

***Chinophagus mirabilis* n. gen., n. sp. of Languriidae from China with new records of Cryptophagidae (Coleoptera, Clavicornia)**

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Chinophagus mirabilis, n. gen., n. sp. of Languriidae from China with new records of Cryptophagidae (Coleoptera, Clavicornia).— New genus of Languriidae from China, namely *Chinophagus* n. gen., is described and new findings of several species of Cryptophagidae from China are presented. Anterior coxae cavities of *Chinophagus mirabilis* n. gen., n. sp. widely separated, tarsi with five joints without lobes, and stridulatory file on the head is present. Externally *Chinophagus* is similar to Cryptophagidae, elongate-oval, anterior angles of pronotum is thickened, pubescent. Fourth joint of posterior tarsus very small, 1st segment of abdomen short, epipleura comparatively short.

Key words: *Chinophagus mirabilis* n. gen. n. sp., Languriidae, Cryptophagidae, Coleoptera, Chinese fauna.

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Introduction

Little is known about the beetles of the family Languriidae and Cryptophagidae of China.

The Cryptophagid and Languriid faunas of adjacent districts have been reported in several articles (CHAMPION, 1922; JOHNSON, 1968, 1970a, 1970b, 1970c, 1971, 1975; SEN GUPTA, 1978, 1980; SEN GUPTA & PAL, 1980a, 1980b; SEN GUPTA & BASAK, 1985; LYUBARSKY, 1991, 1992, 1996). There are few publications on Chinese fauna. BRUCE (1938, 1943, 1945) described several *Cryptophagus* Herbst species from Fujian and some information on Languriidae was presented by GROUVELLE (1914).

A more detailed study of northern and central Chinese faunas has recently been published (LYUBARSKY, 1996) and includes the description of four new *Cryptophagus* species. The findings in this publication have led to a considerable advance in the knowledge of distribution of many species as compared to the beginning of the century (SCHENCKLING, 1923; BRUCE, 1943, 1945). The present article contributes further to the development of Chinese fauna investigation.

A new genus of Languriidae and five species of Cryptophagidae from the region concerned have been found.

This work is based on material from collections in the Zoological Museum of the Moscow State University (ZMMU).

Taxonomic part

Family Languriidae

Chinophagus n. gen. (figs. 1-3)

Type-species: *Chinophagus mirabilis* n. sp.

Material studied

Holotype (♀): China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov. The type is stored in ZMMU.

Description

Body short and oval, strongly convex, sides rounded (fig. 1), light-yellow with indefinite dark-brown spots on pronotum and elytra,

covered by long silvery adpressed and bristled pubescence.

Head transversal, normal in size, with prominent, hemispherical, rather finely faceted eyes, strongly and densely punctured, with one stridulatory file. Fronto-clypeal suture absent. Antennae long, slender, include 11 joints, located on forehead under its lateral edge; sharply delimited antennal club includes three slightly conic joints (fig. 1); 1-3 antennal joints elongated, equal in length, 1st being wider; 4th, 6th, 8th joints shorter by one third, and 5th, 7th slightly less; joint width almost equal to joint length in 8th joint, 1.3 times greater in 9th joint, 1.6 times greater in 10th joint, 1.4 times greater in 11th joint; 11th joint a little longer than 9th. Last joint of maxillary palp conic.

Pronotum. Very large, wide, angular on sides, transversal: width/length ratio 1.4, equally wide at anterior and lateral angles. Anterior edge slightly sinuate, anterior angles lacking teeth or callosity. Lateral edge almost smooth, with very small bald knobs, lateral angle situated between the 2nd and the last thirds of pronotum length. Sides and basis finely bordered; basis with deep transversal groove, without longitudinal grooves or ridges. Surface densely covered by weak punctures, on the average one diameter apart from their lateral neighbours.

All the coxae rather widely separated (fig. 2). Anterior coxal cavities wide and completely closed, more than one diameter apart from each other, shortly oval, separated by the prosternal process weakly projecting beyond the prothorax surface. Prosternal process bordered laterally, with shallow wide groove in the middle; its posterior edge almost straight, with very weakly sinuate apex. Middle coxal cavities more than one diameter apart from each other, shortly oval. Mesoepimera touch the border of middle coxal cavities.

