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# Notes on the Genus *Alloneda* Iablokoff-Khnzorian with Description of a New Species (Coleoptera, Coccinellidae)

Guoyue Yu

*Institute of Plant and Environmental Protection, Beijing Academy of Agricultural and Forestry Science, P. O. Box 2449-19, Beijing 100081, China Tel: 86-10-68416644 ext. 332. Fax: 86-10-68424439.*

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**Guoyue Yu (1998)** Notes on the genus *Alloneda* Iablokoff-Khnzorian with description of a new species (Coleoptera, Coccinellidae). *Zoological Studies* **37**(4): 282-285. The present paper reviews the genus *Alloneda* Iablokoff-Khnzorian and enumerates 4 species, including 1 new species *A. dentiformis* from Hainan Is. One new combination and 2 new synonyms are established: *A. callinotata* (Jing, 1988), comb. nov., transferred from *Lemnia* Mulsant; *A. novemmaculata* Cao and Pu, 1985 is a synonym of *Lemnia duvauceli* (Mulsant, 1850), syn. nov., and *A. quadricolor* Yu and Pang, 1993 is a synonym of *A. callinotata* (Jing, 1988), syn. nov. A generic diagnosis and key to known species are provided.

**Key words:** Taxonomy, *Alloneda*, New species, New combination.

The genus *Alloneda* was erected by Iablokoff-Khnzorian (1979) for a peculiar species *Coccinella dodecaspilota* Hope, 1831. The generic position of this species has long been discussed. Mulsant (1850) put it into *Caria* Mulsant. Crotch (1874) placed it under the genus *Aiolocaria* Crotch, and pointed out that "the metasternum is deeply emarginated. I have not examined it with sufficient care to erect it into a new genus". Its position in *Aiolocaria* was accepted by most authors, but Mader (1933 1934) transferred it to the genus *Palaeoneda* Crotch because the mesosternum deeply emarginated anteriorly, and the lateral side of the pronotum concaved anteriorly. Kapur (1963) did not believe that such a transfer was justified because *dodecaspilota* lacks most of the characters by which *Palaeoneda* is defined. Iablokoff-Khnzorian (1979) established a new genus *Alloneda* for this species. Since then, an additional 3 species were described under this genus: *A. novemmaculata* Cao and Pu, 1985; *A. osawai* Sasaji, 1986; and *A. quadricolor* Yu and Pang, 1993. *A. novemmaculata* was considered to be the synonym of *Lemnia duvauceli* (Mulsant, 1850) by its junior author in 1986 (pers. comm.), but it has not been formally published and the synonym is designated here as syn. nov. The discussion of *A. quadricolor* will be under *A. callinotata*. The present paper adds a new species *A. dentiformis* for the genus. Hence, a total of 4 species are known in this genus presently.

## Genus *Alloneda* Iablokoff-Khnzorian

*Alloneda* Iablokoff-Khnzorian, 1979: 49, 63; 1982: 277.

*Type species*: *Coccinella dodecaspilota* Hope, 1931 (by original designation, but Iablokoff-Khnzorian [1979] misquoted the specific name on page 63 as *dodecastigma*).

*Diagnosis*: Coccinellini with medium to large in size, hemispherical, slightly longer than wide, glabrous; pronotum with lateral side weakly emarginate near anterior corner; prothoracic epipleura distinctly depressed at anterior part; mesosternum with V-shaped emargination anteriorly and metasternum slightly but distinctly emarginate anteriorly; sipho of male genitalia with long preapex, apex of sipho with appendices (always in thread form), surrounded by membrane; median piece of tegmen spindle shaped, shorter than lateral lobes.

*Distribution*: Oriental Region (from Himalayas to Taiwan).

*Remarks*: As to color pattern, the 4 known species of the genus have 6 black spots on each elytron. Three of them have sutural spots, while *A. callinotata* has no sutural spot. Two species

(*dodecaspilota* and *dentiformis*) have 2 pronotal spots, while *osawai* and *callinotata* have 4 pronotal spots. Iablokoff-Khnzorian (1979 1982) stated that the prothoracic epipleura is smooth and not depressed. A shallow but distinct depression at the anterior inner portion of prothoracic epipleura is observed in all 4 species.

