

RED SEA MOLLUSCA

Part 12

Class : *Gastropoda*Family : *Costellariidae**E. Wils (1) & G. Verbinnen (2)**Genus Vexillum* Röding, 1798**43. *Vexillum (Vexillum) intermedium* (Kiener, 1838)****Fig. 43**

Icon. Coquil. Vivant. Vol.2, p.73, pl.22, fig.70.

Originally described as *Mitra intermedia*

Rare throughout the searched areas. While scuba diving at Coral Beach (Eilat 1971) we collected one living specimen at a depth of approximately 9 metres. It was occurring in a sandy substrate. While diving off Hurghada a second one was collected in a sandy habitat at a depth of approximately 12 metres. The species seems to be more common in the area of Port Sudan. Several specimens were collected there.

Subgenus Costellaria Swainson, 1840**44. *Vexillum (Costellaria) acupictum* (Reeve, 1844)****Fig. 44**

Conch. Icon., Vol.2, Mono. Mitra., spec.76, pl.11, fig.76.

Originally described as *Mitra acupicta*.

V. (C.) acupictum is a widespread species of the intertidal and shallow sublittoral zone. Rather common in the Indo-Pacific. This species is moderately rare in the Red Sea. We collected one beached juvenile at Ras Nusrani 1987. One live-taken specimen was collected in the area of Port Sudan. The species was occurring at a moderate depth, living in muddy sand.

45. *Vexillum (Costellaria) alauda* (Sowerby, 1874)**Fig. 46**

Thes. Conch. Monogr. Mitra, part 4, p. 35 n°476, pl.10, figs.134-135-158

Originally described as *Mitra alauda*.

Locally common. A few specimens were collected at Dahab 1986 (Gulf of Aqaba). In the proper Red Sea *V. (C.) alauda* seems to be more common. Several specimens were collected at Sharm el Naga and Coral Beach (Hurghada 2000). All were occur-

ring in a sandy habitat.

Remark: The specimens collected in the Red Sea were described as *Vexillum (Costellaria) wilsii* by Buijse & Dekker, 1990. In 1992, Buijse, Dekker and Turner, based on new information, concluded that *V. (Costellaria) wilsii* must be considered synonymous to *V. (C.) alauda*. We are in doubt about this decision.

Opmerking: De specimens verzameld in de Rode Zee werden beschreven door Buijse & Dekker, 1990 als *Vexillum (Costellaria) wilsii*. In 1992 beschouwen Buijse, Dekker and Turner, gebaseerd op nieuwe informatie, *V. (C.) wilsii* als synoniem van *V. (C.) alauda*. Wij hebben onze twijfel over deze beslissing.

46. *Vexillum (Costellaria) amandum* (Reeve, 1845)

Fig. 51

Conch. Icon., Vol. 2, Mono. Mitra., spec.318, pl.38, fig.318.

Originally described as *Mitra amanda*.

Rare. During all the expeditions *V. amandum* was only found in the Gulf of Aqaba. After a storm we collected three subadult specimens on the beach of Ras Nusrani. The average size is 12 mm. The specimens are in the collection of the first author.

47. *Vexillum (Costellaria) angustissimum* (E. A. Smith, 1903)

Fig. 52

Faun. Geolog. Maldives and Laccad. 2 (2) p.605, pl.35, fig.5.

Originally described as *Mitra angustissima*

Not common. At Na'Ama Bay 1986 (Gulf of Aqaba) one specimen was taken alive in coral rubble at a depth of approximately 3 metres. A second one, crabbed but in good condition, was collected on the beach. A third one was collected near the bay of Sharm el Naga 1993 (20 km north of Safaga).

48. *Vexillum (Costellaria) blandulum* H. Turner, 1997

Fig. 53

Argonauta, 10 (1-6): 3-31, 8 Taf: figs.1-53

Not common. During the expeditions *V. (C.) blandulum* was only collected in the Gulf of Aqaba.

