

**Ascalaphid Studies VI.
New genus and species from Asia with comments on genus *Suhpalacsa*
(Neuroptera: Ascalaphidae)**

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ÁBRAHÁM, L.: *Ascalaphid Studies VI. New genus and species from Asia with comments on genus *Suhpalacsa* (Neuroptera: Ascalaphidae).*

Abstract: A new genus, *Maezous* gen. n. and two new species *Maezous tomijankae* sp. n. from Laos and *Maezous harisi* sp. n. from Borneo are described. The new genus is separated from genus *Suhpalacsa*. Their distribution and morphological differences are discussed. With 10 figures.

Keywords: Ascalaphidae, *Suhpalacsa*, Acheron, new genus, new species, Asia, Laos, Malaysia, Borneo

Introduction

Ascalaphid species are larger neuropteroid insects living mainly in the tropical and subtropical area. They reach their highest diversity in the hot evolutionary spots like South America, Africa and the Indo-Malaysian archipelago. The high number islands of the Indonesian and Malaysian region resulted high diversity in the local fauna as it discussed in NEW (2003), titled "*The Neuroptera of Malesia*". In this monograph, he provided key for all ascalaphid genera of the Indo-Malaysian region with short comments on their taxonomy and nomenclature. Furthermore, in the checklist part of this monograph, he listed 40 ascalaphid species of 2 subfamilies.

We also noticed, *Idricerus obscurus* (Westwood, 1848) (East India) is not a member of subfamily Haplogleniinae as NEW (2003) supposed that based on VAN DER WEELE's (1909) classification. Taxonomical status of subfamily Ascalaphinae was verified by NEEDHAM (1909) later due to homonymy (OSWALD and PENNY 1991) this species was placed into the genus *Stylascalaphus* (SZIRÁKI 1998) as *Stylascalaphus obscurus* (Westwood, 1848). The genera *Suphalomitus* Van der Weele, 1909 and *Suhpalacsa* Lefébvre, 1842 were previously studied by NEW (1984, 2003), SEKIMOTO and YOSHIZAWA (2007) and WANG et al. (2008). Species of these genera distributed from Pakistan to New Caledonia shall be revised separately.

This paper is a part of a series discussing species descriptions and revisions of Ascalaphidae species worldwide (ÁBRAHÁM and MÉSZÁROS 2006). Here, we describe two new ascalaphid species, one from Laos and the other one from Borneo.

Taxonomical part

Maezous gen. nov.

Type species Maezous princeps (Gerstaecker, 1893) **comb. n.**

DESCRIPTION

Slender, medium or large sized insects. Head as wide as thorax. Eyes equally divided. Vertex with long soft hairs. Antenna slightly longer than half distance between base of forewing and pterostigma. Flagellar segments subequal, bare. Club subglobular-shaped with verticils.

Thorax with moderately dense hairs. Fore and hindwings long, elongately oval and subequal with acute or rounded apex. Anterior and posterior margins of wings unparallel. Anal area of forewing obtusely angled. Pterostigma rhomboid-shaped, longer than wide. Apical area beyond vein Sc+R with three rows of cells. Legs slender. Tarsi as long as tibiae. Tarsal segments 1–4 equal; segment 5 as long as segments 1–4 combined.

Abdomen in female, shorter than wings. Abdominal segment 2 short. Male ectoprocts with pair of convex plate with shorter or longer appendices.

DIAGNOSIS

From morphological point of view, McLachlan's opinion (1873) shall be accepted whereas the distribution of genus *Suhpalacsa* is restricted to Australia. Although, he placed several species living in the continental Africa and Malaysian archipelago into this genus.

