLA IM OSTATLANTIK

TYPENSUCHE ICONOGRAPHIE VON CONUS-TYPEN

SÜSSWASSER BIOLOGIE & ARTENSCHUTZ

Two new species of Ovulidae (Gastropoda)

By FELIX LORENZ, Buseck-Beuern

Plate 1-2, Textfig. 1-3

Abstract

Pseudocypraea alexhuberti n. sp. from New Ireland is described as the third species of the genus and compared with *P. adamsonii* (G. B. SOWERBY, 1832) and *P. exquisita* PETUCH, 1979. Another Ovulidae from South Africa is described as *Calcarovula ildiko* n. sp. and compared with *C. longirostrata* (G. B. SOWERBY, 1832).

Zusammenfassung

Pseudocypraea alexhuberti n. sp. von Neu-Irland wird als dritte Art der Gattung neu beschrieben und mit *P. adamsonii* (G. B. SOWERBY, 1832) und *P. exquisita* PETUCH, 1979 verglichen. Als weitere Ovulidae wird *Calcarovula ildiko* n. sp. neu beschrieben und mit *C. longirostrata* (G. B. SOWERBY, 1832) verglichen.

A new *Pseudocypraea* from New Ireland

The collecting activities of my friend DIETMAR AMON in the vicinity of Kavieng, New Ireland, have yielded a considerable number of new gastropod species. Among them are *Janaoliva amoni* STERBA & LORENZ 2005 (Olividae) and *Dentiovula lissenungensis* LORENZ 2005. In a large sand sample that DIETMAR took from a depth of 55 to 62 mm, there were several small specimens of what appeared to be dwarfed *Pseudocypraea exquisita* PETUCH, 1979. On close examination they proved to belong to a new species, separable by consistent structural differences. It is here described as

Pseudocypraea alexhuberti n. sp.

Plate 1 Fig. 1-4

Material: Enumerated length x width x height (labral : columellar teeth).

Type material: Holotype: 6.27 x 3.62 x 3.34 (19 : 22) SMNS Inv.-Nr. ZI 0062987 (Plate 1 Fig. 1a-d)

Paratype 1: 5.24 x 2.93 x 2.6 (21 : 29) (Plate 1 Fig. 2a-d)

Paratype 2: 5.12 x 2.68 x 2.45 (18 : 16)

Paratype 3: 5.3 x 3.14 x 2.8 (19 : 17) (Plate 1 Fig. 4a-d)

Paratype 4: 4.94 x 2.77 x 2.55 (21 : 16) (Plate 1 Fig. 3a-d)

Ten additional paratypes are in the author's collection. All specimens were recovered from a single sand sample.

Formula: [5(56-51)34:35] (after SCHILDER & SCHILDER 1938, modified after LORENZ 2002)

Description: Very small and translucent. Elegantly pyriform with rostrate extremities. The posterior labral part forms a serrated bow exceeding the columellar posterior tip considerably. The spire is hidden. The anterior extremity is thin, fragile and finely bordered on both sides. The dorsum is moderately humped in the posterior third. The entire shell is covered with regular, evenly spaced transverse ridges. There are no longitudinal ridges. The base is slightly callused, yet the ribbing is retained. The teeth are coarse and long labrally, forming spines along the sharp margins. The columellar teeth are distinct throughout, strong towards the extremities, and not melting with the ridges. There is a weak smooth fossula anteriorly but no fossula peristome on the columella. The aperture is equally narrow and curved behind. The ground color is creamy-white, there are faint brownish dashes forming a question-mark dorsally. The paratypes agree with this description, they vary from 4.2 mm to 6.3 mm. There are two shell-types: a wider and a narrower, more rostrate form. See below for the discussion of this phenomenon.

