

Ascalaphid studies IX. The genus *Haploglenius* from South America (Neuroptera: Ascalaphidae)

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ÁBRAHÁM, L.: *Ascalaphid studies IX. The genus Haploglenius from South America (Neuroptera: Ascalaphidae)*.

Abstract: *Haploglenius decorus* sp. n. is described from French Guiana and Ecuador and compared to other *Haploglenius* species known from South America. *Haploglenius latoreticulatus* van der Weele, 1909 (stat. n.) is moved to new status, the species is compared to *Haploglenius luteus* (Walker, 1853) and *Haploglenius handlirschi* van der Weele, 1909. *Haploglenius neoguineensis* Navás, 1914 (syn. n.) is a new junior synonym of *Haploglenius latoreticulatus* van der Weele, 1909. Type specimen of *Haploglenius neoguineensis* Navás, 1914 from New Guinea is mislabeled since all *Haploglenius* species live in South America. *Neohaploglenius rondonianus* Penny, 1982 (syn. n.) is a new junior synonym of *Verticillecerus gerstaeckeri* van der Weele, 1909. With 15 figures.

Keywords: new species, new status, new synonym, Ascalaphidae, French Guiana, Ecuador, South America

Introduction

The species of Ascalaphidae mainly live in tropical and subtropical regions (TJEDER 1992). According to database compiled by OSWALD (2007) the highest species richness of owl-flies (about 180 valid sp.) is known from Africa and significant numbers of species live in SE Asia, too. All the same, the highest diversity spot probably is in South America, although the number of known ascalaphid species (about 100 valid sp.) is significantly lower than that of in Africa since the diversity of Ascalaphide species of South America are weekly studied. A new, large-sized and decorative *Haploglenius* species has recently been described by ARDILA & JONES (2012). The authors also pointed out that the *Neohaploglenius* Penny, 1981 separation from the genus of *Haploglenius* Burmeister, 1839 is not possible and redefined the characteristics of the genus.

Material and methods

The studied specimens were mainly collected by several Bohemian insect collecting expeditions between 2002 and 2007 in French Guiana and Ecuador. The photo of the type specimen was taken by Canon EOS 400 digital camera. Photo of genital organs was

taken through SZX9 Olympus stereomicroscope. The genitalia-drawing was also completed based on this photo. A comparative study on the type material was performed in the Museum of the Institute of Zoology, Entomology, Warsaw (MIZ) (Poland). The following type specimens were checked: *Haploglenius costatus* (Burmeister, 1839), *Haploglenius luteus* aber. *latoreticulatus* van der Weele, 1909, *Haploglenius handlirschi* van der Weele, 1909. Based on photos of the type, *Haploglenius costatus* (Burmeister, 1839), *Haploglenius neoguineensis* Navás, 1914 and *Neohaploglenius rondonianus* Penny, 1982 were also checked.

Results and discussion

Abbreviations: Chlist – Checklist, Comb – New combination, Dist – Distribution, K – Key with comment, Mon – Monograph, Morph – Morphology, Odescr – Original description, Syn – Synonym

Haploglenius Burmeister, 1839

Haploglenius Burmeister, 1839 - Burmeister 1839 (Odescr), Rambur 1842 (Comb), van der Weele 1909 (Mon), Brauer 1868 (K), MacLachlan 1873 (Comb), Navás 1912 (Mon), Williner 1945 (Dist), Penny 1981a, (Odescr), 1981b (K, Morph), 2002 (Mon)

Ptynx Lefébvre, 1842 - Lefébvre 1842 (Odescr), Hagen 1866 (Comb), Banks 1915 (Comb)

Neohaploglenius Penny, 1981 - Penny 1981a (Odescr), Ardila & Jones 2012 (Syn)

Type species: *Haploglenius costatus* Burmeister, 1839

Haploglenius costatus (Burmeister, 1839) (Fig. 1)

Ascalaphus costatus Burmeister, 1839 - Burmeister 1839 (Odescr)

Ascalaphus luteus Walker, 1853 partim – MacLachlan 1871 (Syn)

Ascalaphus imperator Hagen, 1861 - nomen nudum

Ptynx costata (Burmeister, 1839) – Hagen 1866 (Comb), Banks 1915 (Comb)

Haploglenius costatus (Burmeister, 1839) – Hagen 1866 (Comb), Navás 1912 (K, Dist), 1923b (Dist), Williner 1945 (Dist), Penny 1981b (Com)

Type: Bahia deposited in Martin-Luther-Universität, Zoological Museum, Halle-Wittenberg, (ZMH) Germany.

