

ONE NEW GENUS AND THREE NEW SPECIES
OF THE FAMILY DIPTILOMIOPIDAE (ACARI: ERIOPHYOIDEA)
FROM THE PEOPLE'S REPUBLIC OF CHINA

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ERIOPHYOIDEA
DIPTILOMIOPIDAE
NEOACARHIS N. GEN
RHINOTERGUM
RHYNCAPHYTOPTUS
CHINA

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SUMMARY: One new genus, *Neoacarhis* gen. nov., and three new species—*Neoacarhis aglaiae* sp. nov., *Rhinotergum ulmi* sp. nov., and *Rhyncaphytoptus hanzhouensis* sp. nov.—are described from China.

RÉSUMÉ: Un genre nouveau *Neoacarhis* gen. nov. et trois espèces nouvelles *Neoacarhis aglaiae* sp. nov., *Rhinotergum ulmi* sp. nov., et *Rhyncaphytoptus hanzhouensis* sp. nov; sont décrits de la Chine.

This paper gives an account of three new diptilmopid mites collected in China. One new genus is erected. All measurements are expressed in micrometers, and measured from holotype specimen.

All type slides of the new species are deposited in the Department of Plant Protection, Nanjing Agricultural University, Jiangsu Province, P. R. China.

seta lacking. Three pairs of ventral setae present.

Type species: *Neoacarhis aglaiae* sp. nov.

Remarks: This new genus resembles *Acarhis* Keifer, 1975, but can be differentiated by the presence of foregenual seta and absence of foretibial seta.

Neoacarhis aglaiae sp. nov.

Fig. 1

Neoacarhis gen. nov.

Body spindleform, rostrum large, uniformly bent downwards at right angle. Chelicera abruptly bent down. Shield lacks anterior lobe. Dorsal tubercles ahead of rear margin, dorsal setae pointing upwards and inwards. Coxae with all typical setae. Forefemoral seta and foretibial seta missing. Genual seta present. Hindfemoral and hindgenual setae lacking, featherclaw divided. Thanosome with a middorsal longitudinal ridge, which faces posteriorly. Lateral

Female: Spindleform, 160 (145–170) long, 65 (55–70) wide, 60 (48–70) thick. Rostrum large 48 (46–51) long, projecting downwards. Chelicera abruptly bent down. Shield lacking anterior lobe, median line incomplete, only present in anterior 3/4 of shield, admedian and submedian lines present, these lines ornamented with a complex network. Dorsal tubercles in front of rear margin, 21.5 (21.3–23) apart, dorsal seta 2.3 (1.5–3) long, pointing upward and inwards. Anterior coxae with sternal line, coxal