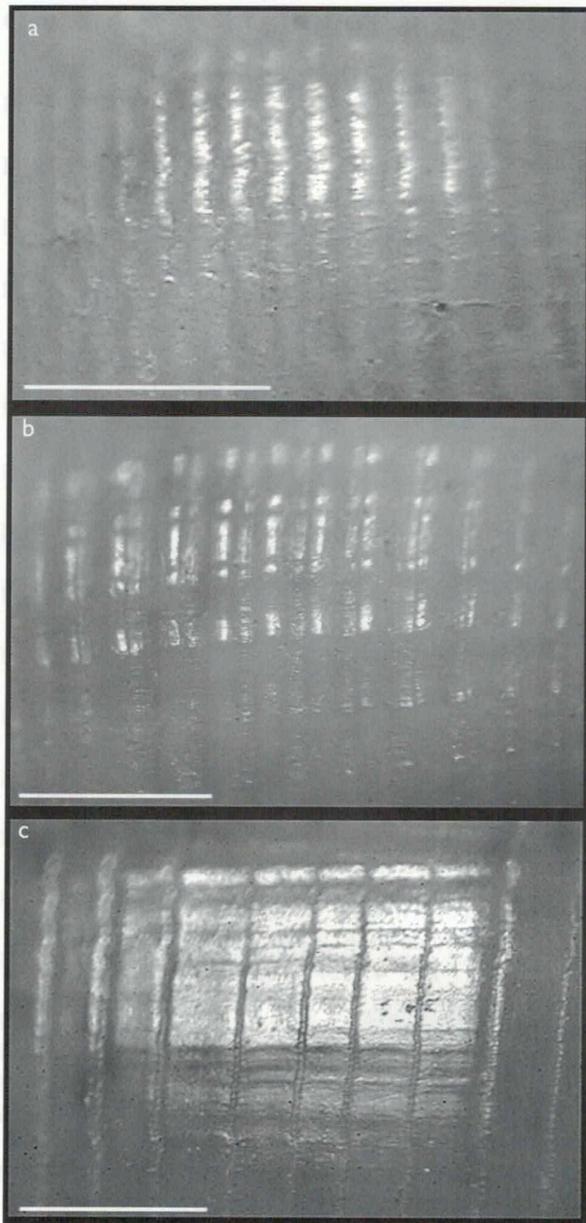
The animal characteristics are unknown.

Habitat and distribution: So far known only from the type locality, "Bermuda Drop", a reef near Kavieng, New Ireland 2° 45.325'S / 150° 41.227'E, Papua New Guinea. Taken with a sand sample at 55-62 m. The new species seems to be fairly common in the particular spot. Sand samples from adjacent reefs contained *Pseudocypraea adamsonii* G. B. SOWERBY I, 1832 and rarely *P. exquisita* PETUCH, 1979.

Etymology: Named in the memory of my friend Prof. Dr. ALEX HUBERT. He appreciated subtle things and would have enjoyed to study this tiny species, probably using the magnifying glass of his Swiss pocket-knife. His brilliance and unique sense of humor are alive in my heart.

Discussion: The genus *Pseudocypraea* was so far known from two widespread species, *P. adamsonii* (Plate 2 Fig. 1a-d, 2a-d), an inhabitant of the intertidal to upper sublittoral zone, and *P. exquisita* (Plate 2 Fig. 3a-d, 4a-d) from greater depths of 50 to 500 m. *P. alexhuberti* is the third member of the genus.

The most important diagnostic feature of the three species of *Pseudocypraea* is the structure of the shell's ribbing (Textfig. 1). In *P. adamsonii*, it is reticulated dorsally, consisting of transverse ribs crossed by weaker longitudinal ridges. In *P. exquisita* there are fine transverse striae which are separated by smooth, flattened areas midway on the dorsum. In specimens from 400 to 500 m depth off New Caledonia, the central part of the dorsum may be smooth. In *P. alexhuberti* there are evenly spaced, rather strong, trans-



Textfig. 1a-c: Comparison of dorsal sculpture (scale: 1 mm).
a: *P. alexhuberti* n. sp. **b:** *P. adamsonii*. **c:** *P. exquisita*.

verse ribs lacking longitudinal ridges. The base in that species is indistinctly ribbed, whereas in *P. adamsonii* the base is coarsely ribbed and smooth in *P. exquisita*.

