Distribution: Distributed all around the Antarctic continent. In the South American region it goes as far north as S. Georgia. Bathymetrically the species is distributed between 100 and 1080 m.

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RECORD OF *COPIDOGNATHUS TAMAEUS* BARTSCH (HALACARIDAE : ACARI) FROM THE INDIAN OCEAN

ABSTRACT

Copidognathus tamaeus (copidognathinae : Halacaridae : Acari) collected among *Jania rubens* from Andaman Islands recorded here for the first time from the Indian Ocean.

BIOSYSTEMATIC studies of Halacaridae from Andaman and Nicobar Islands yielded many new species and new records. Present author has already documented 11 halacarid species (Chatterjee 1991, 1992, 1995a, b, Sarma and Chatterjee 1991, 1993a, b) As a sequal to the above in present communication *Copidognathus tamaeus* Bartsch 1992 is recorded here for the first time from the Indian Ocean besides its first record away from the type locality.

The species earlier was recorded by Bartsch (1992) based on a single female specimen from coast of Moorea Island (Society Islands Pacific Ocean) 2 m depth — coral reef.

Four females were collected by the present author among Jania rubens from Chatam Island (Andaman). Though the specimen was collected in 1986 but due to delay for reporting, it is becoming second record from World Ocean.

The specimen at hand closely resembles with the description given from type locality.

Female : Idiosomal length of four females ranges from 300 μm to 340 μm. The various other morphometric measurements obtained from one of the specimen are as follows.

Idiosoma (dorsal) 302 μm long, 211 μm wide; Anterodorsal plate (AD) 89 μm long, 71 μm wide; ocular plate (OC) 70 μm long, 46 μm wide; Posterodorsal plate (PD) 172 μm long, 120 μm wide; Anterior Epimeral plate (AE) 95 μm long, 164 μm wide; Genitoanal plate (GA) 140 μm long 87 μm wide; Genital opening (GO) 71 μm long, 38 μm wide; Gnathosoma 105 μm long, 67 μm wide.

All dorsal plates separated by wide cuticular membranous area (Fig. 1a) AD with three areolae *viz.* one anterior and two posterior. The feebly developed pores of the areolae arranged longitudinally. Dorsal seta 1 (ds1) on

the anterior margin of posterior areolae, ds2 on the anteromedian margin of OC. The OC panelled, bears two corneae (Fig. 1c). The

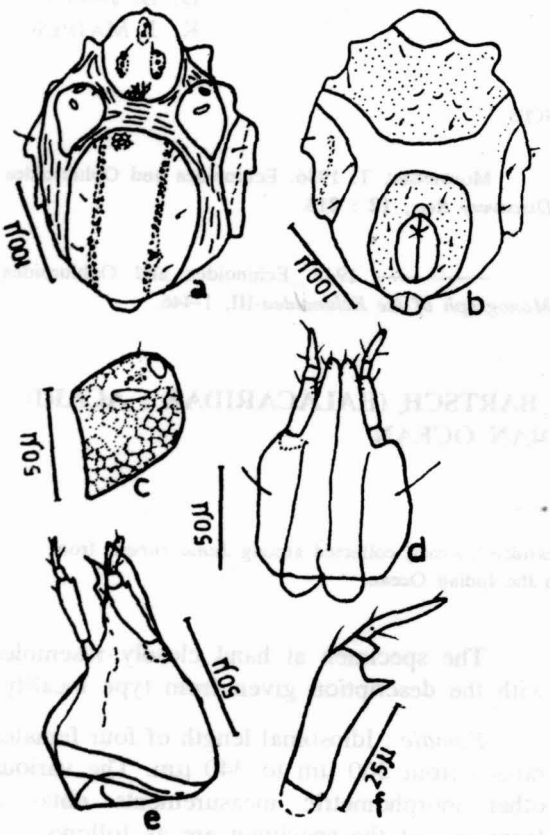

FIG. 1 *Copidognathus tamaeus* Bartsch 1992.
Female : a, Idiosoma dorsal view, b. Idiosoma ventral view, c. Magnified view of OC, d. Gnathosoma ventral view, e. Gnathosoma lateral view, f. Magnified view of Palp.

costae swollen laterally behind the 4th leg insertion. The costae also bear a pair of gland pores at the posterior end. A pair of adenal seta present on either side of the anal papillae.

