



Discovery of the shrimp *Pycnocaris chagoae* Bruce, 1972 (Decapoda: Caridea: Gnathophyllidae) in the Lakshadweep Archipelago, India

SANJEEVI PRAKASH¹, IDREES BABU², MOHAN GOPI¹, THIPPARAMALAI THANGAPPANPILLAI AJITH KUMAR¹ & THANGAVEL BALASUBRAMANIAN¹

¹Centre of Advanced Study in Marine Biology, Faculty of Marine Sciences, Annamalai University, Porto Novo – 608 502. Tamilnadu, India. E-mail: prakash.s1311@gmail.com

²Department of Science and Technology, Kavaratti – 682 555. Lakshadweep Union Territory

The caridean shrimp family Gnathophyllidae currently comprises five genera: *Gnathophyllum* Latreille, 1819; *Gnathophyllodes* Schmitt, 1933; *Pycnocaris* Bruce, 1972; *Levicaris* Bruce, 1973a and *Gnathophylliptum* d'Udekem d'Acoz, 2001, the last three genera being monotypic (De Grave et al., 2009). The original description of *Pycnocaris chagoae* Bruce, 1972 was based on a pair of specimens collected in the Chagos Archipelago, central Indian Ocean (Bruce, 1972). Further information on the morphology and colour pattern of *P. chagoae* as well as its association with the holothurian hosts *Holothuria cinerascens* Brandt and *Labidodemas rugosum* Ludwig was provided by Bruce (1973, 1983). Since the last record by Bruce (1983), no further specimens of *P. chagoae* have been reported.

During a survey of the intertidal zone on the east side of Agatti Island, Lakshadweep (formerly Laccadive Archipelago), India, in February 2011, a pair of *P. chagoae* was observed clinging to the ventral surface of a holothurian collected under rocks and preliminarily identified as *Labidodemas* sp. (Fig. 1A). Both shrimps and their holothurian host were carefully transferred to the laboratory; colour photographs of the shrimps on their host were taken using a Nikon SLR camera. The specimens are preserved in 5–10% sea water formalin and deposited in the National Zoological collections of Marine Biological Regional Centre (MBRC), Zoological Survey of India (ZSI), Chennai, Tamilnadu. Size is expressed as total length (tl in mm) from the tip of the rostrum to the posterior margin of the telson and carapace length (cl in mm) from the posterior orbital margin to the posterior margin of the carapace.

Caridea Dana, 1852

Gnathophyllidae Dana, 1852

Pycnocaris Bruce, 1972

Pycnocaris chagoae Bruce, 1972

(Figs. 1, 2)

Pycnocaris chagoae Bruce, 1972: 50–64, Figs. 1–7; Bruce, 1973: 108; Bruce, 1983: 107, Fig. 1.

Material examined. 1 ovigerous female (tl 8.3 mm, cl 4.2 mm, partly dissected), 1 subadult female (tl 6.2 mm, cl 2.6 mm) India, Lakshadweep, east side of Agatti Island, 10°50'39.75"N 72°11'16.23"E, rocky intertidal, on *Labidodemas* sp. leg. S. Prakash & M. Gopi, 1 February 2011 (MBRC/ZSI M1-08).

Diagnosis. Small sized gnathophyllid shrimp, body stout, glabrous, slightly depressed, dorsally convex and ventrally flattened. Rostrum short, stout, without dentition, extending almost to the frontal margin of the second article of antennal peduncle (Fig. 2A). Carapace broadened posteriorly; hepatic and supra-orbital spines absent; antennal spine small, acute, submarginal. Abdominal somites broad, flattened; pleura of the first three somites well developed. Eyes well developed, each with a small accessory pigment spot. Antennular peduncles stout, exceeding the rostrum by the two distal articles. Third maxilliped with an operculiform endopod; medial margin with dense overlapping setae (Fig. 2B). First pereopod moderately slender, palm of the chela stout, slightly compressed, tapering distally, fingers strongly