The dorsal pattern of *P. alexhuberti* is sparse, leaving a wide whitish zone that forms a question mark. The pattern of *P. exquisita* is similar, but the brown mottling is broader and dominant. In *P. adamsonii* there are four brown blotches, three on the right and one on the left side of the dorsum. The labral margin is conspicuously spotted in *P. adamsonii* and *P. exquisita* whereas only pale yellow dashes are found in the anterior end of the labrum of *P. alexhuberti*.

The new species is the smallest of the three *Pseudocypraea*, hardly exceeding 6 mm in length whereas *P. adamsonii* ranges between 8 and 10 mm and *P. exquisita* between 9 and 11 mm. There are two groups of shells in *P. alexhuberti*, which may be the product of sexual dimorphism: Half of the shells available are larger (average 6 mm) and wider (width/length=58 %) compared to a smaller (average 5 mm) and narrower group (width/length=55 %, supposedly the males). On average the ratio between width and length reveals that *P. alexhuberti* (56 %) is narrower and more rostrate than *P. exquisita* (59 %) and *P. adamsonii* (59 %). For a long time, the genus *Pseudocypraea* was considered to be represented by just one species. For a long time, even PETUCH's description of *exquisita* was given little attention. It is possible that closer study of this fascinating group of allied cowries will lead to the discovery of further species that may live in other poorly investigated areas.

A new *Calcarovula* from South Africa

The beautiful egg-cowries have been an orphan group of seashells because of their confusing variability, diversity and - mostly - small size. No two authors agree on their taxonomy and comprehensive literature is scarce. CATE (1973) gave a first monographic treatment, and recently, FEHSE began to sort the family out systematically. He described numerous new taxa and presented a checklist to families and species (FEHSE 2001). The Ovulidae of South Africa were highlighted iconographically in LILTVED (1989 and 2000), with very poor success concerning the correct identification of his shells (FEHSE, pers. comm.). This paper describes a new species previously figured by LILTVED 2000: 135, fig. 203) as "*Phenacovolva longirostrata*".

continued p. 10

Plate 1: (see next page)

Pseudocypraea alexhuberti n. sp.

Fig. 1a-d: Holotype, 6.27 mm

Fig. 2a-d: Paratype 1, 5.24 mm

Fig. 3a, b: Paratype 4, 4.94 mm, possibly male

Fig. 4a, b: Paratype 3, 5.3 mm, possibly female.



Fig. 1a



Fig. 1b



Fig. 1c



Fig. 1d



Fig. 2a



Fig. 2b



Fig. 2c



Fig. 2d



Fig. 3a



Fig. 3a



Fig. 4a



Fig. 4b

Explanation see p. 8

Continuation from p. 8

***Calcarovula ildiko* n. sp.**

Textfig. 3 a-d

Type material: Holotype: 47.2 mm Durban Bluff, Natal; Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Textfig. 3a)

Paratype 1: 63.6 mm Park Rynie, Natal, dived at 52 m (Textfig. 3b)

Paratype 2: 59.0 mm Park Rynie, Natal, dived at 52 m; coll. Mc. BRIDE

Paratype 3: 59.0 mm Park Rynie, Natal, dived at 52 m; Staatliches Museum für Naturkunde Stuttgart, Inv.-Nr. ZI 0062988 (Textfig. 3c)

Paratype 4: 61.8 mm Park Rynie, Natal, dived at 52 m; coll. LORENZ (Textfig. 3d)

Description: Very large for the genus, heavy-shelled, spindle shaped. The body shows a distinct transverse ridge in its centre. The terminals are long and straight posteriorly, slightly curved left anteriorly. The posterior terminal is slightly longer than the anterior one. The canals are equally narrow, there is no funiculum. The aperture widens with a wide labral curve anteriorly. The labrum is thick and callused, without an indication of denticles. It is widest midways, narrowing towards its anterior curve and towards the canals. The callosity of the canals moves around the shell towards the dorsum and forms a shallow groove on both ends. The shell ground color is pale pink, the terminals are becoming purplish brown towards the tips. There is a paler, almost whitish middorsal band. The interior of the shell is pink, darker violet inside the canals. The surface of the shell is glossy and smooth, there are no grooves or other micro-structure.

A living animal from Coffee Bay has a greenish mantle with numerous circular black spots surrounding whitish papillae.