Comment: Photos of four specimens from the type material were checked. However, none of the specimens came from the original type locality “Bahia” from SE Brasil. Only the box label was probably written by Burmeister which refers to Brasil as “*costatus* v. *W. Burm. Bras. Br.*” In the collection 1 specimen has not got any label, 2 specimens have a label as “*Nov. Frib.*” 1 specimen has a label as “*Columb.*” [Columbia]. Probably, the type specimen lost but all specimens preserved in the collection are conspecific with *Haploglenius costatus*.

Lectotype and paralectotype were designated as follows: greenish label //Nov. Frib.// red label //Lectotype male / *Haploglenius costatus* (Burmeister, 1839) / designated: Ábrahám L.// - condition good, wings without mounting;

greenish label //Nov. Frib.// red label //Paralectotype female/ *Haploglenius costatus* (Burmeister, 1839)/ designated: Ábrahám L.// - condition good, wings without mounting, left forewing and right antenna missing;

greenish label //Columb.// red label //Paralectotype male / *Haploglenius costatus* (Burmeister, 1839)/ designated: Ábrahám L.// - condition good, wings without mounting, left forewing right below the pterostigma damaged.

The specimen without any label was not designated to the type series because of uncertain collecting site - condition rather good, right antenna missing, wings with mounting but left forewing along subcostal and radial veins damaged.

Haploglenius pictus Gerstaecker, 1884 was synonymised by PENNY (1981b) as *Haploglenius costatus* and OSWALD (2007) also cited this status. I rather support WEELE's (1909) opinion: *Haploglenius pictus* is conspecific with *Haploglenius luteus* (Walker, 1853).

Distribution: Argentina, Brazil (Bahía), Honduras, Bolivia, Columbia.

***Haploglenius flavicornis* MacLachlan, 1871**

Haploglenius flavicornis MacLachlan, 1871 - MacLachlan 1871 (Odescr), Navás 1912 (K, Dist)

Haploglenius dentiger Gerstaecker, 1894 - Gerstaecker 1894 (Odescr), Weele 1909 (Syn)

Neohaploglenius flavicornis (MacLachlan, 1871) - Penny 1982 (Comb), Ardila & Jones 2012 (Comb)

Haploglenius angulatus Gerstaecker 1894 - Gerstaecker 1894 (Odescr), Weele 1909 (Mon), Navás 1912 (K, Dist)

Neohaploglenius angulatus (Gerstaecker 1894) - Penny 1981b (Comb), 2002 (Syn)

Distribution: Panama: Chiriqui (as *Haploglenius angulatus*) (WEELE 1909), Mexico, Guatemala, Chiriqui (Panama) (as *Haploglenius flavicornis*) (WEELE 1909), southern Mexico (widespread), Guatemala, Costa Rica, Panama (as *Haploglenius dentiger*) (Gerstaecker 1894).

***Haploglenius abdominevittatus* Ardila & Jones, 2012**

Haploglenius abdominevittatus Ardila & Jones, 2012 - Ardila & Jones 2012 (Odescr)

Holotype male: Colombia, Vichada, PNN Tuparro, Centro administrativo, 05° 20' 57" N 67° 51' 38" S [sic; for W], 140 msnm, 8–28.viii.2000 w. Villalba (ICN-049265) / *Haploglenius abdominevittatus*. Det. J. A. Ardila 2010. Deposited at the National Institute of Natural Sciences (MHN-ICN), Universidad Nacional de Colombia, Bogotá D. C.

Distribution: Colombia.

***Haploglenius luteus* (Walker, 1853) (Figs 2-3.)**

Ascalaphus luteus Walker, 1853 - Walker 1853 (Odescr)

Ascalaphus circumflexus Walker, 1853 - Walker 1853 (Odescr), van der Weele 1909 (Syn)

Haploglenius costatus MacLachlan, 1871 (partim) - MacLachlan 1871 (Odescr), van der Weele 1909 (Syn)

Haploglenius pictus Gerstaecker, 1884 - Gerstaecker, 1884 (Odescr), van der Weele 1909 (Syn)

Haploglenius eurypterus Navás, 1920 - Navás 1920 (Odescr), Banks 1924 (Syn), Penny 1978 (Chlist)

Haploglenius luteus (Walker, 1853) - van der Weele 1909 (Mon, K), Navás 1912 (K, Dist), Penny 1981b (K) Holotype male is deposited in the Natural History Museum, (BMNH) London, United Kingdom. No recorded locality data.

Comment: The type of *Haploglenius eurypterus* preserved in Navás's private collection was probably destroyed in Spanish Civil War (MONSERRAT 1985, 1986). According to BANKS (1924) it was synonym to *Haploglenius luteus*. Based on its description I also agree with BANKS (1924), the type of female from Peru ("Perú: Contamana, Río Ucayali") is supposed to be conspecific with *Haploglenius luteus*.

