

Gloria Maris	46 (3)	51-58	Antwerpen, augustus 2007
<b>RED SEA MOLLUSCA</b>			
<b>Part 25</b>			
<b>Class : <i>Gastropoda</i></b>		<b>Family : <i>Bursidae</i></b>	
<b>G. Verbinnen<sup>1</sup> &amp; J.A. Buijse<sup>2</sup></b>			

Genus: *Bursa* Röding, 1798

**1. *Bursa bufonia*** (Gmelin, 1791)

**Fig. 1**

Syst. Nat. ed.13, p.3534, n°. 32.

Originally described as *Murex bufonia*.

During all our expeditions we only collected *B. bufonia* in the Gulf of Aqaba. When assisted by divers of C.V.D. (Centre for the Propagation of Diving) one specimen was brought up at Ras Burka. Information concerning the habitat was not registered; only that it was collected during decompression time while surfacing. This specimen is very old and worn, and without any indication of colour. When visiting Eilat (Coral Beach, 1971) three subadult specimens were collected in the littoral zone.

**Remark:** In the consulted publications concerning Red Sea malacology, *Bursa bufonia* was never mentioned. In the OBIS Indo-Pacific Molluscan Database *B. bufonia* is not reported from the Red Sea either. So this is the first record for the Red Sea, from the Gulf of Aqaba as far south as Port Sudan.

**Opmerking:** In geraadpleegde publicaties over de Rode Zee malacologie wordt *B. bufonia* niet vermeld. Ook in de OBIS Indo-Pacific Molluscan Database wordt bij *B. bufonia* niet gerefereerd aan de Rode Zee. Dit is dus een eerste vermelding voor de Rode Zee vanaf de Golf van Aqaba tot aan Port Soedan.

**2. *Bursa granularis*** (Röding, 1798)

**Fig. 2, 3**

Mus. Boltenianum, pars secunda: p.112, n°. 1440.

Original described as *Tritonium granulare*.

This is a worldwide tropical species. In the Red Sea it is locally very common. However, in some areas the species has become hard to find lately, due to the increase

(1) Boskant 31, 2350 Vosselaar, Belgium; E: g.verbinnen@telenet.be.

(2) Beukenstraat 69, 4462 TR Goes, The Netherlands; E: buijse@zeelandnet.nl

of tourism. The majority of *B. granularis* lives on the littoral fringing reefs and on reef flats, characterized by various hard substrates. The early whorls are often eroded and encrusted by calcareous growth.

Average adult size: 57 mm.

**Note:** *B. granularis* is variable, both in colour and nodules and spiral cords and height of the spire. Broderip (1832) described the form with a tall spire and bearing large tubercles at the angular whorls as *Ranella affinis* = *B. affinis* auct.

**Nota:** *B. granularis* is variabel, zowel in kleur als in de knobbels, de spiraalkoorden en de hoogte van de spira. Broderip (1832) beschreef de vorm met de hogere spira en met meer ontwikkelde knobbels op de hoekige windingen als *Ranella affinis* *B. affinis* auct.

### 3. *Bursa lamarckii* (Deshayes, 1853)

**Fig. 4**

Explication des Planches. p.67, pl. 112, figs. 1-2.

Originally described as *Ranella lamarckii*.

Rare throughout the searched areas. *B. lamarckii* is cosmopolitan and inhabits the littoral fringing reefs and reef platforms, which are characterized by various hard substrates and corals. Occasionally a few specimens were live taken at Dahab and Ras el Burka (Gulf of Aqaba). During diving trips in the vicinity of Hurghada and Safaga the species was collected at several depths varying from 1 to 20 metres.

Average adult size: 40mm.

### 4. *Bursa tuberosissima* (Reeve, 1844)

**Fig. 5**

Conch. Icon. Mono. Ranella. spec. 39.

Originally described as *Ranella tuberosissima*.

When assisted by divers of C.V.D., two specimens were brought up at Coral beach (Eilat, 1971). Those were collected between varieties of coral formations at a depth of about 5 metres. After that *B. tuberosissima* was not collected anymore, neither in the Gulf of Aqaba, nor in the proper Red Sea.

Average adult size: 35mm.

**Note:** *B. tuberosissima* is a species whose presence in the Red Sea was suspected but not yet confirmed. The species bears some resemblance to *B. bufonia* (Gmelin, 1791). *B. tuberosissima* is distinguished by the continuous laterally aligned varices, in which traces of former posterior canals are readily recognizable, relatively long and brownish coloured, and the black stained nodules. The interior of the aperture is yellow, whereas *B. bufonia* has a white aperture.