While scuba diving near Coral Beach (Eilat 1971) two specimens were collected at a depth of approximately 5 metres. At Na'Ama Bay 1986 two subadults and two adults were collected in shallow water.

49. *Vexillum (Costellaria) cadaverosum* (Reeve, 1844)

Fig. 54

Conch. Icon., Vol. 2, Mono. Mitra., spec.160, pl.21, fig.160.

Originally described as *Mitra cadaverosa*

Rare in the northern part and proper Red Sea. While snorkelling in Nuweiba 1994 (Gulf of Aqaba) we collected two crabbed specimens of which one is in perfect condition. We have not found one ever since.

50. *Vexillum (Costellaria) concentricum* (Reeve, 1844)

Fig. 55

Conch. Icon., Vol. 2, Mono. Mitra., spec.128, pl.17, fig.128.

Originally described as *Mitra concentrica*

Locally common. *V. concentricum* is only collected in the Gulf of Aqaba. While snorkelling at Coral Beach (Eilat 1971) we collected three specimens. In Dahab 1986, six specimens were collected at a depth of approximately 3 metres. The species was most common in Na'Ama Bay (Sharm el Sheikh 1986) *V. (C.) concentricum* occurs on sand between algae in shallow water.

Note: This species was originally identified as *V. echinatum* A. Adams, 1853. However, the latter is a synonym.

Nota: Deze soort hadden we oorspronkelijk gedetermineerd als *V. echinatum* A. Adams, 1853. Deze laatste is echter synoniem.

51. *Vexillum (Costellaria) coronatum* (Helbling, 1779)

Fig. 56

Abhandl. Einer Privatgeselsch. In Böhmen. Vol.4. p.121, pl.II, figs.28-29.

Originally described as *Voluta coronata*

The distributional range of *V. coronatum* is widespread. The species is not common in the Gulf of Aqaba and proper Red Sea. Only a few specimens were collected at Dahab and Na'Ama Bay (Sharm el Sheikh). Several specimens were collected in the area of Hurghada and Safaga, but nearly all were crabbed. We sporadically collected some individuals on a similar substrate as *V. (C.) alauda* Sowerby, 1874 in the bay of Sharm el Naga.

52. *Vexillum (Costellaria) daedalum* (Reeve, 1845)

Fig. 57

Conch. Icon., Vol.2, Mono. Mitra., spec.281, pl.34, fig.281.

Originally described as *Mitra daedala*

During all our expeditions, this species was only collected in the Gulf of Aqaba. While scuba-diving at Ras um Sidd 1986 a single specimen was collected in a sandy habitat. (collection of first author).

Note: Jickeli 1874:41 (Jiddah, Massawa and Dahlak) refers to records of Rüppell (Red Sea) and Hemprich & Ehrenberg (Gumfadda). One way or the other Jickeli is not sure about his identifications.

Nota: Jickeli 1874: 41 (Jiddah, Massawa and Dahlak), verwijst ook naar records van Rüppell (Red Sea) and Hemprich & Ehrenberg, (Gumfudda). Hoe dan ook Jickeli is niet zeker van zijn identifications.

53. *Vexillum (Costellaria) diaconalis* (Melvill & Standen, 1903)

Fig. 58

Ann. and Mag. Nat. Hist. 7 ser., vol.12, n°.69.

Originally described as *Mitra diaconale*

Very rare in the Red Sea. This species was never collected in the Gulf of Aqaba, nor in the northern part of the Red Sea. In 1999 one single specimen was live taken on a reef flat off Hurghada. The specimen occurred in coral sand. We have not found one ever since. (collection Mr. M. Dirx)

Note: According to Turner 2001 *V. (C.) diaconalis* is synonym of *V. (C.) angustissi-*

mum (E. A. Smith, 1903). In our opinion the former has a valid status.

Nota: Volgens Turner 2001 is *V. (C.) diaconalis* een synoniem van *V. (C.) angustissimum* (E. A. Smith, 1903). Naar onze mening heeft eerstgenoemde een valide status.