Distribution: Honduras, Panama, Columbia, Venezuela, Ecuador, Bolivia, Peru, Guyana, S. Mexico, Costa Rica, Brasil (Amazonas, Pará, Amápa, Belém).

Haploglenius latoreticulatus* van der Weele, 1909 *stat. n.* (Fig. 4.)Haploglenius luteus* aber. *latoreticulatus* van der Weele, 1909 - Weele 1909 (Odescr)*Material examined:*

white label: //Balzapamba / (Ecuad.) / R. Haensch S//; grey label: //9.VI.[18]99//; white label: //Haploglenius luteus Wlk. / ab. latoreticulatus vdW//; red label: //Typus//; white label: //Mus. Zool. Polonicum / Warszawa / 82/45//; new red label: //Lectotype male / Haploglenius latoreticulatus / Weele, 1909 / designated: Ábrahám L.//; white label: //Santa Inéz / (Ecuad.) / R. Häensch//; grey label: //25.XI. [18]99//; //Haploglenius luteus Walk. / var. latoreticulatus vdW// red label //Type//; white label: //Mus. Zool. Polonicum / Warszawa / 12/43//; - new red label: //Paralectotype female / Haploglenius latoreticulatus / Weele, 1909 / designated: Ábrahám L.//; white label: //Balzapamba / (Ecuad.) / R. Haensch S//; grey label: //10.VI. [18]99//; white label: //Haploglenius luteus Wlk. / ab. latoreticulatus//; red label: //Type//; white label: //Mus. Zool. Polonicum / Warszawa / 82/45//; new red label: //Paralectotype male / Haploglenius latoreticulatus / Weele, 1909 / designated: Ábrahám L.//. The type material is preserved in the Museum and Institute of Zoology, Polish Academy of Sciences, (MIZ), Warsaw, Poland.

Haploglenius neoguineensis Navás, 1914 – *syn. n.* (Fig. 5.)

Haploglenius neoguineensis [sic!] Navás, 1914 – Navás 1914 (Odescr)

Haploglenius neoguineensis Navás, 1914 – New 1986 (Com), Tjeder and Hansson 1992 (Com), Sziráki 1998 (Chlist, Com)

"Patria. Novea Guinea, Sarineh (Mus. Matriens)" Navás (1914) "Indonesia: 1 ej Holotipo Sarmeh Nueva Guinea citado por Navás (1913: 424) MNCN Cat. tipos N° 10606" (SANTOS 2000).

Comment: *Haploglenius luteus* aber. *latoreticulatus* was described by van der WEELE (1909) as a new aberration. Checking the type, I suggest a new status for this species. Specific features of *Haploglenius latoreticulatus* van der Weele, 1909:

Length of male forewing: 43 mm, length of male hindwing: 38 mm. Length of female forewing: 48 mm, length of female hindwing: 43 mm. Antenna almost reaches to the origin of third radial branch. Costal and subcostal membrane pigmented with light brown to brown. Venation brown. Number of costal veins: 27-30 in forewing, 23 in hindwing. 9 radial cross-veins in front of origin of Rs in forewing, 6 in hindwing; 19 radial cross-veins beyond origin of Rs in forewing; 16 in hindwing. Apical area with 3-4 rows of cells in both wings. Pterostigma yellow with 4 yellow cross-veins.

Diagnosis: It can easily be distinguished from any *Haploglenius* species by the number of cross-veins in the costal areas. *Haploglenius luteus* has 40-44 cross-veins in the forewing, 35-39 cross-veins in the hindwing while *Haploglenius latoreticulatus* with 29-30 and 27-28 cross-veins in the same areas. Cross-veins beyond the origin of Rs are denser than of *Haploglenius latoreticulatus*.

It differs from *Haploglenius handlirschi* not only the number of cross-veins in costal area but also in colour of costal area and pterostigma. *Haploglenius handlirschi* has 40-41 costal cross-veins in the forewing, 38-39 in the hindwing and dark brown pterostigma.

Haploglenius peruvianus resembles to *Haploglenius handlirschi* in the shape of anal area of forewing and pigmentation of costal area but its pterostigma is yellowish. *Haploglenius peruvianus* has 35-39 costal cross-veins in the forewing, 32-34 in the hindwing. PENNY (1981b, 2002: 296 fig. 9) also illustrated *Haploglenius peruvianus* but his figures show the species of *Haploglenius latoreticulatus*.

