

A NEW GENUS AND FOUR NEW SPECIES
OF THE SUBFAMILY PHYLLOOPTINAE (ACARI: ERIOPHYOIDEA)
FROM THE PEOPLE'S REPUBLIC OF CHINA

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ERIOPHYOIDEA
NEOTETRA
NEOTETRA BAMBUSAE
NEW GENUS
NEW SPECIES
CHINA

SUMMARY: A new genus, *Neotetra*, and four new species—*Neotetra bambusae* sp. nov., *Circaces ulmi* sp. nov., *Tetraspinus indocalami* sp. nov., and *Tetraspinus bambusae* sp. nov.—are described from China.

ERIOPHYOIDEA
NEOTETRA
NEOTETRA BAMBUSAE
NOUVEAU GENRE
NOUVELLES ESPÈCES
CHINE

RÉSUMÉ : Un genre nouveau, *Neotetra* gen. nov., et quatre espèces nouvelles *Neotetra bambusae* sp. nov., *Circaces ulmi* sp. nov., *Tetraspinus indocalami* sp. nov. et *Tetraspinus bambusae* sp. nov., de la Chine, sont décrites.

This paper gives an account of four new phyllocopine mites collected in China. One new genus is erected. All measurements are expressed in micrometers, and measured from the holotype. All type slides of the new species are deposited in the Department of Plant Protection, Nanjing Agricultural University, Jiangsu Province, China.

Type species: *Neotetra bambusae* sp. nov.

Remarks: This new genus resembles *Tetra* Keifer (1944), but can be differentiated by: lack of coxal seta I, two ridges set on each side of thanosomal dorso-central trough and tibial seta of foreleg situated on dorsocentral area.

Neotetra gen. nov.

Neotetra bambusae sp. nov.

(Fig. 1)

Spindleform, shield with anterior lobe, dorsal tubercles set on rear shield margin, dorsal seta pointing to rear. Coxal seta I absent, legs with pattern setae, tibial seta of foreleg set on central back, featherclaw simple, 6–7 rayed. Thanosome has a broad, longitudinal trough, running along almost its entire length, and two ridges on each side. Lateral setae 1 pair, ventral setae 3 pairs.

Female: Spindleform, 170 (159–185) long, 40 (35–43) wide, 35 (34–38) thick. Rostrum 18 (16.5–19.3) long, projected obliquely downwards. Shield 35.2 (33–37) long, 30 (28.5–32) wide; anterior lobe and median line absent, but admedian and submedian lines present. Dorsal tubercles 25.5 (24.2–26) apart, on rear shield margin, dorsal seta 10.2 (9.6–11.4) long pointing to rear. Some curved lines