Mesothorax well-developed. Mesosternal process strongly sclerotized, projects far in between middle coxae. Meso- and metasternal fitting almost rectilinear; two closely adjacent knobs at the line of contact, between the mesocoxae. Metathorax comparatively short, a little longer than 1st segment of abdomen; metasternal process projects forward a little in between meso-

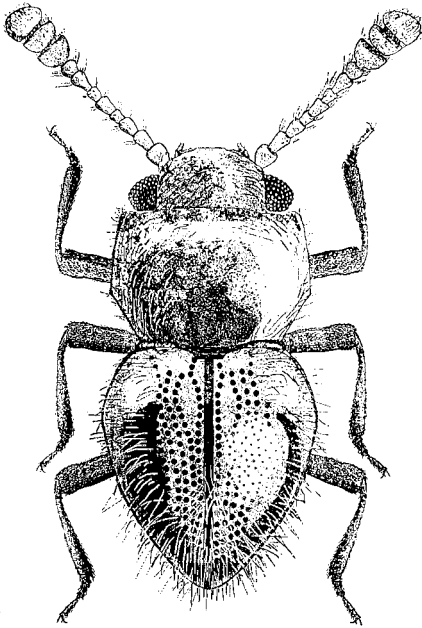


Fig. 1. *Chinophagus mirabilis* n. gen. n. sp., dorsal view.

Chinophagus mirabilis gen. n. sp. n., vista dorsal.

coxae. Metacoxae strongly transversal, more widely separated, than mesocoxae.

Trochanters widely elongated. Tarsus short; 2nd and 3rd joints with long hair bunch directed downwards, 3rd joint lobed; 4th joint very small, not lobed, without hair bunch; 5th joint elongated, almost as long as all the previous together, with simple claw. Legs of female 5-5-5.

Scutellum transversal, short, trapeziform, dark.

Elytra comparatively small, oval, convex, slightly expanded laterally; maximum width at the first third of the length; the length 1.1 times greater than total width of both elytron and almost two times greater than pronotum length; shoulders bear strong teeth. Elytra flat basally, appreciably convex centrally; with dark band along suture and lateral

edges, the remaining area being darker centrally than at the basis of elytron, along its lateral edge and at its apex; with two yellow naked knobs at the base of each elytron: near scutellum and near shoulder; with numerous small dark spots, which do not coincide with punctures. Punctuation random, slightly weaker than on pronotum, and more sparse: punctures on the average 1.5 or 2 diameters apart from their lateral neighbours. Epipleura almost complete, proceed up to 4th abdominal sternite.

Femoral lines on 1st abdominal sternite absent. 1st sternite 1.3 times shorter than metathorax and 1.5 times longer than next sternite.

Wings absent.

Length 2.4 mm.

Male unknown.

Biology

Found in putrid stump, in almost completely decomposed wood.

Differential diagnosis

Externally *Chinophagus* is very similar to Cryptophaginae, from which it dif-

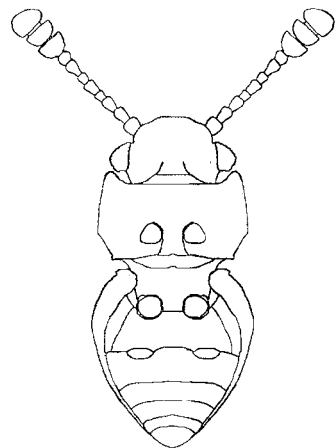


Fig. 2. *Chinophagus mirabilis* n. gen. n. sp., ventral view.

Chinophagus mirabilis gen. n. sp. n., vista ventral.

fers by very small 4th joint of posterior tarsus, comparatively short 1st segment of abdomen and considerably longer epipleura (among Cryptophagidae, long epipleura are found in some *Cryptophagus*, *Antherophagus*, *Ephistemus*). The new genus should be included in subfamily Cryptophilinae on the basis of anterior coxal cavities, as well as on the structure of tarsi and the line, connecting middle coxal cavities. In Cryptophilinae two tribes are distin-

guished, Xenoscelinini and Cryptophilini. From Xenoscelinini the new genus differs by the structure of tarsi, whose 3rd joint bears the lobe, and 4th is very small, and by the presence of stridulatory file on the head.

Chinophagus n. gen. differs from all known genera of tribe Cryptophilini by the following character set: weakly transversal pronotum, only 3rd tarsal joint bears the lobe, random punctuation on elytra.