**Nota:** Het voorkomen in de Rode Zee van *B. tuberosissima* werd vermoed, maar moest

nog worden bevestigd. De soort vertoont sterke gelijkenis met *B. bufonia* (Gmelin, 1791). *B. tuberosissima* verschilt door de lateraal opgelijnde varixen waarin de overblijfselen van het achterste kanaal uit eerdere omgangen duidelijk zichtbaar zijn, relatief lang en bruin gekleurd, en door de zwartkleurige knobbels op de spiraallijnen. De binnenkant van de mond is geel gekleurd, terwijl die bij *B. bufonia* wit is.

**5. *Bursa rhodostoma*** (Beck in Sowerby, 1835)

**Fig. 6**

Thes. Conch. Mono. Ranella. pl. 88, fig. 10. Beck in Sowerby II. pl. 88, fig. 10.

Originally described as *Ranella rhodostoma*.

Even though *B. rhodostoma* is a widespread species in tropical seas and moderately common, it seems difficult to be found in the Red Sea. The species usually lives on the reef's edges and on reef platforms, hidden between various corals.

**Note:** Throughout the geographical distribution *B. rhodostoma* appears as a polymorph species, both in form and colouration. The outer lip of *B. rhodostoma* is crenulated with pairs of denticles; the columella is also dentate and nodulate. In some aspects *Bursa rosa* (Perry, 1811), which is also a variable species, resembles the former, especially when juvenile. Adult specimens are easy to separate, though. The pink, dark reddish or violet colour of the aperture extends over the columella and the outer lip, on which white denticles are marked out in *B. rhodostoma*, whereas in *B. rosa* the pink colour of the aperture does not extend over the labrum.

**Nota:** In heel het geografische verspreidingsgebied blijkt *B. rhodostoma* polymorf, zowel in vorm als kleur. De buitenlip van *B. rhodostoma* is fijn gekarteld en paarsgewijs bezet met tanden. De columella is vrij zwaar en eveneens bezet met tanden en knobbels. De mond is meestal donker wijnrood gekleurd. *Bursa rosa* (Perry, 1811) is een andere variabele soort die sterke gelijkenis vertoont met de eerstgenoemde, zeker juveniel. Volwassen exemplaren zijn gemakkelijk te onderkennen. In *B. rhodostoma* strekt de roze, donkerrode of violette kleur van de mond zich uit over de columella en de buitenlip, waarop de witte tanden scherp afsteken. In *B. rosa* strekt de roze kleur van de mondopening zich niet uit over de buitenlip.

**6. *Bursa rosa*** (Perry, 1811)

**Fig. 7**

Conchology. pl. 4, fig. 1.

Originally described as *Biplex rosa*.

During all our expeditions this species was only collected at open sea near Dahab (Gulf of Aqaba). When assisted by divers of C.V.D., two specimens of this very remarkable species were brought up alive from deeper water, probably more than 30 metres. Information concerning the habitat was not registered.

Average adult size: 22mm.

Genus: *Bufonaria* Schumacher, 18177. *Bufonaria echinata* Link, 1807

Fig. 8

Beschr. Nat. Samml. Univ. Rostock. Abt. 2, p.160.

Originally described as *Bufonaria echinata*.

*B. echinata* is a widespread species in the Indo Pacific, but moderately rare and difficult to find in the Red Sea. During all our expeditions *B. echinata* was never collected in the Gulf of Aqaba or in the most northern part of the Red Sea. In the vicinity of Hurghada (Fanadir Island, 1993) one specimen was taken alive on the reef flat. Several specimens were obtained from a local fisherman south of Safaga.

Average size: 45mm.

8. *Bufonaria rana* (Linné, 1758)

Fig. 9

Syst. Nat. ed. 10, Tome. 1, N°. 452.

Originally described as *Murex rana*.*Bufonaria rana* is an uncommon species in the Indo Pacific.

During all our expeditions *B. rana* was never collected in the explored areas. We obtained several specimens, said to be collected during a diving trip south of the Sudanese border from a local fisherman (the late Captain Awad) in Hurghada, 1991. No further references were dated, except that the specimens were live-taken.

