PROC. BIOL. SOC. WASH.
97(1), 1984, pp. 217–220

A NEW COMMENSAL OSTRACOD OF THE GENUS *MICROSYSSITRIA* FROM SOUTH AFRICA (OSTRACODA: ENTOCYTHERIDAE: MICROSYSSITRIINAE)

C. W. Hart, Jr. and Janice Clark

Abstract.—A new species of entocytherid ostracod, *Microsyssitria nhlabane,* is described from the wood-boring isopod *Sphaeroma terebrans* collected from Lake Nhlabane, South Africa. The new species is compared with the closely related *M. indica* from India, and the diagnosis of the subfamily Microsyssitriinae is emended.

In 1967, Hart, Nair, and Hart described *Microsyssitria indica,* the first entocytherid ostracod known to be commensal on the wood-boring isopod *Sphaeroma terebrans* Bate, 1866. The isopod hosts were collected from two estuarine locations in Kerala State, India, and their commensal ostracods were placed in a new genus and a new subfamily, the Microsyssitriinae. Recently, a second species was found associated with *S. terebrans* collected by P. E. Reavell from submerged logs in Lake Nhlabane, north of Richard's Bay, South Africa. The isopods were identified by Dr. Brian Kensley, who noted the presence of the commensal ostracods and gave them to us for identification.

This new species, described below, is sufficiently different from *M. indica* to necessitate emendations to the diagnosis of the subfamily.

Microsyssitriinae

Diagnosis (emended).—A subfamily of the family Entocytheridae. Antennule with 5 podomeres. Dorsal antennal claw spiculiform, with or without setae on flexor face. Mandibular protopodite with distal row of 5 multicuspid teeth. Peniferum terminating in 1 or 2 movable claws. Penis straight, vertically oriented, and situated in distal portion of peniferum. Commensal on wood-borng isopods in Indian and South African waters.

Type-genus.—*Microsyssitria* Hart, Nair, and Hart, 1967.

Microsyssitria nhlabane, new species
Figs. 1–10

Male.—Shell (Fig. 1) subelliptical in outline with eyespot situated approximately $\frac{1}{5}$ shell length from anterior end. Shell margin of adult specimens with very slight concavity posterodorsally (Fig. 1). Antennal gland conspicuous, situated posterior to eyespot. Measurements of 3 adult males range from 330 to 350 μm in length (average, 340 μm); from 200 to 220 μm in height (average, 210 μm).

Antennule (Fig. 2) composed of 5 podomeres, antipenultimate subequal in length to basal. Antipenultimate podomere with 2 setae at midlength extending almost to base of ultimate podomere, and 4 apical setae extending past distal extremity of ultimate podomere. Penultimate podomere devoid of setae. Ultimate

