

**FIRST DESCRIPTION OF THE MALE OF *HETEROPODA*
CYPERUSIRIA BARRION & LITSINGER 1995 FROM
THE PHILIPPINES (ARANEAE: SPARASSIDAE:
HETEROPODINAE)**

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ABSTRACT

The male of *Heteropoda cyperusiria* Barrion & Litsinger 1995 is described for the first time. New locality records for a male and two females of the same species are reported. One additional female provisionally identified as *Heteropoda* sp. seems to belong to another species. It is likewise described, illustrated and diagnostic characters and systematic position in the genus *Heteropoda* are discussed.

Key words: Sparassidae, Heteropodinae, male *Heteropoda cyperusiria*, *Heteropoda* sp.

INTRODUCTION

Heteropoda Latreille, 1804 is a large genus with about 150 nominal species within its natural distribution range in Asia and Australia. Based on *Heteropoda* materials already examined by one of us (PJ), it is suggested that highest species diversity occurs in South and Southeast Asia. Unfortunately, most of the described species are known only in one sex and many additional species are yet undescribed (Jaeger, personal observation). It is of paramount importance to have species descriptions based on both sexes. To date, well studied materials are the Australian fauna with 38 species (Davies, 1994), the Indian fauna with 23 species (Sethi and Tikader, 1988; Tikader and Sethi, 1990), and three species each from China (Song and Chen, 1992) and Japan (Jaeger and Ono, 2000). Of the three species reported from the Philippines, two species, namely, *Heteropoda cyperusiria* and *H. garciai* were both described by Barrion and Litsinger (1995) from single female specimens. Recent collections from the Quezon National Forest Park in Quezon Province, Luzon Island produced a male and two females of *H. cyperusiria*. In addition, one unique female provisionally determined as *Heteropoda* sp. was collected. This paper describes and illustrates the male and female of *H. cyperusiria* and the female of *Heteropoda* sp.

All measurements are in mm and all materials are deposited in the Taxonomy Laboratory, Entomology and Plant Pathology Division, International Rice Research Institute, Los Baños, Laguna, Philippines. Abbreviations: ALE=anterior lateral eyes, AME=anterior median eyes, AW=anterior width of prosoma, CH=clypeus height,

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Fe=femur, Mt=metatarsus, OL=opisthosoma length, OW=opisthosoma width, Pa=patella, PH=prosoma height, PJ=consecutive number of Sparassidae examined by Peter Jaeger, PL=prosoma length, PLE=posterior lateral eyes, PME=posterior median eyes, Pp=pedipalp or palpus, PW=prosoma width, RTA=retrolateral tibial apophysis, Tar=tarsus, Ti=tibia, I-II-III-IV=legs. Leg spine notation followed Davies (1994).

TAXONOMY

Heteropoda cyperusiria Barrion and Litsinger

(Figs. 1-6)