Genus: *Tutufa* Jousseau, 18819. *Tutufa bubo* (Linné, 1758)

Fig. 10

Syst. Nat., ed. 10. Tome 1. p. 748, n°. 452, B.

Originally described as *Murex rana bubo* (refers to Rumphius, Mus. t. 28, fig. C, Hector).

*T. bubo* is a widespread species and although commonly found, it is difficult to collect in the Red Sea. The species usually lives on the reef's edges and reef platforms, hidden in the surrounding of sandy patches. Adults are very encrusted by calcareous growth; they usually have heavy growth marks. The outer lip is denticulate, the columella plicate. The aperture is mostly pink or orange coloured.

During all our expeditions this species was only collected in the vicinity of Hurghada and Safaga. At Lotus Bay (N. Safaga) a few large and beautiful specimens were collected while scuba-diving in relatively shallow water. *T. bubo* is the largest representative of the family **Bursidae** in the Red Sea.

Average adult size: 130mm.

**10. *Tutufa bufo*** (Röding, 1798)**Fig. 11-11a**

Mus. Boltenianum, pars secunda: p.128, n°. 1647

Originally described as *Tritonium bufo* (refers to Martini, 1780; 4, pl. 129, fig. 1238).

Locally common throughout the searched areas. *T. bufo* is a cosmopolitan species which generally inhabits deeper water. Occasionally some specimens were live-taken at Coral Beach (Eilat), Dahab and Ras el Burka (Gulf of Aqaba). During diving trips in the vicinity of Hurghada and Safaga the species was collected at several depths varying from 3 to 20 metres, hidden under coral slabs.

**Note:** *T. bufo* bears strong resemblance to *T. bubo* (Linné, 1758) but differs from that species in several aspects; briefly the parietal shield is smooth and not ornamented with weak folds. The interior colour of the aperture is whitish or light yellow, often with a reddish coloured band bordering the inside.

**Nota:** *T. bufo* vertoont sterke gelijkenis met *T. bubo* (Linné, 1758) maar verschilt in meerdere opzichten. Het columellair schild is vrijwel glad. De binnenzijde van de mond is wit of lichtgeel gekleurd, vaak met een roodachtige band aan de grens bij de buitenlip.

**11. *Tutufa rubeta*** (Linné, 1758)**Fig. 12-12a**

Syst. Nat. ed. 10, Tome 1. p. 748, n°. 452, Y.

Ref. to Rumphius. Mus. t. 28, fig. D. Ajax.

Originally described as *Murex rana rubeta* (refers to Rumphius, 1705, Mus. t. 28, fig. D).

*T. rubeta* is a cosmopolitan species. It is locally common but difficult to find in the Red Sea. The collected specimens lived on vegetated patches near fringing reefs and reef edges. The specimens are usually strongly covered with calcareous growth. During all our expeditions this species was only collected in the vicinity of Hurghada and Safaga. While diving in Hurghada several specimens were collected in surroundings of coral bolders in relatively shallow water.

**Note:** *T. rubeta* is in some aspects similar to the two previous species, but can be differentiated by the orange-brown exterior and the aperture. The outer lip is expanded and ornamented with two rows of whitish denticles; the parietal shield is strongly nodulated and lirated. The interior colourations of the aperture and the outer lip have concentric coloured bands of brownish red. In between the rows of denticles there is a more or less colourless band.

**Nota:** *T. rubeta* is in sommige aspecten gelijkend op de twee eerder vernoemde soorten, doch verschilt door de oranjebruine buitenzijde en de mond. De buitenlip is sterk ontwikkeld en bezet met twee rijen witachtige tanden. Het columellaire schild is sterk geknobbeld en geplooid. De binnenzijde van de mond en de buitenlip hebben

concentrische gekleurde banden in bruinachtig rood. Op de band tussen de twee rijen tanden is deze kleur nagenoeg afwezig.

**Acknowledgement:** We are mostly indebted to E. Wils for his continuous advice and support and to R. Pickery for the scrutiny of literature. We wish to thank Dr. A.G. Beu for confirming our identifications.