54. *Vexillum (Costellaria) exasperatum* (Gmelin, 1791)

Fig. 45

Syst. Nat. Hist. Ed. 13, p.3453, n°.135.

(Ref. Chemnitz Vol. X, t.151, figs. 1440-1441.)

Originally described as *Voluta exasperata*

The geographic range of this very variable species is widespread. It is not common and hard to find in the Red Sea. The species occurs in sandy habitats among coral formations. At Near Garden (Sharm el Sheikh 1987) a few specimens were collected while scuba diving. From the proper Red Sea we report some specimens collected at Algisos (20km south of Safaga). The species is more common in the area of Port Sudan.

55. *Vexillum (Costellaria?) interruptum* (Anton, 1838)

Fig. 60

Anton 1838, p.68, n°.2374.

Originally described as *Mitra interrupta*

Rare. During all our expeditions this species was never collected in the proper Red Sea.

In 1986 when we visited the Gulf of Aqaba *V. (C.) interruptum* was collected at Na'Ama Bay (Sharm el Sheikh) and Ras Nusrani. All three specimens were juvenile, crabbed and drilled. (collection of first author).

Average size is 4mm.

Note: Turner 2001 puts *Vexillum interruptum* in the subgenus *Pusia*.

Nota: Turner 2001 plaatst *Vexillum interruptum* in het subgenus *Pusia*.

56. *Vexillum (Costellaria) leucozonias* (Deshayes in Laborde & Linant, 1834)

Fig. 49

Voy. De l'Arabie Pétrée, p.66, figs. 26-28.

Originally described as *Mitra leucozonias*.

Rare. During all our expeditions *V. (C.) leucozonias* was only found in the Gulf of Aqaba. They were collected while scuba diving at a depth of approximately 9 metres. In the area of Eilat 1971 we collected two specimens, one adult and one subadult. At Ras Nusrani 1987 three subadults were collected in the sublittoral zone while snorkelling. We have not found one ever since. The average size is 14mm.

57. *Vexillum (Costellaria) lucidum* (Reeve, 1845)

Fig. 59

Conch. Icon., Vol. 2, Mono. Mitra., spec.266, pl.33, fig.266.

Originally described as *Mitra lucida*

Vexillum lucidum has a distributional range from the Indo-Pacific through the Central Pacific.

It is very rare in the Red Sea. A single specimen with a length of 20mm was collected in the Hurghada area. The specimen is in the collection of the first author.

Note: This species was originally identified as *V. semiticum* Jickeli, 1874. However, the latter is a synonym.

Nota: Deze soort hadden we oorspronkelijk gedetermineerd als *V. semiticum* Jickeli, 1874. Deze laatste is echter synoniem.

58. *Vexillum (Costellaria) macrospirum* (A. Adams, 1853)

Fig. 50

Proc. Zool. Soc. London, Part. XIX, p.138, n° 35

Originally described as *Mitra macrospira*

Rare throughout the searched areas. Two specimens were collected while scuba diving at Ras um Sidd (Gulf of Aqaba). The specimens were collected offshore at a depth of approximately 30 metres. They were occurring on sandy patches between coral formations.

V. (C.) macrospira has never been found during all our expeditions in the proper Red Sea.

59. *Vexillum (Costellaria) malcolmense* (Melvill & Standen, 1901)

Fig. 61

Proc. Zool. Soc. London 2, p.421, pl.23, fig.18.

Originally described as *Mitra malcolmens*.

Rare throughout the searched areas. At Ras Nusrani two juvenile specimens were collected in very shallow water. A single specimen, crabbed but in good condition, was collected at Algisos (20 km south of Safaga) in the proper Red Sea.

60. *Vexillum (Costellaria) michau* (Crosse & Fischer, 1864)

Fig. 47

Journal de Conchyl. vol.12, p.337, n° 53. No figure available.