Earlier, the genus *Suhpalacsa* was a large genus containing 85 names and 50–60 valid species from nearly all continents. By now, most of the species were separated from genus *Suhpalacsa*. In America, all former *Suhpalacsa* species belong to genera *Ameropterus* Esben-Petersen, 1922, *Amoea* Lefébvre, 1842, *Ascalorphe* Banks, 1915, *Cordulocerus* Rambur, 1842 and *Ululodes* Currie in Smith, 1900. In Africa, 11 *Suhpalacsa* species were described. By now, most of them belong to genera *Dicolpus* Gerstaecker, 1885 and *Disparomitus* Van der Weele, 1909 or undescribed genera (designed but later not described eg. *imparomitus abdominalis* McLachlan) by TJEDEK (1992) except *Suhpalacsa ambiguus* Navás, 1914 from Cameroon that should be revised in the future. *Suhpalacsa cephalotes*

McLachlan, 1871, known from Madagascar, was moved to genus *Suphalomitus* by VAN DER WEELE (1909), however I suppose, this species represents a new genus, which is close to *Proctarrelabris* Lefébvre, 1842. From Australia and New Caledonia, 21 *Suhpalacsa* species were described. After a generic revision (NEW 1984), 15 valid *Suhpalacsa* species remained; the other 6 species were replaced into genera *Megacmonotus* New, 1984, *Pilacmonotus* New, 1984 and *Suphalomitus*. Originally 21 *Suhpalacsa* species were described from Asia. Later, three of them were replaced into genera *Ascalaphus* Fabricius, 1775 and *Suphalomitus*. Several *Suhpalacsa* species were found in Asia which are supposed to be synonyms of other species therefore species level revision will be necessary. *Suphalacsa fuscostigma* Navás, 1925 is a nomen dubium.

The genus *Suhpalacsa* (type species: *S. flavipes* (Leach, 1814) from Australia) is characterized by narrow, elongate wings, parallel costal and inner margins and straight or slightly curved anal forewing area (NEW 1984).

The new genus close to *Suhpalacsa* but differs in elongate and triangle-shaped wings, both wing-margins are unparallel, male ectoprocts with shorter or longer ventrolateral projections.

The new genus is supposed to be widespread in SE Asia and Malaysian archipelago. Probably most *Suhpalacsa* species reported from this area shall be placed into the new genus.

KEY TO THE GENERA

1. Pterostigma longer than wide, hindwing broader than forewing, relatively short and not extending beyond pterostigma of forewing ***Suphalomitus***
– Pterostigma short, about as long as wide; hindwing about as wide as forewing and usually slightly 2
2. Anal margin of forewing obtuse; male ectoprocts without lateral projections (spread in Australia)
..... ***Suhpalacsa***
– Anal margin of forewing rounded or acute; male ectoprocts with lateral projections (spread in Asia)
..... ***Maezous gen. n.***

Etymology: The new genus is dedicated to Prof. Dr. Zoltán Mészáros, Hungarian entomologist (his nickname is Mézo, read Maezo).

***Maezous tomijankae* sp. nov.**

Material examined:

Holotype: ♂ Laos, Prov. Khammouan, Nakai env., N17°43', E105°09', 500–600m, 22.05–08.06, 2001, leg: E. Jendek, O. Šauša

Paratype: 1 ♂ Laos, Prov. Champasak, Bolaven plateau, (route No23.) Pakse-Paksong Ban Itou env. 35 km 800m; N15°10.4', E106°05.8', 10–18.04, 1999, leg: E. Jendek, O. Šauša

Deposited: Entomological Collection of Somogy County Museum, Kaposvár

DESCRIPTION

Male (Fig. 1)

Head: Vertex yellow, covered with long, dense, shining pale yellow pubescence that sporadically mixed with brown hairs. Dorsal part of frons shining brown, ventral part yellow with short soft and pale yellow hairs. Long tufts of pale yellow hairs on clypeo-genal inflection directed distally. Genae yellow to brown, hairless. Clypeus and labrum yellow. Lateral and dorsal parts of clypeus with sparse short brown hairs. Ventral margin of labrum with short, sparse, silky and ochraceous hairs curved to mouthparts. Mandible yellow with black apex. Maxillar and labial palpi ochraceous. Palpar segments with long, sparse and yellowish hairs. Apical 2 palpar joints with sporadic stiff and black setae. Occiput and postorbital sclerite yellow and hairless. Eyes medium size divided by suture-like inflection transversally. Antenna 25–26 mm, 2/3× shorter than distance between base of forewing and pterostigma. Scape and pedicel yellow with long, dense and pale yellow pubescence mixed with sporadic brown hairs. Middle part of flagellar segments longer than basal and apical parts of segments, bare. Flagellar segments broadened at joins. Club yellow and brown, annulated with short, black smoothing verticals; subglobular-shaped with flattened apex. Bristle of club brown.

