
ORIGINAL ARTICLE

The Pterophoridae fauna of the Sabah province: Borneo, Malaysia (Insecta: Lepidoptera, Pterophoridae)

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The article provides a complete Pterophoridae list of the Sabah province (Malaysia), type localities and world distribution (with new information) is indicated. 9 species are recorded as new for the Sabah province, as well as for all Malaysia. The data on the collected material are given. The plume moths' fauna of the Sabah province currently includes 19 species, four of which currently remain not defined.

Key words: *Lepidoptera, Pterophoridae, plume moths, Malaysia, Borneo, Sabah, Distribution, new data.*

The Sabah province is located in East Malaysia on the island of Borneo (Kalimantan). The variety of habitats in the tropic climate of this province makes it extremely hospitable for disparate forms of flora and fauna. Most of the territory is occupied by a low plateau, with hot and humid weather. In the mountains, the climate is more temperate, and at high altitude even cool (Figs.1, 2).

The plume moths of Malaysia are studied rather poorly. Only 8 Pterophoridae species were known for the territory of this vast country (Gielis, 2003), and only 6 species were indicated for the Sabah province. The authors of the present article have processed new materials on Pterophoridae from Sabah, and as a result, the plume moths' fauna of Malaysia has increased twice and currently includes 19 species.

Materials and methods

When writing this paper, we analyzed all major literary sources containing data on the plume moths' distribution in the Sabah province (Gielis, 2000, 2003, Arenberger, 1995, 1997, Ustjuzhanin, Kovtunovich, 2015). Contemporary sources (Arenberger, 1995, 2002, 2010) were used as an aid for identification of collected specimens. In the cases where it was necessary, the material was compared to the specimens of Pterophoridae collection at Natural History Museum, UK, London (BMNH). The specimens analyzed as a part of this work are kept in personal collections of the authors.

Annotated list of species

Ochyrotica borneoica Gielis, 1988

Ochyrotica borneoica Gielis, 1988: 279. (Type locality: Balikpapan, Kalimantan, Indonesia).

Material: 1 female, Sabah, Crocker Range, Papar distr., 10km SE Ulu Kimanis vill., h-1800m, 02-11.iv.2009, A. Sochivko; 1 female, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko.

Distribution: Indonesia, Philippines, Malaysia.

Ochyrotica toxopeusi Gielis, 1988

Ochyrotica toxopeusi Gielis, 1988: 285. (Type locality: Indonesia, Sulawesi).

Material: 1 female, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko; 1 female, Sabah, Crocker Range Park, 02.iii.2018, M. Omelko.

Distribution: Indonesia, New Guinea, Malaysia: Sabah.

Notes. New for Malaysia.

Ochyrotica sp.

Material: 1 male, Sabah, Crocker Range Park, 02.iii.2018, M. Omelko.

Deuterocopus socotranus Rebel, 1907

Deuterocopus socotranus Rebel, 1907: 115. (Type locality: Yemen, Sokotra).

Deuterocopus viticola Meyrick, 1911: 104. (Type locality: Sri Lanka).

Deuterocopus triannulatus Meyrick, 1913: 107. (Type locality: Australia).

Deuterocopus deltoptilus Meyrick, 1930: 565. (Type locality: Uganda).

Deuterocopus henrioti Bigot & Boireau, 2006: 16–17. (Type locality: Cote d'Ivoire).

Material: 1 female, Sabah, Crocker Range Park, 23.iii.2018, M. Omelko.

Distribution. Yemen, Oman, Japan, India, Sri Lanka, Thailand, Taiwan, Laos, Burma, Indonesia, Malaysia: Sabah, New Guinea, Australia, Somalia, Uganda, Kenya, Nigeria, Republic of South Africa.

Notes. New for Malaysia.



Figures 1-2. Sabah, Crocker Range. Biotopes. Foto M. Omelko

Hexadactilia borneoensis Arenberger, 1995

Hexadactilia borneoensis Arenberger, 1995: 138. (Type locality: Malaysia, Sabah).

Distribution: Malaysia: Sabah.

Tetraschalis lemurodes Meyrick, 1907

Tetraschalis lemurodes Meyrick, 1908: 476. (Type locality: Indonesia, Kei Island).

Distribution: Kei Island, Malaysia: Sabah.

Notes. New for Malaysia.