According to NEW (1986), TJEDER and HANSSON (1992) as well as SZIRÁKI (1998) who cited the monograph of TJEDER and HANSSON (1992) probably the type was incorrectly labeled since all species of *Haploglenius* live only in Central and South America.

I checked the type of *Haploglenius neoguineensis* Navás, 1914 and it is proved to be a new junior synonym of *Haploglenius latoreticulatus* van der Weele, 1909.

Three type specimens of *Haploglenius lateroreticulatus* come from Ecuador.



Fig.1: Habitus of *Haploglenius costatus* (Burmeister, 1839) (lectotype) and box labels in the collection of Martin-Luther-Universität, Zoological Museum, Halle-Wittenberg, (ZMH) Germany



Fig. 2: Habitus of *Haploglenius luteus* (Walker, 1853) (non type)



Fig. 3: Habitus of *Haploglenius luteus* var. *pictus*

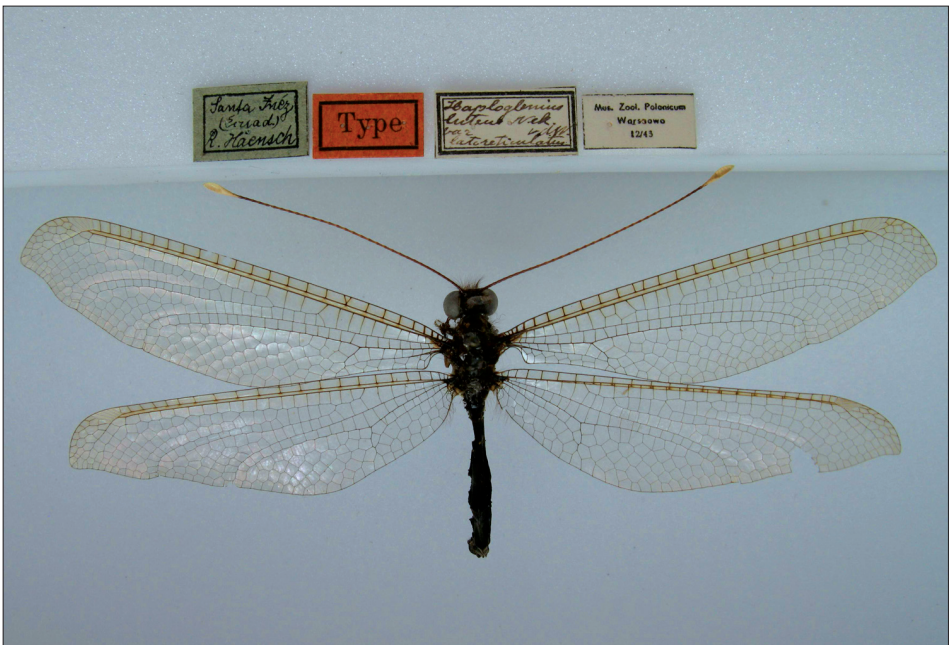


Fig. 4: Habitus of *Haploglenius latoreticulatus* van der Weele, 1909 (lectotype)

Haploglenius peruvianus van der Weele, 1909

Haploglenius peruvianus van der Weele, 1909 - van der Weele 1909 (Odescr), Navás 1912 (K, Dist), 1928 (Dist), Penny 1981b (K), 2002 (Com, Dist)

Syntypes: 3 males and 1 female, deposited in Rijksmuseum van Natuurlijke Historie, Leiden (RNHL), the Netherlands

Type locality: Peru: Chanchamayo [=Chachamayo]

Distribution: Peru, Bolivia, Brazil (Pará, Mato Grosso), Costa Rica, Panama, Argentina (Misiones). Central American distribution is uncertain.

Haploglenius handlirschi van der Weele, 1909 (Fig. 6)

Haploglenius handlirschi van der Weele, 1909 - van der Weele, 1909 (Mon), Navás 1912 (K, Dist), Penny 1978 (Chlist)

Lectotype: green label: //Espirito-Santo / Brasil. / ex coll. Frushstofer.//; white label: //Haploglenius, Handlirschi//; white label: // Haploglenius / handlirschi / type vdW ♀//; red label: //Typus//; white label: //Mus. Zool. Polonicum / Warsaw / 12/45//; red label: //Lectotype female / Haploglenius, handlirschi van der Weele, 1909 / designated: Abraham L.//; Paralectotype: green label: //Espirito-Santo / Brasil. / ex coll. Frushstofer.// white label: //Mus. Zool. Polonicum / Warsaw / 12/45//; //Paralectotype female / Haploglenius, handlirschi van der Weele, 1909 / designated: Abraham L.//

Comment: Weele's type material is partly checked and lectotype and paralectotype are designated in the Museum of the Institute of Zoology, Entomology, Warsaw (MIZ) (Poland).