Thorax: Pronotum narrow and yellow with short yellowish hairs. Both pronotal margins flexed upwards. Lateral projection brown with long, dense and brown hairs. Mesonotum brown with narrow yellow median line widened distally and two wide yellow lateral bands. Metanotum brown with indistinct central yellowish band. Notum with sparse, shining greyish hairs. Sides of mesonotum unicolour yellow with short soft and white hairs.

Legs: Coxa, trochanter and femur yellow with soft and yellowish hairs. Ventral side of femora with sporadic long, black and stiff bristles. Tibiae and tarsi dark brown with stiff, shining and black bristles. Tarsal segments 1–4 equal; segment 5 as long as segments 1–4 combined. Tibial spurs reddish-brown somewhat longer than segment 1. Claws reddish-brown.

Wings: Forewing: 32–33 mm long and 9 mm wide. Hindwing: 28–29 mm long and 7.5 mm wide. Membrane transparent with light brown shadow. Costal and apical area of membrane tinged with brown shadow that extended into first cell row of radial area. Pterostigma longer than wide, hyaline with 4 yellow cross veins. C, Sc and R veins proximally brownish, distally yellow. Other longitudinal veins yellow, cross veins yellow to brown. C with short dense smoothing black setae. Setae on other veins sparse and black. Apical area beyond vein Sc+R with three rows of cells. In front of origin of Rs, 8–9 radial cross-veins took place in forewing and 6–7 in hindwing. Colouration of hindwing similar to forewing. Hind pterostigma with 3 cross-veins. Ambient vein on anal area with long soft and brown hairs.

Abdomen: 32–34 mm long. Tergite 1 divided dorsally; brown with long, soft and brownish hairs. Tergites brown with yellow indistinct median band. Tergite 2 as long as wide with moderately long, stiff pointed black setae dorsally and short lateral black setae. Tergites 3–4 long and bare with short, stiff and black setae laterally. Sternites yellow to brown. Setae on sternites short, shining and white (may be meal-like powder present on last segments).

Genitalia: Tergite 8 triangular-shaped and brown. Tergite 9 small, subrhomboid-shaped; brown and covered with sparse short setae. Caudoventral apex acute with 3–5 long stiff and black setae. Ectoprocts subrhomboid-shaped, lateroventral projections three times longer than wide. Ectoprocts with dense, short and silky hairs on caudal margin and its projections with long, stiff and black hairs curved caudally (Fig. 3). Sternite 9 pentagonal-shaped, brown and covered with short, stiff and black setae. Gonarcus elongated, arch-like, fused with parameres. Caudal margins of parameres serrated. Pelta small. Pulvini bag-like with moderately long gonosetae.

HABITAT and DISTRIBUTION: Forests, known only from Laos (Fig. 6).

Etymology: The new species is dedicated to my children, Tamás Á. and Janka Á.

DIAGNOSIS

The new species resembles to *Maezous princeps* (Gerstaecker, 1893) (= *Suhalacsa princeps* Gerstaecker, 1893) **comb. n.** The main differences are: Male ectoproct projection in *M. tomijankae* longer than that in *M. princeps* (Fig. 4). Pterostigma of *M. princeps* brown but that of *M. tomijankae* yellow (Fig. 5). Sides of *M. princeps* with brown pattern while its *M. tomijankae* entirely yellowish.

Maezous princeps has been known from Java. This is the first time to report it from the continental Asia. New localities are: South China, Laos and Thailand.