**Key to species of *Alloneda* Iablokoff-Khnzorian**

1a. Elytra with 10 black spots, with a scutellar spot and an apical spot, both consisting of sutural spots ..... 2
1b. Elytra with 12 black spots, without sutural spots ..... *A. callinotata* (Jing)
2a Pronotum with 1 pair of black spots; body length 4.8-7.5 mm ..... 3
2b. Pronotum with 2 pairs of black spots; body length 4.6 mm ..... *A. osawai* (Sasaji)
3a. Elytron with large spots, arranged roughly in 2-2-2 form; body length 6.5-7.5 mm ..... *A. dodecaspilota* (Hope)
3b. Elytron with relatively small spots, arranged in 3-2-1 form; body length 4.8 mm ..... *A. dentiformis* Yu, sp. n.

## *Alloneda dodecaspilota* (Hope, 1831)

*Coccinella 12-spilota* Hope, 1831: 31 (Nepal).
*Caria duodecimspilota* Mulsant, 1850: 236; 1866: 172.
*Aiolocaria dodecaspilota* Crotch, 1874: 178; Korschefsky, 1932: 277; Kapur, 1958: 311 (Nepal, Burma), 1963: 26 (Sikkim); Bielawski, 1972: 301 (Nepal), 1979: 116 (Nepal); Chunram and Sasaji, 1980: 485 (Thailand); Hoang, 1983: 98 (Vietnam).
*Palaeoneda dodecaspilota* Mader, 1933: 93; Mader, 1934: 302 (Himalayas, Simla).
*Alloneda dodecastigma* Iablokoff-Khnzorian, 1979: 63; Cao and Pu, 1985: 273.
*Alloneda dodecaspilota* Iablokoff-Khnzorian, 1982: 277 (Himalayas, Simla, and Vietnam); Cao and Xiao, 1985: 345 (Yunnan); Jing, 1988b: 284 (Tibet); Booth and Pope, 1989: 352; Cao et al., 1992: 37 (Yunnan); Yu et al., 1993: 496 (Guangdong); Peng et al., 1997: 118 (Hainan).

*Specimens examined*: 6 from Chebaling (Guangdong): 1 ♀, 23 March 1989, collected by X. Tong; 1 ♂, 24 March 1989, by S. Ren; 1 ♀, 23 Sept. 1989, by R. Wu; 1 ♂, 2 April 1989, by X. Zhong; 1 ♂, 24 Sept. 1989, by Y. Li; 1 ♀, 25 April 1991, by G. Yu.

*Distribution*: China (Tibet, Yunnan, Guangdong, Hainan), India (Simla), Nepal, Sikkim, Thailand, Myanmar, Vietnam.

## *Alloneda callinotata* (Jing, 1988) comb. nov.
(Fig. 1)

*Lemnia callinotata* Jing, 1988a: 60 (Fujian).
*Alloneda quadricolor* Yu et Pang, 1993 in Yu et al., 1993: 496 (Guangdong, Fujian), syn. nov.

Body length 4.4-5.2 mm, width 3.9-5.0 mm. Body medium sized, hemispherical, glabrous. Head yellowish brown with black eyes, tip of mandible reddish brown to dark brown. Pronotum reddish brown with antero-lateral corners yellowish brown and with 4 black markings: 2 situated at postero-lateral corners respectively, not extending to posterior margin, oval; another 2 situated at middle, small, round. Scutellum brown. Elytra brown with another 3 colors: lateral sides of elytra yellowish brown or brown; each elytron with 6 black spots: 1st one situated on calli, round; 2nd on postero-internal of 1st, nearly round; 3rd near lateral side, at middle of elytral length, oblong; 4th, oblique, on intero-posterior of 3rd, distance from suture about 1/2 that from lateral side, oblong oval; 5th on intero-lateral of fourth, round; 6th near apex of elytron, nearly triangular. Each elytron with 3 yellow markings: 1st one at base, not extending to suture, surrounding 1st black spot, semi-surrounding 2nd and contacting with 3rd black spot; 2nd yellow marking near suture, contacting with 4th black spot; 3rd yellow marking situated at postero-lateral part of elytron, surrounding 5th black spot, contacting with 3rd, 4th, and 6th black spots. Underside including legs brown, but elytral epipleuron reddish brown.