Etymology: Named in honour of ILDIKO MC BRIDE of Tarzana, California.

Habitat: The paratypes 1-4 were collected by a diver at 52 m, all were clinging to a seafan of an unrecorded species. Several living shells were dredged from rubble and sponge bottom at 100 m.

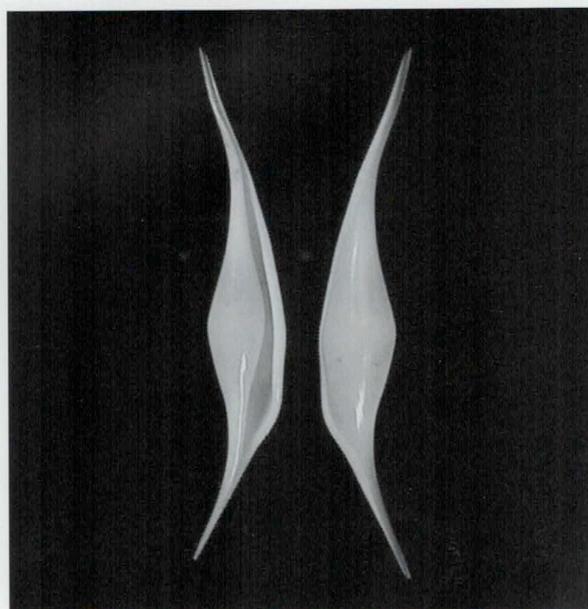
Distribution: The new species ranges from the Durban area, Natal, to Coffee Bay, Transkei, South Africa.

Discussion: The only similar Ovulid species is *Calcarovula longirostrata* (G. B. SOWERBY I, 1832), a widespread Indo-Pacific species (see Textfig. 2). It varies considerably in the length of the terminal canals. Its occurrence along the South African coast was claimed by LILTVED (1989, p. 136, fig. 205). A similar shell is available to me from Coffee Bay, Transkei, dredged from 100 m. All *C. longirostrata* I have studied have fine transverse ridges towards the terminals, visible under magnification. *Calcarovula ildiko* n. sp. is

completely smooth. It is a much larger species (looking at the volume of the body, not considering the terminal canals), and more solid in texture. The paler mid-dorsal band is not found in *C. longirostrata*, which is also less colourful, especially inside. The terminals of *C. ildiko* n. sp. are more callused, especially on columellar side: here the callus moves up to the dorsum to form a narrow groove, a feature not observed in *C. longirostrata*.

Acknowledgements

Many thanks to DIRK FEHSE of Berlin for sharing his immense knowledge on the Ovulids. He was the first to recognize *Calcarovula ildiko* as new species. Many thanks also to DIETMAR AMON and KLAUS GROH.



Textfig. 2: *Calcarovula longirostrata* (G. B. SOWERBY I, 1828), 50 mm, Bali, Indonesia.

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Plate 2: (see next page)

Fig. 1-2: *Pseudocypraea adamsonii* (G. B. SOWERBY I, 1828)

Fig. 1a-d: 9 mm, Helmuth's Reef, Kavieng, New Ireland, from sand sample off 25 m.

Fig. 2a-d: 8 mm, Halmahera, Moluccas, from sand sample off 30 m.

Fig. 3-4: *Pseudocypraea exquisita* PETUCH, 1979

Fig. 3a-d: 10 mm, Aliquay Is., Mindanao, dredged from 100 m.

Fig. 4a-d: 11 mm, Turtle Reef, Kavieng, New Ireland, from sand sample off 60 m.