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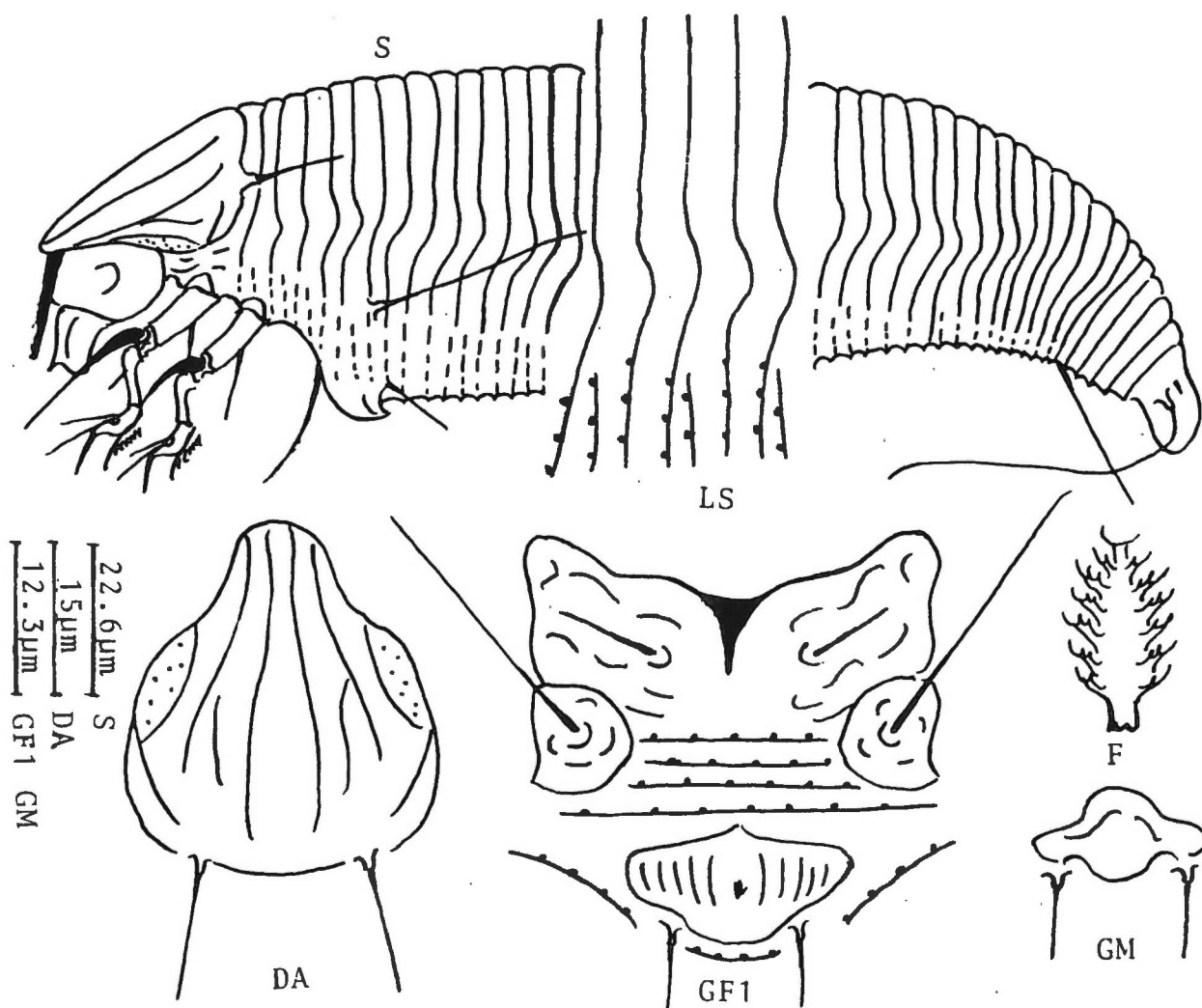


FIG. 1: *Neotetra bambusae* sp. nov.

S. — Side view of anterior region of female. LS. — Lateral structures. DA. — Dorsal view of shield. GF1. — Female genitalia and coxae from ventral aspect. F. — Featherclaw. GM. — Male genitalia.

present on coxae; forecoxa with short, rough, sternal line; coxal seta I lacking, coxal seta length II 10.4 (8–11.7) and II 29.4 (28.5–31.4). Forelegs 27.3 (26.4–29) long, femur 10.2 (9–11.3) long, seta 9.8 (8.4–11) long; genu 4 (3–5) long, seta 20.4 (19–21.5) long; tibia 5.8 (5.3–7.4) long, seta located at central dorsal area; tarsus 4.8 (4.2–5.8) long. Featherclaw simple, 6–7 rayed, claw unknobbed. Hindlegs 25.4 (24.2–27) long, femur 9.3 (8.4–10) long, seta 9.6 (8.5–10.4) long; genu 4 (3–5) long, seta 14.3 (13.4–14.8) long; tibia and tarsus each 5 (4–6) long, claw without knob. Thanosome with wide dorsocentral trough and two ridges on each side. Tergites

45–50, smooth. 60–65 sternites with bead microtubercles. Lateral seta 24.3 (23.7–26) long, on sternite 10; 1st ventral seta 55.6 (53.6–57) long, on sternite 19; 2nd ventral seta 25.3 (23.8–26) long, on sternite 40; 3rd ventral seta 21.7 (20.3–23.1) long, on 5th sternite from rear. Telosome with accessory seta. Female genitalia 12.4 (11–13.4) long, 18.3 (17.6–18.5) wide; 8–10 longitudinal ribs on coverflap, genital seta 11.5 (11–13.4) long.

Male: 130 (128–134) long 35 (34–36) wide. Genitalia 15.2 (14.2–16) wide, genital seta 7.5 (7.2–8.7) long.