*Male genitalia*: Sipho strongly curved at basal 3/4, with distinct long outer siphonal process and short slender inner process. Apex of sipho with 2 branches, and short branch divided into 2 sub-branches. Median piece of tegmen spindle-shaped, widest in middle, with very narrow apex in ventral view; lateral lobes much longer that median piece, in lateral view inner side of lateral lobe curved 2 times.

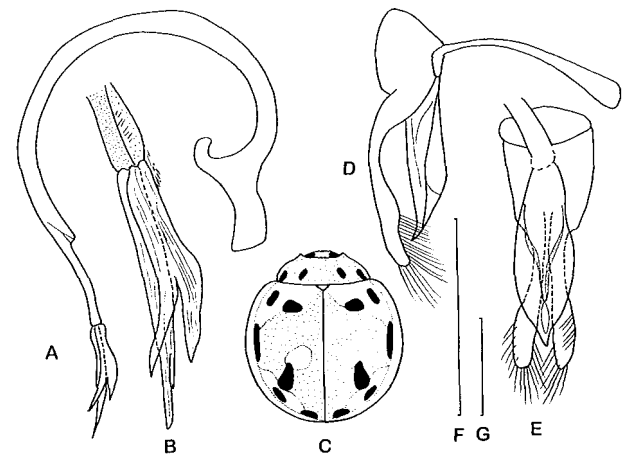


**Fig. 1.** *Alloneda callinotata* (Jing). (A) sipho; (B) apex of sipho; (C) dorsal view; (D) tegmen, lateral view; (E) tegmen, ventral view; (F) scale marker = 1 mm for A, D-E; (G) scale marker = 0.25 mm for B.

*Specimens examined*: 8 types of *A. quadricolor*: 4 from Chebaling (Guangdong): holotype ♂, paratypes: 1 ♀, 19 June 1990, collected by G. Yu; 1 ♂, 3 Nov. 1989, by G. Yu; 1 ♂, 5 April 1989, by X. Lin; and 4 paratypes from Shawu (Fujian): 1 ♂, 1 ♀, 19 March 1985 by S. Liu and X. Zhang; 1 ♀, May 1986, by Q. Wu et al.; 1 ♀, 12 Oct. 1984, by Z. Che.

*Remarks*: Jing (1988a) described this species based on a female specimen collected from Shaowu (Fujian) under the genus *Lemnia* Mulsant. Four paratypes of *A. quadricolor* of Fujian are from the same location as *Lemnia callinotata* Jing. Unfortunately, I had no chance to examine the type of *L. callinotata*, although it is certain that they are conspecies, for this species has a special color pattern and is readily separable from other members of Coccinellini. The above description and illustration are based on the type specimens of *A. quadricolor* Yu et Pang.

*Distribution*: China (Fujian, Guangdong).

### *Alloneda osawai* Sasaji, 1986

*Alloneda osawai* Sasaji, 1986: 4 (Taiwan); Peng et al., 1997: 118 (Hainan).

*Specimens examined*: 2 ♂♂, Bawangling (Hainan), 21 March 1996, collected by Z. Peng; 4 ♀♀, Jiangfengling (Hainan), Sept. 1995, by Z. Peng.

*Remarks*: This species is easily separated from the others by the combination of pronotum with 4 black spots and elytra with sutural spots.

*Distribution*: China (Taiwan, Hainan).

