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Coccinellid beetles from Fujian, China, preserved in the Zoologische Staatssammlung München, Germany

(Insecta, Coleoptera, Coccinellidae)

By Yu Guoyue

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21 species of Coccinellidae from Fujian, China, are enumerated, of which one, *Scymnus (Pullus) tschungii*, is new to science, and five are new records for Fujian.

Yu Guoyue, Laboratory of Insect Ecology, South China Agricultural University, Guangzhou, P. R. China

Present address: Institute of Plant & Environmental Protection, Beijing Academy of Agricultural & Forestry Science, Beijing 100081, P. R. China

Introduction

Fujian (formerly Fukien) in southeastern China is a mountainous province with abundant biological resources. Recently Huang & Pang (1991) gave a check-list that contains 145 species of ladybeetles occurring in Fujian. There is no doubt that there still exists a considerable number of undescribed or unrecorded species in this province.

Through the kindness of Prof. Helmut Fürsch of Passau University, cooperater of Zoologische Staatssammlung München, Germany (ZSM), I was recently given the opportunity to examine the coccinellid beetles from Fujian which are preserved in that museum, and 219 specimens (among them 7 are not coccinellids) were referred to my study, which were collected in Kautun, Fujian by Tschung Sen.

The present collection contains 21 species and among them one species is described as new to science here, and 5 species (labelled with *) are new records for Fujian. The types of the new taxon described in this paper are deposited in ZSM and South China Agricultural University (SCAU).

Before going further, I wish to express my cordial thanks to Prof. Pang Xiongfei for his constant guidance and encouragement to my study, and to Prof. Helmut Fürsch for the privilege of examining the material of ZSM.

Subfamily Scymninae

* 1. *Pseudoscymnus dapae* Hoang, 1978

Specimens examined: 1♂, 2♀, 12-IV-1946, Tschung Sen leg.

Distribution: China (Guangdong, Fujian), Vietnam.

2. *Pseudoscymnus disselasmatus* Pang & Huang, 1986

Specimens examined: 1♂, 5♀, 12-IV-1946, Tschung Sen leg.

Distribution: China (Fujian, Guangdong).

3. *Pseudoscymnus*, sp. 1

Specimen examined: 1♀, 12-IV-1946, Tschung Sen leg.

Remarks. This species is closely related to *P. nagasakiensis* (Kamiya, 1961), but differs in the punctation on the 1st abdominal segment and hemisternite (the examined specimen with much finer and sparser punctures and elongately oval hemisternite).

4. *Pseudoscymnus*, sp. 2

Specimen examined: 1♀, 12-IV-1946, Tschung Sen leg.

Remarks. This species resembles *P. sylvaticus* (Lewis, 1896), but the punctures on the lateral section of the 1st abdominal segment are sparser, and the hemisternite is triangular, but much shorter than that of the latter.

* 5. *Scymnus (Scymnus) tegminalis* Hoang, 1985

Specimens examined: 1♀, 12-IV-1946; 1♂, 12-V-1946; Tschung Sen leg.

Distribution: China (Guangdong, Fujian), Vietnam.

Remarks. Hoang (1985) described it as a member of *Scymnus* s. str. However, the specimens from China have a complete postcoxal line, although it is laterally very weak, or sometimes the postcoxal line disappears before the basal margin of the 1st abdominal segment.

6. *Scymnus (Pullus) rhamphiatus* Pang & Huang, 1985

Specimens examined: 1♂, 21-III-1946; 8 exs., 12-IV-1946; 1♀, 12-V-1946; 1♂, 12-VII-1946; 1♀, 1-VIII-1946; 1♀, 15-IX-1946; Tschung Sen leg.

Distribution: China (Fujian, Zhejiang, Guizhou, Hubei).