Types: Holotype female, allotype male, paratypes 13 females and 3 males. Collected 28, July 1995, by

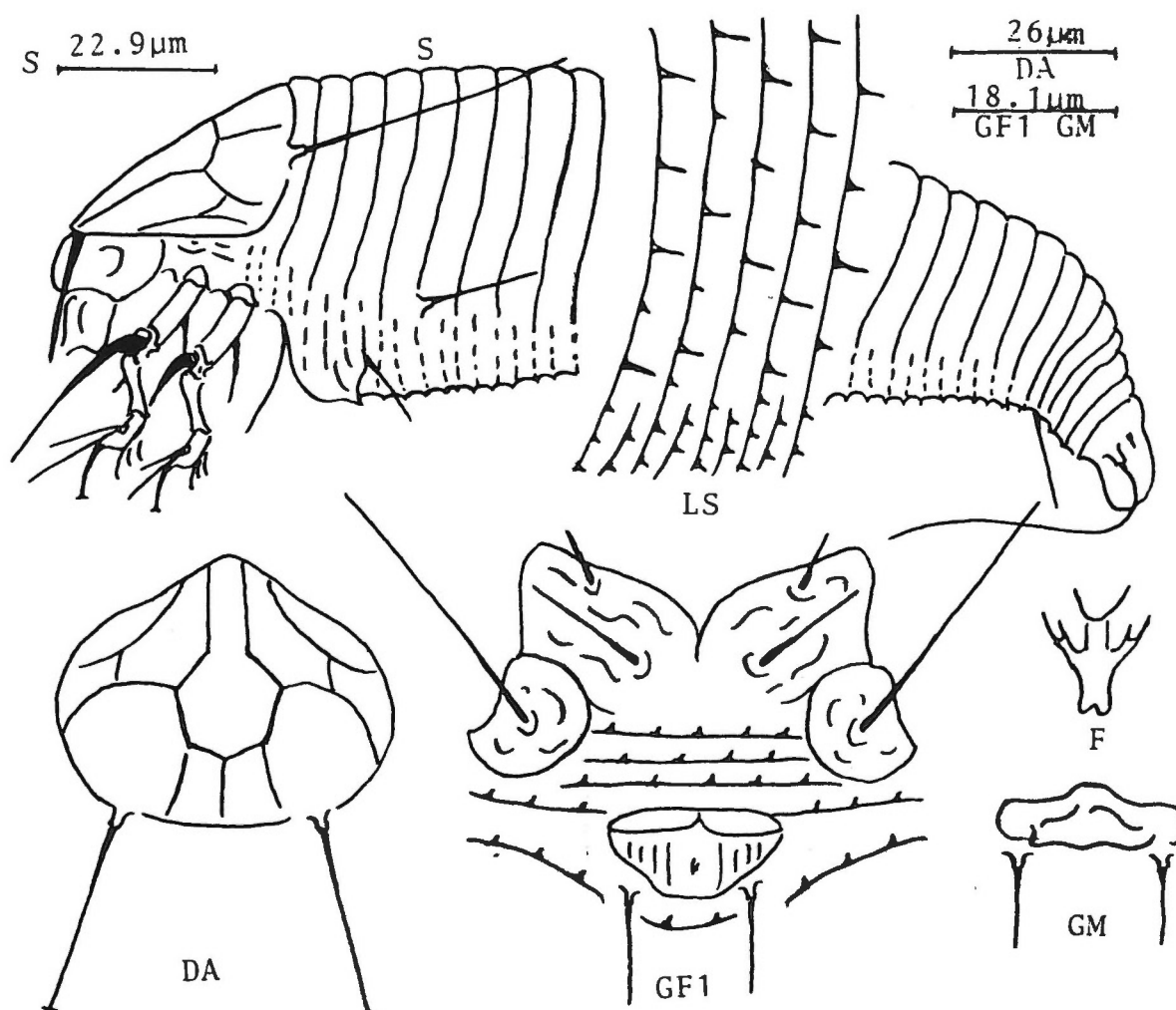


FIG. 2: *Circaces ulmi* sp. nov.

S. — Side view of anterior region of female. LS. — Lateral structures. DA. — Dorsal view of shield. GF1. — Female genitalia and coxae from ventral aspect. F. — Featherclaw. GM. — Male genitalia.