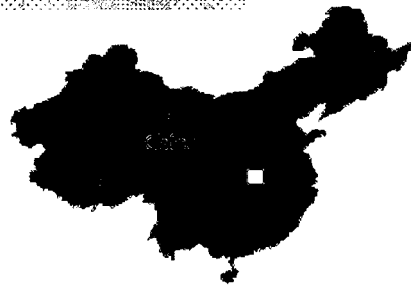
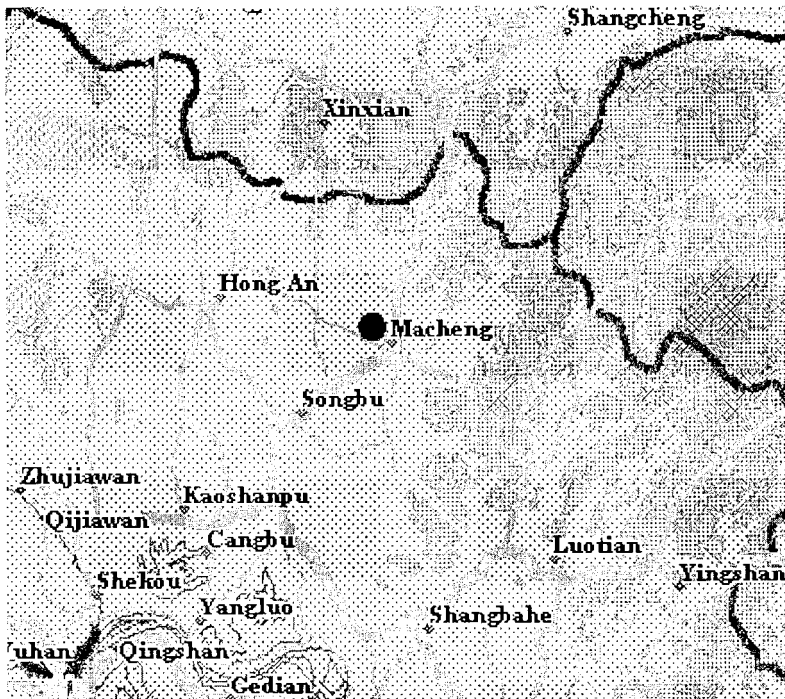


Fig. 3. Distribution of *Chinophagus mirabilis*.
Distribución de *Chinophagus mirabilis*.

The most similar genus is *Cryptophilus*.

New genus may be easily recognized by large pronotum and naked knobs on elytra. This genus is another example of deep parallel evolution of Cryptophagidae and Languriidae.

Family Cryptophagidae

Micrambe Thomson 1863

Micrambe bimaculatus (Panzer 1798)

Material studied

China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov, two spec. The specimens are stored in ZMMU.

Remarks

Compared to *M. bimaculatus* specimens from more western regions, in the specimens from China the pubescence is more adpressed, and the contrast of black colouring on elytra is sharper.

Cryptophagus Herbst 1792

Cryptophagus callosipennis Grouvelle 1919

Material studied

China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov, one spec. The specimen is stored in ZMMU.

Atomaria Stephens 1830

Atomaria lewisi Reitter 1877

Material studied

China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov, four spec. The specimens are stored in ZMMU.

Atomaria edithae Reitter 1887

Material studied

China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov, one spec. The specimen is stored in ZMMU.

Atomaria ? dilatata Reitter 1889

Material studied

China, E. Hubei, Shennongjia Nat. Res., env. Macheng, Longsheng, h = 500 m, letter, 29 V 1995, leg. S. Kurbatov, four spec. The specimens are stored in ZMMU.

Remarks

Differs from *A. flava* Johnson by very dense and strong punctuation on pronotum and elytra. Elytra with very weak and unclear spots. Wings short, reduced. From the description very similar to *A. dilatata* Reitter; however, as all the specimens of the series are females, the determination is uncertain.

Discussion

The characters of *Chinophagus* n. gen. appear to be intermediate between Cryptophagidae and Languriidae. In the last decades the boundary between these families has been defined much more accurately and the new concept of their composition has been elaborated (SEN GUPTA & CROWSON, 1967, 1969, 1971; CROWSON, 1980; LAWRENCE & VAURIE, 1983; BOUQUET, 1989; FRANZEN, 1991). In these articles the distinctive characters of the families Cryptophagidae and Languriidae as well as their subfamilies, have been established. According to this division, *Chinophagus* is to be included in family Languriidae, subfamily Cryptophilinae, tribe Cryptophilini. From Xenoscelinini *Chinophagus* n. gen. differs by the structure of tarsi, and by the presence of stridulatory file on the head.

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I am grateful to S. Kurbatov, who provided me with the material from Shennongjia, including such a remarkable beetle as *Chinophagus mirabilis*.

Resumen

Chinophagus mirabilis gen. n., sp. n. de Languriidae de China y nuevas citas de Cryptophagidae (Coleoptera, Clavicornia)

Se describe un nuevo género de Languriidae, denominado *Chinophagus* gen. n., y se presentan nuevas localizaciones de diversas especies de Cryptophagidae de China. Las cavidades coxales anteriores de *Chinophagus mirabilis* gen. n. sp. n., están ampliamente separadas, los tarsos muestran cinco articulaciones sin lóbulos y la cabeza presenta una hilera estridulatoria. Externamente *Chinophagus* es similar a los Cryptophagidae: forma oval alargada, ángulos anteriores del pronoto gruesos y pubescentes; la cuarta articulación del tarso posterior muy pequeña, primer segmento abdominal corto, epipleura comparativamente corta.

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