### *Alloneda dentiformis* Yu, sp. n.
(Fig. 2)

Body length 4.8 mm, width 4.4 mm. Hemispherical, slightly longer than wide, strongly convex above, glabrous. Head yellowish brown. Pronotum yellowish brown with yellowish-white lateral parts and 2 black quadrilateral markings, extending to anterior 2/3 of pronotum. Elytra yellow, lateral sides yellowish brown, each elytron with 6 black spots, arranged in 3-2-1 form, scutellar spots and apical spots consisting of sutural spots, anterior sutural one nearly cordiform, distance from scutellum about width of scutellum; apical sutural one round, closed to apex of elytra, slightly larger than anterior one; spots 2, 5 subquadrate, spots 3, 4 nearly round; spots 3, 5 not contacting with lateral margins; spot 4 biggest in size. Underside yellowish brown, but metasternum black (anterior and posterior margins yellowish brown narrowly), 1st abdominal sternite black medially, and 2nd abdominal sternite black medially and at base. Legs yellowish brown.

Antenna slightly longer than head width, terminal segment with round apical margin. Lateral side of pronotum weakly emarginate near anterior corner; posterior corner round. Pronotal epipleuron depressed distinctly at anterior and internal parts. Prosternal carinae convergent anteriorly, not reaching anterior margin of sternum. Anterior margin of mesosternum V-shaped emarginate, that of metasternum slightly but distinctly emarginate. Postcoxal line incomplete, extending to hind margin of sternite. Sixth abdominal sternite truncate at posterior margin.

*Male genitalia*: Sipho relatively stout, with outer siphonal process distinctly longer than inner process; sipho with about 10 denticles from basal 1/3 to apical 1/3 in ventral view; preapex of sipho long with dense setae at apical internal part, apex of sipho with long needle-like appendix on outer side, and 3 dark sclerites surrounded by membrane. Median piece of tegmen spindle-shaped, with narrow apex in ventral view; lateral lobes of tegmen much longer than median piece, distinctly clavate apically.

*Holotype*: ♂, Jianfengling (17.8N, 108.8E), 800-1000 m, Hainan Is., 21 May 1997, collected by P. Yu, preserved in the author's Institute, Beijing.

*Remarks*: It is easily distinguishable from other *Alloneda* species by the sipho with about 10 den-

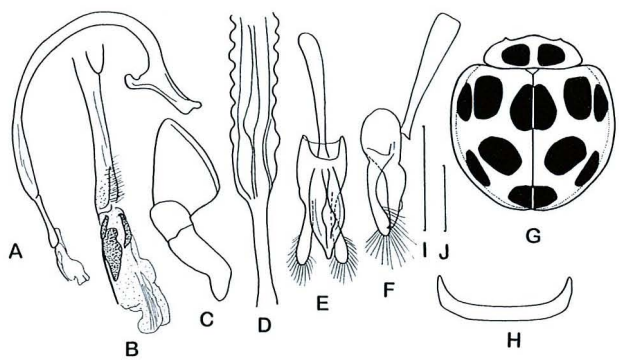


**Fig. 2.** *Alloneda dentiformis* Yu, sp. n. (A) sipho; (B) apex and preapex of sipho; (C) maxillary palpus; (D) preapical portion of sipho, ventral view; (E) tegmen, ventral view; (F) tegmen, lateral view; (G) dorsal view; (H) 6th abdominal sternite of male; (I) scale marker = 1 mm for A, E-F, H; (J) scale marker = 0.25 mm for B-D.

ticles from basal 1/3 to apical 1/3 in ventral view.

*Distribution*: Hainan Is., China.

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# 奇瓢蟲屬研究及一新種記述（鞘翅目，瓢蟲科）

虞國躍[1]

本文簡述奇瓢蟲屬 *Alloneda* Iablokoff-Khnzorian 的研究經過，記述已知的 4 種，其中包括採於海南的 1 新種齒形奇瓢蟲 *A. dentiformis*，建立 1 個移自盤瓢蟲屬 *Lemnia* Mulsant 的新組合，*A. callinotata* (Jing, 1988) 和 2 個新異名：*A. novemmaculata* Cao and Pu, 1985 即 *Lemnia duvauceli* (Mulsant, 1850) 的新異名。*A. quadricolor* Yu and Pang, 1993 是麗斑奇瓢蟲 *A. callinotata* (Jing, 1988) 的新異名。文中還記述屬的鑑別特徵及已知種的檢索表。

**關鍵詞**：分類學，奇瓢蟲屬，新種，新組合。

[1]北京市農林科學院植保環保研究所