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Papers Celebrating the 80th Birthday of Professor ANDRZEJ WARCHAŁOWSKI

Labidostomis warchalowskii sp. nov. from China
(Coleoptera: Chrysomelidae: Clytrinae)

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ABSTRACT. *Labidostomis* (s. str.) *warchalowskii* sp. nov. from northeast China is described. Male and female genitalia are figured. The newly described species is distinct with erectile white pubescence arranged in ten regular rows whereby is easy distinguished from others known species of the genus. A key of Chinese species of the genus *Labidostomis* GERMAR, 1822 is given.

Key words: entomology, taxonomy, Coleoptera, Chrysomelidae, Clytrinae, *Labidostomis*, China.

INTRODUCTION

From the territory of China 10 species of the genus *Labidostomis* GERMAR, 1822 were recorded until now. All of them are distributed in the northwest, north or northeast part of the country. With respect to this large and diverse area of China one might expect future records of more species that occur in adjacent countries or new to science.

I had the opportunity to study material of the genus *Labidostomis* collected during the expedition of The Forestry and Game Management Research Institute Prague supported in part by grant from the Ministry of Education (KONTAKT ME347) and a new species of the genus *Labidostomis* was detected. The description of it is presented below.

METHODS

The following abbreviations identify the collections housing the examined material:

FKCC – Czech Republic, České Budějovice, František KANTNER collection
IZCAS – Chinese Academy of Sciences, Institute of Zoology, Beijing, China

The exact label data are cited for the type specimens. A single slash (/) divides data on different rows of the label. The author's remarks and additions are found in square brackets: [p] – preceding data are printed; [w] – white label.

TAXONOMY

Labidostomis warchalowskii sp. nov.

TYPE MATERIAL

Holotype (male) and 9 paratypes (3 males, 6 females) labeled: "CHINA, Hebei, 1000 m / Shijiazhuang, Taihang mts. / Jingxing, Xinzhuang, 2003 / P. Zahradník lgt., 13.-20.vii." [w, p]". The type material is provided with one red printed label: "HOLO-TYPUS [PARATYPUS, resp.] / *Labidostomis warchalowskii* sp. nov. / F. Kantner det. 2007". (holotype and 1 paratype deposited in IZCAS; 3 males, 5 females in FKCC).

DESCRIPTION

Colouration. Body greenish-black, mandibles black, labrum dark brown, antenomerer 1-2 on ventral part and elytra completely yellowish testaceous.

Male. Body cylindrical. Anterior margin of clypeus with short lateral teeth and small but distinct central teeth (Fig. 2). External margin of mandibles not highly elevated, obtuse and almost horizontal, mandibles curved. Clypeus and frons roughly but shallowly punctured, punctures on vertex considerably finer, head between eyes and antenna with broad round impression. Head covered by sparse erect silver pubescence. Antennae serrate from segment 5 to 10, segment 4 long triangular, almost two times as long as broad, length ratio of antenomerer 2.0 : 0.7 : 1.0 : 1.1 : 1.3 : 1.2 : 1.1 : 1 : 1 : 0.8 : 1.2 .

Pronotum 2 times as wide as long, strongly, and densely punctured, nearly wrinkled, covered with semidecumbent, not very long, pubescence. Pubescence create sparsely pubescent areas in the posterior part.

Elytra 1.8 times as long as wide, distinctly and not too densely punctured, covered with erect white pubescence arranged in ten regular rows. Scutellum long triangular, pubescent.

Length ratio of fore tarsomerer 2.9 : 2 : 1.9 : 2.7. Underside and legs covered by white pubescence.

Macropterous.

Sexual dimorphism is typical for the genus *Labidostomis* Germar (WARCHALOWSKI 1985). Aedeagus simply built, its apex without any folds latero-apically and without any depression on ventral side (Fig 1). Spermatheca as in Fig. 3.