All ventral plates separated by cuticular membranous are (Fig. 1b) AE without ventral areolae, ventral plates sculptured with pycnotic pores. AE with 3 pairs setae. PE with 3 ventral and a dorsal seate. AE and GA separated by a wide cuticular membrane. GA longer accounting for more than 1/2 the ventral idiosomal length. GA bears 3 PGS on each side of the GO besides paragenital areolae. The

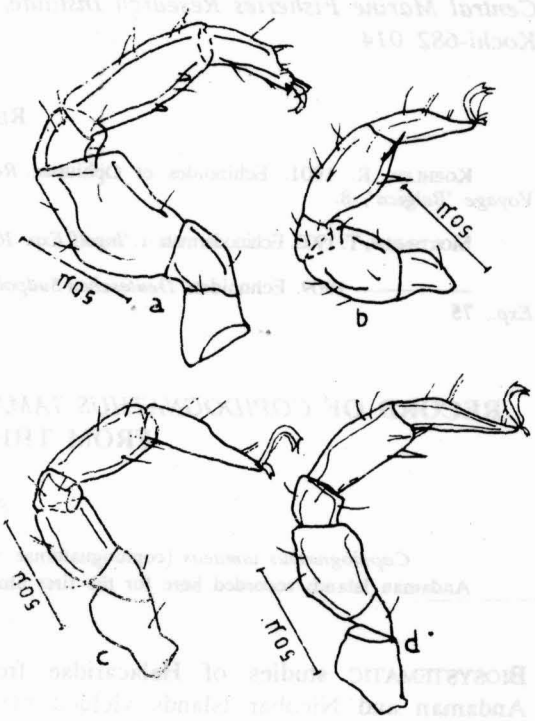

FIG. 2 *Copidognathus tamaeus* Bartsch 1992.
Female : a. Leg I, , b. Basifemur — tarsus of Leg II, c. Leg III, d. leg IV.

longer, occupying nearly half of the total area of GA. The distance between the anterior margin of GA and that of GO lesser than GO length. A pair of genital sclerites bearing a pair of setae anteriorly guarded by GO.

Rostrum tip extending upto the middle of the palpal tibio tarsus. Gnathosoma bears a proto — , deuto — , trito — , and basirostral setae (Fig. 1d, e) Palp 4 segmented. Palpal trochanter, patella without any setae. Palpal femur bears a dorsal seta besides an anteroventral spine (Fig. 1f). Palpal tibiobarsus with 3 basal setae and distal singlet eupathidia. The palpi short, palpal patella plus tibiotarsus shorter than palpal telofemur.

The chaetotary of legs as follows — Trochanter 1-1-1-0, Basifemur 2-2-2-2, Telofemur 5-5-2-2, Patella 4-4-3-4, Tibia 7-7-5-5; chaetotaxy of tarsi discussed in the text.

Tarsus I bears 3 dorsal fossary setae, 1 solenidion, 1 profamulus besides 1 ventral filiform seta, 2 ventral distal singlest eupathidia and 4 PAS (Parambulacral setae) (Fig. 2a). Tarsus II bears 3 dorsal fossary setae, 1 solenidion 4 PAS (Fig. 2b) Tarsi III and IV with 3 dorsal fossary setae, 1 proximodorsal seta and 2 PAS (Fig. 2c, d).

All legs bear a bidentate median claw and two lateral claws. All lateral claws with a dorsal accessory tooth. The lateral claws of II-IV faintly pectinate under high magnification.

Indian Ocean specimen (300-340 μm long Idiosoma) is little bigger than Pacific Ocean specimen.

This species belongs to *bardi* group of Bartsch (1984).

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SEASONAL VARIATIONS IN SALINITY OF KORAPUZHA ESTUARY (CALICUT, KERALA) IN RELATION TO TIDE AND RAINFALL

ABSTRACT

Hydrographic, tidal and rainfall observations at a selected station situated near the mouth of Korapuzha estuary during the period 1989-1993 revealed that the main causative factor which brings in variations in salinity is rainfall and the associated river runoff rather than the tide eventhough the estuary is connected with the Arabian sea throughout the year permitting a free flow of sea water into the estuary and a counterflow of freh water in the opposite direction.

THE PRESENT study is based on hydrographic, tidal and rainfall observations at a selected station situated near the mouth of the Korapuzha estuary. The estuary is connected with the Arabian sea throughout the year and hence one can expect a free flow of sea water into the estuary and a counterflow of fresh water in the opposite direction during all the seasons with the intensity varying from time to time (Fig. 1).