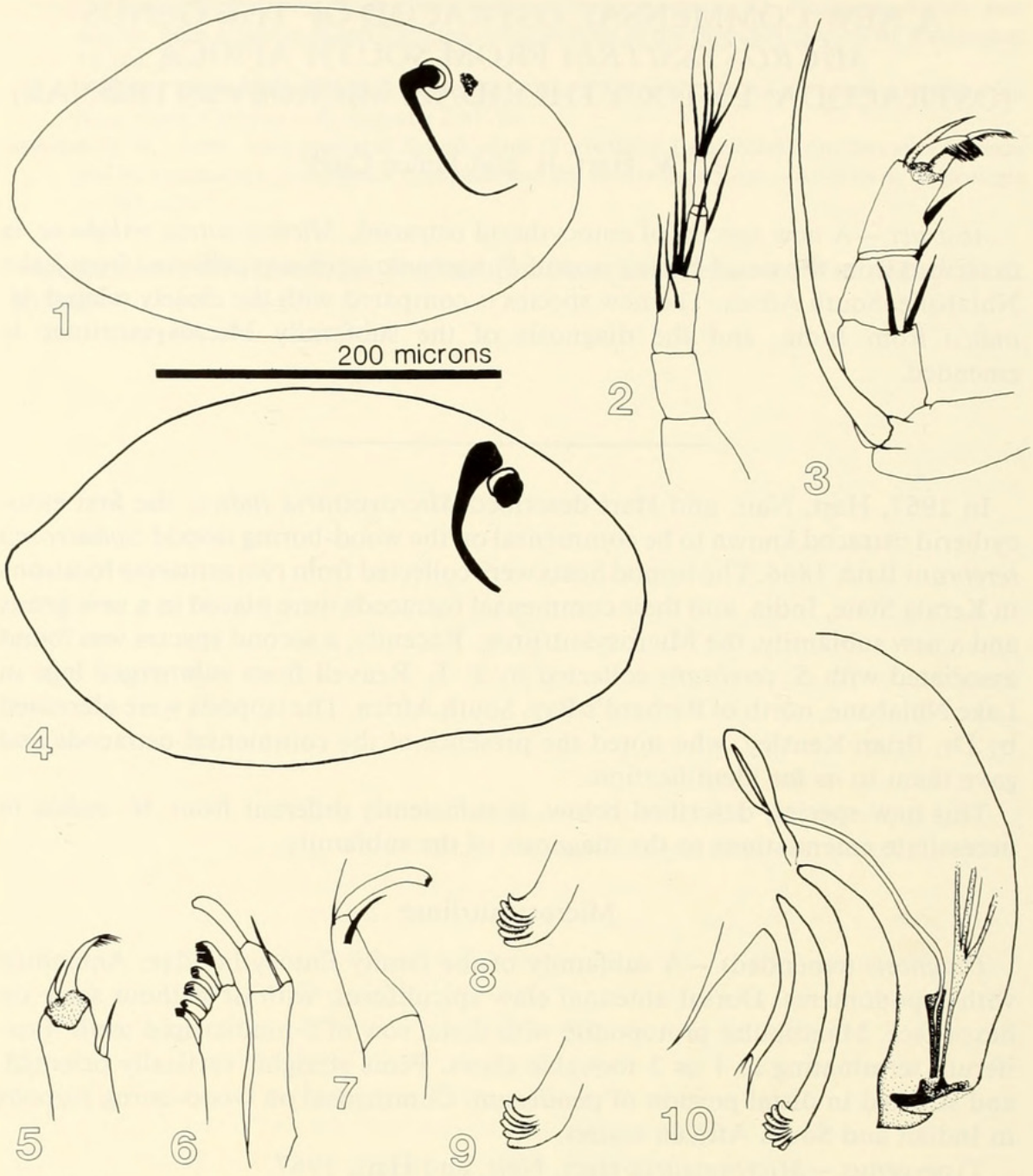

Fig. 1–10. *Microsyssitrinae nhlabane,* 1, Adult male (showing position of eyespot and antennal gland, posterior to it); 2, Antennule; 3, Antenna of male; 4, Adult female (showing position of eyespot and antennal gland, posterior to it); 5, Terminal portion of antenna of adult female; 6, Mandible of male; 7, Maxilla of male; 8–9, Terminal portions of clasping apparatus showing dentition variations; 10, Copulatory apparatus. Scale refers to Figs. 1 and 4.

podomere bearing 5 apical setae subequal in length to combined ultimate and penultimate podomeres.

Antenna (Fig. 3) consisting of 4 podomeres (see Discussion, below). Basal podomere devoid of setae, and with exopodite, or "flagellum," extending from its distolateral extensor margin beyond terminal claws. Second, or antipenultimate, podomere bearing 2 setae of subequal length on its distal flexor margin, both setae reaching approximately to base of ultimate podomere. Penultimate podomere, distinguishable from ultimate podomere by suture visible only in adult specimens,

Table 1.—Comparisons of certain adult features of *M. nhlabane* with those of *M. indica*.