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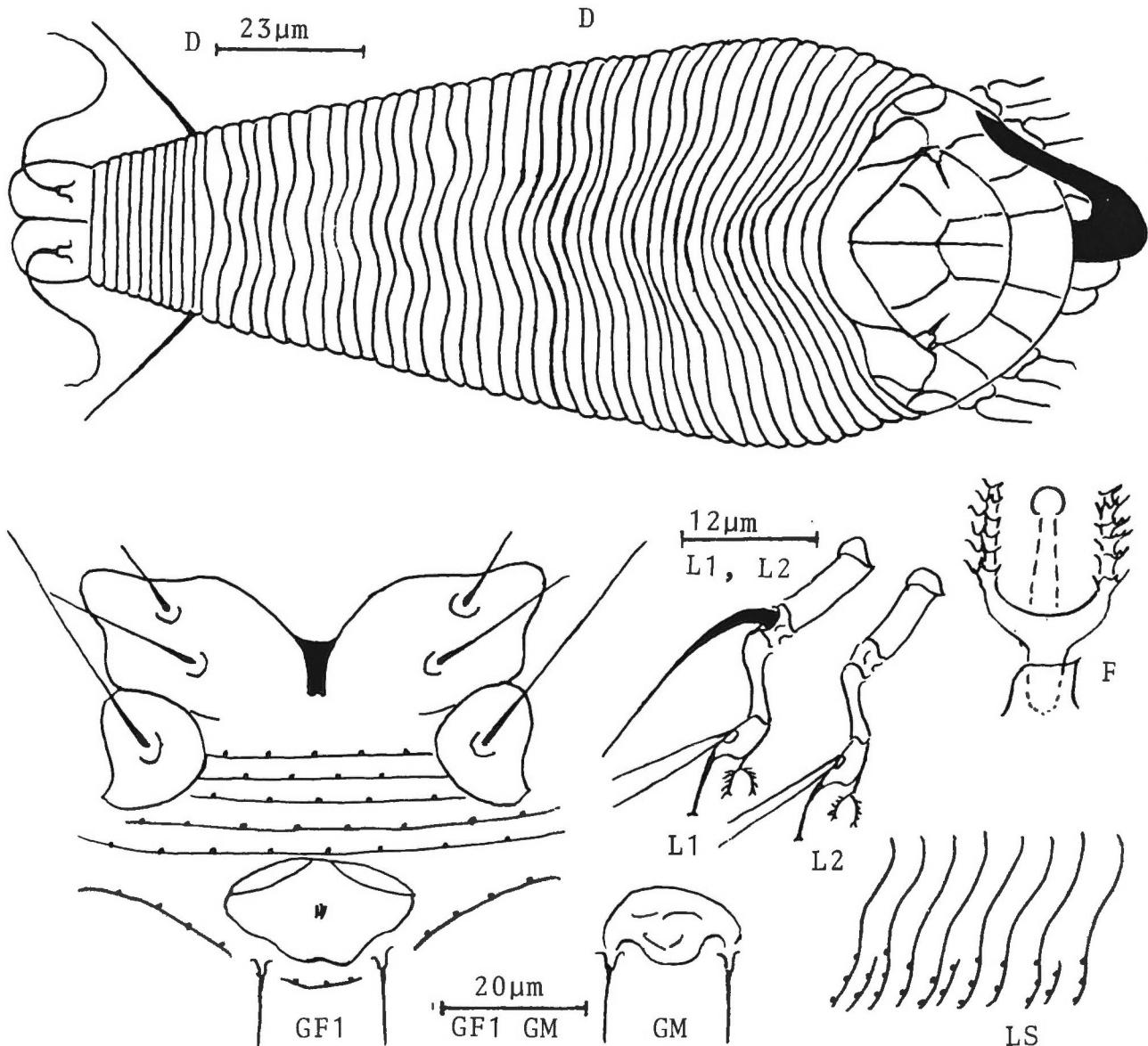


FIG. 1: *Neoacarhis aglaiae* sp. nov.

D.—Female in dorsal view. GF1.—Coxae and female genitalia. L1, L2.—Legs I. II. GM.—Male genitalia. F.—Featherclaw. LS.—Lateral microtubercles.

seta I, II, III 7.8 (7.5–9), 15.2 (14.6–16) and 24.2 (23.5–25.5) long, respectively, coxae smooth. Foreleg 26 (25.3–27.8) long, femur 8.2 (7.5–9.6) long, without seta; genu 4 (3–5) long seta 29.4 (27.7–32) long; tibia 5.1 (4.1–6.2) long; seta lacking; tarsus 6.8 (6–8.2) long; feather-claws divided, each 6-rayed; claw knobbed. Hindleg 24.6 (22.5–26) long, femur 7.3 (6.2–8.5) long, without seta; genu 4 (3–5) long, seta missing; tibia 3.7 (3.5–5.5) long; tarsus 6.9 (6.3–8.7) long; claw knobbed. Thano-

some with complete median longitudinal ridge terminated before telosome. Tergites 40–45 smooth and sternites 60–65 with beadlike microtubercles. Lateral seta missing. Ist ventral seta 14.2 (12.3–15.7) long, on sternite 30; 2nd ventral seta 7.9 (6.4–10.5) long, on sternite 45; 3rd ventral seta 25.4 (21.5–27.2) long, on 10th sternite from rear. Accessory seta absent. Female genitalia 9.5 (8.6–12) long, 24.5 (23.2–26.4) wide; coverflap smooth; genital seta 7.2 (6.3–8.2) long.