Distribution: Brazil (Espirito-Santo, Pernambuco, Bahia), Honduras.

Haploglenius flavicornis (MacLachlan, 1871)

Haploglenius flavicornis MacLachlan, 1871 - MacLachlan 1871 (Odescr), Navás 1912 (K, Dist), Ardila & Jones 2012 (Comb)

Haploglenius dentiger Gerstaecker, 1894 - Gerstaecker 1894 (Odescr), Weele 1909 (Syn)

Neohaploglenius flavicornis (MacLachlan, 1871) - Penny 1982 (Comb)

Haploglenius angulatus Gerstaecker 1894 - Gerstaecker 1894 (Odescr), Weele 1909 (Mon), Navás 1912 (K, Dist),

Neohaploglenius angulatus (Gerstaecker 1894) - Penny 1981b (Comb), 2002 (Syn)

Distribution: Panama: Chiriqui (as *Haploglenius angulatus*) (Weele 1909), Mexico, Guatemala, Chiriqui (Panama) (as *Haploglenius flavicornis*) (Weele 1909), S Mexico (widespread), Guatemala, Costa Rica, Panama (as *Haploglenius dentiger*) (Gerstaecker, 1894).

Haploglenius decorus sp. n. (Figs. 7-8.)

Material examined:

Holotype male: Guyane French NW 20 km of St. Laurent du Maroni route Crique NAI 16.12.2006 lgt. M. Snížek;

Paratypes: 1 male: Ecuador Prov. Pastaza Arajuno 1-2. 02. 2002 Lgt. Mráček; 2 females: Guyane French NW 20 km of St. Laurent du Maroni route Crique NAI 10.12.2006 lgt. M. Snížek; female Guyane French NC Sinnamary route de St. Elie 14. 01. 2007. lgt. M. Snížek; 1 female French Guiana Kaw mountains 4°34,32'N, 52°11,460'W leg. W. Soon 23.11.2002

Holotype and paratypes are deposited in the entomological collection of Somogy County Museum, Kaposvár (Hungary); 1 female paratype is deposited in the entomological collection of Upper Silesian Museum, Bytom (Poland). 1 female paratype is deposited in John O'Dell's private entomological collection Newport Pagnell, Bucks, UK.

Head: Vertex brown with long dense soft and light brown hairs. Frons yellowish brown with long dense soft and light brown hairs spreading between scapes. Gena shining yellowish brown, hairless. Clypeus shining yellow with brown hairs on lateral margins, labrum yellow with sparse shiny pale hairs curved to mouthpart on ventral margin. Mandible yellow with brown apex. Maxilla and labial palp yellowish, at joins with short stiff brown setae. Occiput yellow, hairless. Eye large, undivided.

Antenna 25 mm long, reaches origin of second radial branch. Scape light brown with long dense soft pale hairs. Pedicel darker brown than scape with yellow distal margin. Flagellar segments yellow, hairless. Basal segments (1-8) shorter than distal ones. Club narrowly fusiform, brown, covered with short smoothing and pale setae.

Thorax: Pronotum brown. Anterior margin slightly flexed upwards with long soft and brownish hairs. Its lateral projection with long soft and brownish hairs. Posterior margin with lobe-like processus (only on males), as wide as half of pronotum with long soft and brown hairs. Mesonotum and metanotum light brown with long soft sparse and brown hairs. Sides brown with two oblique stripes and with long soft sparse and yellow hairs.

Legs: Coxae brown with long soft and yellow hairs. Femora yellowish brown with long sparse stiff and black bristles. Fore tibia yellow with long sparse rigid and black bristles and with short dense and pale hairs inside. Middle and hind tibiae with long sparse rigid and black bristles. Tibial spurs unequal somewhat shorter and/or longer than segment 1 and 2 together. Tarsal segment 1-4 subequal, segment 5 about as long as segment 1-4 combined. All segments with stiff black setae excepting brown distal part of segment 5. Claws rather long and reddish-brown.

Wings: Forewing: 42 mm long, 11 mm wide. Hindwing: 39 mm long, 11 mm wide. Apices slightly pointed, anal area obtuse. Membrane transparent with light brownish shade in subcostal area and below R at joint of cross-veins. Venation yellowish to brown. Pterostigma rhomboid-shaped longer than deep, yellow with 5-6 yellow cross-veins. Apical area beyond vein Sc+R on both edges of the area with four rows of cells. 5-7 radial cross-veins in front of origin of Rs in forewing. 8-9 radial cross-veins beyond origin of Rs. Cells of this area considerably enlarged. Veins of hindwing colored as those of forewing. 4 radial cross-veins in front of origin of Rs. 3 row cells in anal area.

