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Genus *Cheilocapsus* KIRKALDY of Mainland China (Insecta: Hemiptera: Miridae: Mirinae)

With 9 figures

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Abstract. In the present paper, four species of *Cheilocapsus* KIRKALDY collected from Mainland China are reported, among which two new species. Species new to science, viz. *Cheilocapsus maculipes* sp. n., *Ch. nigrescens* sp. n., are described. A key to all the known species is provided.

Key words Hemiptera, Miridae, Mirinae, *Cheilocapsus*, new species, key, Mainland China.

Introduction

Hitherto six species are known in the mirine genus *Cheilocapsus* KIRKALDY, 1902 (KIRKALDY, 1902; REUTER, 1903; YASUNAGA, 1992, 1994) and only one, *Ch. tibetanus* (REUTER, 1903), was recorded from Mainland China (SCHUH, 1995; KERZHNER & JOSIFOV, 1999). In this paper two new species are described; and *Ch. taiwanicus* (YASUNAGA) is recorded for the first time in this region. A key to all the known species is provided. All measurements in the text are given in millimeters. Type specimens will be deposited in Department of Biology, Nankai University, Tianjin, China except otherwise mentioned.

Key to Chinese species of *Cheilocapsus* KIRKALDY

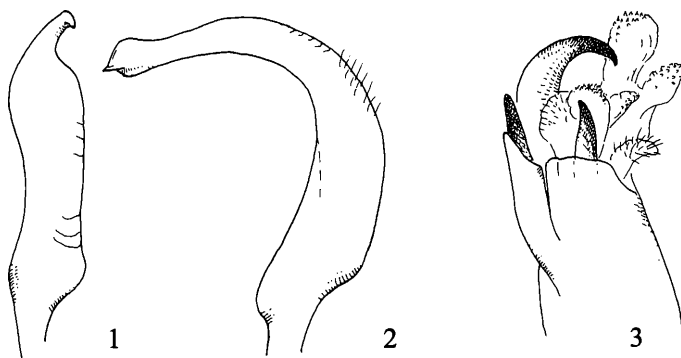
- 1 (4) Basal $\frac{2}{3}$ – $\frac{3}{4}$ of 3rd and $\frac{2}{3}$ of 4th antennal segments pale, more than $\frac{1}{3}$ of cuneus darkened:
- 2 (3) Dorsal surface brownish black, spiculum of vesica slender at apical half.
Ch. nigrescens LIU et WANG, sp. n.
- 3 (2) Dorsal surface brownish yellow, spiculum of vesica short and thick.
Ch. tibetanus (REUTER, 1903)
- 4 (1) Basal $\frac{1}{2}$ – $\frac{1}{3}$ of 3rd antennal segment pale; 4th usually entirely dark, or extreme base narrowly pale; apical $\frac{1}{5}$ – $\frac{1}{7}$ of cuneus darkened:
- 5 (6) Pronotum and scutellum with dark small spots at base of dark hairs.
Ch. miyamotoi YASUNAGA, 1998
- 6 (5) Pronotum and scutellum without dark small spots:
- 7 (8) Front and middle tibia and basal half of hind tibia with dark spots.
Ch. maculipes LIU et WANG, sp. n.

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Figs 1–3: *Cheilocapsus maculipes* LIU et WANG, sp. n.
1 – right paramere; 2 – left paramere; 3 – vesica.

8 (7) Front and middle tibia and basal half of hind tibia without dark spots.

Ch. taiwanicus (YASUNAGA, 1994)