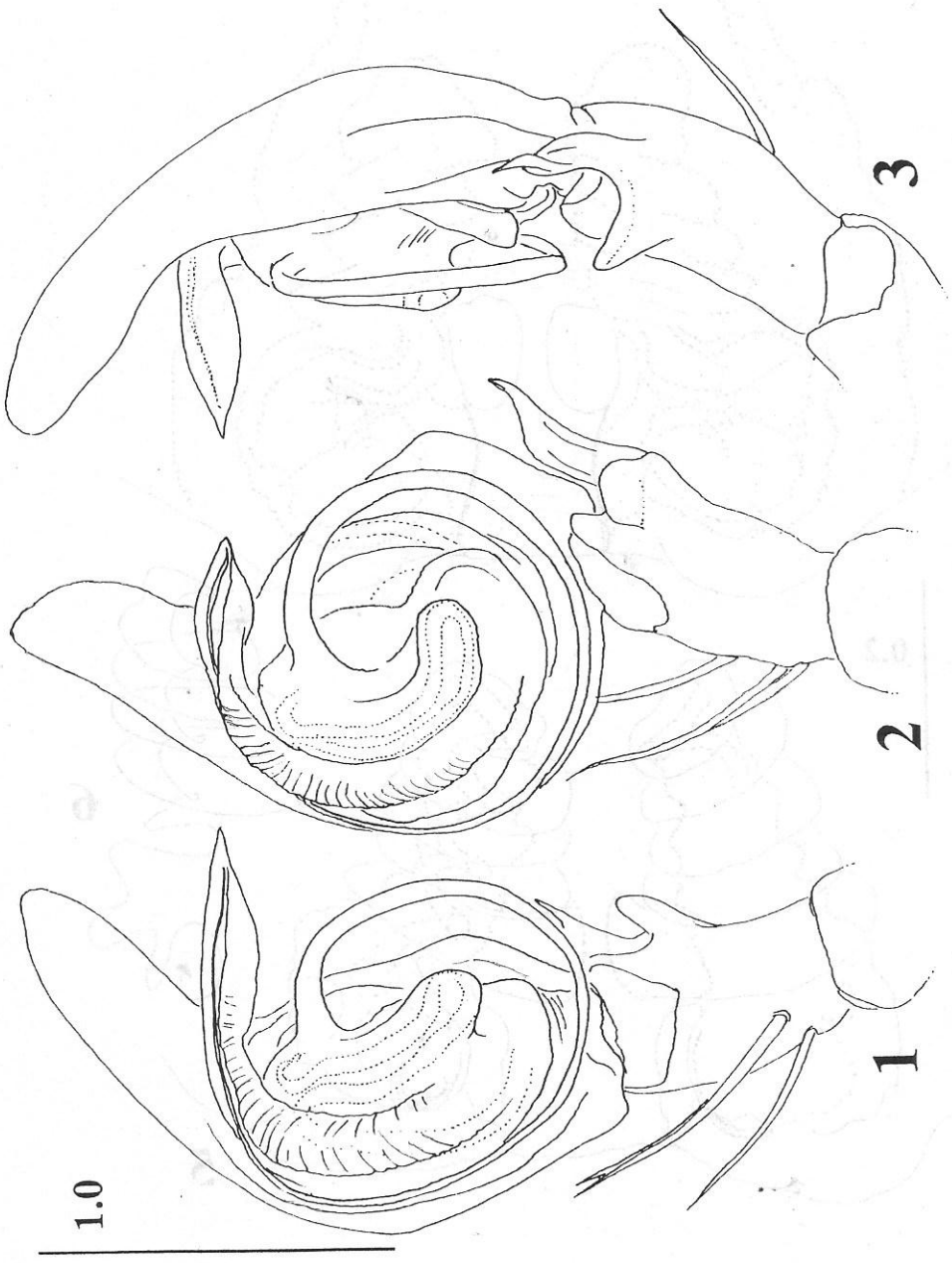
Heteropoda cyperusiria Barrion and Litsinger 1995: 274, fig. 159 F.

Description. – Male: Body color similar to female (Barrion and Litsinger, 1995) but generally darker and pattern more distinct. Margin of clypeus dark, below ALE as broad patches, medially interrupted by bright yellow longitudinal band, this running from posterior margin of prosoma over fovea and anterior margin of eyes. PL 3.2, PW 1.4, AW 3.0, PH 1.0. OL 2.9, OW 1.8. Eye measurements/interdistances: AME 0.16, ALE 0.27, PME 0.21, PLE 0.31, AME-AME 0.13, AME-ALE 0.04, PME-PME 0.16, PME-PLE 0.25, AME-PME 0.26, ALE-PLE 0.21, CH AME 0.30, CH ALE 0.21. Leg formula 2413. Spination: Pp 131, 101, 2101; Fe I-II 323, III 323(2), IV 321; Pa 101; Ti I 1(2)0(2)112, II 222 12, III 2228, IV 2326; Mt I-II 0004, III 2014, IV 3036. Chelicerae with 3 promarginal and 4 retromarginal teeth. Very small denticles in cheliceral furrow present but difficult to recognize. Retrolateral margin of cymbium distinctly sigmoid. Long embolus arising at tegulum in 12 o'clock position, running in a 355° loop. Conductor arising in a 6 o'clock position, running in a half-circle (Fig. 1). Sperm duct narrow running in a tight loop in middle of tegulum (Fig. 2). Tibial apophysis with longer and slightly curved dorsal part, in lateral view with distinctly pointed tip. Ventral part of RTA smaller, but nevertheless distinct (Fig. 3).