The new species also resembles to other three species namely *Suhalacsa jiangfanglingana* (Yang, 2002), (= *Acheron jiangfanglingana* Yang, 2002), *Suhalacsa fuscomarginata* Wang et Sun, 2008 and *Suhalacsa fumiala* Wang et Sun, 2008 described recently but it also differs from those in colouration of pterostigma and projection length of male ectoprocts. Pterostigma of *M. tomijankae* is yellow and it has the longest projection of ectoprocts of all three species mentioned. Certainly, these species shall also be combined with *Maezous* gen. n.

Maezous harisi sp. nov.

Material examined:

Holotype: ♀ Malaysia, Borneo, Prov. Sabah, Poring, N6°02', E116°42'; 1–6. 5. 2006. Leg. B. Makovsky

Deposited: Entomological Collection of Somogy County Museum, Kaposvár

Paratype: ♀ Perak Kwala Kangsar, Mus. Zool. Polonicum 12/45

Deposited: Museum and Zoological Institute Polish Academy of Sciences, Warsaw (MIZ)

DESCRIPTION

Female: (Fig. 7)

Head: Vertex dark brown with long, dense, soft and black pubescence mixed with dense gray hairs. Frons, genae, clypeus and labrum shining brown. Frons with long, dense and soft black hairs highly developed on its lateral margins. Genae hairless. Fronto-clypeal inflection with long and black hairs. Lateral margins of clypeus and ventral margin of labrum with short, sparse, silky and ochreous hairs curving to mouthpart. Mandible shining brown with dark brown apex and with sporadic, moderately long and black hairs basally. Mouthpart brown with soft and black hairs placed ventrally. Maxillar and labial palpi brown to yellow. Occiput brown and hairless. Eyes medium sized, divided transversally with suture-like inflection. Antennae 24 mm long, notably shorter than distance between base of forewing and pterostigma. Scape and pedicel brown with long, dense, soft and black hairs. Flagellar segments yellowish without verticils and with faint narrow brownish ring at the joints. Club subglobular-shaped, yellowish-brown with short, smoothing and dark brown verticils; bristle of club dark brown.

Thorax: Pronotum narrow, brown with upwardly flexed margins; hairs on anterior and posterior margins and pronotal lateral projection long, soft and dark brown. Mesonotum, metanotum shining brown with moderately long, soft and dark brown hairs. Mesopleuron with long, soft and greyish pubescence.

Legs: Short. Fore coxa and trochanter brown with long, soft and brownish hairs mixed with dense gray hairs. Fore femur yellowish-brown with long, stiff and sparse black bristles. Tarsal segments 1–4 equal, brown; segments 5 as long as segments 1–4 combined. All tarsal segments with stiff and black setae. Middle and hind coxae brown with soft brownish hairs; trochanters and femora yellowish brown. Base of femora with long, soft and white, apical and ventral parts of femora with long, stiff and black hairs. All tibiae with long, stiff and black hairs. All tibial spurs brown and as long as segment 1 and 2 combined. Claws brown, planta with two long black bristles. Bristles as long as claws themselves.

Wings: Forewing: 42 mm long and 11 mm wide. Hindwing: 34 mm long and 9.5 mm wide. Membrane shining transparent with chocolate brown pigments on costal and apical area. Colour pattern as in Fig. 7. Longitudinal veins brown except black Rs. Cross-veins brown to black. Pterostigma rhomboid-shaped longer than wide, opaque yellowish with 5 yellow cross-veins. Apical area beyond vein Sc+R on both edges of this area with three rows of cells. In forewing, 7 radial cross-veins placed in front of origin of Rs. Hindwing venation coloured like that of forewing. Pterostigma with 4 cross-veins. Apical area beyond vein Sc+R with three rows of cells.

Abdomen: 21 mm long. Tergite 1 divided; dark brown with long, soft and brown hairs. Tergite 2 dark brown with sporadic and moderately long, soft and brown hairs. Other tergites shining dark brown with sparse, short and brown hairs. Sternite 1 dark brown with long and brown hairs. Other sternites shining dark brown with sparse, short and brown hairs.

