Taxonomic notes on Chinese Lamiini (Coleoptera: Cerambycidae: Lamiinae)

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Abstract

Paragniopsis ochraceomaculata Breuning, 1965 and Paragniopsis Breuning, 1965 are confirmed to be junior synonyms of Agnioides striatopunctatus Breuning, 1956 and Agnioides Breuning, 1956 respectively after comparison of types; Monochamus fruhstorferi Breuning, 1964 is a new junior synonym of Annamanum lunulatum (Pic, 1934). Paranamera ankangensis Chiang, 1981 and Mimonemophas multimaculatus Xie & Wang, 2015 are transferred to the genus Anoplophora Hope, and the former is newly recorded from Hunan Province.

Key words: Lamiini, new synonym, new combination, China, Vietnam, Laos, India

Introduction

While working on the Cerambycidae fauna of the Qinling Mts. of Shaanxi Province, China, the first author discovered that the species of Paranamera ankangensis Chiang, 1981 looked very much like a member of the genus Anoplophora. She visited NWAFU to examine the types and discussed the issue with the second author who revised the genus Anoplophora (Lingafelter & Hoebeke, 2002). Based on further museum work, including examination of specimens of the genus Paranamera by the first author, we resolve additional systematic issues and present our conclusions on new taxonomic decisions, justifications, and synonymies below.

Materials

Types and other material studied are deposited in the following institutions:

BPBM Bernice Pauahi Bishop Museum, Honolulu, Hawaii USA
CBWX Collection of Wen-Xuan Bi, Shanghai, China
DJHC Collection of Daniel J. Heffern, Houston, Texas, USA
IRSNB Institut royal des Sciences naturelles de Belgique, Brussels, Belgium
IZAS Institute of Zoology, Chinese Academy of Sciences, Beijing, China
NWAFU Northwest A&F (Agriculture and Forestry) University, Yangling, Shaanxi, China
MHNL Muséum d'Histoire Naturelle, Lyon, France = CCEC: Musée des Confluences, Lyon, France
MNHN Muséum national d'Histoire naturelle, Paris, France
NMNH National Museum of Natural History (Smithsonian Institution), Washington, District of Columbia, USA
SWU Collection of Insects, Southwest University, Chongqing (ex South-west Agricultural University), Chongqing, China
YU Yangtze University (Hubei Agricultural College), Jingzhou, Hubei, China

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Results

**genus Agnioides Breuning, 1956**

_Agnioides_ Breuning, 1956: 671. Type species: _Agnioides striatopunctatus_ Breuning, 1956, by original designation.


Syonymized by Roguet, 2017: 104.


_Agnioides:_ Löbl & Smetana, 2010: 276.

**Distribution.** China, Laos, India.

**Remarks.** The genus _Agnioides_ Breuning, 1956 contains only one species which was described from a male specimen from India, while the genus _Paragniopsis_ Breuning, 1965 contains a unique species which was described from a female specimen from Laos. After the comparison of the two holotypes and other specimens from China, we agree with Roguet (2017) that _Paragniopsis ochraceomaculata_ Breuning, 1965 is a junior synonym of _Agnioides striatopunctatus_ Breuning, 1956 and the genus _Paragniopsis_ is a junior synonym of _Agnioides_.

**Agnioides striatopunctatus Breuning, 1956**

_Agnioides striatopunctatus_ Breuning, 1956: 671, fig. 3. TL: India, West-Bengal (Darjeeling District) [British Bootang]. TD: MHNL.


**Distribution.** China: Yunnan; Laos, India.

**Type specimens examined.** Holotype of _Agnioides striatopunctatus_ Breuning, 1956, male (Figs 1a–c), British Bootang, Maria Basti (MHNL= CCEC, examined through images). Holotype of _Paragniopsis ochraceomaculata_ Breuning, 1965, female, Laos, region de Vientiane, Phou Khao Khoay, 1963.VIII, leg. J. A. Rondon (BPBM 8628, ex Collection J. A. Rondon, examined through images).

**Other specimens examined.** China: 1 male 1 female, Yunnan, Xishuangbanna, Damenglong, 1958.IV.24 (IZAS).

**Remarks.** The type locality of _Agnioides striatopunctatus_ Breuning, 1956, British Bootang was often misrepresented as Bhutan (Pu, 1991). However, British Bootang is in fact located in West-Bengal, India (Lin, 2012), while Maria Basti is now Kalimpong environs. This species has not been recorded from Bhutan. The holotype of _Paragniopsis ochraceomaculata_ Breuning, 1965, was misidentified as a male (Breuning, 1965). However, it is a female, which can be identified based on the shorter antennae with the sixth antennomere not extending to the elytral apex, while in males the sixth antennomere distinctly extends beyond the elytral apex. These two holotypes represent a male and female of the same species and therefore the synonym is confirmed.

**Annamanum lunulatum (Pic, 1934)**

(Figs 3–4)

_Urecha lunulata_ Pic, 1934: 34. TL: Vietnam, Tonkin. TD: MNHN.

_Annamanum lunulatum:_ Breuning, 1944: 402.


Distribution: China: Guangxi, Yunnan; Vietnam.

Type specimens examined. Holotype of Urecha lunulata Pic, 1934, female (Fig. 3), Vietnam, Tonkin, Chapa (MNHN, examined through images). Holotype of Uraecha longzhouensis Wang & Chiang, 2000, male, China, Guangxi (SWU, examined through images). Holotype of Monochamus fruhstorferi Breuning, 1964, female (Figs 4a–c, not male as reported in the original paper), Vietnam, Tonkin, Monts Mauson, leg. Hans Fruhstorfer (IRSNB, examined through images).