	M. indica	*M. nhlabane*
Size (male, length)		
Range	380–420 μm	330–350 μm
Average	395 μm	340 μm
Size (female, length)		
Range	360–420 μm	370–380 μm
Average	391 μm	373 μm
Peniferum	2 terminal claws	1 terminal claw
Clasping apparatus	Reaching distinctly beyond ventral end of peniferum	Reaching little, if any, beyond ventral end of peniferum
Dorsal antennal claw	With setae	Without setae

bearing single seta on distal flexor margin. Ultimate podomere with 1 short seta at midlength of flexor margin, and 3 terminal claws. Dorsal claw subspiculiform, slightly curved, without setae; mesial claw short, thick, and bearing row of setae along distal ½ of length; ventral claw almost twice length of mesial claw, curved, and bearing row of setae along distal ½ of length.

Protopodite of mandible (Fig. 6) with distal row of 5 teeth. Cusps present but indistinct. Podomeres of mandibular palp not clearly defined. Single seta present adjacent to base of rounded spatulate terminal spine of palp. Latter concave on ventral surface.

Maxilla (Fig. 7) with 2 setae and unsegmented palp. Setae extending to midlength of palp, the latter terminating in row of indistinct cusps. Protopodite, or masticatory lobes, apparently absent.

Copulatory complex (Figs. 8, 9, 10) with ventral portion of peniferum terminating in single movable claw opposing recurved blade-like anterior protuberance; claw apparently controlled by muscle originating in midlength of peniferum. Penis straight, well developed, and terminating proximal to movable claw. Mid-portion of peniferum tapering distally. Clasping apparatus ending slightly distal to terminal portion of peniferum, curved slightly throughout length, and terminating in 6 or 7 denticles. Dorsal and ventral fingers present; ventral finger almost reaching ventral extremity of peniferum, terminating in 2 or 3 spinous processes; dorsal finger tapering, simple.

Female.—Shell of presumably adult female (Fig. 4) slightly larger than that of male; well defined concavities posterodorsally and anteroventrally. Antennal gland conspicuous, situated posterior to eyespot. Measurements of three female specimens range from 370 to 380 μm in length (average, 373 μm); 230 to 240 μm in height (average, 230 μm).

Discussion.—With regard to segmentation of the antenna, some ostracodologists prefer to think of the antenna as having 5 podomeres—the ultimate podomere being the somewhat amorphous-appearing area serving as the base of the terminal claws. For purposes of our description, we consider the anntenna to have only 4 podomeres, the basal attachments of the terminal claws being merely the distal end of the 4th podomere.

The uncertainty expressed above concerning whether or not the female speci-

mens represent adults lies in the fact that all previously reported adult female entocytherids possess 3 terminal antennal claws, whereas specimens of *M. nhlabane,* that with respect to size appear to be adults, possess but 2 (Fig. 5).

Relationships.—This ostracod has its closest affinities with *Microsyssitria indica,* differing from it primarily in size, the length of the clasping apparatus, the number of peniferal claws, and the setation of the dorsal antennal claw (see Table 1).

Type-locality.—Lake Nhlabane, north of Richard's Bay, South Africa (32°16′E, 28°36′S). The species is at present known only as a commensal of *Sphaeroma terebrans* collected from submerged logs at the type-locality.

Etymology.—Named for the type-locality, Lake Nhlabane, and used as a noun in apposition.

Disposition of types.—The holotypic male, USNM 195110, allotypic female, USNM 195111, and a series of paratypes, USNM 195112 are deposited in the National Museum of Natural History, Smithsonian Institution.

Literature Cited

Hart, C. W., Jr., N. Balakrishnan Nair, and Dabney G. Hart. 1967. A new ostracod (Ostracoda: Entocytheridae) commensal on a wood-boring marine isopod from India.—Notulae Naturae, Academy of Natural Sciences of Philadelphia 409:1–11, 17 figs., 2 tables.

Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.