Platyptilia farfarella Zeller, 1867

Platyptilus farfarellus Zeller, 1867: 334. (Type locality: Poland).

Platyptilia molopias Meyrick, 1906: 135. (Type locality: Sri Lanka).

Platyptilia petila Yano, 1963: 851. (Type locality: Solomon Islands).

Platyptilia periacta Meyrick, 1910: 411. (Type locality: Cape Town, S. Africa)

Platyptilia claripicta Fletcher, 1910: 400. (Type locality: Seychelles).

Material: 1 male, 2 females, Sabah, Kundasang, 1500m, 6.01 N, 116 59 E, 18-25. xii.2011, N.Vikhrev; 18 ex., Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko;

20 ex., Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 13.iv-26.v.2007, A. Sochivko;

1 female, Sabah, 02.iv.2009, Crocker Range Park, A. Sochivko; 15 ex., Sabah, Crocker Range Park, 13-26.iii.2018, M. Omelko.

Distribution: Europe, Asia, Sri Lanka, Indonesia, Thailand, Malaysia: Sabah, Philippines, Solomon Islands, Rep. S. Africa, Swaziland, Madagascar, Mauritius, Uganda, Kenya, Tanzania, Malawi, San Tome Isl., Seychelles, Nigerian, Ghana.

Notes. New for Malaysia.

Stenoptilodes taprobanes (Felder & Rogenhoffer, 1875)

Amblyptilia taprobanes Felder & Rogenhofer, 1875: plate 140, fig. 54. (Type locality: Sri Lanka).

Platyptilia brachymorpha Meyrick, 1888: 240. (Type locality: India).

Platyptilia seeboldi Hofmann, 1898: 33. (Type locality: Syria).

Platyptilia terlizzii Turati, 1926: 67. (Type locality: Libya).

Amblyptilia zavatterii Hartig, 1953: 67. (Type locality: Italy).

Platyptilia legrandi Bigot, 1962b: 86. (Type locality: Seychelles).

Stenoptilodes vittata Service, 1966: 11. (Type locality: Nigeria).

Material: 3 females, Sabah, Crocker Range Park, 10-23.iii.2018, M. Omelko.

Distribution. France, Spain, Portugal, Canary Islands, Libya, Finland, Italy, Sicily, Malta, Bulgaria, Greece, Crete, Cyprus, Turkey. Indonesia, Sri Lanka, Thailand, Malaysia: Sabah, India, New Guinea, Australia, Hawai'i Islands, Tchad, Sao Tome, Cote d'Ivoire, Nigeria, Tanzania, Kenya, Madagascar, Seychelles, U.S.A., Paraguay, Bolivia.

Notes. New for Malaysia.

Sphenarches anisodactylus (Walker, 1864)

Oxyptilus anisodactylus Walker, 1864: 934. (Type locality: Sri Lanka).

Pterophorus diffusalis Walker, 1864: 945. (Type locality: Australia).

Sphenarches synophrys Meyrick, 1886: 17. (Type locality: New Hebrides).

Megalorhipida rishwani Makhan, 1994: 353. (Type locality: Surinam).

Material: 1 female, Sabah, Crocker Range, Papar distr., 10km SE Ulu Kimanis vill., h-1800m, 02-11.iv.2009, A. Sochivko; 2 females, Crocker Range Park, 23-28.iii.2018, M. Omelko.

Distribution: Nepal, Japan, China, Sri Lanka, India, Taiwan, Thailand, Vietnam, Malaysia, Indonesia, Solomon Islands, New Guinea, Bismarck Islands, Australia, Cameroon, Seychelles, Reunion Island, Madagascar, Kenya, Tanzania, Zaire, Gambia. Guinea, Nigeria, Tchad, Malawi, Swaziland, Cote d'Ivoire, Ghana, U.S.A., Brazil, Dominica, Grenada, Panama, Virgin Islands, Bahamas, St. Thomas, Puerto Rico, Peru, Paraguay, Fiji Islands, New Hebrides, Tonga Islands, New Caledonia, Palau, Bonin Island, Guam.

Nippoptilia cinctipetalis (Walker, 1864)

Oxyptilus cinctipetalis Walker, 1864: 935. (Type locality: Australia).

Nippoptilia minor Hori, 1933. (Type locality: Japan).

Trichoptilus eochrodes Meyrick, 1935. (Type locality: Hunan, China).