Kuang HAIYUAN in Nanjing City, Jiangsu Province.
Host: *Bambusa* sp. (Gramineae). Relation to host:
vagrant.

Circaces ulmi sp. nov.
(Fig. 2)

Female: Spindleform, 160 (153–170) long, 55 (51–60) wide, 45 (41–47.6) thick. Rostrum 27.3 (26.8–28) long, projected obliquely downwards. Shield 25.3 (24.7–25.8) long, 44.7 (43.4–45.7) wide; with anterior lobe; median line incomplete, present on the rear 1/4 of shield; admedian line forming

vase-like mark; submedian line recurved outwardly, forming large “cell” on inside of shield margin. Dorsal tubercles 25.2 (24.6–25.5) apart, located on rear margin, seta 39.6 (39–40.6) long, pointing to rear. Forecoxa with sternal line; coxal seta lengths I 8.2 (7.8–9), II 15.2 (14.7–15.8) and III 30.3 (29.4–31) long, femur 10.9 (10.4–11.5) long, seta 9.2 (8.8–9.5) long; genu 5 (4–6) long, seta 20.4 (19.8–21) long; tibia 7.2 (6.7–7.5) long, seta located 1/3 from dorsal base of the tibia; tarsus 4.9 (4.7–5.6) long; featherclaw simple, 2-rayed, claw knobbed. Hindlegs 28.5 (28–29.3) long, femur 10.3 (9.6–11) long; tibia 6.2 (5.8–6.6) long, tarsus 5.4 (4.8–6.1) long, claw knobbed. Thanosome with arciform tergites, 27 (25–28)

rings, bearing microtubercles. Lateral seta 20.2 (19.4–21) long, on sternite 11; 1st ventral seta 35–4 (34.8–36.9) long, on sternite 22; 2nd ventral seta 10.8 (9.5–11.6) long, on sternite 33; 3rd ventral seta 18.4 (17.8–19.6) long, on sternite 5 from the rear. Telson with accessory seta. Female genitalia 15.2 (14.8–15.4) long, 19.7 (19.1–21.1) wide, coverflap with 6–8 longitudinal ribs, genital seta 15 long.

Male: 150 (148–156) long, 60 (57–64) wide. Genitalia 20.4 (19.6–21.1) wide, genital seta 10.3 (9.8–10.7) long.

Types: Holotype female, allotype male, paratypes 26 females and 7 males. Collected on 20 Sept. 1994 by Kuang HAIYUAN and Gong GUOJI in Hangzhou City, Zhejiang Province. Host: *Ulmus* sp. (Ulmaceae). Relation to host: vagrant.

Remarks: This new species is similar to *C. chakrabarti* Keifer (1978), but can be differentiated from the latter by the vase-like shape formed by the admedian line; tergites with spiniform microtubercles and sternites with tapering microtubercles, female coverflap with 6–8 longitudinal ribs and featherclaw 2-rayed.

***Tetraspinus indocalami* sp. nov.**

(Fig. 3)

Female: Spindleform, 190 (185–195) long, 60 (58–62) wide, 40 (38–43) thick. Rostrum 16.5 (15.8–17) long, projecting obliquely downwards. Shield 51 (49.5–52) long, 55.2 (54.8–56.3) wide, anterior lobe with 2 apical thorns; median line absent, admedian line closed to form large cell in distal 1/3 of shield, short submedian lines present along 1/2 length of shield; dorsal tubercles 35 (33.7–36.7) apart on rear margin, dorsal seta 9.6 (7.7–10.4) long pointing to rear. Forecoxa with sternal line, coxal seta I 7.8 (7.5–8.2), II 14.6 (14.2–15.3) and III, 20.2 (19.7–20.6) long; sinuous stripes present on coxae. Forelegs 32.6 (31.4–33) long, femur 12.2 (11.6–12.9) long seta 15.8 (15.3–16.4) long; genu 5 (4–6) long, seta 30.4 (29.8–31) long; tibia 7.2 (6.9–7.5) long, seta located 1/3 from dorsal base; tarsus 6.3 (5.8–6.6) long; featherclaw simple, 8–9 rayed, claw lacking knob. Hindleg 30.4 (29.8–31.1) long, femur 11.5 (11–12.2) long seta 16.2 (15.8–16.5) long; genu 5 (4–6) long, seta 8.5