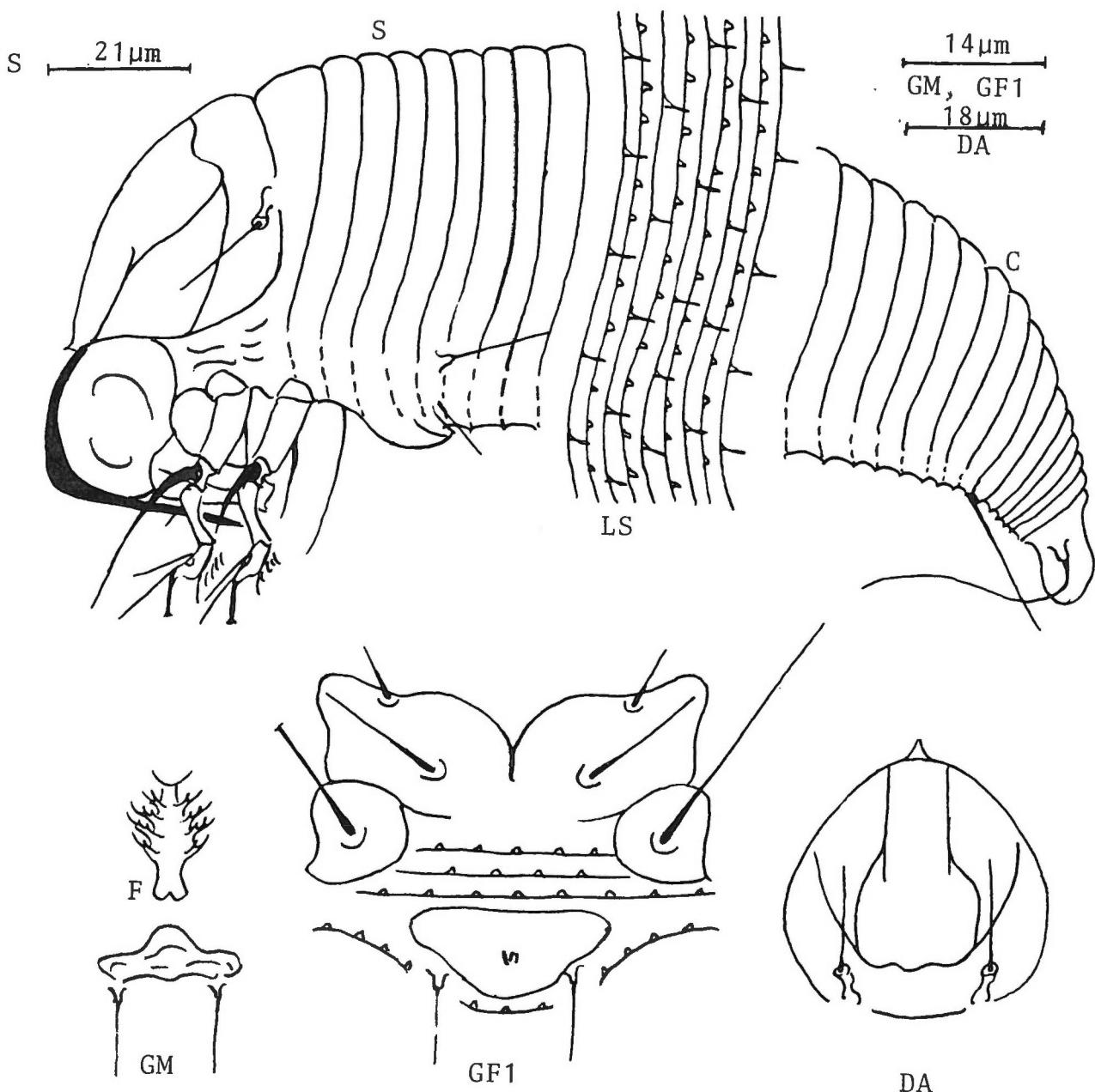


FIG. 2: *Rhinotergum ulmi* sp. nov.

S. — Side view anterior part of female. LS. — Lateral microtubercles. C. — Caudal seta. F. — Featherclaw. GM. — Male genitalia. GF1. — Coxae and female genitalia. DA. — Shield.

Male: 150 long, 60 wide. Genitalia 20 wide, genital seta 7 long.

Type: Holotype female, allotype male, paratype 21 females, collected on 28 Feb. 1994, Cheng Lisheng from Hainan Province, Northeast China. Host: *Aglaia odorata* (Meliaceae). Relation to host: vagrant.

Rhinotergum ulmi sp. nov.

