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La Conchiglia

The Shell

Year XXVIII - n. 278 January-March 1996 (I Quarterly) Quarterly - Sped. Abb. Post. 50% c. 26 art. 2 legge 549/95 - Roma
Aut. trib. di Roma n. 12596 of 28/1/1989 - Lire 12.500 - US\$ 12.50 - TAXE PERÇUE P.P. - TASSA RISCOSSA P.T. ROMA



The habitat of some Coralliophilid species from Tanzania

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Many tropical prosobranch gastropods live in close association with corals and sea-anemones. In some cases parasitism occurs, classic examples are found in the Epitoniidae and the Architectonicidae, such as *Heliacus variegatus* which is a parasite on colonies of *Palythoa*.

Other examples are found in the family Coralliophilidae. In Tanzania a variety of these Neogastropods are found in the lower littoral and sublittoral.

Coralliophila neritoidea (Lamarck 1816)

This most common species is found on several species of *Porites*, a massive, boulder-shaped coral very commonly encountered in areas with seaweed. When these coral-boulders reach a size of a football the surface begins to form shallow grooves, larger boulders have an irregular dough-like surface. *C. neritoidea* is found in these grooves.

The shells are usually densely packed in colonies. They are hard to spot as they are subject to heavy encrustation with algae and commensal Vermitids. *C. neritoidea* seems to feed directly on the polypes of *Porites* and can therefore be considered a parasite.



Fig. 1: *Rapa rapa*, Mbudya Island, Dar-es-Salaam area, Tanzania, in the intertidal, eaten into an *Alcyonium* sp., August 1994

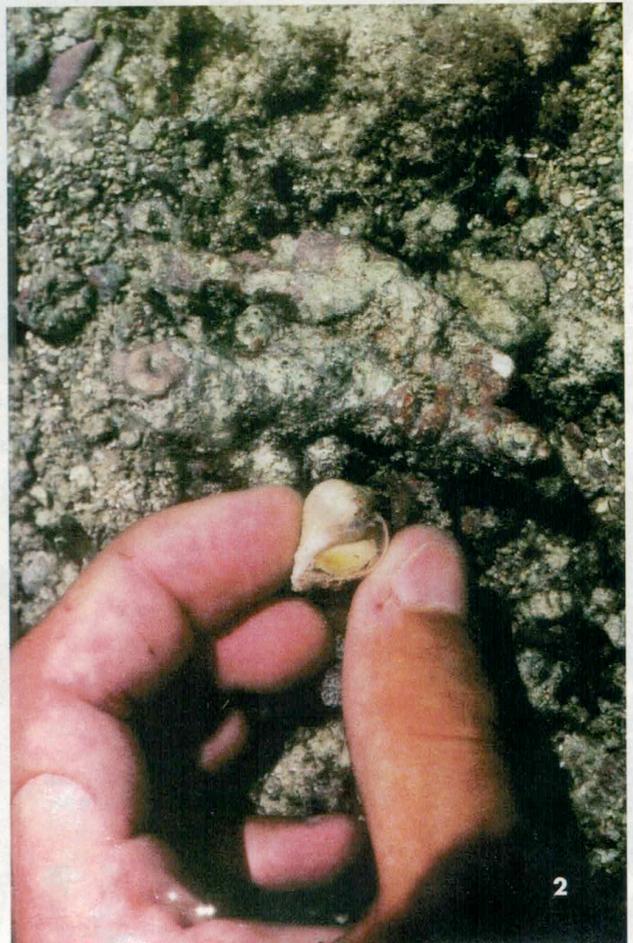
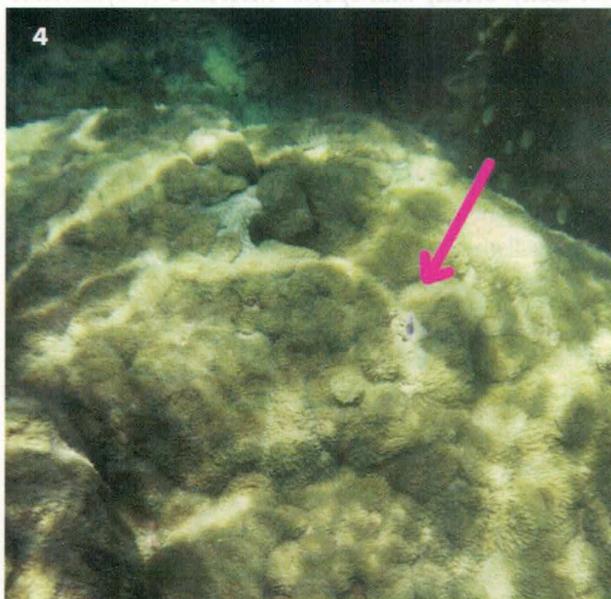
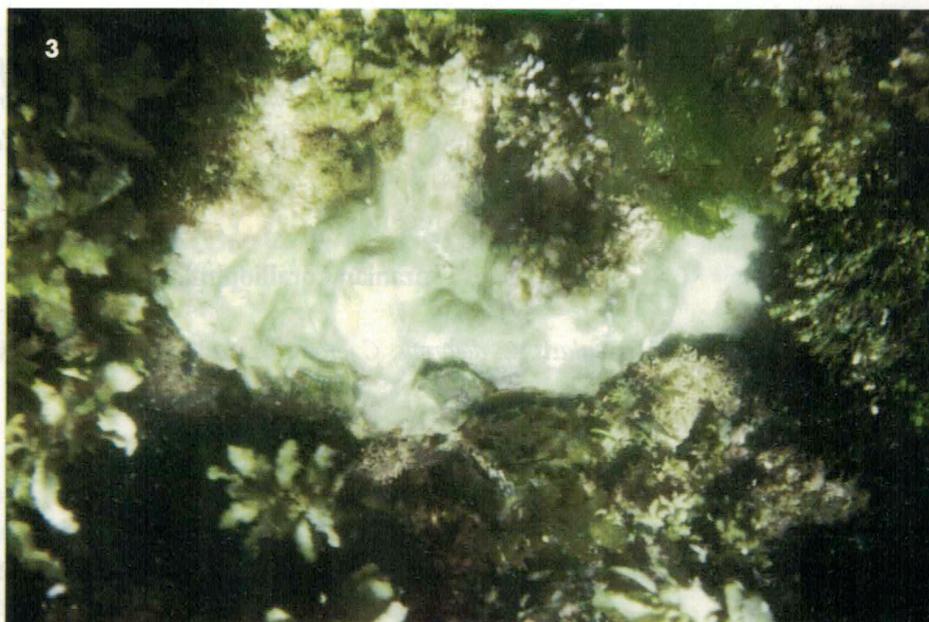


