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AN ANNOTATED LIST OF LONCHAEIDAE (DIPTERA) FROM CHINA, CAMBODIA AND VIETNAM WITH DESCRIPTION OF A NEW SPECIES

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Summary. A preliminary list of 14 species of the family Lonchaeidae recorded from Cambodia, China and Vietnam is given. *Silba filamenta* sp. n. is described from North-East China. New country records are provided for three species of *Lonchaea* Fallén, 1820 and two species of *Silba* Macquart, 1851.

Key words: Lonchaeidae, taxonomy, new species, fauna, new records, China, Southeast Asia.

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Резюме. Приведен предварительный список известных из Камбоджи, Китая и Вьетнама 14 видов семейства Lonchaeidae. Из Северо-Восточного Китая описан *Silba filamenta* sp. n. Три вида рода *Lonchaea* Fallén, 1820 и два вида рода *Silba* Macquart, 1851 впервые указываются для отдельных стран.

INTRODUCTION

The Lonchaeidae of the Eastern Palearctic, and China in particular, have been relatively poorly studied, the exceptions being recent papers on the South Korean and Japanese faunas (MacGowan *et al.*, 2015; MacGowan 2020). Similarly, in the Oriental realm, the faunas of Cambodia and Vietnam are almost unknown. This paper describes a new species of *Silba* Macquart, 1851 from China and provides new country records for a further five species from Cambodia, China and Vietnam. A review of the published literature has been undertaken and as a result we have been able to produce a preliminary checklist for the lonchaeid faunas of these three countries. Data provided includes full reference to the original description of taxa and overall distribution of species.

MATERIAL AND METHODS

Material used in this paper originates from recent collections of colleagues of the junior author (MB), namely Milan Petrýl (Prague), Ondrej Šauša and Eduard Jendek (Bratislava), and Le Van Tu (Hoang Hoa). Holotype specimen of the new species is deposited in National Museums of Scotland, Edinburgh (NMS), paratype and voucher specimens relating to new country records are deposited in the collection of the Czech University of Life Sciences, Prague, Czech Republic (CULSP). Adults are micro-pinned and staged, dissected genitalia cleared in 10% KOH and stored in glycerol filled vials attached to the specimen pin. The terminology for morphological structures and the orientation of male genitalia figures follows the standard adopted in the Manual of Afrotropical Diptera (MacGowan & Rotheray 2021).

LIST OF LONCHAEIDAE FROM CHINA, CAMBODIA AND VIETNAM WITH NEW RECORDS AND DESCRIPTION OF A NEW SPECIES

Genus *Lamprolonchaea* Bezzi, 1920

Lamprolonchaea Bezzi, 1920: 199 (as subgenus of *Lonchaea* Fallén, 1820).

Lamprolonchaea sinensis McAlpine, 1964

Lamprolonchaea sinensis McAlpine, 1964: 697.

DISTRIBUTION. China (Sichuan).

Genus *Chaetolonchaea* Czerny, 1934

Chaetolonchaea Czerny, 1934: 43.

Chaetolonchaea alliumi Zhang et Xue, 2017

Chaetolonchaea alliumi Zhang & Xue, 2017: 361.

DISTRIBUTION. China (Shandong).

Chaetolonchaea pellicula Morge, 1959

Chaetolonchaea pellicula Morge, 1959: 934.

DISTRIBUTION. China (Manchuria).

Chaetolonchaea pruinosa Morge, 1959

Chaetolonchaea pruinosa Morge, 1959: 931.

DISTRIBUTION. China (Manchuria).

Genus *Lonchaea* Fallén, 1820

Lonchaea Fallén, 1820: 25.

Lonchaea chinensis MacGowan, 2007

Lonchaea chinensis MacGowan, 2007: 4.

DISTRIBUTION. China (Fujian=Fukein).

Lonchaea minuta de Meijere, 1910

Lonchaea minuta de Meijere, 1910: 116.

MATERIAL EXAMINED. **Vietnam:** Thanh Hóa Province, Hoàng Hóa district, 19°49'19''N, 105°53'58''E, garden, alt.=7m, Malaise trap, 28.XII 2012–26.II 2013, 1 ♂, leg. Le Van Tu.

DISTRIBUTION. Vietnam (new record). McAlpine (1975a) records *L. minuta* from Sri Lanka. McAlpine (1977) only gives Java (Indonesia) as a confirmed location while records from Taiwan, Malaysia and the Philippines are followed by a question mark.

***Lonchaea silla* MacGowan, 2016**

Lonchaea silla MacGowan, 2016: 120.

MATERIAL EXAMINED. **China:** Jilin Province, env. of Jiaohe, 95km NNE of Jilin 43°95'N, 127°7'E, alt.=400–600m, 27.VI– 5.VII 2017, 2 ♂, leg. E. Jendek & O. Šauša.

DISTRIBUTION. China (new record), South Korea (Hongneung).

***Lonchaea vikhrevi* MacGowan, 2010**

Lonchaea vikhrevi MacGowan, 2010: 325.