***Cheilocapsus maculipes* LIU et WANG, sp. n. (figs 1–3)**

Body elongate, subparallel-sided, yellowish brown, transversely rugose. Head yellowish brown; antenna covered with black and pale short hairs, 1st segment length $1.76\times$ width of head, reddish brown, with black spot; 2nd segment slender, reddish brown and apically blackened, nearly twice as long as 1st segment; apical $\frac{1}{2}$ of 3rd segment and $\frac{5}{7}$ of 4th segment black, the remainder blackish brown. Rostrum reaching middle coxae. Pronotum yellowish brown; with a dark median spot between calli, with a longitudinal light red line between spot and anterior pronotal margin; there are some dark spots along pronotal lateral margin; lateral pronotal angles black; pronotal width = $1.64\times$ (male) or $1.73\times$ (female) length. Collar thick, slight shorter than diameter of 2nd segment. Mesepimeron with a dark small spot. Scutellum yellowish brown, with a pair of blackish brown spots at subapex, apical angle pale. Mesoscutum narrowly exposed. Hemelytra transversely rugose, clavus colour same as pronotum; corium yellowish brown, with a black spot at middle and apical angle; embolium pale yellow; cuneus pale yellow except apical $\frac{1}{3}$ darkened; membrane fumate, apically and baso-laterally darkened, veins brownish red. Legs long, yellowish brown, with black hairs; femur and tibia with small black spots; base and apex of hind tibia black, some with a black ring on basal half. Abdomen ventrally yellow.

Male genitalia capsule usually with red spot; right paramere basal half thick, apical hook; left paramere curved, apex of hypophysis sharp; vesica with 3 spicule-like lobal sclerites, the largest one strongly curved, hook like.

Measurements Body length 9–11, width 3.35–3.75; head length 0.5–0.65, width 1.3–1.45; antennal segment lengths: I II III : IV = 2.3 : 4.6 : 2.0 1.1 (male), = 2.5 4.8 : 2.2 : 1.3 (female); rostrum length 2.9–3.1; pronotum length 1.7–1.9, width 2.8–3.3; scutellum length 1.5–1.8, width 1.5–1.8; embolium length 4.6–5.5; cuneus length 1.5–1.8, width 0.8–0.85; claval commissure length 1.9–2.0.

Holotype ♂, Lao-j., Xixia County (N 33.3°, E 111.4°), Henan Province, China, alt. 1350 m, 18.VII.1998, Le-Yi ZHENG leg. **Paratypes** 4 ♂♂, 1 ♀, same data as holotype.

Remarks Body shape of this new species is very similar to *Cheilocapsus miyamotoi*, but its pronotum and scutellum without dark spot at base of black hairs; vesica with three spicule-like

lobal sclerites. Compared with *Ch. taiwanicus*, structure of parameres and aedeagus are different, front and middle tibia and basal half of hind tibia with black spots.

***Cheilocapsus nigrescens* LIU et WANG, sp. n. (figs 4–6)**

Body comparatively large, elongate, subparallel-sided, blackish-brown, clothed with both dark hairs and silvery pubescence. Head yellowish brown, antenna dark brown, 1st segment length 1.67× width of head; 2nd segment slender, 2.2× length of 1st segment; basal ¾ of 3rd segment and ⅓ of 4th segment yellow. Rostrum reaching middle coxae. Pronotum yellowish brown, slightly declivent; lateral pronotal margin and a dark median spot between calli black, width 1.8× length; collar thick, as long as diameter of 2nd segment; lateral pronotal angles black. mesepimeron with dark small spot. Scutellum dark brown, apex pale yellow. Mesoscutum slightly exposed. Hemelytra transversely rugose; clavus and corium uniformly dark brown to black; embolium yellow; cuneus yellow with apical angle and basal inner-side darkened; membrane fumate, veins blackish brown. Legs long, femur reddish orange, with small black spots; basal ⅓ of hind tibia black. Abdomen ventrally light yellow.

Male genitalia capsule usually red; left paramere large, bending subperpendicularly at middle of its length, with basal half comparatively thick; right paramer comparatively long, end of hypophysis sharp; vesica with one spiculum (its basal half remarkably thick and apical half slender, needle-shaped) and three lobal sclerites.

Measurements Body length 12.5–13, width 3.5–4.0; head length 1.2, width 1.5; antennal segment lengths: I II III IV = 2.5 5.5 2.2 1.0; rostrum length 3.5; pronotum length 1.8–1.9, width 3.3–3.5; scutellum length 1.9, width 1.7; embolium length 5.8–6.0; cuneus length 2.0, width 0.85; claval commissure length 2.2–2.5.

