

***Amida* Lewis, with Description of a New Species (Coleoptera: Coccinellidae) from China**

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Guoyue Yu (2000) *Amida* Lewis, with description of a new species (Coleoptera: Coccinellidae) from China. *Zoological Studies* 39(1): 23-27. Six species of *Amida* Lewis from China are defined, of which one is described as new to science: *A. decemmaculata*, sp. n.; one as a new record for China: *A. quinquefaciata* Hoàng; and two are new combinations, and one new name is suppressed as a synonym: *A. jinghongiensis* (Pang and Mao), comb. nov., and *A. nigropectoralis* (Pang and Mao), comb. nov., both transferred from the genus *Ortalia* Mulsant; *A. platyceps* Hoàng is the synonym of *A. jinghongiensis* (Pang and Mao). We supply also a diagnosis of the genus and a key to the 6 species known from China.

Key words: Insect taxonomy, *Amida*, New species, New combination, New synonym.

The genus *Amida* was erected by Lewis (1896) for a Japanese species *Scymnus* (*Nephus*) *tricolor* Harold, 1878, and presently the genus belongs to the tribe Ortaliini of the family Coccinellidae. The tribe Ortaliini has long been under the subfamily Scymniinae (Sasaji 1968), and recently Kovár (1996) elevated it to subfamily level. Since 1896, only 1 species was listed in the literature including *Junk's Coleopterum Catalogus* (Korschefsky 1931). Hoàng (1982 1983 1990) studied the Vietnamese species of *Amida* and described 9 new species.

A little literature documents the Chinese species of *Amida*. Pang and Mao (1979) studied 5 species of *Ortalia* Mulsant, and three of them were found to be members of *Amida*. Yu et al. (1993) recorded *A. tricolor* from Chebaling (Guangdong). The present paper enumerates 6 species of the genus *Amida* Lewis from China, including 1 new species, 1 new recorded species, 2 new combinations, and 1 new synonym.

MATERIALS AND METHODS

The sources of materials for this study are from the following institutions (acronyms used in the following text):

AS – Institute of Zoology, Academia Sinica,

Beijing; CAU – Insects Collection of China Agricultural University, Beijing; MCZ – The Museum of Comparative Zoology, Harvard University, Cambridge; SCAU – Insects Collection of South China Agricultural University, Guangzhou.

The type specimen to be designated in this paper is deposited in the Insects Collection of China Agricultural University, Beijing. Illustrations, except for figures 10 and 17, were made with a camera lucida. The terminology follows Sasaji (1971).

SPECIES ACCOUNT

Genus *Amida* Lewis, 1896

Amida Lewis, 1896: 34; Korschefsky, 1931: 105; Mader, 1955: 964; Sasaji, 1971: 206; Hoàng, 1982: 183.

Type species: *Scymnus* (*Nephus*) *tricolor* Harold, 1878 (by original designation).

Diagnosis: Body medium-sized, about 4.0-6.0 mm in length, moderately convex above and pubescent. Head with large eyes, innerocular margin nearly straight and eyes parallel to each other with a very deep and narrow post-antennal emargination. Antennae rather long and 11-segmented. Terminal segment of maxillary palpus longer than wide and weakly divergent apically. Prosternum with distinct or indistinct carinae. Postcoxal line incom-

plete, not reaching the hind margin of 1st abdominal sternite. Tarsi composed of 3 segments. Siphon of male genitalia always with branched apex, 1 branch long, thread-shaped, straight or curved.

Distribution: Guangdong, Guangxi, Yunnan, Hunan, Taiwan, Japan, Vietnam.

Remarks: The genus *Amida* differs from the genus *Ortalia* Mulsant in the 11-segmented antennae and medium body size (length about 4-6 mm). The latter genus has 10-segmented antennae and is smaller in body size (length always less than 3 mm).