Blutsauger im Riff

Von FELIX LORENZ & DIETMAR AMON

Textfig. 1 (siehe Seite 13)

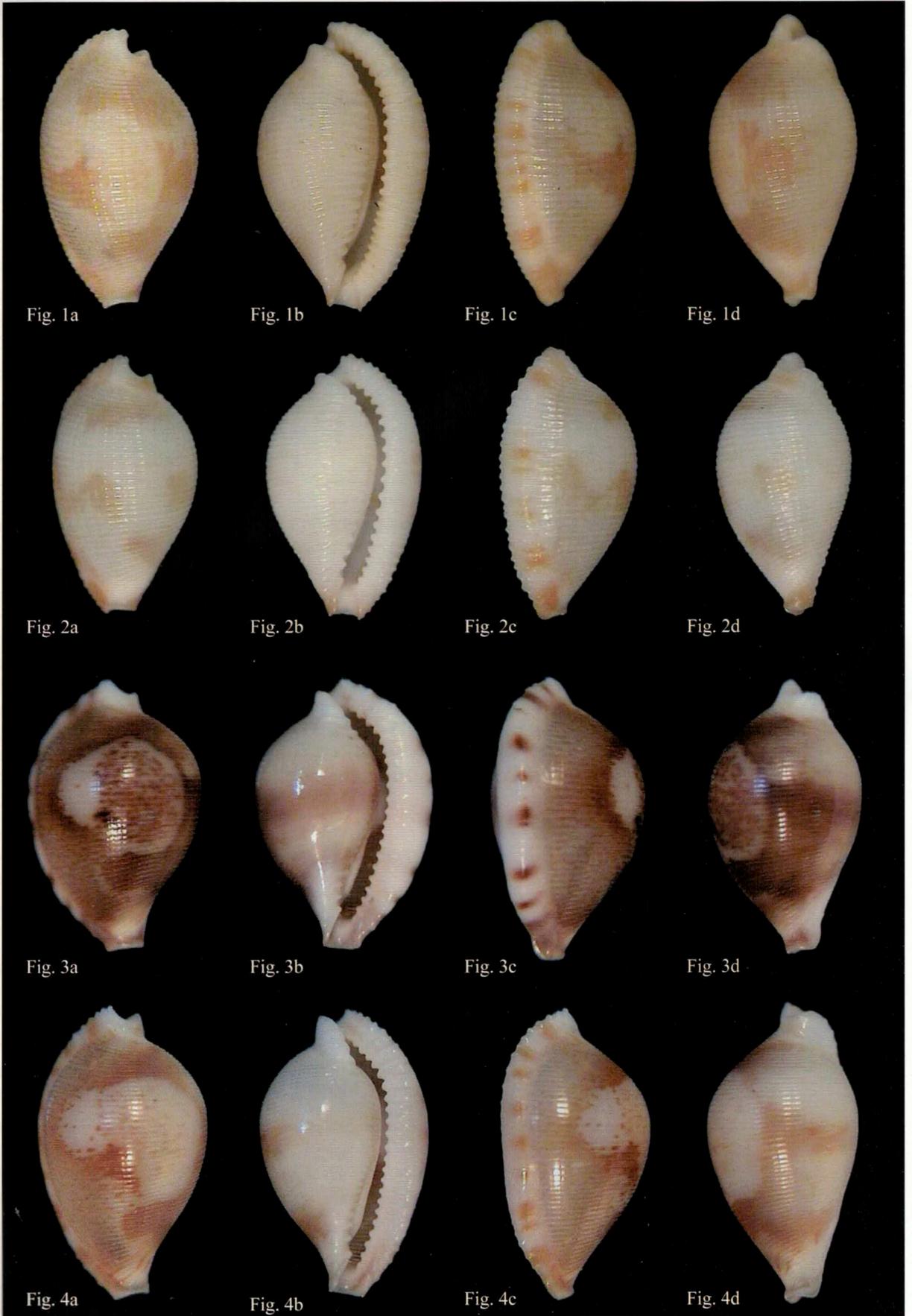
Verschiedene Gastropodenfamilien haben parasitische Arten, die sich durch Saugen vom Blut ihrer Wirte ernähren. Eulimidae und Pyramidellidae parasitieren an Coelenteraten, Anneliden und Echinodermen. Es gibt jedoch auch Arten, die das Blut schlafender Fische saugen: einige Marginellidae, Cancellariidae aber vor allem die Arten der Colubrariidae. Diese nähern sich schlafenden Riff-Fischen und inserieren ihre extrem verlängerte Proboscis in deren Körperöffnungen wie Mundraum, Kiemen oder Augen, wo dünne, gut durchblutete Haut leicht erreichbar ist. Dieser Vorgang wurde bisher vor allem bei *Colubraria obscura* an schlafenden Papageiefischen beobachtet. Auf einem Tauchgang in der Lembah Strait, Nord Sulawesi (Indonesien) gelang uns dieses Foto. Es zeigt, wie *Colubraria muricata* an einem schlafenden Weißspitzen-Riffhai parasitiert. Deutlich ist die schlauchförmige Proboscis der Schnecke (oberhalb der linken Brustflosse des Hais) zu erkennen, die in einen Kiemenspalt geschoben wurde. Das Foto entstand tagsüber,