MATERIAL EXAMINED. **China:** Jilin Province, Erdaocum, 42°42'N, 128°07'E, alt.=800m, 25–26.VI 2017, 1 ♂, leg. E. Jendek & O. Šauša.

DISTRIBUTION. China (new record), Russia (European part: Moscow).

Genus *Silba* Macquart, 1851

Silba Macquart, 1851: 277.

***Silba chalkei* McAlpine, 1956**

Silba chalkei McAlpine, 1956: 535.

Silba fragranti MacGowan, 2007: 21. Synonymized by MacGowan, 2015: 528.

DISTRIBUTION. Korea (Chipor), People's Republic of China (40km W of Beijing, West Mountains Nature Reserve, Fragrant Hill Park).

***Silba ischnopoda* MacGowan et Compton, 2018**

Silba ischnopoda MacGowan & Compton, 2018: 197.

DISTRIBUTION. Cambodia, Thailand.

***Silba filamenta* MacGowan et Barták, sp. n.**

<http://zoobank.org/NomenclaturalActs/B8A216F3-7DEA-4899-96FC-F0AAF8E4D1D1>

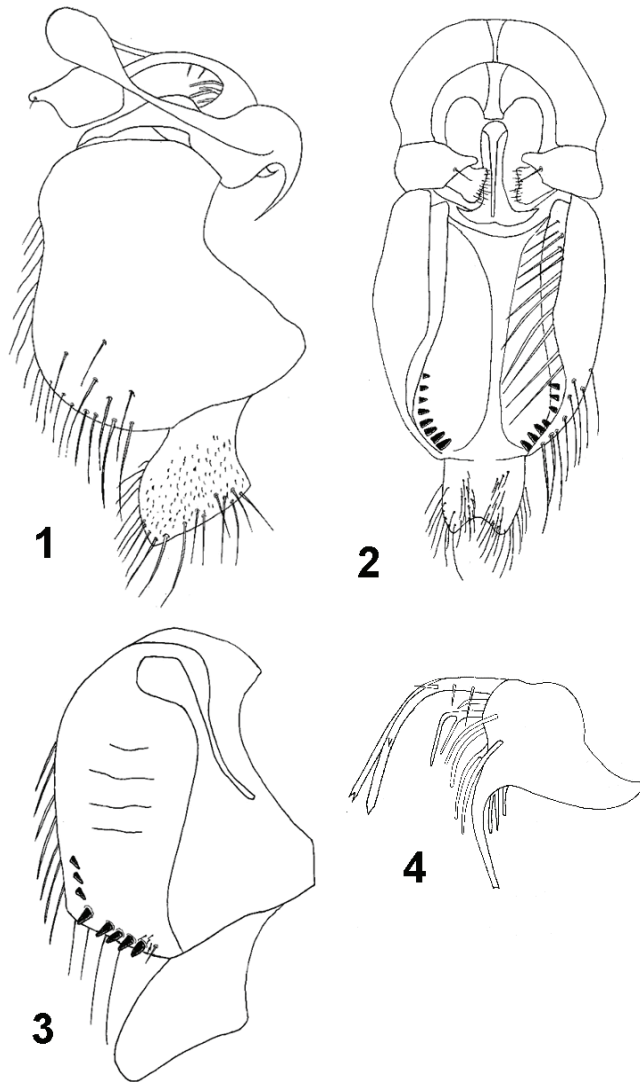
Figs 1–4

TYPE MATERIAL. Holotype – ♂, **China:** Jilin Province, Jiaohe env. 95km NNE of Jilin, 43°95'N, 127°7'E, alt.=400–600 m, 27.VI – 5.VII 2017, leg. E. Jendek & O. Šauša. Specimen number NMS-10005732 (deposited in NMS). Paratype – China: Jilin Province, Erdaocum, 42°42'N, 128°07'E, alt.=800 m, 25–26.VI 2017, 1 ♂, leg. E. Jendek & O. Šauša (deposited in CULSP).

DESCRIPTION. MALE: Body length 4.0mm.

Head: Eyes bare. Frons dull black covered with a light grey pollinosity, narrowing only slightly from level of ocellar triangle to antennal bases where it is 0.5x eye width. Orbital plate

dulled by microsculpture, bare apart from the orbital seta. Interfrontal and frontal setulae approximately 0.25x length of orbital seta. Lunule black, face and parafacials light grey pollinose. Antennae black, postpedicel length to depth ratio 2.5:1. Arista short plumose, plumosity at maximum extent 0.5x depth of postpedicel. Anterior genal setulae in a single row of four along mouth edge, these slightly separate from the other genal setulae the basal setula of this row the strongest on the genae.



Figs 1–4. *Silba filameta* sp. n. 1 – epandrium and associated structures, lateral view; 2 – the same, ventral view; 3 – inner surface of surstylus, internal view; 4 – phallus, lateral view.