Abdomen: 28 mm long. Tergite 1-2 brown with long soft and brownish hairs. Other tergites brown with short brown to black setae. Sternites brown. Sternite 1-2 with long brownish hairs and short brown to black setae on other sternites.

Genitalia: Male. In lateral view (Fig. 9A), tergite 9 triangular-shaped with round-cornered ventral apex and with sparse short brown setae. Ectoproct semicircle-shaped with long bristles on distal margin. In ventral view (Fig. 9B), sternite 9 yellow with pentagonal-shaped with obtuse corner; covered with both short and long setae on distal margin.

Gonarcus-parameres complex as in Fig. 9C in dorsal view, Fig. 9D in ventral view, in Fig. 9E in lateral view. Pelta present.

Paratype: Female. Forewing: 29 mm long, 7 mm wide. Hindwing: 26 mm long, 5 mm wide; abdomen 17-18 mm long. Sexual dimorphism present, female without lobe-like processus on posterior margin of pronotum.

Genitalia: In lateral view (Fig. 9F), tergite 9 sub-rhomboid-shaped at least twice longer than wide with short setae. Ectoproct semicircular-shaped, distal margin with straight and long hairs. In lateral view, ventrovalvae thumb-like with long hairs; distovalvae triangular-shaped with long hairs. Interdens not visible in ventral view. Lingua slightly chitinized with short brown hairs.

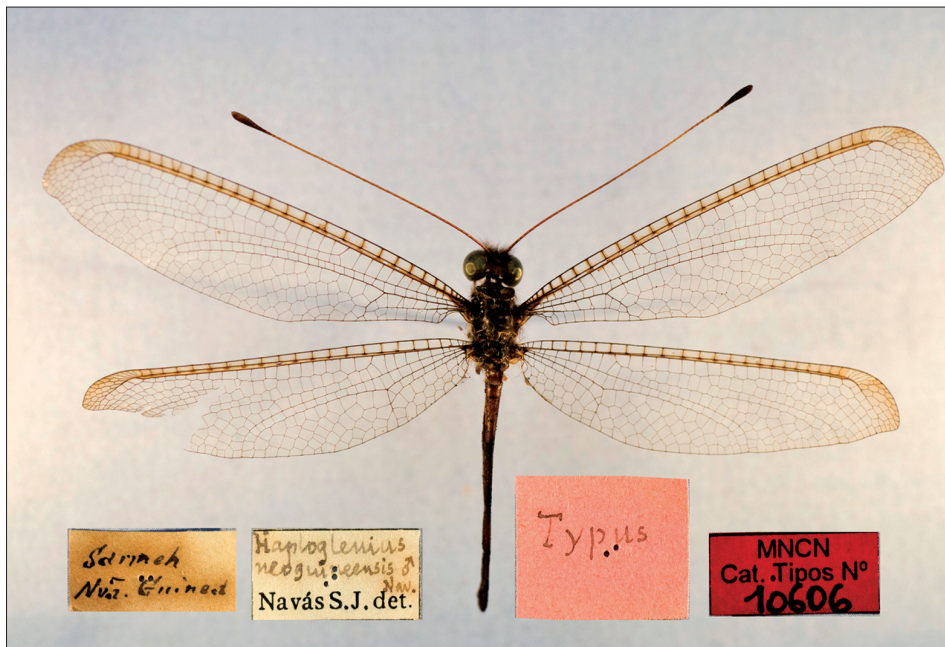


Fig. 5: Habitus of *Haploglenius neoguineensis* Navás, 1914 (lectotype)
syn n. of *Haploglenius latoreticulatus* van der Weele, 1909



Fig. 6: Habitus of *Haploglenius handlirschi* van der Weele, 1909 (lectotype)



Fig. 7: Habitus of *Haploglenius decorus* sp.n.



Fig. 8: Habitus of *Haploglenius decorus* sp.n.

Etymology: The specific name *decorus* means beautiful.

Diagnosis: The new species is easily distinguished from any other *Haploglenius* species by the shape of brown suffused forewing membrane which spread below R and with considerably enlarged cells in radial sector.

Males have a peculiar flap at the posterior margin of the pronotum which can be flipped back to reveal a bright white patch. According to EISNER and ADAMS (1975) it has a startle function towards predators and courtship function.

Distribution: Known only from tropical South America, Ecuador and French Guiana.