7. *Scymnus (Pullus) perdere* Yang, 1978

Scymnus (Pullus) nepenthus Pang & Huang, 1985

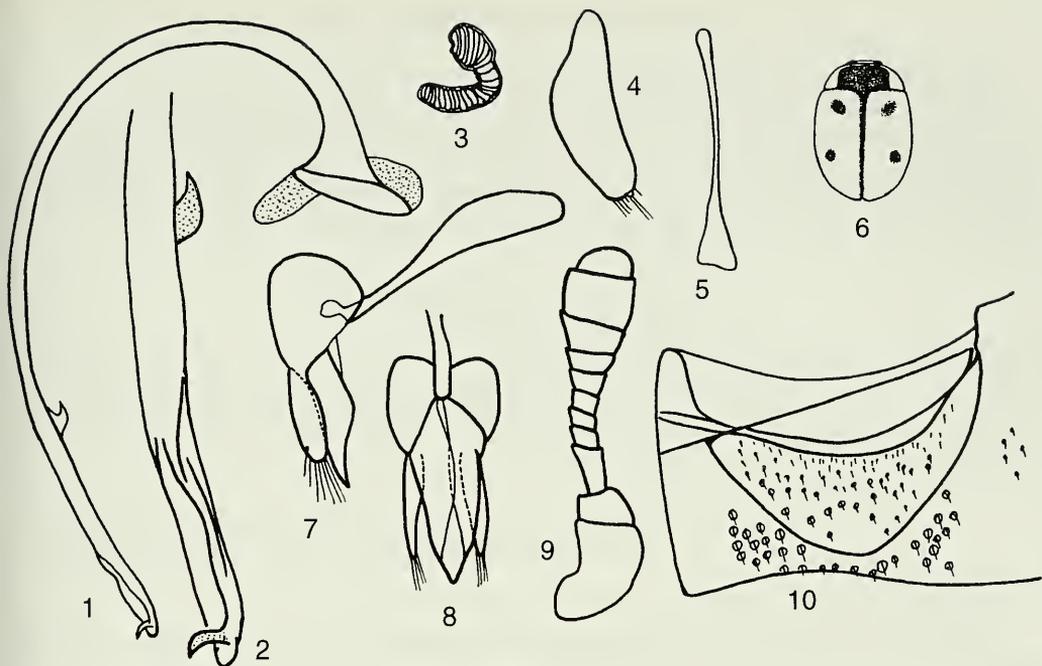
Specimen examined: 1♀, 12-IV-1946, Tschung Sen leg.

Distribution: China (Taiwan, Fujian, Guangdong, Zhejiang).

8. *Scymnus (Pullus) tschungi*, spec. nov.

Figs 1-10

Types. Holotype: ♂, No. 920331, 13-IV-1952, Tschung Sen leg. (ZSM). - Allotype: ♀, same data (ZSM). - Paratypes: 5♂♂, 6♀♀, same data as holotype (3♂♂, 5♀♀ paratypes deposited in ZSM, 2♂♂, 1♀ in SCAU).



Figs 1-10. *Scymnus (Pullus) tschungii*, spec. nov. 1. Siphus. 2. Apex of siphus. 3. Receptaculum seminis. 4. Hemisternite. 5. 9th sternite of ♂. 6. Outline of body. 7. Tegmen, lateral aspect. 8. Tegmen, ventral aspect. 9. Antenna. 10. 1st abdominal segment.

Description

Body length: 1.85-2.24 mm; width: 1.35-1.64 mm.

Body oval, dorsal surface moderately convex with whitish pubescence, arranged in very weakly S-form; head brown with grey eyes; pronotum reddish-brown with large, square, dark reddish-brown marking that nearly extends to anterior margin, but lateral parts widely reddish-brown; scutellum dark brown; elytra reddish-brown with anterior margin and suture dark brown; and with two pairs of obscure, dark reddish-brown spots. Sometimes the anterior spot enlarged, or the posterior one becoming indistinct, or even without any distinct spots. Underside including legs brown except for dark brown meso- and metasternum. Sometimes the large basal part of abdomen is dark brown.

Interocular distance about $1.5 \times$ width of eyes; maxillary palpi distinctly securiform; structure of antenna as figured; punctures on head fine and dense, separated by half of their diameter; pronotal punctures slightly finer, separated by about their diameter; elytral punctures coarser, separated by their diameter. Prosternal carinae extending to anterior margin, anteriorly moderately convergent, length about $2.2 \times$ width at base. Postcoxal line complete, extending to about $\frac{1}{5}$ of length of 1st abdominal segment; area surrounded by the line irregularly punctured, narrowly smooth along the line. Hind margin of segment V very slightly emarginate, nearly straight in male, slightly rounded in female.

Male genitalia. Siphus moderately stout, strongly curved in basal half, with well developed, large siphonal capsule; apical $\frac{1}{4}$ of siphus with a hook, apex of siphus with a small appendix at outer surface. Tegmen relatively stout, lateral lobes shorter, about $\frac{3}{4}$ to $\frac{4}{5}$ of length of median piece. In ventral aspect, median piece widest at base, tapering gently to the pointed tip; in lateral view, median piece nearly parallel in basal half, distinctly narrowing in apical half.

Hemisternite and receptaculum seminis as figured.

Remarks. The new species is closely related to *S. (P.) taiwanus* (Ohta, 1929) in body form and male genitalia, but it can be separated from the latter by colouration, and by the median piece of the tegmen which is not anchor-like in ventral aspect.

9. *Scymnus (pullus) sodalis* (Weise, 1923)

Specimens examined: 1♂, 1♀, 12-IV-1946, Tschung Sen leg.

Distribution: China (widely distributed in China), Japan, India, Nepal, Vietnam.