Originally described as *Mitra michau*

Very rare in the northern part of the Red Sea. In Na'Ama Bay (Sharm el Sheikh) a poor specimen (scarface on the ventral side) was collected on a sandy bottom at a depth of approximately 3 metres. *V. (C.) michau* seems to occur in sympatry with various species of *Terebridae*. At the time being we did an extensive search but a second species could not be found. At Ras Nusrani a second specimen, also in poor condition, was collected on the beach.

61. *Vexillum (Costellaria) obeliscus* (Reeve, 1844)

Fig. 48

Conch. Icon., Vol. 2, Mono. Mitra., spec.107, pl.15, fig.107.

Originally described as *Mitra obeliscus*.

Rare in the Red Sea. Before 1987 we only knew this species from literature. That year we collected 12 juveniles. All were crabbed. In the same period four adult, but crabbed specimens were collected at Na'Ama Bay (Sharm el Sheikh). We conclude that *V. (C.) obeliscus* probably occurs in deep water. Up till now we have not been able to collect this species in the proper Red Sea.

- 62. *Vexillum (Costellaria) pacificum*** (Reeve, 1845) **Fig. 62**
 Conch. Icon., Vol. 2, Mono. Mitra., spec.272, pl.33, fig.272.
 Originally described as *Mitra pacifica*.
V. (C.) pacificum is a widespread species of the intertidal and shallow sublittoral zone. Rather common in the Indo-Pacific. It is hard to find in the Red Sea. Only a few specimens were collected at Coral Beach (Eilat), Ras Nusrani and Ras Mohammed (Gulf of Aqaba).
 From the proper Red Sea we report one live-taken specimen. It was collected at Coral Beach Hurghada 1993. We have not found one ever since.
 The average size is 14mm.
- 63. *Vexillum (Costellaria) puerile*** (Cooke, 1885) **Fig. 63**
 Ann. Mag. Nat. Hist., ser.5, vol.15, p.337.
 Originally described as *Mitra puerilis*.
 Rare. During all our expeditions in the Gulf of Aqaba *V. (C.) puerile* was only collected at Ras Nusrani 1986. The species was collected on the beach between coral and shell rubble. It was crabbed but in fairly good condition.
 Up till now we have not been able to collect this species in the proper Red Sea. (specimens in collection of the first author).
- 64. *Vexillum (Costellaria) roseum*** (Broderip, 1836) **Fig. 64**
 Proc. Zool. Soc. London Part III (36), p.195
 Originally described as *Tiara rosea*
 Very rare in the Red Sea. This species was never collected neither in the Gulf of Aqaba nor in the northern part of the Red Sea. At Port Sudan 1975 a single specimen was collected. It was occurring on sand between coral formations. We have not found one ever since. (Specimen in collection of the first author).
- 65. *Vexillum (Costellaria) sculptile*** (Reeve, 1845) **Fig. 65**
 Conch. Icon., Vol. 2, Mono. Mitra., spec.290, pl.35, fig.290.
 Originally described as *Mitra sculptilis*.
 Rare in the Red Sea. Up till 1986 this species was unknown to us. That year a freshly dead subadult specimen was collected while snorkelling at Na'Ama Bay (Sharm el Sheikh). During the same expedition a second specimen was collected on the beach of Ras Nusrani after a storm.
- 66. *Vexillum (Costellaria) virgo*** (Linné, 1767) **Fig. 66**
 Syst. Nat. Hist. Ed. 12, p.1192, n° 416.
 Originally described as *Voluta virgo*
 Not common. While visiting Ras Mohammed 1987, three relatively small specimens (average size is 13 mm) were collected while scuba diving. The specimens were collected between coral formations at a depth of approximately 6 metres. From the proper Red Sea we report several specimens collected in the vicinity of Port Sudan.