Key to the Chinese species of *Amida*

- 1a. Dorsal surface yellow to yellowish brown, with no black markings 2
- 1b. Dorsal surface yellow to yellowish brown with black markings 4
- 2a. Lateral margin of 6th abdominal sternite of male emarginate *A. vietnamica* Hoàng
- 2b. Lateral margin of 6th abdominal sternite of male arcuate 3
- 3a. Eyes with multi-color sheen, interocular distance about 1.5 times width of eye; legs slender; body with arcuate lateral sides; metasternum black; basal 2 abdominal sternites black medially; apex of siphon with 2 appendices, 1 spoon-shaped, short; the other thread-like, curved, long; body length 4.5-5.0 mm, width 3.9-4.1 mm
..... *A. nigropectoralis* (Pang and Mao)
- 3b. Eyes black without multi-color sheen, interocular distance about width of eye; legs flat, hind tibiae angulated externally at the middle; body with subparallel lateral sides; underside yellow to yellowish brown; apex of siphon with 2 appendices, 1 finger-shaped, short, the other thread-like, straight, long; body length 4.7-5.9 mm, width 3.5-4.4 mm
..... *A. jinghongiensis* (Pang and Mao)
- 4a. Pronotum whitish yellow with no black markings
..... *A. decemmaculata* sp. n.
- 4b. Pronotum yellow or yellowish brown with black markings, sometimes with a dull medial spot 5
- 5a. Elytra 2-colored: yellowish brown and black; pronotum with a black band at base *A. quinquefasciata* Hoàng
- 5b. Elytra 3-colored: yellow, black, and yellowish brown (yellowish red in fresh material); pronotum with 1 or 3 black spots *A. tricolor* (Harold)

Amida vietnamica Hoàng, 1982

(Figs. 1-3)

Amida vietnamica Hoàng, 1982: 189 (Vietnam).

Ortalia pectoralis: Pang and Mao, 1979: 38 (Guangxi, Yunnan) (nec Weise, 1901); Cao et al., 1992: 126 (Yunnan), (misidentified).

Specimens examined: [Guangxi]: 4 ♂♂ 1 ♀, Longrai (180 m), Ningming, 16-25 May 1984, Li Fangsheng leg. (CAU); 1 ♀, Wuchow, May 1933, G. Liu leg. (MCZ); [Yunnan]: 1 ♂, 10 Aug. 1958, Pu Fuji leg.; 1 ♂, 18 Aug. 1958, Pu Fuji leg.; 1 ♂, 2 June 1958, Wang Shuyong leg.; 1 ♀, 23 May 1958, Wang Shuyong leg.; all 4 from Meng'a (800-1080 m),

Xishuangbanna (AS).

Remarks: Contrary to their practice, Pang and Mao (1979) figured the male tegmen in dorsal view (Fig. 32-right) instead of ventral view. Bielawski (1961) redescribed *Ortalia pectoralis* Weise, 1901 based upon the type, but he did not examine the antennae.

Distribution: Guangxi, Yunnan, Vietnam.

Amida nigropectoralis (Pang and Mao, 1979), comb. nov.

(Fig. 6)

Ortalia nigropectoralis Pang and Mao, 1979: 39 (Yunnan); Cao et al., 1992: 128 (Yunnan).

Specimens examined: [Yunnan]: 1 ♂, holotype, Damenglong (650 m), 3 May 1958, Zhang Yiran leg.; 1 ♀, paratype, Menghai (1100 m), 13 Aug. 1959, Wang Shuyong leg.; 1 ♀, paratype, Meng'a (1050-1080 m), 11 May 1958, Wang Shuyong leg.; 1 ♀, paratype, Mengzhe (1200 m), 29 Aug. 1958, Wang Shuyong leg.; 1 ♀, Mengzhe (1200 m), 15 June 1958, Pu Fuji leg. (all in AS).

Remarks: Pang and Mao (1979) did not study the antenna; it is an 11-segmented antenna (Fig. 6). Therefore, it is a member of *Amida*.

Distribution: Yunnan.

Amida jinghongiensis (Pang and Mao, 1979), comb. nov.

(Figs. 4-5)

Ortalia jinghongiensis Pang and Mao, 1979: 39 (Yunnan); Cao et al., 1992: 128 (Yunnan).

Amida platyceps Hoàng, 1982: 187 (Vietnam), syn. nov.

Specimens examined: [Yunnan]: 1 ♂, holotype of *jinghongiensis*, Meng'a (1050-1080 m), 10 June 1958, Wang Shuyong leg.; 2 ♀, same data as holotype; 1 ♀, 2 May 1958, other data as holotype; 1 ♂, Meng'a (800 m), 2 June 1958, Wang Shuyong leg.; 1 ♀, Menghun (750 m), 3 June 1958, Wang Shuyong leg.; 1 ♂, Yuanjiang, 16 May 1957, Wang Shuyong leg.; 1 ♀, Hekou, 5 Apr. 1959, Huang Keren leg. (all in AS).