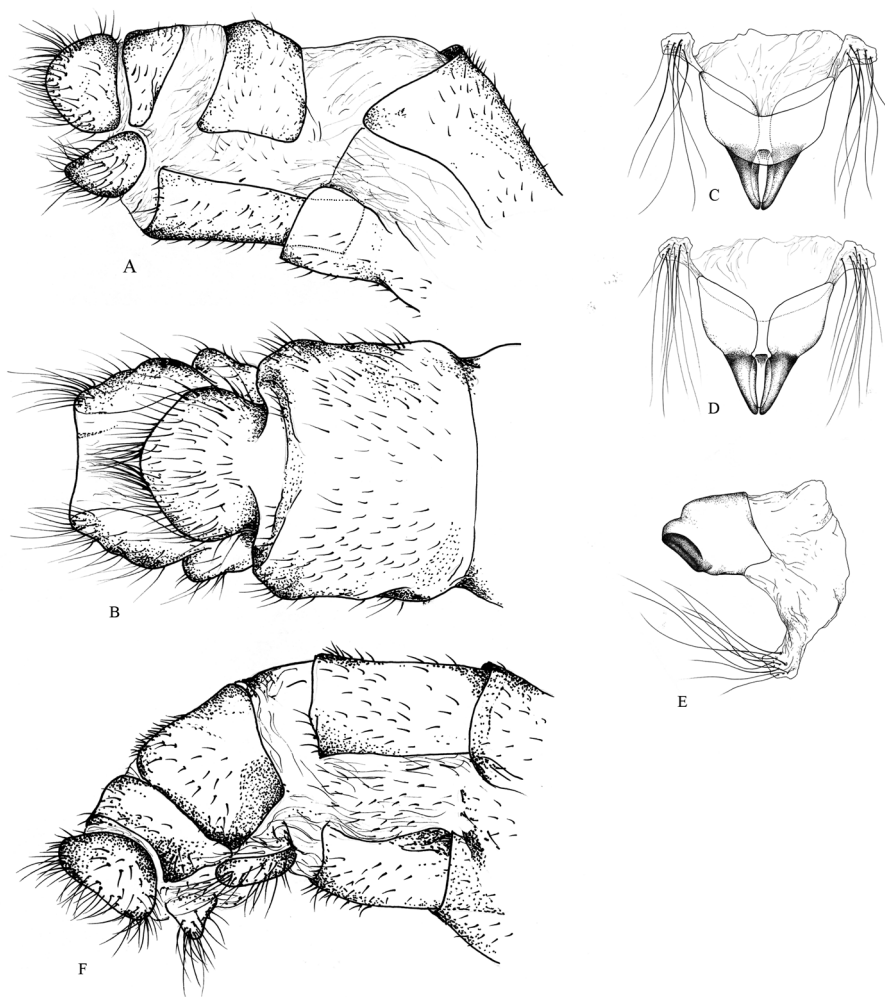


Fig. 9: *Haploglenius decorus* sp.n. male genitalia in lateral view (A), ditto in ventral view (B), gonarcus and parameres in dorsal (C) ventral (D) and lateral view (E), female genitalia in lateral view (F)



Fig. 10: Habitus of *Neohaploglenius rondonianus* Penny, 1982 (holotype) syn n. of *Verticillecerus gerstaeckeri* van der Weele, 1909

***Neohaploglenius rondonianus* Penny, 1982 – syn. n. (Fig. 10)**

Neohaploglenius rondonianus Penny, 1982 - Penny 1982 (Odescr)

Holotype male, Brazil: Rondônia (state): Vilhena (town) [12°44'13"S 60°07'48"W] deposited in INPA (Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas, Brazil)

Comment: It is a junior synonym of *Verticillecerus gerstaeckeri* van der Weele, 1909. *Verticillecerus* van der Weele, 1909 has sparse long hairs on the basal flagellar segments (1-7) otherwise segments without setae. PENNY (1981b) mentioned that "Antennae without setae." in the original description but the holotype has setae on basal segments.

Hairy basal segments distinguish *Verticillecerus* from *Haploglenius* which has no hairs and setae on basal flagellar segments (WEELE 1909). Male has a lobe-like processus on the posterior margin.

Verticillecerus gerstaeckeri spreads to Paraguay (WEELE 1909), Argentina (Misiones) (WILLINER 1945), Brazil (Rondônia, Minas Gerais) (PENNY 1982). The new record is from 1 male Brasilien Theresopolis Rio 12. [20]09. leg. Rautenstrauch in coll: SCM, Kaposvár.