Holotype ♂, Huo-di-tang, Ningshan County (N 33.3°, E 108.3°), Shaanxi Province, China, alt. 1580 m, 20.VIII.1998, De-cheng YUAN leg. (deposited in the Institute of Zoology, Academia Sinica). **Paratypes** 1 ♂, same data, 26.VII.1998; 1 ♂, same data, 27.VII.1998; 1 ♂, same data, 29.VII.1998, Xue-zhong ZHANG leg.; 3 ♂♂, same data, 17.VIII.1998; 5 ♂♂, same data, 15.VIII.1998; 1 ♂, same data, 14.VIII.1998; 14 ♂♂, same data, 18.VIII.1998; 6 ♂♂, same data, 20.VIII.1998; 1 ♀, same data, 26.VII.1998, Jie YAO leg.; 1 ♀, same data, 14.VIII.1998; 2 ♀♀, same data, 18.VIII.1998; 7 ♀♀, same data, 20.VIII.1998 (above paratypes in Institute of Zoology, Academia Sinica); 4 ♂♂ 1 ♀, Bao-tian-man, Neixiang County (N 33.0°, E 111.8°), Henan Province China, 14–15.VII.1998, Hou-hun LI leg.

Remarks This species can be recognized by its large and blackish body, dark-colored scutellum, extensive black basal part on hind tibia, and male genitalia characters.

***Cheilocapsus taiwanicus* (YASUNAGA, 1994)**

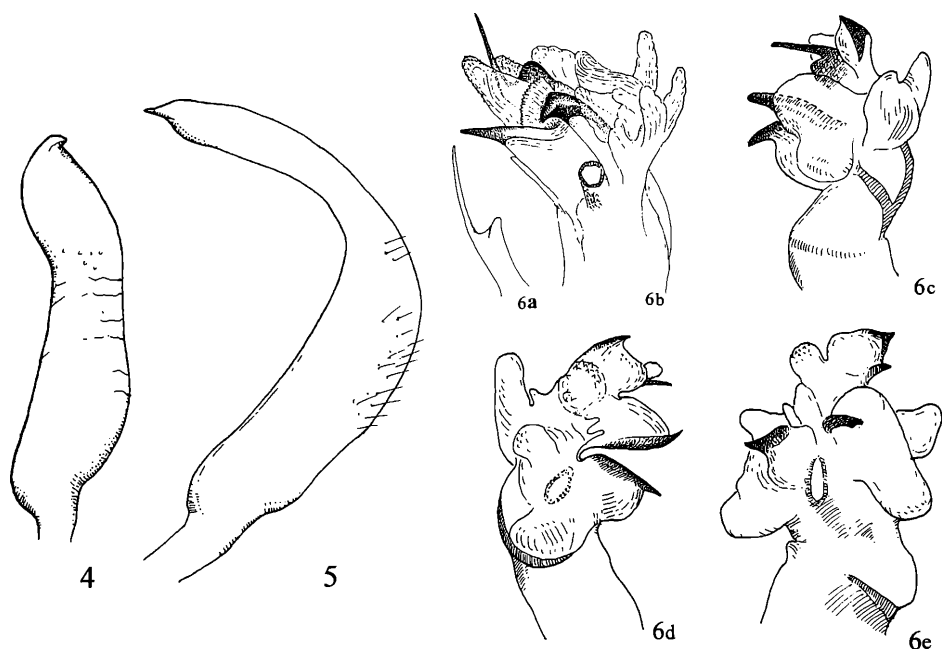
Parapantilius taiwanicus YASUNAGA, 1994, Japan. J. Ent. **62** (4): 688–690.

Material examined CHINA: **Shaanxi Prov.:** 1 ♂, Qin Ling Mountain, alt. 2050 m, 30.VII.1998, Xue-Zhong ZHANG leg.

Distribution China: Shaanxi, Taiwan.

***Cheilocapsus thibetanus* (REUTER, 1903)**

Parapantilius thibetanus REUTER, 1903, Öfvers. Finsk. Vetensk. Soc. Förhandl. **45** (16): 6, fig. 2. *Cheilocapsus thibetanus* YASUNAGA, 1998, Zoosyst. Rossica **7** (1): 88.