der Hai ruht unter einem Riffüberhang in 25 m Tiefe. Leere Gehäuse der etwa 8 cm großen *Colubraria muricata* werden in der Lembah Strait relativ häufig in größeren Nischen und Höhlen gefunden, die auch von Haien und Rochen als Ruheplatz aufgesucht werden.

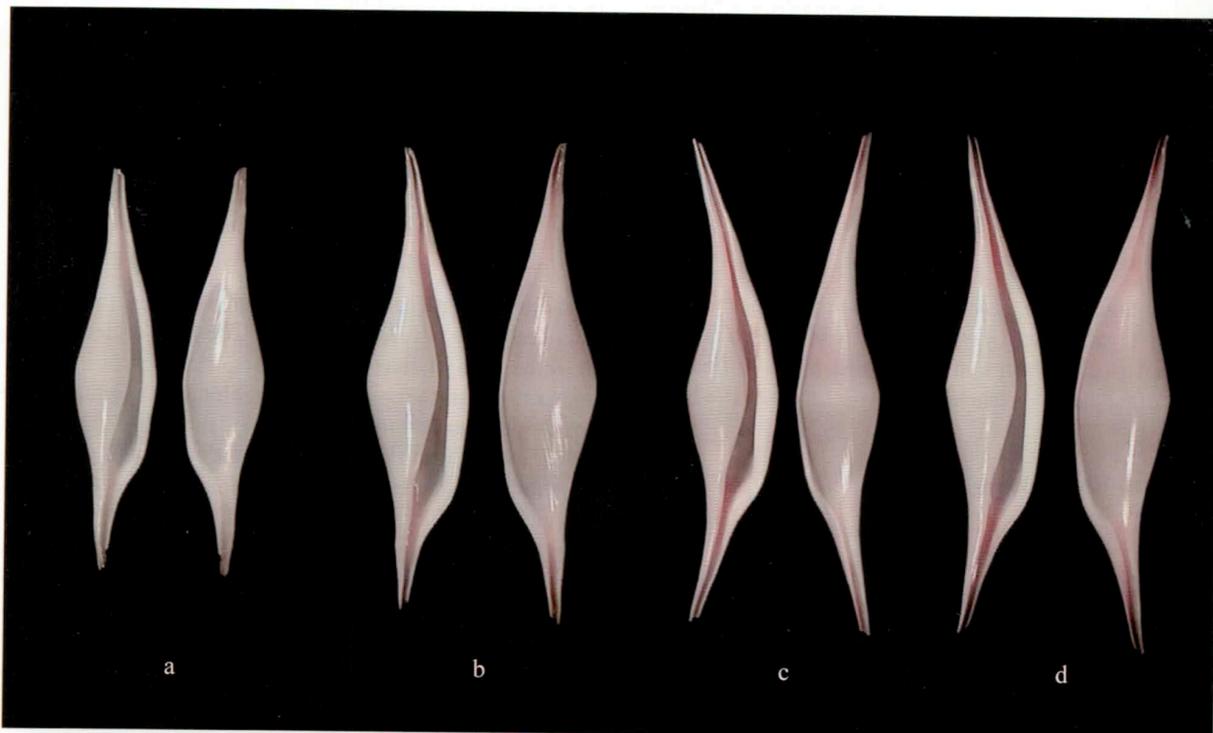
Ein umfangreiches Literaturregister zum Thema parasitäre Mollusken findet sich in: LORENZ, F. (2005): Mollusca. — in ROHDE, K. Marine Parasitology. p. 240ff; Csiro Publishing, Melbourne.