***Haploglenius bolivianus* Navás, 1927**

Haploglenius bolivianus Navás, 1927 - Navás 1927 (Odescr), Penny 1978 (Chlist), 1981b (Syn, K),

Type: "Bolivia: Buenavista, Departamento de Santa Cruz, 450 m"

Comment: We have no recent faunistical data, only that of published by NAVÁS (1927) which was referred by PENNY (1978) in his list. According to PENNY (1981b) the type was deposited in Navás's private collection and the largest part of this collection was destroyed during the Spanish Civil War (MONSERRAT 1986). The remained part (only

two Ascalaphidae species) is housed in the Museo de Zoología Barcelona (MZB) (MONSERRAT 1985). The type of *Haploglenius bolivianus* Navás, 1927 probably lost.

PENNY (1981b) synonymized it to *Haploglenius luteus* based on the clear costal margin. NAVÁS (1927) studied an immature specimen which did not show its typical colour of the species. According to his paper, the *Haploglenius costatus* is the closest species to *Haploglenius bolivianus*. The type specimen was considerably smaller than other specimens of *Haploglenius luteus* and its axillary angle is also different from that of *Haploglenius luteus*.

Distribution: Bolivia (Navás 1927).

***Haploglenius dupuyi* Navás, 1923**

Haploglenius dupuyi Navás, 1923 – Navás 1923b (Odescr), Penny 1978 (Chlist)

Type: Brasil, Rio de Janeiro, Dupuy, 1910, deposited in MNHN (Museum National d'Histoire Naturelle, Paris, France).

Comment: The type material lost. Based on the description and figures, it belongs to genus *Ascalobyas* Penny, 1982 and probably a new junior synonym of *Ascalobyas albistigma* (Walker, 1853). The description agrees well the male of *Ascalobyas albistigma*. The length of antenna clearly distinguishes the figured specimen from any known *Haploglenius* species. Further evidences are its general appearance, measurements, anal shape of forewing, anal veins of both wings, number of cross-veins before Rs and number of branches of Rs.

Distribution: Brasil (Navás 1923b).

***Haploglenius reticulatus* Navás, 1923**

Haploglenius reticulatus Navás, 1923 - Navás 1923a (Odescr), Penny 1978 (Chlist), Penny 1981b (Syn)

Type female, Perú. René Martin, 1920, deposited in Museum National d'Histoire Naturelle (MNHP), Paris, France

Comment: Type material lost. Based on the description, its taxonomical status is uncertain. It is supposed to be a synonym of *Haploglenius costatus* (Burmeister, 1839).

Distribution: Peru

***Haploglenius extensus* (Banks, 1924)**

Haploglenius extensus Banks, 1924 – Banks 1924 (Odescr), Penny 1978 (Chlist)

Verticillecerus extensus (Banks, 1924) - Penny 1978 (Comb)

"Type.-- M. C. Z. 14,827 ♀. Bolivia: Sara. (J. Steinbach)." (Banks 1924).

Syntype(s?), female [& male?], deposited in MCZ (Museum of Comparative Zoology, Cambridge, MA, USA), identifier: 14827

Comment: Unfortunately, I could not examine the type material. I requested the type or its habitus photo from the Museum of Comparative Zoology, Cambridge, MA, USA but Dr. Perkins, curator of the collection, refused twice my requests. So the taxonomical status of the species remained uncertain since BANKS' (1924) description is too short, general and without any figures.

Distribution: Bolivia (Banks 1924)

Key for the species

(Due to uncertain taxonomical status, *Haploglenius reticulatus*, *Haploglenius dupuyi*, *Haploglenius bolivianus* and *Haploglenius extensus* are excluded.)

1. Distinctive elongate anal projection and concave intrusion of forewing
(*costatus* group).....2
- Anal margin of forewing straight and without projection (*luteus* group).....4
2. Anal projection slightly developed with concave intrusion on hind margin of
forewing, costal area suffused with brown in both wings..... *H. costatus*
- Anal projection well developed on hind margin of forewing.....3
3. Costal area transparent, subcostal area with small brown dots at base of cross-veins
..... *H. abdominevittatus*
- Costal area suffused with brown in both wings..... *H. flavicornis*
4. Considerably enlarged and irregular shaped cells below radius...*H. decorus* sp.n.
- Normal sized and rectangular shaped cells below radius.....5
5. Pterostigma brown, darker than or at least as dark as costal area..... *H. handlirschi*
- Pterostigma yellowish lighter than costal area.....6
6. Number of cross-veins in costal area less than 35..... *H. latoreticulatus*
- Number of cross-veins in costal area more than 35.....7
7. Larger (length of forewing: 40-55 mm), membrane transparent except apical area,
costal area in hindwing usually lighter than that of forewing..... *H. luteus*
- Smaller (length of forewing: 33-40 mm), membrane fumated, costal area in both wings
usually same colour..... *H. peruvianus*

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