Subgenus Pusia Swainson, 1840

- 67. *Vexillum (Pusia) amabile*** (Reeve, 1845) **Fig. 69**
 Conch. Icon., Vol. 2, Mono. Mitra., spec.274, pl.33, fig.274.
 Originally described as *Mitra amabilis*
 Locally common throughout the searched areas. *V. (Pusia) amabile* is a widespread species occurring in the intertidal and shallow sublittoral zone. Several specimens were collected at Na'Ama Bay (Sharm el Sheikh) and Ras Mohammed (Gulf of Aqaba). For the proper Red Sea we report finds from Hurghada, Lotus Bay (north of Safaga) Algisos, Ras Abu Söma and El Quseir.
- 68. *Vexillum (Pusia) aureolatum*** (Reeve, 1844) **Fig. 68**
 Conch. Icon., Vol. 2, Mono. Mitra., spec.210, pl.26, fig.210.
 Originally described as *Mitra aureolata*.
 Rare in the northern part of the Red Sea. *V. (P.) aureolatum* is only collected in the Gulf of Aqaba. We collected three specimens while snorkelling in the sublittoral zone. They were collected on a rocky substrate.
- 69. *Vexillum (Pusia) crocatum*** (Lamarck, 1811) **Fig. 67**
 Annales du Mus.d'Hist. Nat. Paris.vol.17, p.202, n°.14.
 (Ref. Gualtieri, t.52, fig. G.)
 Originally described as *Mitra crocata*.
V. (P.) crocatum is a widespread species. It occurs in the intertidal and shallow sublittoral zone. In the Red Sea specimens of this species are hard to find. Only a few specimens were collected in the Gulf of Aqaba. While scuba diving at Coral Beach (Eilat 1971) one specimen was live-taken. A second live one was collected at Ras um Sidd 1987. While snorkelling in Ras Burka 1972 we collected five crabbed specimens. Two of them were in perfect condition. Up till now we have not been able to collect this species in the proper Red Sea.
- 70. *Vexillum (Pusia) depexum*** (Deshayes in Laborde & Linant, 1834) **Fig. 70**
 Voy. De l'Arabie Pétrée, p.66, figs.23-24-25.
 Originally described as *Mitra depexa*.
 Not common throughout the searched areas. One specimen was collected while scuba diving at Coral Beach (Eilat 1971). It appeared at a depth of approximately 5 metres. A nursery of juveniles was collected in very shallow water in Na'Ama Bay 1987. Average size 8mm. (Seven specimens in collection of the first author). From the proper Red Sea we report one specimen from Sharm el Naga, and two from Lotus Bay (north of Safaga).

- 71. *Vexillum (Pusia) infaustum*** (Reeve, 1845) **Fig. 71**
 Conch. Icon., Vol. 2, Mono. Mitra., spec.326, pl.39, fig.326.
 Originally described as *Mitra infausta*.
 Rare throughout the searched areas. Two juvenile crabbed specimens were collected at Ras Mohammed 1986 and near Nuweiba 1994 (Gulf of Aqaba). Five specimens were found in the proper Red Sea. Three were collected at Coral Beach (Hurghada 2000) and two at Lotus Bay (north of Safaga 1992). All were collected near a reef. Average size is 11 mm.
- 72. *Vexillum (Pusia) microzonias*** (Lamarck, 1811) **Fig. 72**
 Annales du Mus.d'Hist. Nat. Paris. Vol.17, p.218, n°.62.
 Originally described as *Mitra microzonias*.
 Very rare. The species was only collected in the Gulf of Aqaba. A single specimen was collected at Coral Beach (Eilat 1971) while scuba diving at a depth of approximately 12 metres. (Specimen in the collection of the first author).
- 73. *Vexillum (Pusia) cf oniscinum*** (Lamarck, 1811) **Fig. 73**
 Annales du Mus.d'Hist. Nat. Paris.vol.7, p.221, n°.78.
 Originally described as *Mitra oniscina*.
 Rare. We are still in doubt about the real identity of this species. One crabbed specimen was collected at Na'Ama Bay (Sharm el Sheikh). In 30 years of expeditions in the Red Sea, we have not been able to collect a second specimen. Neither in the Gulf of Aqaba nor in the proper Red Sea.
- 74. *Vexillum (Pusia) osiridis*** (Issel, 1869) **Fig. 74**
 Malac. Del Mar Rosso, pp.263, 264, n.91, t.III, fig.8
 Originally described as *Mitra osiridis* (fossil).
 Not common throughout the searched areas. In the Gulf of Aqaba we occasionally collected *V. (P.) osiridis* at Coral Beach (Eilat), Na'Ama Bay (Sharm el Sheikh). In the proper Red Sea we collected some specimens at Fanadir Island, and Lotus Bay (north of Safaga). All specimens occurred in sand between coral formations.
Note: *V. (P.) osiridis* is generally considered endemic to the Red Sea. However, it also occurs in the Arabian Sea. Bosch et al, 1995 figured two specimens collected at different places.
Nota: Over het algemeen wordt *V. (P.) osiridis* beschouwd als endemisch voor de Rode Zee. De soort komt echter ook voor in de Arabische Zee. Bosch en and., 1995 beelden twee exemplaren af verzameld in verschillende biotopen.
- 75. *Vexillum (Pusia) pardalis*** (Küster, 1840) **Fig. 76**
 Syst. Conch. Cab. ed.2, Vol.5, (2), p.105, n°.87, pl.17, figs.14-15.
 Originally described as *Mitra pardalis*.
 Locally common. We collected this species throughout the searched areas. It occurs

