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A New Genus and Species of Aphididae (Homoptera: Aphidoidea) from China

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Likun Zhang and Guangxue Zhang (2001) A new genus and species of Aphididae (Homoptera: Aphidoidea) from China. *Zoological Studies* **40**(1): 68-70. This paper describes a new genus and new species from Shandong Province, China, viz: *Mutillaphis* gen. nov., type-species *M. prunisucta* from *Armeniaca mume* Sieb. This aphid genus is closely related to *Pseudasiphonaphis* Robinson. All type specimens are deposited at the Institute of Zoology, Chinese Academy of Sciences, Beijing.

Key words: Aphididae, *Mutillaphis*, New genus, New species, China.

There were 9 genera in the subtribe Rhopalosiphina of Aphididae. In our study on Chinese Rhopalosiphina, we found that 1 species collected from Qingdao City, Shandong Province, on *Armeniaca mume* Sieb. (*Prunus mume* Sieb. et Zucc.) could not be identified. Because of its unusual characters we feel that it is a new genus and a new species, which is described below. Zhang's (Zhang and Zhong 1983) and Remaudières' (Remaudière and Remaudière 1997) taxonomic systems are adopted.

Mutillaphis gen. nov.

Type species: *Mutillaphis prunisucta* sp. nov.

Description: Front with a low median elevation and large antennal sockets resembling segment I of antenna. Antenna 5-segmented. Ultimate rostral segment normally shaped, shorter than 2nd segment of hind tarsus. First tarsal segment chaetotaxy: 2, 2, 2. Marginal tubercles present on prothorax and abdominal segments I-VII, marginal abdominal tubercles small and round, almost as long as their basal diameter, on abdominal segments I and VII situated above level of spiracular pore. Marginal tubercles slightly larger than hair-bearing tubercular bases. Abdomen membranous. Siphunculus a very short truncated cone, not more than 1/2 its basal diameter, almost as long as its apical diameter, rimless, situated near spiracle on abdominal tergite VI. Cauda tongue-shaped. Three rudimentary gonapophyses. Body with a few dorsal hairs. Dorsal hairs with fine apices on prominent hair-bearing tubercular bases very short.

Etymology: Generic name *Mutillaphis* is the feminine gender and derived from the Latin word "*mutillus*" (= cut off, or shortened), and the new Latin word "*aphis*" (= plant-louse).

Remarks: This genus is closely related to *Pseudasiphonaphis* Robinson, 1965 (Robinson 1965); but differs in the following characters: 1. the 1st tarsal segment chaetotaxy: 2, 2, 2 (the latter: 3, 3, 2-3); 2. marginal abdominal tubercles small and round, almost as long as their basal diameter (the latter: slender, about twice as long as wide); 3. antenna 5-segmented (the latter: 6-segmented); and 4. extensive development of antennal sockets (the latter: weakly developed).

The closely related Rhopalosiphina genus *Mordvilkoiella* Shaposhnikov (Shaposhnikov 1964) has 5-segmented antennae and a very short, pore-like siphunculus, a 'rostrate'-shaped ultimate rostral segment, the marginal tubercles only on the prothorax, the 1st tarsal segment chaetotaxy: 3, 3, 2, the cauda helmet-shaped, and also normally deve-

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loped antennal sockets.

Mutillaphis superficially resembles the Aphidina genus *Siphonatrophia* Swain (Swain 1918) with 5-segmented antennae, 1st tarsal segment chaetotaxy: 2, 2, 2, and very short, almost porelike siphunculi; but differs by much swollen and convex abdomen, normally developed antennal sockets, absence of marginal tubercles on prothorax and abdomen, and in having 2 pairs of rudimentary gonapophyses.

