

Revision of the genus *Dicolpus* Gerstaecker, 1885 with description of a new species from Africa (Neuroptera: Ascalaphidae)

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Abstract: The genus *Dicolpus* Gerstaecker, 1885 is redescribed, the type species of the genus is *Dicolpus volucris* Gerstaecker, 1885. *Dicolpus bicolor* Klapálek, 1906, *Dicolpus ellenbergeri* Navás, 1912 (**n. syn.**), *Suphalacsa* [sic!] *recondita* Navás, 1914 (**n. syn.**), *Suphalomitus opalinus* Navás, 1921 (**n. syn.**) are all new junior synonyms of *Dicolpus volucris* Gerstaecker, 1885. Lectotypes of five syntypes are designated. *Dicolpus congensis* Navás, 1923 (**n. syn.**), is a new synonym of *Dicolpus eurypterus* (Gerstaecker, 1885). Morphological features of male *Dicolpus orientalis* (van der Weele, 1909a) are documented. *Dicolpus martoni* **sp. n.** is a new species from South Africa and Mozambique. Identification keys for males and females are given and distribution of species is plotted.

Keywords: Taxonomy, owlfly, new species, new synonym, distribution, Africa

Introduction

The African owlfly fauna is the most diverse in the world, with more than 200 species. In the 20th century, two excellent monographs (VAN DER WEELE 1909a, TJEDER 1992) dealt with this predominantly Afrotropical area.

TJEDER (1992) was unable to complete the revision of the African ascalaphids due to his advanced age. His taxonomic research was therefore supported by his colleagues (TJEDER & HANSSON 1992). According to the traditional taxonomic division of Ascalaphidae, TJEDER (1992) revised several tribes of the subfamily Haplogleniinae (Proctolyrini, Melambrotini, Campylophlebiini, Tmesibasini, Allocormodini) and Ascalaphinae (Ululomyiini) and also described new tribes. Anderson, Hansson & Cederholm wrote an appendix for this volume in which genera not described by TJEDER (1992) were replaced by numbers and type species were designated on the basis of his research.

During the determination of Ascalaphidae collections from Africa and the identification of newly collected material (ÁBRAHÁM 2017, 2023), we found several specimens that Tjeder combined into new but unpublished genera. On this basis, the genera *Afroasca* Ábrahám, 2017 and *Bellulula* Ábrahám & Tjeder, 2023 were described.

Encioposini Weele, 1908, is one of the tribes that TJEDER (1992) and TJEDER & HANSSON (1992) could not complete. This tribe includes the genus *Dicolpus* Gerstaecker, 1885, which was revised by checking the type specimens and describing a new species from southern Africa.

Since the publication of the monographs by TJEDER (1992), TJEDER & HANSSON (1992), the traditional phylogenetic status of ascalaphids (MCLACHLAN 1868, VAN DER WEELE 1909a, TJEDER 1992) has been radically altered by the results of genetic studies (MACHADO et al. 2019, JONES 2020). However, there is still no consensus in interpreting the results regarding the family, subfamily, and tribe of ascalaphids (BADANO et al. 2017, MICHEL et al. 2017, PROST et al. 2022). Further studies will probably be needed to clarify this in the future, as summarised by WU et al. (2022) and HEVIN et al. (2023). The present study only covered the examination and revision of the species of the genus *Dicolpus*.

Material and methods

Habitus photographs were taken using a Canon EOS 6DM2 digital camera equipped with a Canon 100mm macro lens and a Godox MS 300 flash system. Other photos were taken using an Olympus SZX9 stereomicroscope equipped with a ScopeTek DCM 800 digital camera. The photographic layers were then processed using stacking and Adobe Photoshop software.

Following traditional methods, the caudal part of the abdomen was removed, treated with 10% KOH solution and heated for 15 minutes. After cooling, it was rinsed in distilled water. For photography, the genitalia were placed in glycerine in a petri dish. Finally, each genitalia was transferred to glycerine in a microvial for preservation.