(8.1–9) long; tibia and tarsus each 16.2 (15.8–16.5) long; genu 5 (4–6) long, seta 8.5 (8.1–9) long; tibia and tarsus each 6.2 (5.9–6.5) long, claw unknobbed. Thanosome with broad dorsocentral trough, tergites 45, some tergites possessing round microtubercles, 58–62 sternites with bead-like microtubercles. Lateral seta 30.4 (29.4–31) long on sternite 12; 1st ventral seta 44.2 (43.8–45.2) long on sternite 21; 2nd ventral seta 36.6 (36.1–37.2) long on sternite 40; 3rd ventral seta 30.4 (29.8–31.2) long on 5th sternite from rear. Telson with round microtubercles, accessory seta present. Female genitalia 17.2 (16.9–17.5) long, 24.5 (24.2–25.3) wide, coverflap with 10–12 longitudinal ribs, genital seta 15.2 (14.8–15.5) long.

Male: not known.

Types: Holotype female, paratypes 5 females, collected on 20 Sept. 1994 by Kuang HAIYUAN and Gong GUOJI in Hangzhou City, Zhejiang Province. Host: *Indocalamus latifolius* (Gramineae). Relation to host: vagrant.

Remark: This new species is similar to *T. populi* Kuang et Hong (1992), but can be differentiated by the median line being absent; admedian complete; coxa with short stripe-marks; featherclaw simple, 8–9 rayed; and 10–12 longitudinal ribs on female genitalia coverflap.

***Tetraspinus bambusae* sp. nov.**

(Fig. 4)

Female: spindleform, 160 (148–170) long, 60 (55–65) wide, 55 (51–58) thick. Rostrum 20.7 (19.8–21.2) long, directed obliquely downwards. Shield 40.2 (39.6–40.5) long, 50.4 (49.6–51) wide, anterior lobe with 2 apical thorns; longitudinal lines present; dorsal tubercles 34 (32.7–35.2) apart on rear margin, dorsal seta 48.2 (47.4–49.2) long, pointing to rear. Forecoxa with sternal line; coxal seta length I, 8.2 (7.7–8.4), II 12.3 (11.9–13.2) and III, 21.6 (21–22.7); forecoxa with short, striped scorings, hindcoxa smooth. Forelegs 28.3 (27.5–28.6) long, femur 10.3 (9.6–11.2) long, seta 15.2 (14.8–15.8) long, genu 4 (3–5) long, seta 25.3 (24.8–25.6) long; tibia 6.2 (5.9–6.4) long, seta located midway of dorsum; tarsus 5.4 (4.7–5.8) long; featherclaw simple, 8-rayed, claw knob absent. Hindleg 26.4 (25.8–27) long, femur 9.2