Thorax: scutum sub-shining blue black, covered with setulae approximately 0.5x length of orbital seta. Anepisternum with five anterior setae and six posteriorly, area between these lines of setae with numerous scattered setulae approximately 0.5x as long as the longest seta. Katepisternum, two strong setae situated near dorsal margin, the posterior slightly longer and stronger than the anterior. Scutellum slightly damaged with some setae and setulae missing, apparently 2 setulae between apical setae and eight in a partly multiserial row between apical and lateral seta. Calypteres; greyish, with fringe dark, long and dense. Wings slightly fumose, especially towards base, veins brownish, wing length 4.1mm. Legs entirely black.

Male terminalia: In lateral view epandrium slightly wider than high, with a scattering of long setae along posterior and ventral margins. Cerci rather square in shape, approximately 0.4x height of epandrium, with a fringe of long setulae along posterior and ventral margins. Surstyli entirely contained within shell of epandrium. In ventral view ventral margins of the surstyli with a regular row of long, strong setae. Pregonites rather pointed at apex, postgonites with apical margin setulose. Internal surface of surstyli with a row of eight prenisetae, a line of five larger prenisetae along posterior margin reaching from base of cerci to ventral margin, the most ventral of these slightly separated from the rest, three smaller prenisetae continuing this line along ventral margin. A strong seta and several setulae located between the base of the cerci and the row of prenisetae. Inner surface of surstyli medially with 3–4 lateral grooves, anteriorly the surstyli developed into a long sinuous projection which curves back posteriorly.

Phallus, basiphallus roughly square in shape with an extended dorsal projection, distiphallus arising postero-ventrally, slightly curved, almost as long as depth of basiphallus. Two long, slightly curved basal projections arising anteroventrally from the basiphallus, these longer than the total width of the basiphallus, bearing several long spicules basally. A number of long, thin filaments arising from the ventral surface of the basiphallus, some of these simple, others branched.

FEMALE unknown.

DIAGNOSIS. With entirely black legs and calypteres darkened with a dark fringe this species is externally similar to the majority of *Silba* species known from the Oriental and Eastern Palearctic realms. The relatively short arisal plumosity is also typical of *Silba* species whose range is near the northern limit of this mainly tropical genus. As a result of this external similarity *Silba* species can only be confidently identified to species level by examination of the male terminalia. In this case the highly distinctive phallus with its numerous filamentous projections immediately distinguishes it from any other described species.

DISTRIBUTION. China (Jilin).

ETYMOLOGY. The specific epithet refers to the filaments on the basal part of the phallus.

***Silba microcercosa* MacGowan, 2007**

Silba microcercosa MacGowan, 2007: 26.

DISTRIBUTION. Vietnam (Tay Ninh Province).

***Silba setifera* (de Meijere, 1910)**

Lonchaea setifera de Meijere, 1910: 119.

Silba setifera: McAlpine, 1956: 543.

MATERIAL EXAMINED. **Cambodia**: Phnom Penh, 11°30'34"N, 103°53'54"E, garden, Malaise trap, 31.VII–13.VIII 2013, 2 ♂, leg. M. Petrtyl.

DISTRIBUTION. Cambodia (new record). McAlpine (1975a) records this species from Sri Lanka. Later he lists this species from Australia, Fiji, Malaysia, Papua New Guinea, Indonesia, the Philippines, and Samoa (McAlpine, 1977). MacGowan (2014) considered *S. setifera* should not be included in the fauna of Fiji until a confirmed specimen was identified.

***Silba srilanka* McAlpine, 1975**

Silba srilanka McAlpine, 1975a: 232.

MATERIAL EXAMINED. **Vietnam:** Thanh Hóa Province, Hoàng Hóa district, 19°49'19''N, 105°53'58''E, garden, alt.=7m, Malaise Trap, 28.XII 2012–26.II 2013, 6 ♂, leg. Le Van Tu.

DISTRIBUTION. Sri Lanka (McAlpine, 1975a), Taiwan (McAlpine, 1975b), Vietnam (new record).

CONCLUSION

In total 14 species in four genera of Lonchaeidae are known from China, Cambodia and Vietnam. Nine species in four genera (*Lamprolonchaea sinensis*, *Chaetolonchaea alliumi*, *Ch. pellicula*, *Ch. pruinosa*, *Lonchaea chinensis*, *L. silla*, *L. vikhrevi*, *Silba chalkei*, and *S. filamenta* sp. n.) are recorded from the People's Republic of China. Two species in the genus *Silba* (*S. ischnopoda* and *S. setifera*) are recorded from Cambodia and three species in two genera (*Lonchaea minuta*, *Silba microcercosa*, and *S. srilanka*) are recorded from Vietnam.

The data provided here represent what little is known of the lonchaeid fauna of China, Cambodia and Vietnam. Kovalev and Morge (1984) in the Catalogue of Palearctic Diptera list only three species from China, namely *Lamprolonchaea sinensis*, *Chaetolonchaea pellicula* and *Ch. pruinosa*. McAlpine (1977) in "The Catalog of Diptera of the Oriental Region" also included *Lamprolonchaea sinensis* from China but did not list any species of Lonchaeidae as occurring in Cambodia or Vietnam. There seems little doubt that there is potentially a rich fauna of Lonchaeidae in these three countries which further survey work will identify. It is hoped that this present compilation of data will act as a useful reference point and encourage further studies.

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