Remarks: This species is a member of *Amida* due to the 11-segmented antenna (Fig. 4). Pang and Mao (1979) designated 3 specimens (1 ♂, 2 ♀♀) as paratypes, but there are 5 specimens labeled as paratypes in AS (5 specimens after the holotype in the above list). Two of the 5 paratypes, as subsequent designation, are invalid. Pang and Mao (1979) stated 'paratypes: 1 ♂ 2 ♀♀, collected from the same place as holotype'. Since four of the above 5 specimens were from the same place (Meng'a) as the holotype, it is difficult for the present author to

make a decision about which one should not be included in the type series (original designation). Under such circumstances, I did not add the paratype status to all of the above 5 specimens in this paper.

Distribution: Yunnan, Vietnam.

Amida tricolor (Harold, 1878)

Scymnus (*Nephus*) *tricolor* Harold, 1878: 87 (Japan).

Amida tricolor Lewis, 1896: 35 (Japan); Ohta, 1929: 13 (Japan); Mader, 1955: 964 (Japan); Sasaji, 1971: 208 (Japan); Hoàng, 1982: 184 (Vietnam); Yu et al., 1993: 485 (Guangdong).

Specimens examined: [Guangdong]: 1 ♂, 3 Nov. 1989; 1 ♂, 23 Apr. 1991, both from Chebaling, Yu Guoyue leg. (SACU).

Remarks: There is a subspecies occurring in Taiwan. Kurisaki (1920) described *Amida formosana* from Taipei, Taiwan. It was downgraded to *Amida tricolor formosana* Kurisaki and *Amida tricolor formosana* Weise, 1923 was considered as a junior synonym of it (Yu and Wang 1999). The nominated subspecies, occurring in Guangdong, Vietnam, and Japan, has a large U-shaped black marking at the middle of each elytron, a black spot in the middle of

the pronotum, and a pair of small black spots laterally. In the *formosana* subspecies, the middle black marking of the elytron is relatively small and transversely quadrate, and the pronotum has a medial black spot, which is very small or even obscure sometimes.

Distribution: Guangdong, Taiwan, Japan, Vietnam.

Amida quinquefasciata Hoàng, 1982

(Figs. 11-17)

Amida quinquefasciata Hoàng, 1982: 185 (Vietnam).

Specimen examined: [Hunan]: 1 ♂, Zhangjiajia (600-1500 m), 13 Oct. 1995, Li Fasheng leg. (CAU).

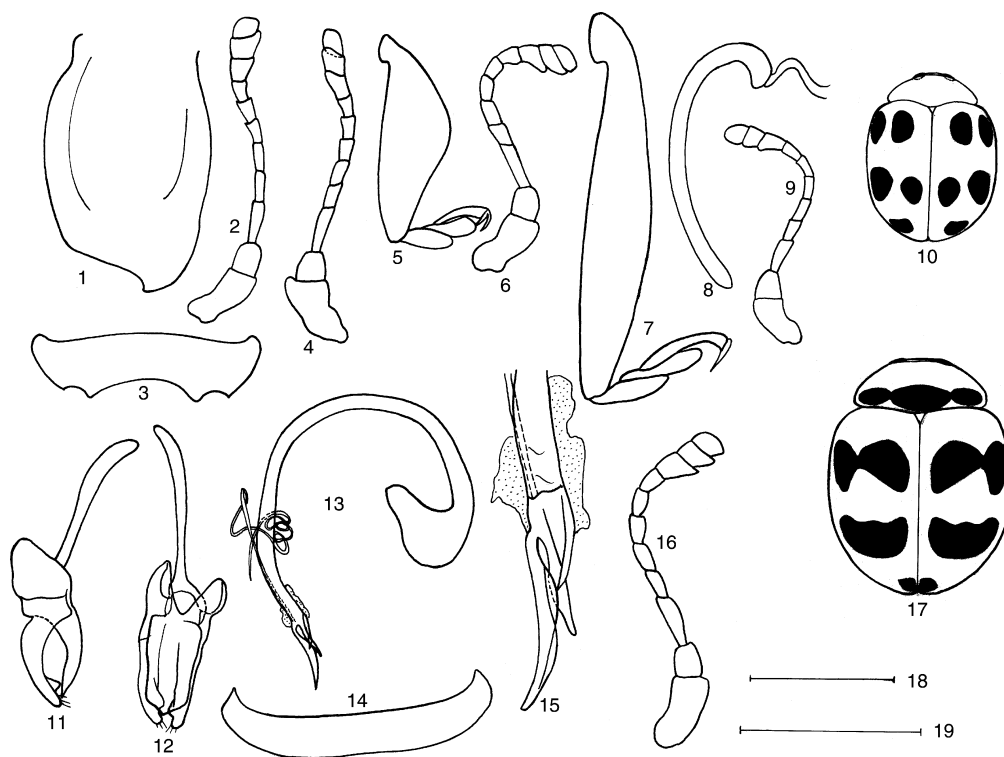
Remarks: The examined specimen differs slightly from Vietnamese specimens by the elytron having a small black spot apically.