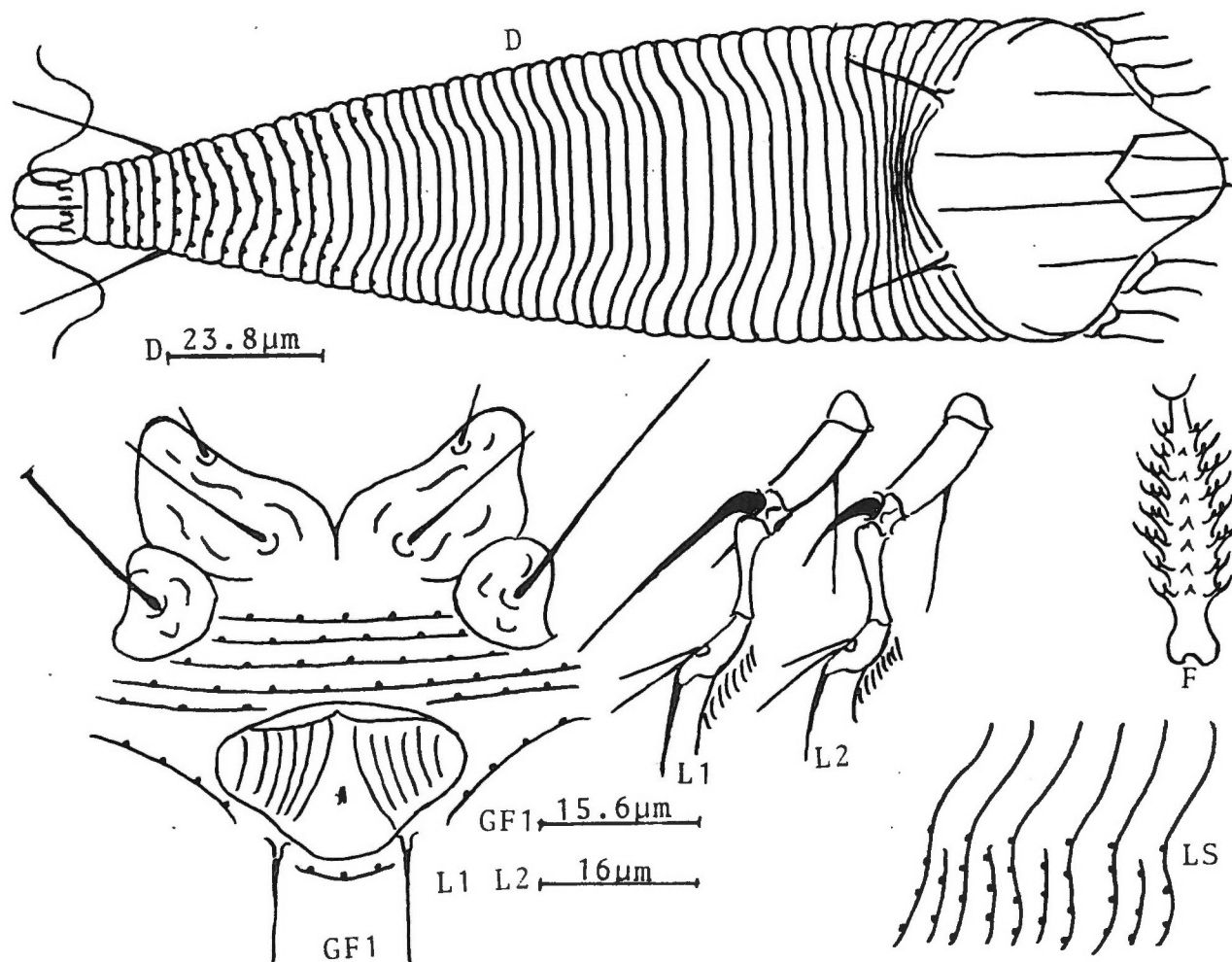


FIG. 3: *Tetraspinus indocalami* sp. nov.

D. — Dorsal view of female. GF1. — Female genitalia and coxae from ventral aspect. L1. — Foreleg. L2. Hindleg. F. Featherclaw. LS. Lateral structures.

(8.7–9.4) long, seta 15.2 (14.7–15.4) long; genu 4 (3–5) long, seta 12.3 (11.8–12.6); tibia and tarsus both with seta 5.2 (4.7–5.4) long, claw unknobbed. Thanosome with broad dorsocentral trough, tergites 30–35 with round microtubercles, sternites 55–60 with bead-like microtubercles. Lateral seta 34.6 (33.8–36.2) long, on sternite 12; 1st ventral seta 58.2 (57.8–61) long, on sternite 24; 2nd ventral seta 48.5 (47.8–51.5) long, on sternite 40; 3rd ventral seta 30.2 (29.4–31.2) long, on 4th sternite from rear. Telosome with accessory seta. Female genitalia 15.2 (14.7–15.6) long, 25.4 (24.8–26) wide, coverflap with 16–18 longitudinal ribs, genital seta 15.3 (14.6–15.7) long.

Male: 152 (149–155) long, 58 (57–59) wide. Genitalia 20 (19–21) wide, genital seta 15 (14–16) long.

Types: Holotype female, allotype male, paratypes 13 females and 1 male, collected on 25 Oct. 1994 by Kuang HAIYUAN and Gong GUOJI in Ma'anshan City, Anhui Province. Host: *Bambusa* sp. (Gramineae). Relation to host: vagrant.

Remarks: This new species is similar to *T. pyramidicus* (Keifer) (1961), but can be differentiated from the latter by the shield with 3 complete, longitudinal lines, coxa II smooth; female genitalia coverflap with 16–18 longitudinal ribs; and the featherclaw simple, 8-rayed.