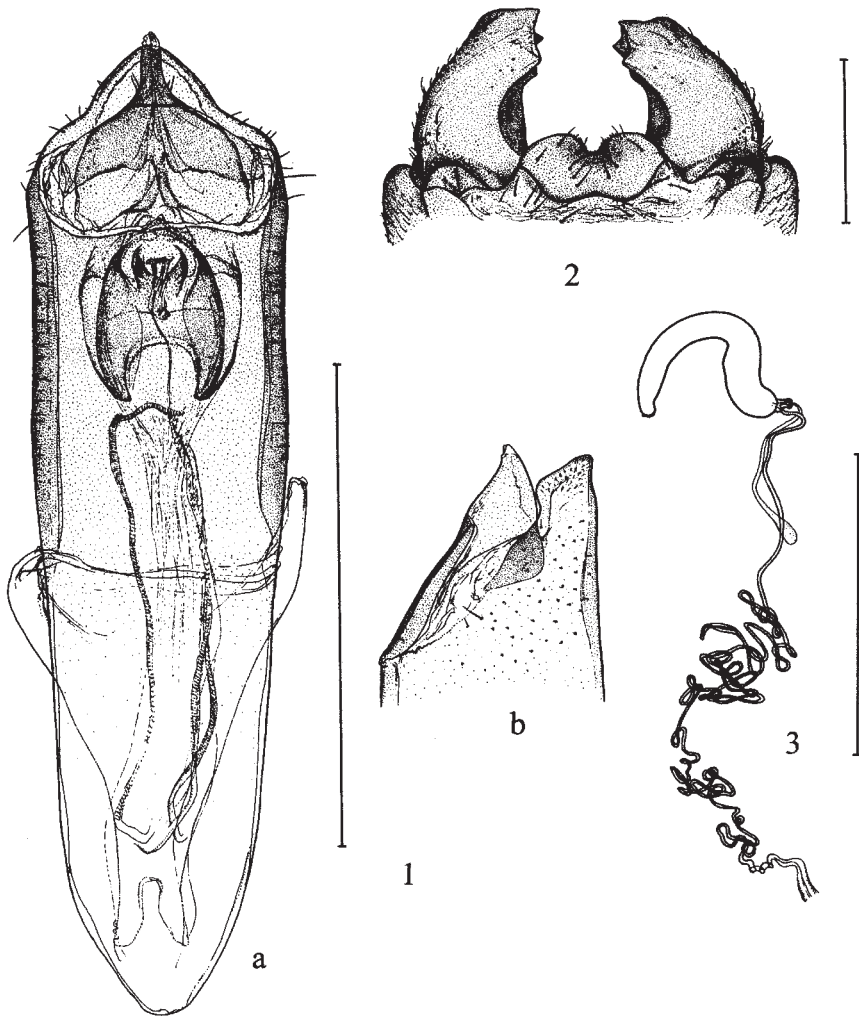
Length of body 9.1-10.5 mm (holotype 9.1) (males), 8.3-9.2 mm (females).

DISTRIBUTION

NE China: Hebei Province

DIAGNOSIS

Labidostomis warchalowskii sp. nov. is defined by black labrum, antennae serrate from segment 5-10, aedeagus without any dentiform folds latero-apically and without any depression on ventral side, curved mandibles with their external margins not highly elevated, pronotum covered with semidecumbent pubescence that creates sparsely pu-



1-3. *Labidostomis warchalowskii* sp. nov.: 1 – aedeagus (a – dorsal view, b – apex in lateral view), 2 – mandibles and clypeus of male, 3 – spermatheca. Scale 1 mm

bescent areas on posteriorly and elytra unicolourous, yellowish testaceous without any black markings. Erect white pubescence arranged in regular rows on elytra are unique characters that do not occur in other species of the genus *Labidostomis*. According to characters cited above this newly described species can be placed in species group VIII, following WARCHAŁOWSKI (1985).