Abbreviations of the collections:

ANHRTUK – African Natural History Research Trust, Leominster, UK
 AUM – Adam Mickiewicz University, Poznan, Poland
 EMAU – Ernst-Moritz-Arndt Universität, Zoologisches Institut und Museum, Greifswald, Germany
 MNHN – Muséum National d'Histoire Naturelle, Paris, France
 MNMS – Museo Nacional de Ciencias Naturales, Madrid, Spain
 MRAC – Musée Royal de l'Afrique Centrale, Tervuren, Belgium
 MZLU – Biological Museum (Entomology) Lund University, Lund, Sweden
 NHRS – Naturhistoriska Riksmuseet, Stockholm, Sweden
 RMNH – Nationaal Natuurhistorische Museum, Leiden, Netherlands
 SCMK – Rippl-Rónai Museum, Kaposvár, Hungary (former Somogy County Museum)
 USMB – Upper Silesian Museum, Bytom, Poland

Abbreviations of annotation:

Comb – New combination; Dist – Distribution; List – Faunal list; Mon – Monograph; Nom – Nomenclature; Odescr – Original description; Redescr – Redescription; Syn – Synonym, Tax – Taxonomy.

Taxonomy

Genus *Dicolpus* Gerstaecker, 1885

Dicolpus Gerstaecker, [1885] 1884: 7 – (Odesr), van der Weele 1906 (Tax), 1909a (Mon), Navás 1912a (Mon). Oswald & Penny 1991 (Nom).

Type species: *Dicolpus volucris* Gerstaecker, 1885.

Comment: *Dicolpus* R. A. Philippi, 1887: 40, fossil. Type species: *Dicolpus obesus* R. A. Philippi, 1887 (subsequent designation). The genus *Dicolpus* (Mollusca: Gastropoda) is a homonym.

Diagnosis: The genus includes large or medium-sized species (the length of the fore wing: 25–45 mm). Sexual dimorphism is present. The hind margin, especially in males, is strongly depressed, forming a backward-facing lobe or a slight concavity, and have small modified setae (spines) arranged in a characteristic pattern on the anal and cubital areas. The wings are unpatterned, but the membrane of older specimens often turns brown. The cells are arranged in two rows in the apical area. The cross-veins have not become rare in the costal area. The antennae reach almost to the pterostigma. The thorax is usually dark reddish-brown and mostly unpatterned in dorsal view. The abdomen of males is slightly longer than the wings in the resting position. The male ectoproct bears a ventro-caudal processus.

Based on these features, it can easily be distinguished from morphologically similar genera. *Dicolpus* resembles the genus *Pseudohybris* van der Weele, 1909, but its fore and hind wings are narrow, and the costal and hind margins are parallel. It can be easily distinguished from similar-sized species in the genus *Disparomitus* van der Weele, 1909 by its thorax pattern in the dorsal view, the dorsal projection of the first tergite segment in males, and the ectoproct is sub-conical and slightly developed laterally. The cross-veins are noticeably less frequent in the costal area of *Procterrelabris* Lefébvre, 1842, and long hairs are found on the basal part of the antenna. The hind wing of *Bellulula* Ábrahám & Tjeder, 2023 is distinctly triangular in shape, and a characteristic dark pattern is present on the fore and hind wings. *Encyoposis* MacLachlan, 1871, and *Phalascusa* Kolbe, 1897 can be immediately distinguished from the genus *Dicolpus* due to their striking yellow colouring.

Redescription

Head: About as wide as thorax. Eye oval, divided, both equal parts. Vertex narrow with long hairs. Frons and scapus with long and dense hairs. Gena and mandible with sparse hairs. Postorbital sclerite and occiput hairless. Antenna bare, somewhat shorter than distance between base of fore wing and pterostigma. Club subglobular-shaped with flattened apex.

Thorax: Weakly hairy.

Wings: slightly triangular, apices rounded, anal angle obtuse in fore wing. Hind margin varied from straight to strongly concave depression forming lobe-like shape in males, but hind margin straight in females. Membrane transparent without pattern but discoloured in older specimens. Venation not sparse. Apical area with two rows of cells. Pterostigma about as long as wide in both wings. Hind wing considerably shorter than fore wing.

Legs: Rather short and slender. Femora about as long as tibiae. Femora and tibiae with long upstanding bristles. Tarsi 1–4 equal, tarsus 5 somewhat shorter than tarsi 1–4 com-

bined on fore and middle legs. Tarsal segment 1 as long as segments 2-3 combined in hind leg. Tibial spurs as long as tarsal segments 1-2 together in fore and middle legs and as long as tarsal segment 1 in hind leg.

