

Short Communication

On the occurrence of *Stenopus tenuirostris* De Man, 1888 in Natal waters

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The stenopodidean shrimp *Stenopus tenuirostris* De Man, 1888 is reported from Natal waters for the first time. This record represents a considerable southward extension of this uncommon tropical species for the African sub-region.

Die stenopodideaanse garnaal *Stenopus tenuirostris* De Man, 1888 word vir die eerste keer uit Natalse waters opgeteken. Die aanmelding verteenwoordig 'n geweldige suidwaartse verspreiding van hierdie ongewone spesies vir die Afrika sub-streek.

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The Stenopodidea form the small, yet distinctive infraorder of decapod crustaceans commonly known as barber-, cleaner- or sponge-shrimps. Holthuis (1946) recognized seven genera and 23 species of stenopodids throughout the world and this figure has now been increased to nine genera and 60 species worldwide (Goy 1983, 1985). The infraorder can be broadly divided into two ecological groups, the first living in shallow water from the inter-tidal down to 50 m and includes the genera *Microprosthema* and *Stenopus*. The second group is the deep-water forms which are commensals of Hexactinellid sponges living below 165 m such as *Spongicola*, *Spongicoloides* and *Spongiocaris*. Species of these deep-water genera are most easily separated by host-sponge specificity (Goy 1983). Another stenopodid genus, *Odontozona* appears to have a wider depth range, occurring in both shallow and deeper waters.

In southern African waters, representatives of both shallow-water and deep-water groups are found. Kensley (1981) recorded only one shallow-water species — the common, pan-tropical barber shrimp *Stenopus hispidus* from the Agulhas Bank to Mozambique, as well as two apparently endemic deep-water genera and species, *Odontozona spinosissima* collected at 150–200 m off the Transkei coast (Kensley 1980) and *Spongiocaris semiteres* collected off Durban at a depth of 460 m (Bruce & Baba 1973).

For some time, aquarists in Natal have collected a less common second species of shallow-water stenopodid which

has been referred to as the 'purple-vested shrimp' whose colour patterns are distinctly different from those of *S. hispidus*. This information prompted the authors to collect and identify this species.

After extensive snorkelling on reefs around the Durban area (29°48'S / 31°05'E), a small specimen was collected by hand-net at Vetch's Pier in approximately 0,5 m of water. The shrimp was subsequently transferred to a 1000-l aquarium where it was photographed for identification. The specimen was positively identified using a key to the described Indo-West Pacific species of *Stenopus* (Goy & Randall 1986), a smaller key on Indo-West Stenopodidea (Bruce 1976) and by colour photographic comparisons, as colour patterns are species-specific in *Stenopus* (Goy & Randall 1986).

This is the southernmost record of *Stenopus tenuirostris* for the African sub-region with Bruce's (1976) Zanzibar specimens 05°46'S / 39°23'E) as the previous southern record for this rare tropical species. However, one of the authors (J.W.G.) has collected a mated pair of *S. tenuirostris* from Seal Rocks, N.S.W., Australia (32°27'S / 152°32'E) which would appear to be the southernmost record for this species. Although this is the first time that *S. tenuirostris* has been recorded in southern African waters, its presence has been known for some time. Branch & Branch (1983) published a colour photograph (by A. Bannister) which was labelled as *Stenopus hispidus*. However, the colour patterns of the two species are quite distinct and this colour photograph was shown to be one of *S. tenuirostris*. In *S. tenuirostris* the carapace is purplish-blue in life and the abdomen has red transverse bands surrounded by yellow on the 3rd and 5th somites, while in *S. hispidus* the carapace is white in life and the abdomen has red transverse bands on the 3rd and 6th somites (Goy & Randall 1986). The chela of *S. hispidus* is alternately striped in red and white, while in *S. tenuirostris* the red stripes alternate with white and then yellow (Debelius 1986). Other differences are found in the rostrum which in *S. hispidus* does not exceed the middle of the antennular peduncle in length and has no ventral spines, with one or more lateral spines. *S. tenuirostris*, by comparison, has a long rostrum which exceeds the antennular peduncle (hence its specific name) and has 1–5 ventral spines, and two rows of 4–9 lateral spines. *S. tenuirostris* also appears to be smaller than *S. hispidus* (Debelius 1986). The specimen from Vetch's Pier had a TL of 13 mm when collected in May, 1985 and has since grown to a TL of 35 mm after more than four years. *Stenopus hispidus*, by comparison, grows to a TL of about 80 mm (Goy, pers. obs.) in a similar period and is considered to be the largest species of *Stenopus* (Santos 1985).

S. tenuirostris was first discovered around Ambon, Indonesia (De Man 1888), but is now known to occur in the entire Indian Ocean (Debelius 1986). Holthuis (1946) recorded this species only from the Indian Ocean and the Malaysian Archipelago. *S. tenuirostris* is moderately common on western Indian Ocean reefs, particularly in Kenya and Tanzania (Bruce 1976) and the Seychelles (Borradaile 1910; Debelius 1986). *S. tenuirostris* undoubtedly occurs throughout Mozambique, but lack of collecting in this area and confusion with *S. hispidus* has probably been responsible for it not being recorded here. 'Purple-vested

shrimp', presumably *S. tenuirostris* have, however, been collected by aquarists at Sodwana Bay, Zululand and at Isipingo tidal pool south of Durban (Levy, pers comm.). Like other species of *Stenopus*, it is generally found in pairs, often in cavities in large sponge-covered boulders between low water springs and 45 m (Bruce 1976), or in coral (Debelius 1986).

Three other East African species of *Stenopus* which could also co-occur with *Stenopus hispidus* and *S. tenuirostris* in southern African and Mozambican waters, possibly as vagrants, are *Stenopus earlei*, *S. pyrsonotus* and *S. zanzibarius*. The first, *S. earlei* is a small species, which occurs in Hawaii, Kenya and the Grand Comores (Goy & Randall 1986). The second, *S. pyrsonotus* is rare and is found in Hawaii, Mauritius (Goy & Devaney 1980), the Grand Comores (Goy & Randall 1986) and the Bismarck Archipelago in the Pacific (Debelius 1986) where it grows as large as *S. hispidus*. The final species, *S. zanzibarius* is small, strikingly golden yellow in colour and is found around Zanzibar (Bruce 1976; Debelius 1986), Canton Island in the Phoenix Islands (Goy & Devaney 1980) and the Gilbert Islands (Hayashi 1986).

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