Fig. 2

Female: Spindleform 170 (162–190) long, 65 (58–70) wide, 70 (59–80) thick. Chelicera abruptly bent down. Rostrum 60 (58.6–61.6) long, down-

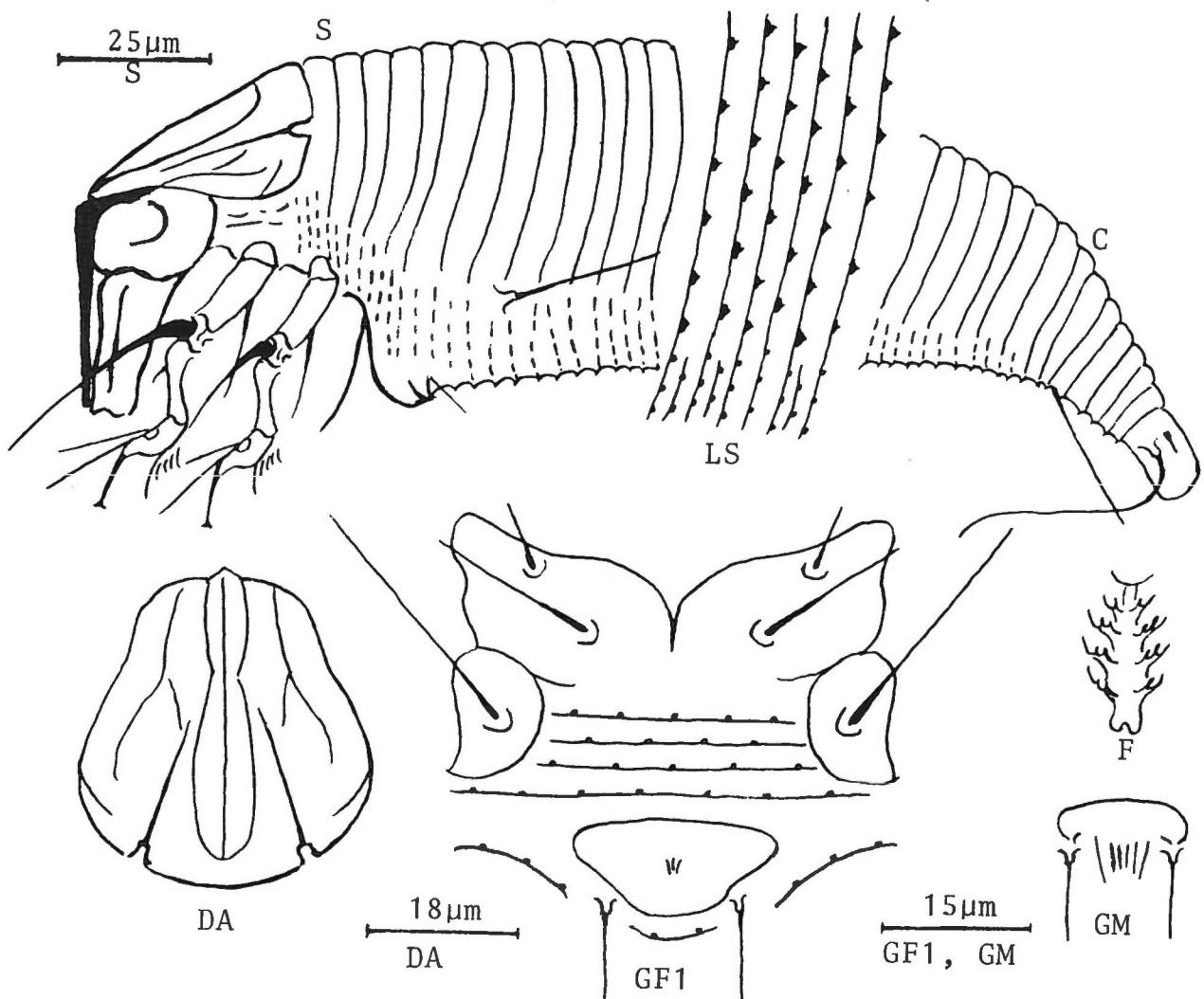


FIG. 3: *Rhyncaphytoptus hangzhouensis* sp. nov.

S. — Side view anterior part of female. LS. — Lateral microtubercles. C. — Caudal seta. DA. — Shield. GF. — Coxae and female genitalia. F. — Featherclaw. GM. — Male genitalia.

curved at a right angle or an acute angle to body. Shield 35.2 (31.6–37) long, 36.8 (35.2–39.5) wide, with very small anterior lobe, median line absent, admedian line incomplete, submedians joining posteriorly to form an arch. Dorsal tubercles 24.5 (23.5–27) apart, set on rear margin, projecting forwards. Forecoxae with sternal line, coxal setae I, II, III 8.1 (7.2–9), 14.9 (13.4–17) and 35.3 (33.6–37.4) long, respectively, coxae smooth. Forelegs 35.3 (32.5–37.1) long; femur 11.8 (10.3–13.5) long, seta 14 (12–16) long; genu 5.8 (4.7–8.2) long, seta 25.2 (23–27.5); tibia 8.8 (7.3–10) long, seta located dorsally 1/3 from base; tarsus 6.2 (5.5–7.5), featherclaw simple, 5–6 rayed, claw knobbed. Hindlegs 33.5