between coral formations in the intertidal zone. However, *V. (P.) pardalis* is never found in great numbers. Average size is 12 mm.

Note: *V. (P.) pardalis* is very similar to *V. (P.) consanguineum* (Reeve, 1845). The former differs by the overall form, which is fusiform. The colour of the shell is reddish brown ornamented with white blotches above the suture. These blotches do not form a band.

Nota: *V. (P.) pardalis* gelijkt sterk op *V. (P.) consanguineum* (Reeve, 1845). De eerstgenoemde verschilt door zijn meer uitgezette vorm. De kleur van de schelp is roodbruin, bezet met witte vlekken boven de suture. Deze vlekken vormen geen band.

76. *Vexillum (Pusia) semicostatum* (Anton, 1838)

Fig. 78

Verzeichn. Der Conchiel. Samml. H.E. Anton, p.68, n°.2363.

Originally described as *Mitra semicostata*.

Rare. During all our expeditions this species was only collected in the Gulf of Aqaba. A single specimen was collected in a sandy habitat while scuba diving at Coral Beach (Eilat 1971). The first author first identified this specimen as *V. (P.) corallina*, which is a synonym.

Note: The text of Anton's description dates from 3 August to 9 October, 1838, whereas the title page is dated 1839.

Nota: De tekst van Antons beschrijving is 3 augustus tot 9 oktober 1838 gedateerd, terwijl de titelpagina het jaartal 1839 vermeldt.

77. *Vexillum (Pusia) speciosum* (Reeve, 1844)

Fig. 77

Conch. Icon., Vol.2, Mono. Mitra., spec.148, pl.19, fig.148.

Originally described as *Mitra speciosa*.

V. (P.) speciosum is a widespread species, occurring in the intertidal and shallow sublittoral zone. It seems to be very rare in the Red Sea. A single subadult but crabbed specimen with a length of 13,2 mm was collected in the Bay in front of the Sheraton Hotel (Hurghada 1979).

78. *Vexillum (Pusia) unifasciale* (Lamarck, 1811)

Fig. 75

Annales du Mus.d'Hist. Nat. Paris. Vol.7, p.219, n°.65.

Originally described as *Mitra unifacialis*.

Rare. During all our expeditions in the Gulf of Aqaba, *V. (P.) unifasciale* was only collected at Ras Nusrani 1987. The species was collected on the beach between coral and shell rubble. A second and completely white specimen was collected at Nuweiba 1994. We have not found one ever since.

Note: This species was originally identified as *V. (P.) hemprichi* (Jickeli, 1874) which is a synonym.

Nota: De soort werd door ons oorspronkelijk verkeerd gedetermineerd als *V. (P.) hemprichi* (Jickeli, 1874) wat een synoniem blijkt te zijn.