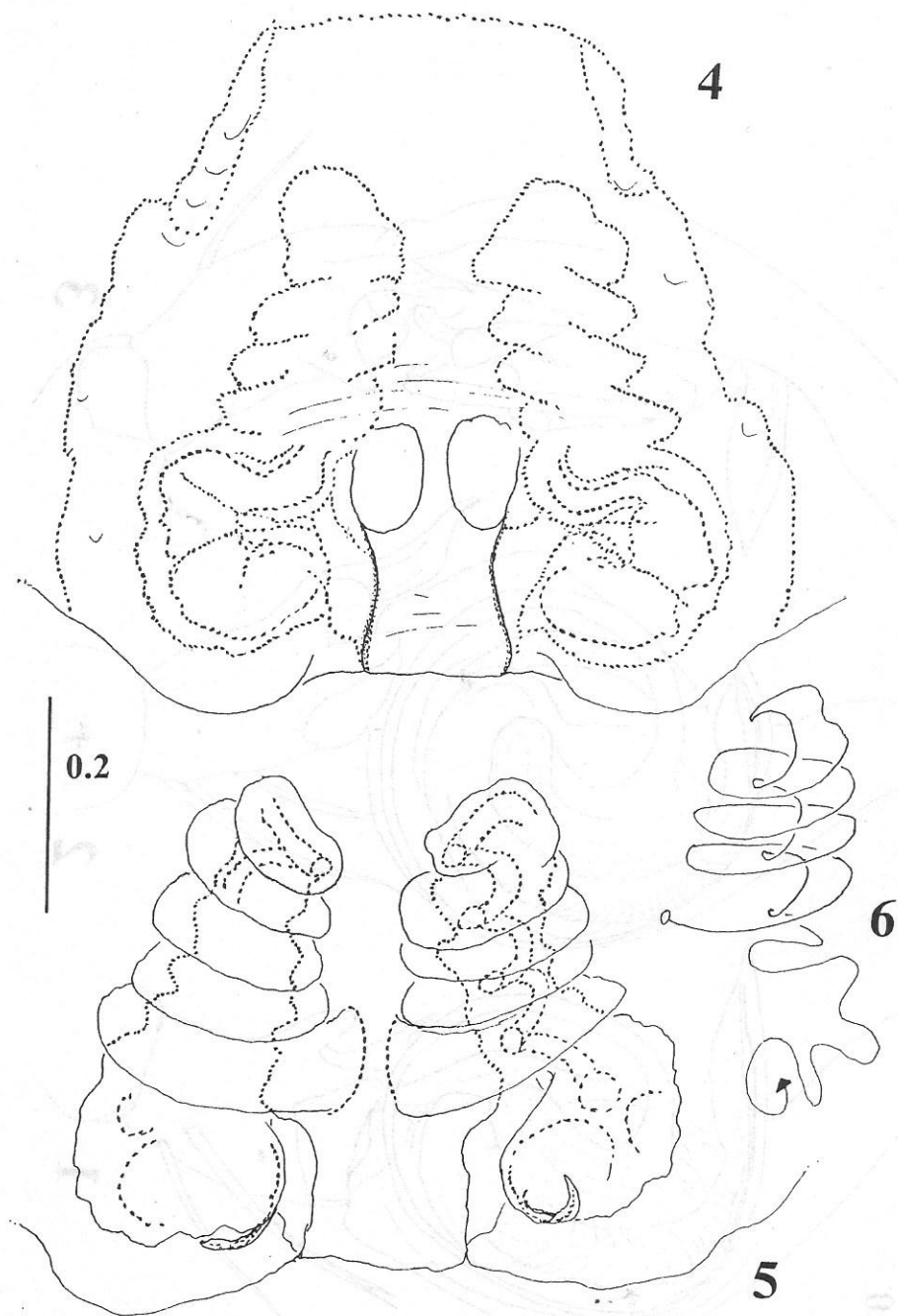
Leg and pedipalp measurements:

Leg	Fe	Pa	Ti	Mt	Tar	Total
I	3.5	1.4	3.4	3.1	1.2	12.60
II	4.0	1.5	4.0	3.6	1.4	14.50
III	3.5	1.3	3.1	3.0	1.1	12.00
IV	3.6	1.1	3.2	3.7	1.3	12.90
Pp	1.5	0.6	0.8	-	1.9	4.80

Additional description of female. – PL 2.8-3.1; PW 2.6-3.0; AW 1.3-1.5; PH 1.0; OL 3.0-3.6; OW 1.7-2.6. Denticles present in cheliceral furrows in all female specimens, an important feature not illustrated in Barrion and Litsinger (1995): Fig. 195c. Shape of median septum of epigynum (Fig. 4) and similar coloration suggest that all three females, the holotype from Los Baños, Laguna Province and two newly collected females from Quezon National Forest Park, Atimonan, Quezon Province, are conspecific. Loops of copulatory ducts show some variation, however, especially in stretch and nature of windings of duct. Female holotype with more stretched copulatory ducts than the two newly collected females (Fig. 5). Internal duct system more complex with rounded ends of loops (Fig. 6).