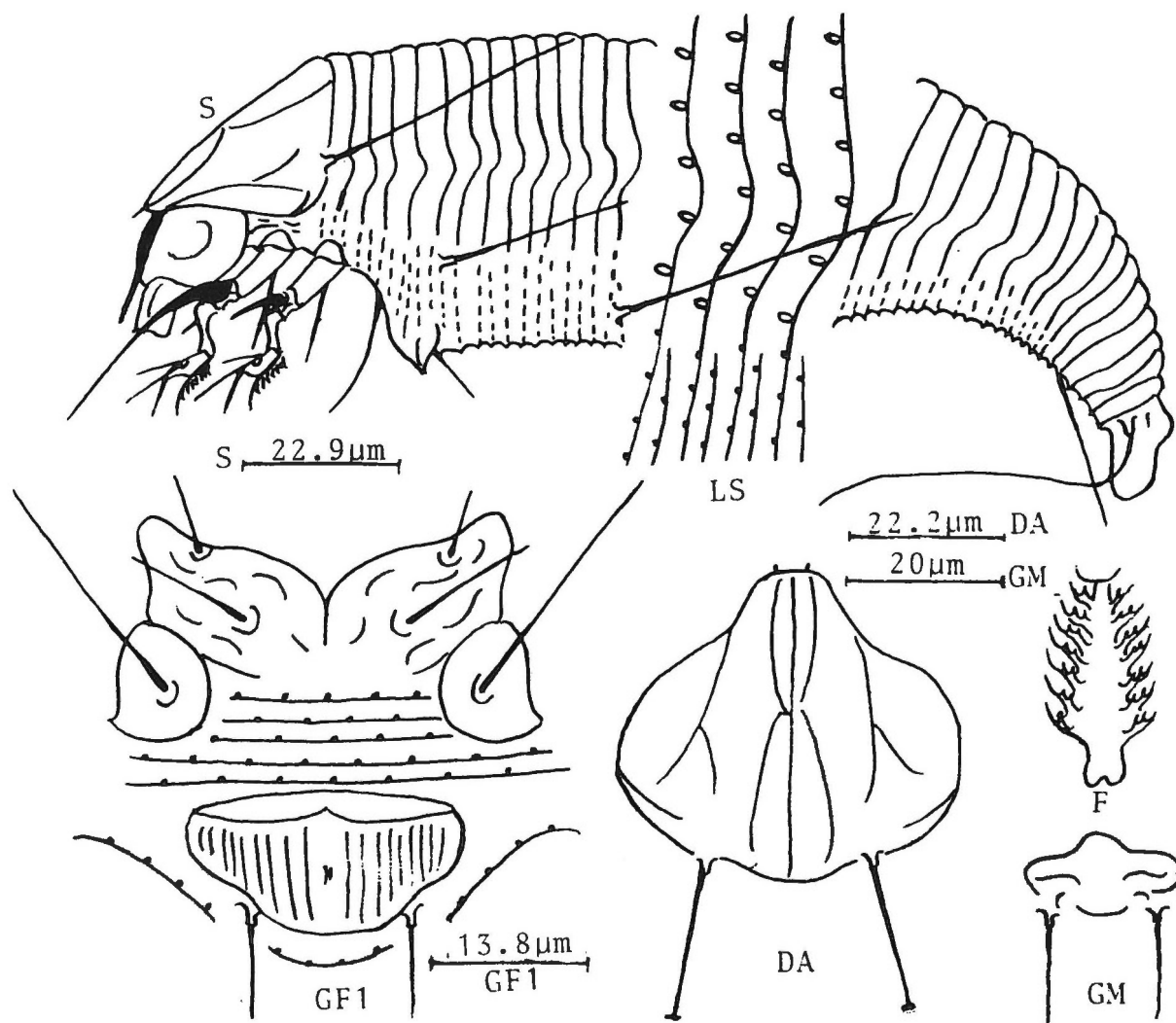


FIG. 4: *Tetraspinus bambusae* sp. nov.

S. — Side view of anterior region of female. LS. — Lateral structures. GF1. — Female genitalia and coxae from ventral aspect. DA. — Dorsal view of shield. F. — Featherclaw. GM. — Male genitalia.

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