Remarks. The examined specimens are slightly different from other specimens in their postcoxal line (relatively less arched in the above two specimens). We have large series of *S. sodalis* which are variable in punctures on the area surrounded by the postcoxal line (widely or narrowly smooth along the line) and in length of median piece (shorter to slightly longer than the lateral lobes).

10. *Scymnus (Pullus)*, sp. 1

Specimens examined: 3♀, 12-V-1946, Tschung sen leg.

Remarks. This species is similar to *S. (S.) tegminalis* Hoang, 1985, but the pronotum is almost entirely black with very narrow anterior margin reddish-brown and the area surrounded by the postcoxal line is finely punctured.

11. *Scymnus (Pullus)*, sp. 2

Specimens examined: 1♀, 20-VI-1946; 1♀, 12-VII-1946, Tschung Sen. leg.

Remarks. This species is peculiar with respect to the long receptaculum seminis with a dark ringed spermduct and nearly rectangular hemisternite.

12. *Scymnus (Pullus) oestocraerus* Pang & Huang, 1985

Specimens examined: 2♀, 12-IV-1946; 1♂, 5-V-1946; 2♀, 12-VI-1946, Tschung Sen leg.

Distribution: China (Fujian, Taiwan).

* 13. *Scymnus (Pullius) dorcatomoides* Weise, 1879

Specimens examined: 2♂♂, 2♀♀, 12-IV-1946, Tschung Sen leg.

Distribution: China (Taiwan, Fujian), Japan, Vietnam.

Remarks. We have examined many specimens from Taiwan, and found that the length of the median piece of the tegmen is variable from $\frac{2}{3}$ to $\frac{4}{5}$ of length of the lateral lobes.

* 14. *Scymnus (Neopullus) brunnescens* Motsch., 1866

Specimens examined: 9 exs., 12-V-1946; 6♂♂, 11♀♀, 12-V-1946; 1♂, 1♀, 12-VI-1946, Tschung Sen leg.

Distribution: China (Taiwan, Fujian, Guangdong), Sri Lanka, India.

Remarks: *Scymnus brunnescens* was synonymized with *S. fuscatus* by Sasaji (1971: 180), but actually it is a valid species (Iablokoff-Khznorian, 1972: 172). It is separable from *S. fuscatus* by its somewhat triangular median piece in ventral aspect which is equal in length to the lateral lobes.

Subfamily Chilocorinae

15. *Cryptogonus orbiculus* (Gyllenhal, 1801)

Specimens examined: 56 exs., 12-IV-1946; 18 exs., 20-IV-1946; 28 exs., 12-V-1946; 1 ♂, 18-VI-1946; 10 exs., 12-VII-1946; 1 ♂, 15-IX-1946, Tschung Sen leg.

Distribution: China (widely distributed in China), Japan, Korea, Micronesia, Southeast Asia, India, Sri Lanka.

16. *Cryptogonus postmedialis* Kapur, 1948

Specimens examined: 1 ♂, 4 ♀ ♀, 12-IV-1946; 1 ♂, 20-VI-1946; 1 ♂, 1 ♀, 12-VII-1946; 1 ♀, 15-IX-1946, Tschung Sen leg.

Distribution: China (Taiwan, Fujian, Guangdong), Myanmar (formerly Burma).

17. *Telsimia nigra* (Weise, 1879)

Specimens examined: 1 ♀, 12-IV-1846, Tschung Sen leg.

Distribution: China (Taiwan, Fujian), Japan.

Subfamily Coccinellinae

18. *Propylea japonica* (Thunberg, 1781)

Specimen examined: 1 ♂, 12-V-1946, Tschung Sen leg.

Distribution: China (widely occurred in China), Japan, Korea, Siberia, Sakhalin, Vietnam, Thailand, India.

* 19. *Micraspis allardi* (Mulsant, 1850)

Specimen examined: 1 ♀, 2-V-46, Tschung Sen leg.

Distribution: China (Fujian, etc.), Afghanistan, India, Sumatra, Indonesia, Borneo, Philippines.

20. *Oenopia chinensis* (Weise, 1912)

Specimen examined: 1 ♀, 12-V-1946, Tschung Sen leg.

Distribution: China (widely distributed in China).

Remarks: Mader (1955) described *Coelophora fallaciosa* from Fujian, which is now a synonyme of *O. chinensis*. The examined specimen has much smaller spots on elytra, compared with the typical colouration of *O. chinensis*.

21. *Harmonia aryxidis* (Pallas, 1773)

Specimens examined: 1 ex., 12-VII-1946, Tschung Sen leg.

Distribution: China (widely occurred in China), Siberia, Mongolia, Korea, Sakhalin, Japan, Vietnam.

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