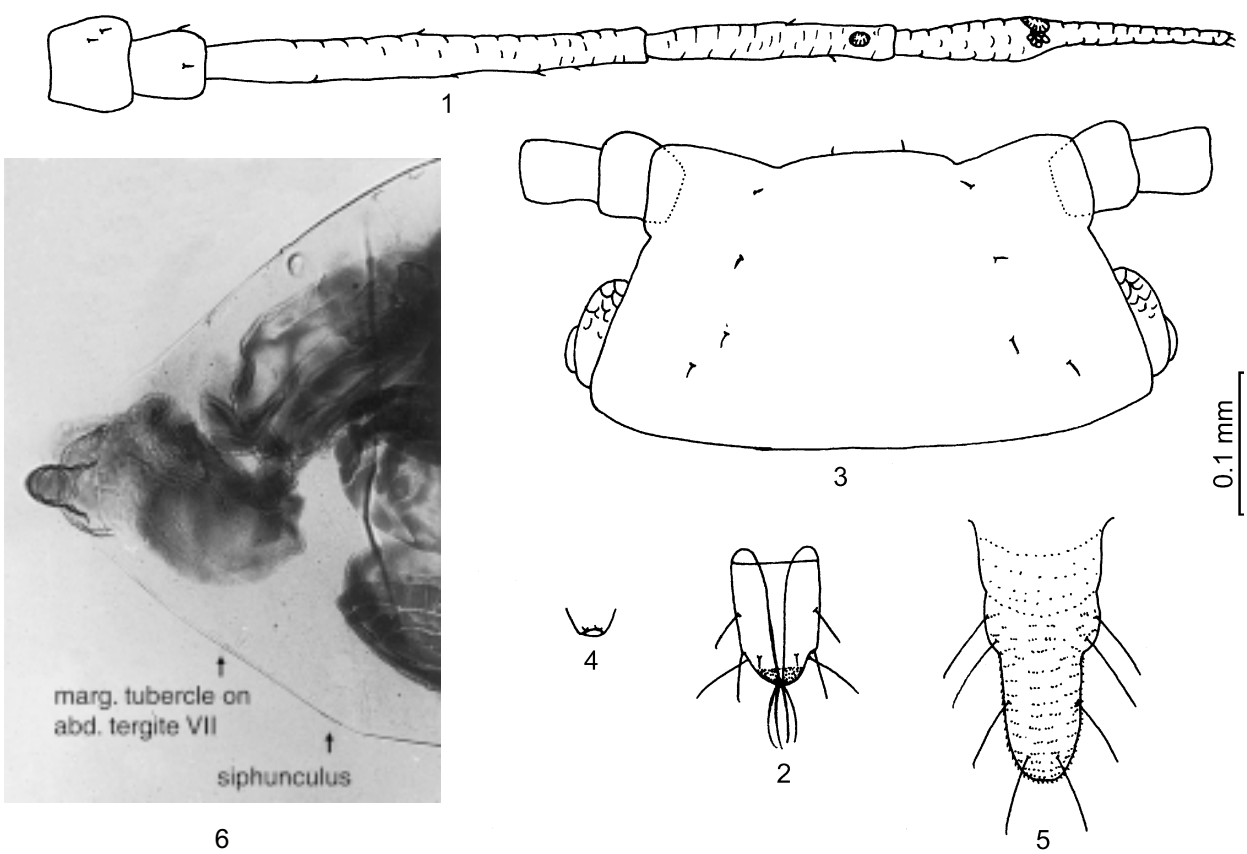
***Mutillaphis prunisucta* sp. nov.**

Holotype: apterous viviparous female, no.Y844-1-2-1, 26 Apr. 1965, Shandong Prov. (Qingdao City, 120.3E, 36.0N) on *Armeniaca mume* Sieb. (*Prunus mume* Sieb. et Zucc.), Rosaceae, collected by Zhang Qiyan. Deposited at the Institute of Zoology, Chinese Academy of Sciences, Beijing.

Paratypes: 11 apterous viviparous females, no. Y844, same data as holotype. All are deposited at the Institute of Zoology, Chinese Academy of Sciences, Beijing.