Genitalia: Tergite 8 triangular-shaped, brown in lateral view. Tergite 9 subrhomboid-shaped brown. Setae on both tergites sparse, short and brown. Ectoprocts with pair of convex, brown plates. Hairs on caudal abdominal margin dense and yellowish-brown. Distivalvae brown with long, stiff and brown hairs. Ventrovalvae thumb-like in ventral view, brown with long, stiff and brown hairs. Interdens not seen. (Fig. 8–9).

HABITAT and DISTRIBUTION: Tropical rain forest, known only from Borneo (Malaysia) (Fig. 10).

Etymology: The new species is dedicated to Dr. Attila Haris, Hungarian entomologist.

DIAGNOSIS

The new species is closely related to (Gerstaecker, 1893) (= *Suhalacsa princeps* Gerstaecker, 1893). This new species can easily be distinguished from *Maezous princeps* by its acute apices of wings and concave incision right under the apices and the characteristic brown wing-pattern. In *M. princeps*, abdomen and antenna of males are longer than in females. Setae on tergites 1–4 in males are short and wings in males definitely narrower than those in females. Females are generally larger than males. Presumably, these characters can also be found in the unknown male of the newly described species.

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Fig. 1: Habitus of holotype male *Maezous tomijankae* sp. n.



Fig. 2: Habitus of male *Maezous princeps* (Gerstaecker, 1893)

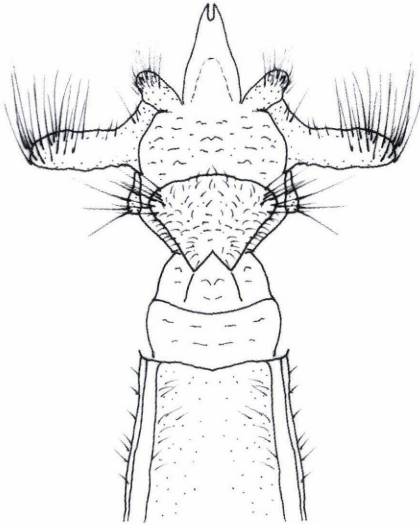
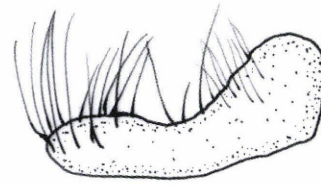
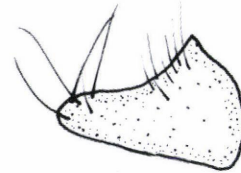


Fig. 3: *Maezous tomijankae* sp. n. male genitalia in ventral view

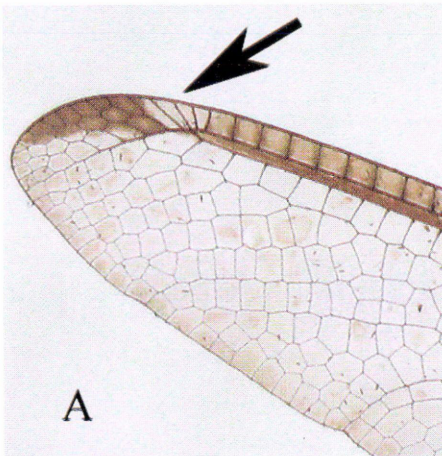


A

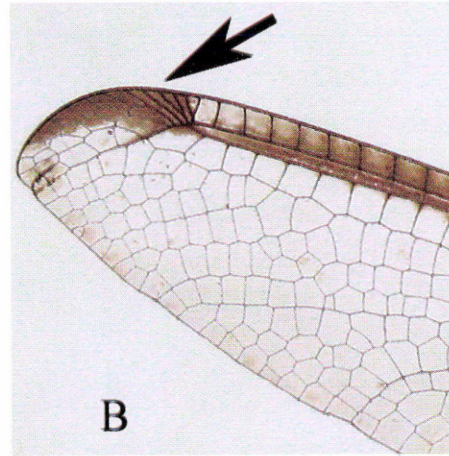


B

Fig. 4: Ectrproct of *Maezous tomijankae* sp. n. (A) and *Maezous princeps* (Gerstraecker, 1893) (B) in dorsal view