Differentiation from other *Labidostomis* species cited for the territory of China is indicated below:

L. sibirica sibirica (GERMAR, 1824) (= *altaica* GEBLER, 1848) is cited from Inner Mongolia (former Daurien), The autonomous region in the north and northeast part of China (WARCHAŁOWSKI 1985). This species can be distinguished from the newly described species by yellow labrum, glabrous pronotum and elytra, unicolourous blackish blue elytra, length of body (5.8-7.2 mm) and structure of the aedeagus. The other subspecies *L. sibirica tjutschewi* JACOBSON, 1902 and *L. sibirica transitoria* JACOBSON, 1901 with yellow elytra with black humeral spots only are not cited from territory of China until now, but it can be distinguished also by the other above-mentioned characters .

L. amurensis amurensis HEYDEN, 1884 (= *L. orientalis* CHUJO, 1940) is cited from Jilin (former Kirin), province in the northeast part of China (GRESITT & KIMOTO 1961) for *L. orientalis* CHUJO, 1940 that was informally synonymized with *L. amurensis* by MEDVEDEV (1992). This species can be distinguished from the newly described species by a yellow labrum, glabrous pronotum, glabrous elytra with developed humeral spots, sharp and highly elevated external margins of mandibles and the structure of the aedeagus. The subspecies *L. amurensis nigrilabris* MEDVEDEV, 1980 described from Mongolia (MEDVEDEV 1980) with brown or blackish brown labrum can be distinguished also by the other above-mentioned characters.

L. chinensis LEFÈVRE, 1887 is cited from Kansu (Gansu), province in northwestern China and Hopei (Hebei), Shantung (Shandong), Liaoning and Jilin (Kirin), provinces in northeastern China (GRESITT & KIMOTO 1961, WARCHAŁOWSKI 1985). This species was elevated from subspecific level by MEDVEDEV (1990). This species can be distinguished from the newly described species by its yellow labrum, only two teeth on the apical margin of the clypeus, lustrous pronotum (due to sparse and fine punctation), glabrous elytra, length of body (6.3-8.0 mm) and by the structure of the aedeagus.

L. arcuata PIC, 1920 is cited from Sinkiang-Ujgur (Xinjiang Uygur), the autonomous region in northwestern China (WARCHAŁOWSKI 1985). This species can be distinguished from the newly described species by its yellow labrum, pubescent pronotum (decumbent pubescence create densely pubescent areas posteriorly), glabrous elytra with developed humeral spots, very long mandibles of male (its external margin forms an elevated sharp strip) and by the structure of the aedeagus.

L. metallica centrisculpta PIC, 1920 and *L. metallica dzhungarica* MEDVEDEV, 1980 are cited from Sinkiang (Xinjiang), the autonomous region in northwestern China (WARCHAŁOWSKI 1985). Occurrence of *L. metallica steppensis* MEDVEDEV, 1971 is also probable for northwestern China. *L. metallica* s. l. can be distinguished from the newly described species by its finely punctured pronotum, glabrous elytra, with developed humeral spots and by the aedeagal structure, which has two small triangular, dentiform folds latero-apically.

L. senicula KRAATZ, 1872 is cited from Sinkiang (Xinjiang), the autonomous region in northwestern China (WARCHALOWSKI 1985). This species can be distinguished from the newly described species by its pubescent pronotum (decumbent pubescence create densely pubescent areas posteriorly), glabrous elytra with developed humeral spots, well developed and elevated sharp external margin of mandibles, lustrous pronotum (thanks to sparse and fine punctation), length of body (7.2-9.0 mm) and by the aedeagal structure (with two oval impressions ventrally).

L. cheni LOPATIN, 1995 is described from Xinjiang Uygur, the autonomous region in northwestern China (LOPATIN 1995). This species can be distinguished from the newly described species by its fine punctation of pronotum with decumbent pubescence, glabrous elytra with developed humeral spots, straight elongated mandibles with elevated sharp external margins and by the aedeagal structure (with two deep impressions ventrally).