Figures. 1-3. *Heteropoda cyperusiria* Barrion & Litsinger 1995, male palp, prolateral (1), ventral (2) and retrolateral (3) views. Scale in mm.



Figures. 4-6. *Heteropoda cyperusiria* Barrion & Litsinger 1995, female genitalia, ventral epigyne (4), dorsal of vulva (5) and dorsal schematic course of internal duct system (6). Scale in mm.

Material Examined. – Philippines: Luzon I., Quezon Prov., Atimonan, Quezon National Forest Park, 1M (PJ 1354, with label Q98-016) and 2FF (PJ 1454, with label Q98-017), 11 September 1998, A.T. Barrion.

Distribution. – Philippines, Luzon Island, Laguna Province, Los Baños and Quezon Province, Atimonan (new locality record).

Heteropoda sp.

(Figs. 7-9)

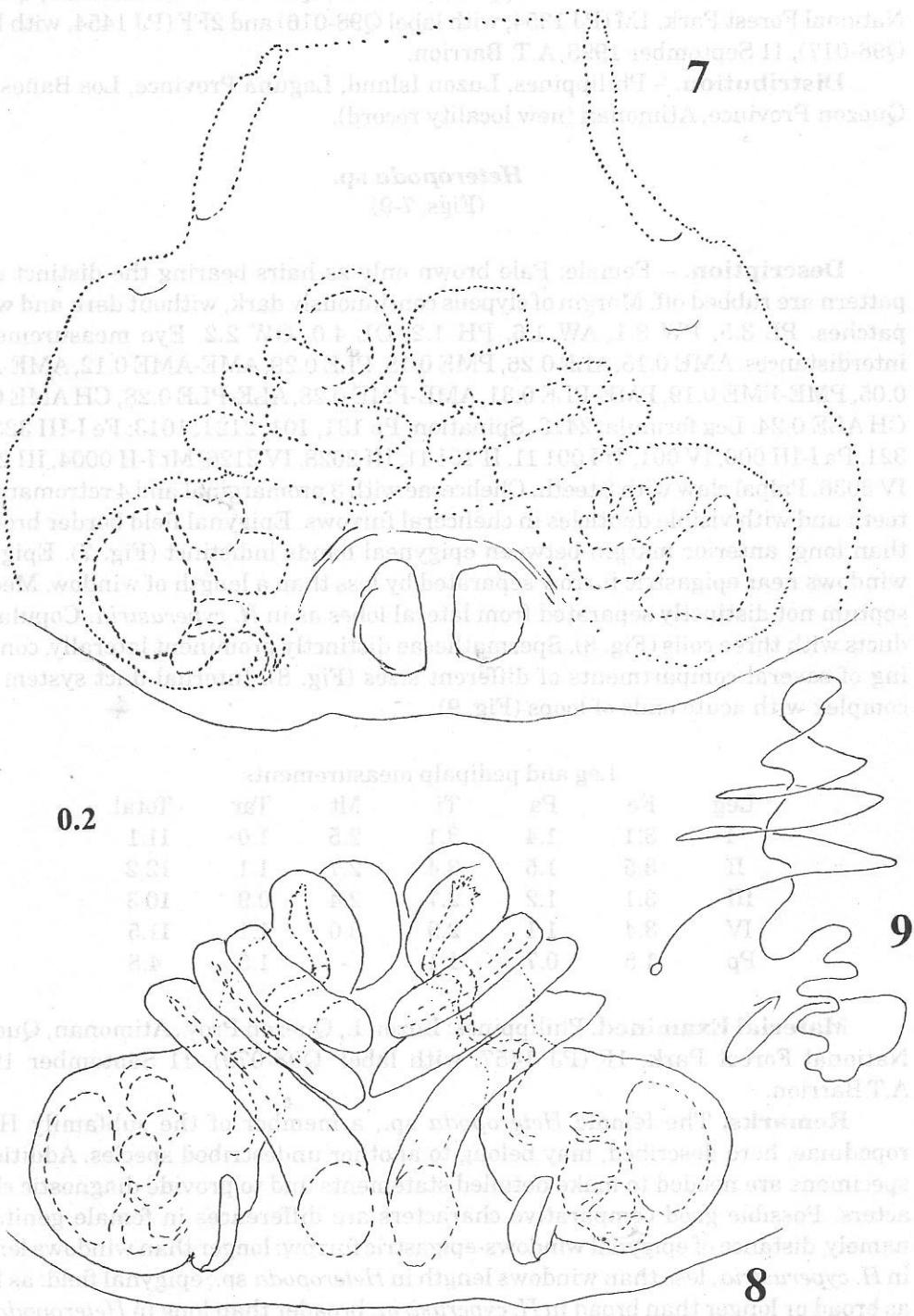
Description. – Female: Pale brown only as hairs bearing the distinct color pattern are rubbed off. Margin of clypeus continuously dark, without dark and white patches. PL 3.5, PW 3.1, AW 1.6, PH 1.2, OL 4.0, OW 2.2. Eye measurements/interdistances: AME 0.15, ALE 0.26, PME 0.18, PLE 0.29, AME-AME 0.12, AME-ALE 0.05, PME-PME 0.19, PME-PLE 0.31, AME-PME 0.28, ALE-PLE 0.28, CH AME 0.29, CH ALE 0.24. Leg formula: 2413. Spination: Pp 131, 101, 2121, 1013; Fe I-III 323, IV 321, Pa I-III 000, IV 001; Ti I 001 11, II 101 11, III 2028, IV 2126, Mt I-II 0004, III 2004, IV 3036. Palpal claw with 8 teeth. Chelicerae with 3 promarginal and 4 retromarginal teeth and with visible denticles in cheliceral furrows. Epigynal field border broader than long, anterior margin between epigyneal bands indistinct (Fig. 7). Epigynal windows near epigastric furrow separated by less than a length of window. Median septum not distinctly separated from lateral lobes as in *H. cyperusiria*. Copulatory ducts with three coils (Fig. 8). Spermathecae distinctly prominent laterally, consisting of several compartments of different sizes (Fig. 8). Internal duct system less complex with acute ends of loops (Fig. 9).