Figs 4–6a-e: *Cheilocapsus nigrescens* LIU et WANG, sp. n. 4 – right paramere; 5 – left paramere; 6 – vesica (a: spiculum; b: partly inflated; c-e: fully inflated).

Material examined: CHINA: **Fujian Prov.:** 2 ♂♂, 8 ♀♀, Yanshan, Shaowu County, 29.V.1965, Liang-Chen WANG leg.; 2 ♀♀, same data, 28.V.1965, Liang-Chen WANG leg.; 1 ♂, 1 ♀, same data, 29.-30.V.1965, Sheng-Li LIU leg.; 1 ♂, Ao-tou, Jianyang County, 21.VI.1965, Liang-Chen WANG leg. **Sichuan Prov.:** 2 ♀♀, Jiu-lao-dong, Mt. Emei, 17.VI.1957, Le-Yi ZHENG and Han-Hua CHEN leg.; 2 ♂♂, Danba County, alt. 2550 m, 13.VIII.1985, Xin-Zheng LI leg.; 1 ♂, 1 ♀, Yajiang County, alt. 2800 m, 9.VIII.1985, Xin-Zheng LI leg.; 1 ♂, same data, Wen-Jun BU leg.; 2 ♀♀, Baoxing County, 25.VI.1963, Huan-Guang ZOU, Jiang XIONG leg. **Gansu Prov.:** 1 ♂, Qing-he, Kang County, 15.VII.1998, Jian YAO leg.; 1 ♀, same data, Jun CHEN leg.; 1 ♀, same data, 14.VII.1998, Hong-Jian WANG leg.; 1 ♀, same data, 14.VII.1998, Xue-Zhong ZHANG leg.; 1 ♀, Mt. Baiyun, Kang County, alt. 1250-1750 m, 12.VII.1998, Shu-Yong WANG leg.; 1 ♀, same data, Jun CHEN leg.; 2 ♂♂, Qiu-jia-ba, Wen County, 1.VII.1998, Xin-Ke YANG and De-Cheng YUAN leg.; 1 ♀, Fan-Ba, Wen County, 5.IX.1977, 1 ♀, Liu-Jia-ping, Wen County, 11.VI.1993. **Hubei Prov.:** 2 ♂♂, 1 ♀, Song-bai, Shennongjia, 22.VI.1977, Huan-Guang ZOU leg.; 1 ♂, Da-jiu-hu, Shennongjia, 7.VI.1977, Huan-Guang ZOU leg.; 1 ♀, same data, 9.VII.1977, Le-Yi ZHENG leg.; 1 ♀, Hong-ping, same data, 1.VII.1977, Le-Yi ZHENG leg.; 1 ♂, Fang County, 17.VII.1977, Le-Yi ZHENG leg.; 2 ♀♀, same data, 16.-17.VII.1977, Qiang MU leg.; 1 ♀, Hou-he, Wufeng County, alt. 1000 m, 9.VIII.1999, Le-Yi ZHENG leg.; 1 ♀, same data, Qiang XIE leg.; 1 ♀, same data, 3.VIII.1999, Chuan-Ren LI leg.; 1 ♂, Sa-yuan, Hefen County, alt. 1260 m, 17.VII.1999, Wen-Jun BU leg. **Yunnan Prov.:** 1 ♂, 1 ♀, Li-Jiang County, 12.VIII.1979, Zuo-Pei LING leg.; 1 ♀, same data, Huan-Guang ZOU leg.; 1 ♂, 3 ♀♀, same data, Guo-Qing LIU leg.; 1 ♀, same data, 11.VIII.1979, Guo-Qing LIU leg.; 1 ♂, same data, 6.VIII.1979, Jian-Xin CHUI leg.; 3 ♀♀, Mt. Shizi, Wuding County, 10.VIII.1979 [all in Nankai Univ. collection].

Distribution: China: Fujian, Hubei, Hunan, Sichuan, Ningxia, Xizang, Gansu, Yunnan.

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