L. crebrecollis MEDVEDEV, 1962 is cited from northern China (WARCHALOWSKI 1985). This species can be distinguished from the newly described species by its glabrous elytra and by the aedeagal structure. I have had opportunity to study 1 paratype (male) from the collection of A. Warchalowski and discovered that the aedeagus of this species is marked with two deep impressions on the ventral side, in accordance of original description (MEDVEDEV 1962). WARCHALOWSKI (1985) mistakenly indicates that ventral side is without specific markings.

L. mannerheimi MONRÓS, 1953 (= *bipunctata* (Mannerheim, 1825); = *urticarum* Frivaldsky, 1892) is cited from Hopei (Hebei), Shantung (Shandong) and Heilongjiang, provinces in northeastern China and from Tsinghai and Kansu (Gansu), provinces in northwestern China (GRESITT & KIMOTO 1961, WARCHALOWSKI 1985). This species can be distinguished from the newly described species by two teeth on the apical margin of the clypeus, fine punctation of pronotum with short pubescence often distinct in posterior part of pronotum only, glabrous elytra with well developed humeral spots, and by the aedeagal structure.

L. shensiensis GRESSITT & KIMOTO, 1961 was described from 2 specimens from Shenshicheng (Shensi, Shaanxi), province in east-central China (GRESSITT & KIMOTO 1961). The original description is without sufficient diagnostic characters. Holotype (male) should be deposited in "MUS. FREY" and allotype (female) in "BISHOP". But type material was not found either in the Naturhistorisches Museum Basel in Switzerland, where the Frey's collection is deposited (SPRECHER-UEBERSAX 2006, pers. comm.), or in the Bishop Museum in Hawaii (SAMUELSON 2006, pers. comm.). Also the question on type deposition of Prof. Kimoto remained unanswered; therefore, this species can be distinguished from the newly described species only by more subglabrous elytra with only a few fine erect pubescence apically and by length of antennomere 3 that is nearly two times longer as antennomere 2.

ETYMOLOGY

This species is dedicated to Polish specialist in Chrysomelidae Prof. Andrzej WARCHALOWSKI (Wrocław, Poland).

KEY TO CHINESE *LABIDOSTOMIS* SPECIES

1. Labrum yellow 2.
- Labrum black 5.
2. Elytra unicolourous, blackish blue *sibirica* (GERMAR, 1824)
- Elytra different coloured 3.
3. Pronotum glabrous *amurensis* HEYDEN, 1884
- Pronotum pubescent 4.
4. Mandibles formed normally, their external margin blunt .. *chinensis* LEFÈVRE, 1887
- External margin of mandibula forming an elevated, sharp strip
..... *arcuata* PIC, 1920
5. Apex of aedeagus with two small triangular, dentiform folds latero-apically
..... *metallica* LEFÈVRE, 1872
- Apex of aedeagus without any triangular, dentiform folds latero-apically nor
they are slightly developed only 6.
6. Pubescence on pronotum decumbent, creating densely pubescent areas posteriorly.
Aedeagus with two oval impressions ventrally
..... *senicula* KRAATZ, 1872 and *cheni* LOPATIN, 1995
- Pubescence on pronotum semidecumbent or erect 7.
7. Apical margin of clypeus with 3 teeth, middle tooth broad and well developed
..... *crebrecollis* MEDVEDEV, 1962
- Apical margin of clypeus with two teeth, middle tooth absent or only slightly
developed 8.
8. Elytra with well-developed humeral spots *mannerheimi* MONRÓS, 1953
- Elytra without humeral spots 9.
9. Elytra more nearly glabrous, with only a few fine erect pubescence towards apex
..... *shensiensis* GRESSITT & KIMOTO, 1961
- Elytra covered with erect, white pubescence arranged in regular rows
..... *warchalowskii* sp. nov.

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