Distribution: Hunan (new record), Vietnam.

Amida decemmaculata, sp. nov.

(Figs. 7-10)

Body length 3.8 mm, width 2.9 mm. Body short



Figs. 1-19. 1-3. *Amida vietnamica* Hoàng; 4-5. *A. jinghongiensis* (Pang and Mao); 6. *A. nigropectoralis* (Pang and Mao); 7-10. *A. decemmaculata*, sp. n.; and 11-17. *A. quinquefasciata* Hoàng.

1. Median piece of tegmen, ventral view; 2, 4, 6, 9, 16. Antenna; 3, 14. Sixth abdominal sternite of male; 5, 7. Hind tibia and tarsus; 8. Receptaculum seminis; 10, 17. Outline of body; 11. Tegmen, lateral view; 12. Tegmen, ventral view; 13. Siphon; 15. Apex of siphon; 18. Scale marker for 3, 5, and 11-14 (= 1.0 mm); 19. Scale marker for 1, 2, 4, 6-9, 15, and 16 (= 0.5 mm).

oval, moderately convex above with dense pubescence. Dorsum whitish yellow. Eyes black. Each elytron with 5 black spots, arranged in a 2-2-1 form: spot 1 situated at humera, oval; spot 2 oval, the distance to suture about 2 times distance to spot 1; spots 3 and 4 situated at 1/2 length of elytron, exterior spot subquadrate, bigger than interior oval spot, the distance from interior spot to suture about that from interior spot to exterior spot; spot 5 oval, transversal, situated at posterior of spots 3 and 4 (Fig. 10). Venter including mouthparts and legs yellow.

Interocular margins almost parallel, interocular distance about width of eye. Postcoxal line incomplete, extending to about 2/3 length of sternite. Tibiae slender, curved indistinctly (Fig. 7).

Female genitalia: Receptaculum seminis simple (Fig. 8).

Holotype: ♀, Nanjingli, Ruili, Yunnan, China, 5 May 1981, Li Fasheng leg. (CAU).

Remarks: The new species resembles *A. novempunctata* Hoàng, 1982 in elytral color pattern, but is easily distinguishable from the latter by 10 black spots on the elytra, no sutural spots, and slender hind tibiae.

Etymology: The name is derived from the Latin word *decem* (= 10) + *macula* (= spotted), for the 10 black spots on the elytra.

Distribution: Yunnan.

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中國花瓢蟲及一新種記述(鞘翅目：瓢蟲科)

虞國躍¹

本文記述了中國產花瓢蟲屬(*Amida* Lewis)昆蟲 6 種，其中包括一新種：十斑花瓢蟲 *A. decemmaculata* Yu，一新記錄種：橫斑花瓢蟲 *A. quinquefasciata* Hoàng，二個新組合：*A. nigropectoralis* (Pang and Mao) 和 *A. jinghongiensis* (Pang and Mao)，兩者均移自刻眼瓢蟲屬 (*Ortalia*)，以及一個新異名：*A. platyceps* Hoàng 是 *A. jinghongiensis* (Pang and Mao) 的異名，並提供花瓢蟲屬的鑒別特徵及中國產花瓢蟲屬昆蟲 6 種的檢索表。

關鍵詞：昆蟲分類學，花瓢蟲屬，新種，新異名，新組合。

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