Fig. 2: *Rapa rapa*, living animal, removed from the host coral.

Coralliophila costularis
(Lamarck 1816)

Formerly this species used to be very rare in Tanzania, the only evidences I could find used to be empty, crabbed shells from a reef called Fungu Mkadya near Dar-es-Salaam. In front of the Bahari Beach Hotel, 20kms north of Dar-es-Salaam I found a large colony of *C. costularis* amongst brown anemones of the genus



Discosoma (Discosomatidae) in about 6m depth.

My attention was struck by the massive occurrence of the otherwise rare anemones. On disturbance the polypes contract and expose the heavily encrusted shells of *C. costularis* which live on the barren rock between the cup-sized anemones.

Despite the abundance of *C. costularis* the polypes were intact, without traces of predation. Studies carried out in an aquarium show that *Discosoma* sp. contracts for many days when hurt. These observations suggest that *C. costularis* is not a parasite on *Discosoma* but feeds on the mucus of the polypes and is therefore symbiotic. Similar observations were made by Robertson on *Coralliophila clathrata*.

Fig. 3: Porites coral with *Coralliophila neritoidea*, Bahari Beach, Dar-es-Salaam, April 1994

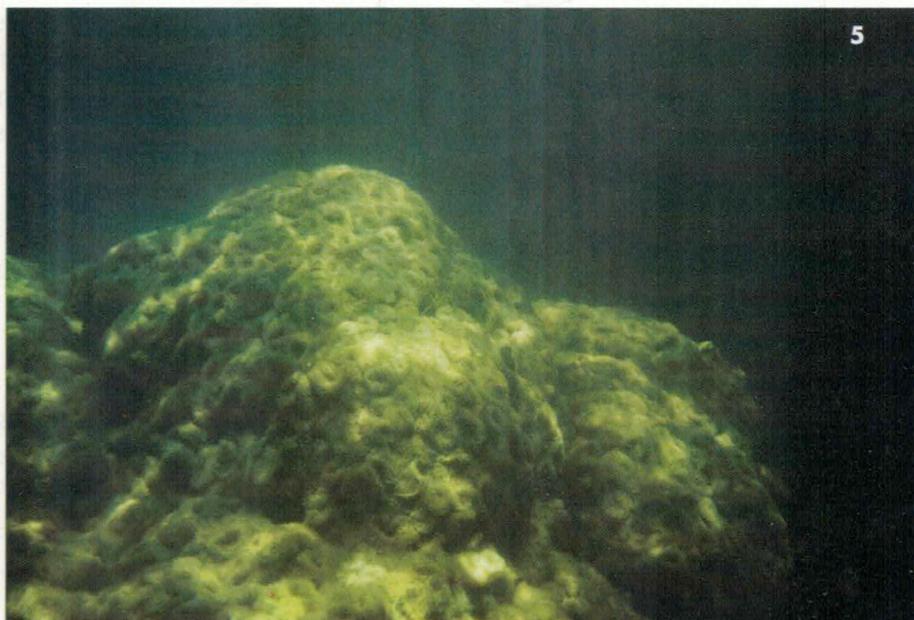


Fig. 4, 5: *Discosomatus* sp. large population, with *Coralliophila costularis* (arrow), Bahari Beach, Dar-es-Salaam, approx. 6m depth, April 1994

Rapa rapa Linné 1758

Specimens of the genus *Rapa* rarely turn up on Tanzanian reefs. The excessive use of dynamite for fishing even these days has diminished the host corals of these parasitic gastropods.

A 18mm specimen of *R. rapa* was recently

found embedded in a small cluster of a bluish *Alcyonium* at Mbudya Island near Dar-es-Salaam where this type of soft coral is still common just below the low tide level. The *Rapa* had eaten into the tissue at the base of the coral.

List of Tanzanian Coralliophilid species:

Coralliophila neritoidea, *C. costularis*, *C. deformis*, *C. erosa*, *C. clathrata*, *C. squamosissima*, *Magilus antiquus*, *Rapa rapa*, *R. incurva*

Many thanks to Jons D. Gratz of Düsseldorf for literature and information.

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