Description: Apterous viviparous female (measurement in mm): body 2.061 in length, 1.148 in width. Antenna (Fig. 1) 0.634, segments I-V: 0.055, 0.053, 0.290, 0.139, 0.097 + 0.120. Ultimate rostral segment (Fig. 2) 0.089. Hind femur 0.390, hind tibia 0.689, 2nd hind tarsal segment 0.119. Siphunculus (Fig. 4) 0.020 in length, 0.045 in basal diameter, 0.018 in apical diameter. Cauda (Fig. 5) 0.179 in length.

Body elliptical. In cleared specimens head, rostrum, antennae, legs, siphunculi, cauda, and anal plate brown; others pale. Spiracles elliptical and open, spiracular plates elliptical, sclerotized. Basal 1/2 of antennal segment III slightly imbricate, apical halves of antennal segments III-V and 2nd tarsal segments transversely imbricate. Head (Fig. 3) with 1 pair of frontal hairs and 4 pairs of dorsal hairs. Body with a few dorsal hairs. A pair of marginal hairs and 2-3 pairs of spine-pleural hairs on abdominal tergites I-VII. Two hairs on abdominal tergite VIII. Dorsal hairs pointed on hair-bearing tubercular



Figs. 1-6. *Mutillaphis prunisucta* sp. nov.
Apterous viviparous female: 1. antenna, 2. ultimate rostral segment, 3. dorsal view of head, 4. siphunculus, 5. cauda. (scale bar = 0.1 mm) 6. dorsal view of abdominal tergites V-cauda.

bases. Length of frontal hairs, marginal hairs on abdominal tergite I, and spinal dorsal hairs on abdominal tergite VIII 0.48, 0.56, and 0.81 times as long as basal diameter of antennal segment III, respectively. Antenna 5-segmented, without secondary rhinaria, length in proportion of segments I-V: 19, 18, 100, 48, 33 + 41. Processus terminalis 1.24 times as long as base of antennal segment V. Primary rhinaria round, ciliated. Rostrum almost reaching middle coxae; ultimate rostral segment normally shaped, 1.41 times as long as its basal diameter, 0.75 times as long as 2nd hind tarsal segment, with 1 pair of accessory hairs and 3 pairs of primary hairs. Hind femur 1.34 times as long as antennal segment III, hind tibia 0.33 times as long as body. Length of the longest hair on hind tibia 0.036 mm, 0.95 times as long as mid-diameter of this segment. First tarsal segment chaetotaxy: 2, 2, 2. Siphunculus a very short truncated cone, not more than 1/2 of its basal diameter, almost as long as its apical diameter, and rimless, situated near spiracle on abdominal tergite VI. With 3 rudimentary gonapophyses. Cauda 1.75 times as long as its basal diameter, with 6-8 hairs. Marginal tubercles present on prothorax and abdominal tergites I-VII; marginal tubercles on abdominal tergites I and VII situated above level of spiracular pore, and marginal abdominal tubercles small and round, almost as long as their basal diameter, slightly larger than hair-bearing tubercles.

Etymology: The specific trivial name of this species *prunisucta* is derived from the Latin words "*prunus*" (= plum tree) and "*suctus*" (= suck).

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中國之蚜科（同翅目：蚜總科）一新屬及一新種

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本文記述中國蚜科(Aphididae)縊管蚜亞族(Rhopalosiphina)一新屬及一新種：切蚜屬 *Mutillaphis* gen. nov.和梅切蚜 *Mutillaphis prunisucta* sp. nov.。標本採於山東省青島市(北緯 36.0°，東經 120.3°)，寄主為梅 *Armeniaca mume* Sieb. (*Prunus mume* Sieb. et Zucc.)，模式標本存放在北京，中國科學院動物研究所標本館。切蚜新屬 *Mutillaphis* 與 *Pseudasiphonaphis* Robinson, 1965 近緣，但有下列區別：1. 跗節 I 毛序為 2，2，2(後者：3，3，2)；2. 緣瘤小，圓形，長約等於其基寬(後者：細長，長約等於其基寬的 2 倍)；3. 觸角 5 節(後者：6 節)；4. 額瘤發達，突出(後者：微凸)。

關鍵詞：蚜科，切蚜屬，新屬，新種，中國。

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