A



B

Fig. 5: Apical area of *Maezous tomijankae* sp. n. (A) and *Maezous princeps* (Gerstraecker, 1893) (B), arrows show the differences in colouration



Fig. 6: Known distribution of *Maezous tomijankae* sp. n. in Laos

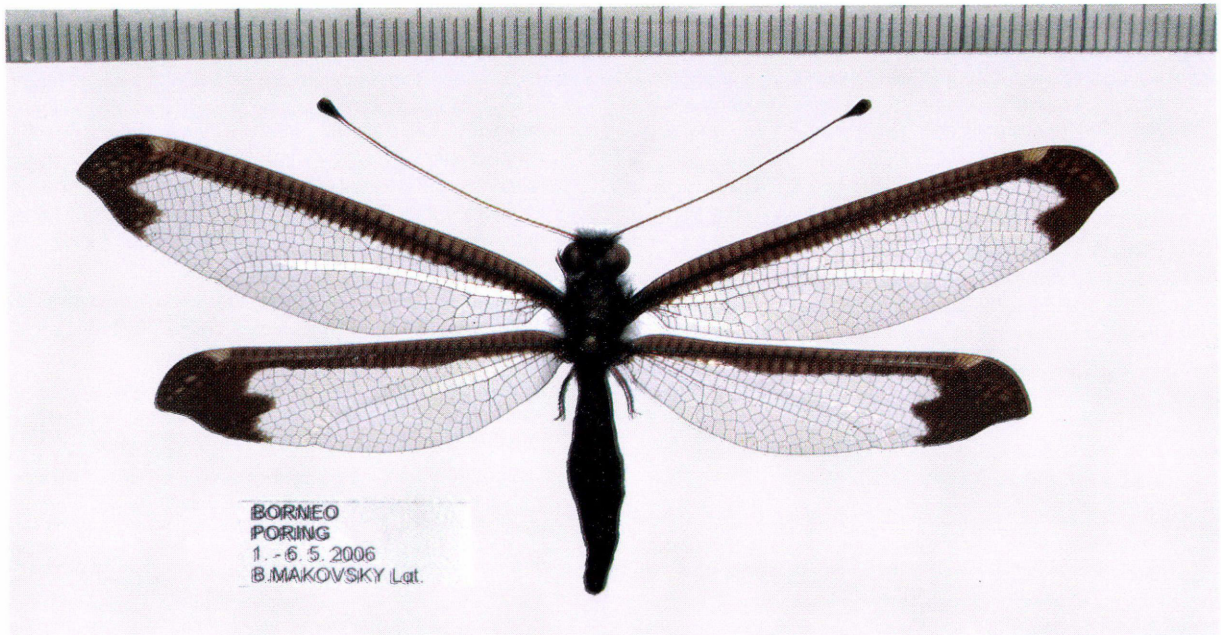


Fig. 7: Habitus of holotype female *Maezous harisi* sp. n.

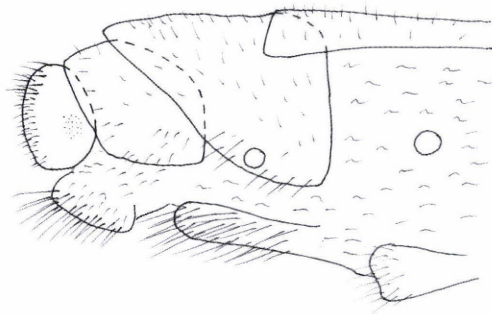


Fig. 8: Female genitalia of *Maezous harisi* sp. n. in lateral view

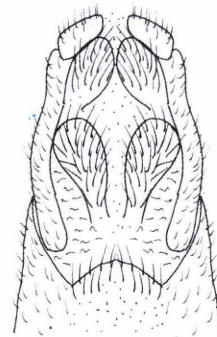


Fig. 9: Female genitalia of *Maezous harisi* sp. n. in ventral view



Fig. 10: Distribution map of *Maezous harisi* sp. n.

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