Oxyptilus caryornis Meyrick, 1935. (Type locality: Tien-Mu-Shan, China).

Material: 1 male, Crocker Range Park, 24.iii.2018, M. Omelko.

Distribution. Australia, Japan, Palau, China, Thailand, Malaysia: Sabah.

Notes. New for Malaysia.

Nippoptilia regula (Meyrick, 1906)

Oxyptilus regulus Meyrick, 1906: 135. (Type locality: Sri Lanka).

Material: 1 male, Crocker Range Park, 26.iii.2018, M. Omelko.

Distribution. Nepal, Sri Lanka, Thailand, Malaysia: Sabah, Vietnam, Australia, Tanzania.

Notes. New for Malaysia.

Trichoptilus regalis (Fletcher, 1909)

Oxyptilus regalis Fletcher, 1909: 25. (Type locality: Sri Lanka).

Oxyptilus chordites Meyrick, 1913: 106. (Type locality: Sri Lanka).

Material: 1 male, 1 female, Sabah, Crocker Range, Papar distr., 10km SE Ulu Kimanis vill., h-1800m, 02-11.iv.2009, A. Sochivko.

Distribution: China, India, Sri Lanka, Thailand, Indonesia, Malaysia: Sabah.

Notes. New for Malaysia.

Adaina microdactyla (Hubner, [1813])

Alucita microdactyla Hubner, [1813]: pi. 5, figs. 26, 27. (Type locality: Europe).

Pterophorus carphodactylus Stephens, 1834: 374. (Type locality: England).

Adaina montivola Meyrick, 1937: 170. (Type locality: China).

Adaina subflavescens Meyrick, 1930: 568. (Type locality: Indonesia).

Oidaematophorus madecasseus Gibeaux, 1994: 130. (Type locality: Madagascar).

Material: 1 female, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko; 4 ex., Sabah, Mt. Kinabalu, 1660m, 6.025N, 116.59E, 18.ii.2014, N. Vikhrev.

36 ex., Crocker Range Park, 28.ii. - 24.iii.2018, M. Omelko.

Distribution: Ireland, Great Britain, Netherlands, Belgium, Luxemburg, France, Spain, Portugal, Morocco, Norway, Sweden, Finland, Denmark, Germany, Switzerland, Italy, Corse, Sardinia, Malta, Estland, Latvia, Lithuania, Poland, Czechia, Slovakia, Austria, Hungary, Slovenia, Croatia, Romania, Bulgaria, Greece, Russia (European part), Turkey, Israel, Iran, Georgia, Nepal, China, Japan, Madagascar, Vietnam, Indonesia, Malaysia: Sabah, Philippines, Taiwan, New Guinea, Solomon Islands.

Notes. New for Malaysia.

Hellinsia sp. 1

Material: 4 males, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko; 4 males, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 13.iv-26.v.2007, A. Sochivko; 5 males, Sabah, Crocker Range, Papar distr., 10km SE Ulu Kimanis vill., h-1800m, 02-11.iv.2009, A. Sochivko; 1 female, Crocker Range Park, 14.iii.2018, M. Omelko.

Hellinsia sp. 2

Material: 1 male, Sabah, Tambunan Town reg., Trus Madi Mts. Range, 1200m, 23.iv-04.v.2006, A. Sochivko.

Pterophorus erratus Gielis, 2000

Pterophorus erratus Gielis, 2000: 68. (Type locality: Sabah, Malaysia).

Distribution: Indonesia, Malaysia: Sabah.

Pterophorus kuningus Arenberger, 1997

Pterophorus kuningus Arenberger, 1997: 355. (Type locality: Indonesia, Java).

Distribution: Indonesia, Malaysia: Sabah.

Pterophorus vikhrevi Ustjuzhanin et Kovtunovich, 2015

Pterophorus vikhrevi Ustjuzhanin et Kovtunovich, 2015: 1251. (Type locality: Malaysia, Sabah).

Distribution: Malaysia: Sabah.

Cosmoclostis sp.

Material: 1 male, Sabah, Tambunan Gunung, Daerah, Alab Resort, 20-25.viii.2012, 1650m, V. & S. Sinyaev.

Discussion

The analysis of specimens collected in the province of Sabah has resulted in 19 species being revealed, with nine of them being new for the fauna of Malaysia. The authors share the opinion that further analysis of fauna of this region will help reveal many other, currently unknown for this region, species.

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