Contact to the authors:

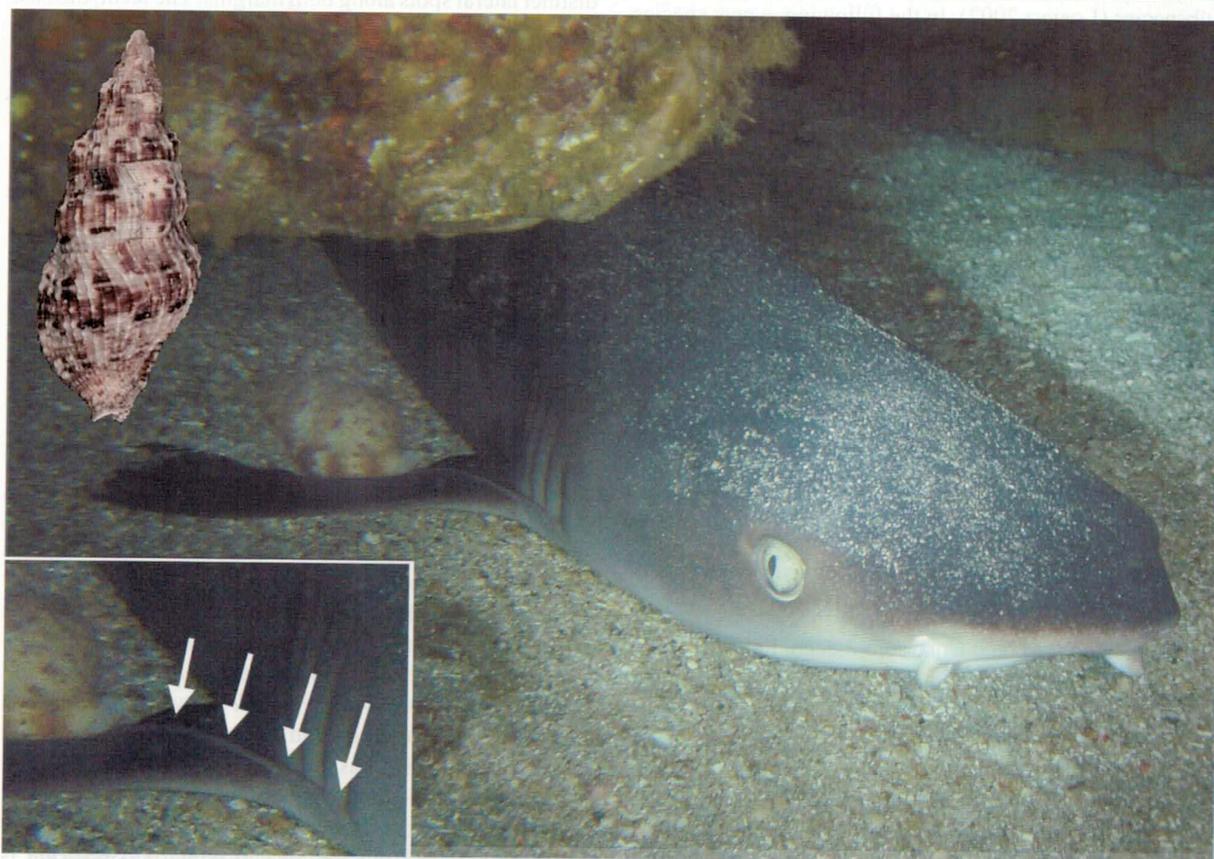
DIETMAR AMON: www.lissening.com
FELIX LORENZ: www.cowries.info



Explanation see p. 11



Textfig. 3a-d: (see p. 10) Types of *Calcarovula ildiko* n. sp. a: Holotype, 47.2 mm. b: Paratype 1, 63.6 mm. c: Paratype 3, 59 mm. d: Paratype 4, 61.8 mm.



Textfig. 1: (see p. 11) Weißspitzen-Riffhai mit Blut saugender *Colubraria muricata* (oberhalb der linken Brustflosse). Deutlich ist die Proboscis zu erkennen (Pfeile).