Leg and pedipalp measurements

Leg	Fe	Pa	Ti	Mt	Tar	Total
I	3.1	1.4	3.1	2.5	1.0	11.1
II	3.5	1.5	3.4	2.7	1.1	12.2
III	3.1	1.2	2.7	2.4	0.9	10.3
IV	3.4	1.1	2.9	3.0	1.1	11.5
Pp	1.5	0.7	1.1	-	1.5	4.8

Material Examined. Philippines: Luzon I., Quezon Prov., Atimonan, Quezon National Forest Park, 1F (PJ 1457, with label: Q98-079), 11 September 1998, A.T. Barrion.

Remarks. The female *Heteropoda* sp., a member of the subfamily Heteropodinae, here described, may belong to another undescribed species. Additional specimens are needed to make detailed statements and to provide diagnostic characters. Possible good comparative characters are differences in female genitalia, namely, distance of epigynal windows-epigastric furrow: longer than windows length in *H. cyperusiria*, less than windows length in *Heteropoda* sp.; epigynal field: as long as broad or longer than broad in *H. cyperusiria*, broader than long in *Heteropoda* sp. (Figs. 4, 7); direction of duct coils: parallel in *H. cyperusiria*, convergent anteriorly in *Heteropoda* sp. (Figs. 5, 8) and coloration of clypeus margin: interrupted by white band in *H. cyperusiria* and continuously dark in *Heteropoda* sp.



Figures. 7-9. *Heteropoda* sp., female genitalia, ventral epigyne (7), dorsal vulva (8) and dorsal schematic course of internal duct system. Scale in mm.

Conspicuous characters in both *Heteropoda* species are remarkable, like the special winding of female copulatory ducts and increased number of ventral tibial spines in legs I and II. Most *Heteropoda* spp. have 6 ventral spines (Davies, 1994; Jaeger, personal observation), whereas in the Philippine species, *H. cyperusiria* and *Heteropoda* sp. 11-12 spines are present. Metatarsal spination in legs I and II with decreasing number of spines are atypical of the genus as well. Tibial and metatarsal spination in legs III and IV are typical of the genus. The spination pattern of both Philippine species is considered apomorphic within the genus.

Based on the pattern and structure of the female genitalia, the two Philippine species of *Heteropoda* closely resemble the *bellendenker*-group (Davies 1994) that comprises of two Australian species, *H. bellendenker* Davies 1994 and *H. mossman* Davies 1994 with rather similar windings of female copulatory ducts. At this point, only the revision of the Asian species will permit complete affiliation to a species-group.

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