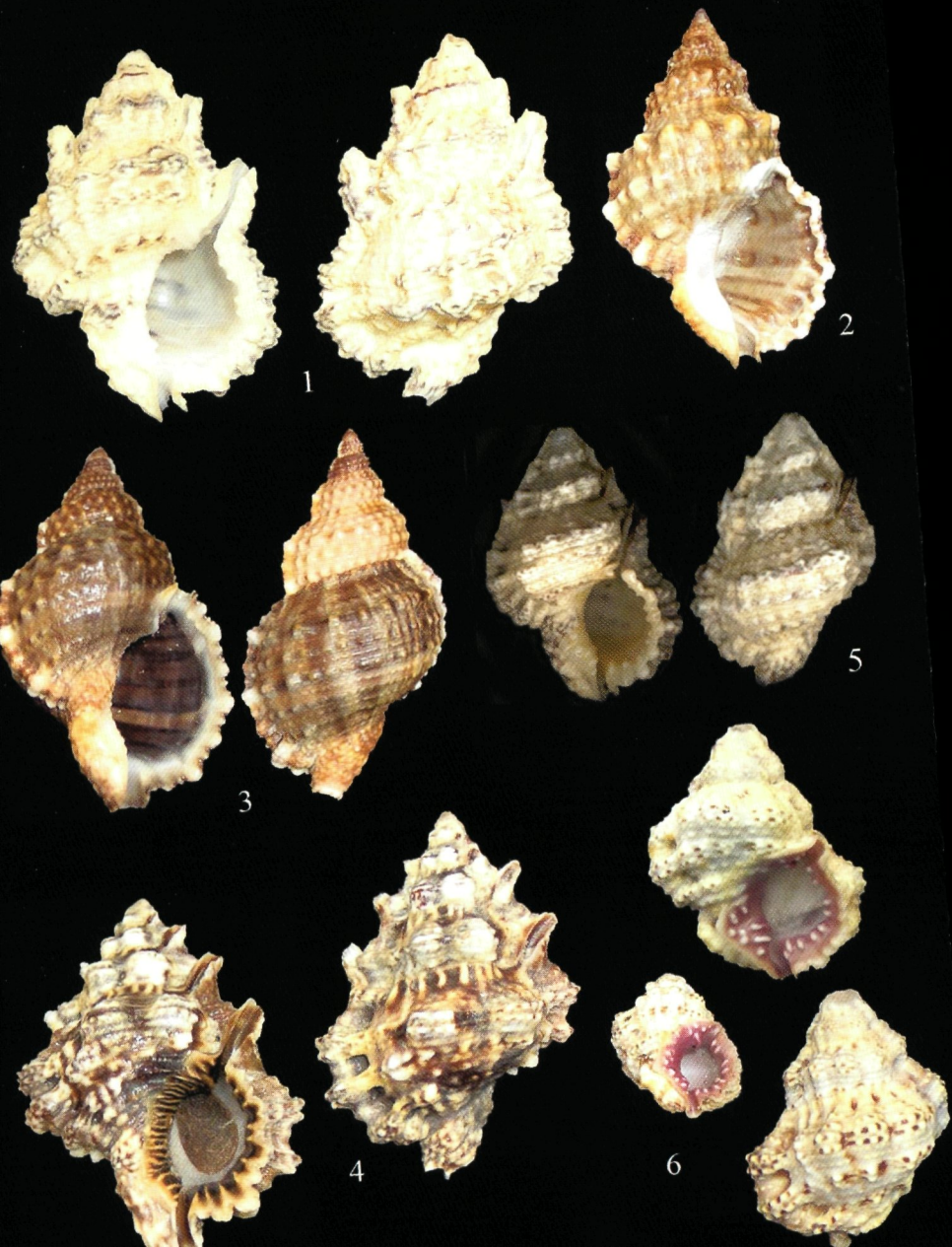
### Plate 1

- 1 *Bursa bufonia* (Gmelin, 1791)
- 2 *Bursa granularis* fa *affinis* (Broderip, 1832)
- 3 *Bursa granularis* (Röding, 1798)
- 4 *Bursa lamarekii* (Deshayes, 1853)
- 5 *Bursa tuberosissima* (Reeve, 1844)
- 6 *Bursa rhodostoma* (Beck in Sowerby, 1835)

### Plate 2

- 7 *Bursa rosa* (Perry, 1811)
- 8 *Bufonaria echinata* Link, 1807
- 9 *Bufonaria rana* (Linné, 1758)
- 10 *Tutufa bufo* (Linné, 1758)
- 11 *Tutufa bufo* (Röding, 1798)
- 11a *Tutufa bufo* juvenile
- 12 *Tutufa rubeta* (Linné, 1758)
- 12a *Tutufa rubeta* juvenile

Photos by Maria Vermeiren.





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11



11a



12a



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