Other specimens examined. China: 1 male, Yunnan, Jinghong, Menghai county, Nabanhe Nature Reserve, Guomenshan, alt. 1114 m, 100.60610°E, 22.24644°N, 2009.V.26, leg. L.Z. Meng by Malaise trap (IZAS, IOZ(E)1858627).

Vietnam: 4 males 4 females, Vinh Phuc Prov., Tam Dao National Park, 965 m, 21°28.4'N, 105°38.8'E, Sante

Remarks. The holotype of *Monochamus fruhstorferi* Breuning, 1964 was misidentified as a male (Breuning, 1964), but it is a female and it can be easily identified by the darker apices from antennomeres III to XI and the shape of ventrite V. It matches with the holotype female of *Urecha (sic) lunulata* Pic, 1934 very well and is herein synonymized, although it was identified as *Annamanum lunulatum* (Pic, 1934) by Carolus Holzschuh in 1996 (Fig. 4c). And the series of specimens collected from Vietnam confirmed that males of this species are identical to the holotype male of *Urecha longzhouensis* Wang & Chiang, 2000 from Guangxi, China.


*Anoplophora ankangensis* (Chiang, 1981) comb. nov.

(Figs 5–9)


**Diagnosis (Lin, 2017).** This species is similar to *Anoplophora elegans* (Gahan, 1888) (Lingafelter & Hoebeke, 2002: 77, pl. 8, fig. a) but without annular pubescence at the apex of each antennomere. It is similar to *A. stanleyana* Hope, 1839 (Lingafelter & Hoebeke, 2002: 217, pl. 31, figs. d, e, f) and *A. birmanica* Hüdepohl, 1990 (Lingafelter & Hoebeke, 2002: 80, pl. 10, fig. a), but the yellowish pubescent markings on the pronotum terminate near the middle prothoracic lateral tubercles and lack such yellow pubescence at the basal half. Compared with *A. horsfieldii* (Hope, 1842) (Lingafelter & Hoebeke, 2002: 86, pl. 13, figs. a, b), the pronotal yellow pubescent
markings are larger and only at the apical half, and the yellow elytral pubescent markings have five transverse lines instead of four.


Remarks. The holotype is a female from Shaanxi, Ankang, collected in 1960.VII and was deposited in Northwestern Agriculture college (Chiang, 1981). It should be deposited in NWAFU, but the first author did not find the holotype in the main collection of NWAFU during her visit in 2017. It could be in another collection hosted by the Agriculture College (personal communication with Lin Lü, 2017.III.30). Fortunately she found the paratype female, which is also from Shaanxi, Ankang (reported in the Chinese description but missing in the English summary by Chiang, 1981), which indicated that the entomological collection of Shaanxi Forestry Research Institute is deposited in NWAFU.

Specimen of Paranamera malaccensis Breuning, 1935 examined. Malaysia: 1 male, Sabah, Crocker Range, vic. Trus Madi, 2000.III.18, leg. Local collector (DJHC). Our examination of the type species of Paranamera Breuning, 1935, P. malaccensis Breuning, 1935, shows that it lacks the common features present in Anoplophora. It lacks a posteromedial pronotal callus (present in most Anoplophora and P. ankangensis Chiang, 1981), it has narrow-based lateral pronotal tubercles that are elevated apically (broad-based lateral pronotal tubercles that are not or very weakly elevated apically are present in most Anoplophora species and P. ankangensis), the scape is cylindrical with a reduced cicatrix and as long as the third antennomere (the scape is enlarged apically with a pronounced cicatrix and distinctly shorter than the third antennomere in Anoplophora and P. ankangensis), the sutural elytral apex is sub-spiniform or acute (rounded apically in Anoplophora and P. ankangensis), and the body is nearly uniformly covered in pubescence (distinct glabrous regions are present in Anoplophora species and P. ankangensis). One additional feature, a strongly emarginate labrum that is present in species of Paranamera (and mentioned in the original description of the genus by Breuning (1935), was the basis for placing P. ankangensis in
that genus by Chiang (1981). In most *Anoplophora* the labrum is shallowly emarginate medially. However, this character is variable among and within species (Lingafelter & Hoebeke, 2002) and should not be used as a basis to exclude *P. ankangensis* from *Anoplophora*. Therefore, based on these features, *Paranamera ankangensis* Chiang, 1981 is transferred to *Anoplophora* as a new combination.

The genus *Paranamera* Breuning, 1935 now includes three species: *P. malaccensis* Breuning, 1935 (Malaysia, Malacca, Penang), *P. excisa* Breuning, 1942 (Indonesia, West Sumatra) and *P. oculata* Hübepohl, 1994 (Myanmar, Tenasserim; Thailand, Pak, Chong). We consider that the species *P. oculata* Hübepohl, 1994 may need to be transferred from this genus due to its different pronotum and elytral apices, however, we reserve that decision for future study.


*Anoplophora multimaculata* (Xie & Wang, 2015) comb. nov.

*Mimonemophas multimaculatus* Xie & Wang, 2015 In: Xie et al., 2015: 599, figs. 5–6, 10–14. TL: China, Hubei. TD: YU.

**Distribution.** China: Hubei.

**Remarks.** *Mimonemophas multimaculatus* Xie & Wang is transferred to *Anoplophora* (new combination) since *Mimonemophas* was synonymized with *Anoplophora* by Bi & N. Ohbayashi (2015). The presence of dense bristle-like setae on the non-pubescent area of elytra in *Mimonemophas* is not a generic feature that distinguishes it from *Anoplophora* sensu Lingafelter & Hoebeke (2002) (Bi & N. Ohbayashi, 2015). The ending of the specific epithet should be “a” instead of “us” in the genus *Anoplophora*, because it is feminine in gender.

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