(32.2–35) long; femur 11.3 (9–12.5) long, seta 11.5 (10.7–13.2) long; genu 6.3 (5–7.5) long, seta 12.2 (10.6–13) long; tibia 7.5 (6.4–9.7) long, tarsus 6.2 (5.4–8) long, claw knobbed. Tergites arched on thanosome; tergites and sternites both numbering 21; tergites with deep transverse incisions and tergites rear margin with tapering microtubercles bearing a rank. Lateral seta 11.8 (9.5–14) long, on sternite 5; 1st ventral seta 11.2 (5.5–12.8) long, on sternite 10; 2nd ventral seta 9.8 (7.6–11.4) long, on sternite 14; 3rd ventral seta 24.8 (24.2–26.3) long, on 6th sternite from rear. Telosome without accessory seta. Female genitalia 14.9 (13.6–17.2) long, 20.2 (18.7–22) wide, coverflap smooth, genital seta 9.8 (8.5–12) long.

Types: Holotype female, allotype male, paratype 28 females and 3 males. Collected on 11 Sept. 1994 by Kuang Haiyuan and Gong Guoji in Jiande City, Zhejiang Province. Host: *Ulmus* sp. (Ulmaceae). Relation to host: vagrant.

Remarks: This new species is related to *R. cerasifoliae* Petanović, 1988, but can be separated from the latter by the lack of median line; the shape of the microtuberculation on tergites being similar to that on sternites; and featherclaw 5-6 rayed.

***Rhyncaphytoptus hangzhouensis* sp. nov.**

(fig. 3)

Female: Spindleform, 200 (175–210) long; 60 (55–70) wide, 55 (51–70) wide, 55 (51–60) thick. Rostrum 50.2 (48.4–53) long, downcurved at a right angle to body. Chelicera abruptly bent down. Shield 42.3 (38.6–45) long, 34.8 (32.5–37.5) wide, with very small anterior lobe, shield possessing all shield line, admedian lines joining posteriorly to form an arch. Dorsal tubercles 25.2 (24.5–27) apart, ahead of rear margin, dorsal seta 12.3 (10.2–14) long, pointing forwards. Sternal line present. Coxal seta I, II, III 13.8 (11.7–15), 25 (22.5–27) and 34.9 (32.6–37) long respectively, coxae smooth. Foreleg 38.2 (35.8–40) long, femur 12.7 (11.6–15) long, seta 16.3 (14.7–17.5) long; genu 5 (3–6) long, thick seta 30.4 (27.4–33.6) long; tibia 10 (8.3–11.6) long, seta located dorsally 1/3 from base; tarsus 8.1 (6.5–9) long, featherclaw simple, 5-rayed, claw knobbed. Hindleg 35.4 (34.2–38) long, femur 11.5 (10.6–14) long, seta 16.2 (14.7–17.5) long; genu 5 (3–6) long, seta 17.5 long; tibia 9.2 (7.6–11.3)

long; tarsus 8.2 (7.5–9.1) long, claw knobbed. Thanoosome with 35–38 arcuate tergites, and tapering microtubercles; 55–60 sternites with round microtubercles. Lateral seta 15.2 (12.4–16.8) long, on sternite 17; 1st ventral seta 10.4 (8.5–13) long on 28 sternite; 2nd ventral seta 10.5 (8.5–12.2) long on 39 sternite; 3rd ventral seta 19.6 (18–21.5) long, on 5th sternite from rear. Telosome with accessory seta. Female genitalia 15 (13–17) long, 19.5 (17.4–28.6) wide; coverlap smooth, genital seta 14.2 (12.5–15) long.

Male: 180 (177–184) long, 55 (51–58) wide. Genitalia 13 (11.4–15.2) wide, genital seta 11.3 (10.6–14.7) long.

Types: Holotype female, allotype male, paratypes 11 females and 3 males. Collected on 20 Sept. 1994, by Kuang HAIYUAN and Gong GUOJI in Hangzhou City, Zhejing Province. Host: *Ulmus* sp. (Ulmaceae). Relation to host: vagrant.

Remark: This species is similar to *R. halli* Keifer (1966), but can be differentiated from the latter by the shield having a median line and the tapering microtubercles on the tergites.

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