Abdomen: Male abdomen longer than wings. In male tergites 1-3, with long hairs, other tergites with short, sparse setae. In female abdomen shorter than wings and dominantly with short setae.

Terminalia and genitalia: Male ectoproct with long and strong caudo-lateral process. Sternite 9 with strong, upwardly curved medio-caudal lobe. Gonocoxites 9+11 (gonarcus-parameres) fused, arch-like; pelta not seen; gonosetae moderately long. Female ectoproct oval plate, gonocoxites 8 (ventrovalvae) long, gonocoxites 9 (distivalvae) moderate size, interdens not seen.

Etymology: The name of the genus was derived from the double lobe-like shape of the fore wing of the type male.

Distribution: The species of the genus are found to the south of the Sahara in the Afrotropical region.

Dicolpus volucris Gerstaecker, 1885

Dicolpus volucris Gerstaecker, [1885] 1884:7 – (Odescr), van der Weele 1909a (Mon), Navás 1912a (Mon), 1912b (Dist), 1919 [1921] (Dist), 1932 (Dist), Banks 1920 (Dist), Whittington 2002 (List), Prost et al. 2022 (List).

Dicolpus bicolor Klapálek, 1906:325 – (Odescr), van der Weele 1909a (Mon, Syn), Navás 1912a (Mon).

Dicolpus ellenbergeri Navás, 1912c:137 – (Odescr), Navás 1912a (Mon), **n. syn.**

Suphalacsa [sic!] *recondita* Navás, 1914a:91 – (Odescr), Navás 1916 (Rdescr), Banks 1920 (Dist), **n. syn.**

Suphalacsa reconditus Navás, 1914a – Oswald 2025 (Nom).

Syn. *Suphalomitus opalinus* Navás, 1919 [1921]:289 – (Odescr), **n. syn.**

Type of *Dicolpus volucris* (Fig. 1). Type male checked, preserved in EMAU. Lectotype (**present designation**): / Lectotypus [printed] / *Dicolpus* / *volucris* Gerst. / 1884 / Bo Tjeder 1988 [red label with Tjeder's handwriting] /.



Fig. 1: Lectotype of *Dicolpus volucris* Gerstaecker, 1885 (Scale: 10 mm)

Label information: / volucris / Gerst.* / Bonjongo / April. / Buchh. [blue label with black margins and handwritten] /.

In GERSTAECKER (1884) "Bonjongo (Camaroons), Buchholz".

Type condition: excellent.

Comment: In 1981, the type specimen was labelled as lectotype by Tjeder, but this designation was never published. *Dicolpus bicolor* Klapálek, 1906 was first synonymised by VAN DER WEELE (1909a). However, *Dicolpus ellenbergeri* Navás, 1912 (**n. syn.**), *Suphalacsa recondita* Navás, 1914 (**n. syn.**) and *Suphalomitus opalinus* Navás, 1919 (**n. syn.**) proved to be new synonyms of *Dicolpus volucris* Gerstaecker, 1885.

Type of Dicolpus bicolor (Fig. 2). Type checked, preserved in MNMS. Lectotype (**present designation**): / Lectotype male / *Dicolpus bicolor* / Klapálek, 1906 / design.: Abrahám L. [red label with printed letters] /.

Label information: / Biafra / Cabo S. Juan / VII-1901 Escalera [white label with printed black letters and margins] // *Dicolpus* / *bicolor* [handwritten] // visto por / Klapalek [handwritten] // *Dicolpus* / *volucris* ♂ Gerst. [white label with Navás's handwriting] / Navás S.J. det. [printed] // *Dicolpus* / *volucris* (Gerst.) / det. Bo Tjeder 1981 [printed] // *Dicolpus bicolor* [red label handwritten] / Sintipo [printed] / Klapalek, 1906 [handwritten] // MNCN_Ent. / 264422 [white label with printed black letters and margins] /.

In Klapálek (1906) "Biafra, Cabo San Juan, VII, 1901".

Type condition: Medium, left fore wing and tip of abdomen missing.

Label information: Syntype female / Biafra / Cabo S. Juan / VII-1901 Escalera [white label with printed black letters and margins] // visto por / Klapalek [handwritten] // *Dicolpus* / *volucris* ♀ Gerst. [white label with Navás's handwriting] / Navás S.J. det.

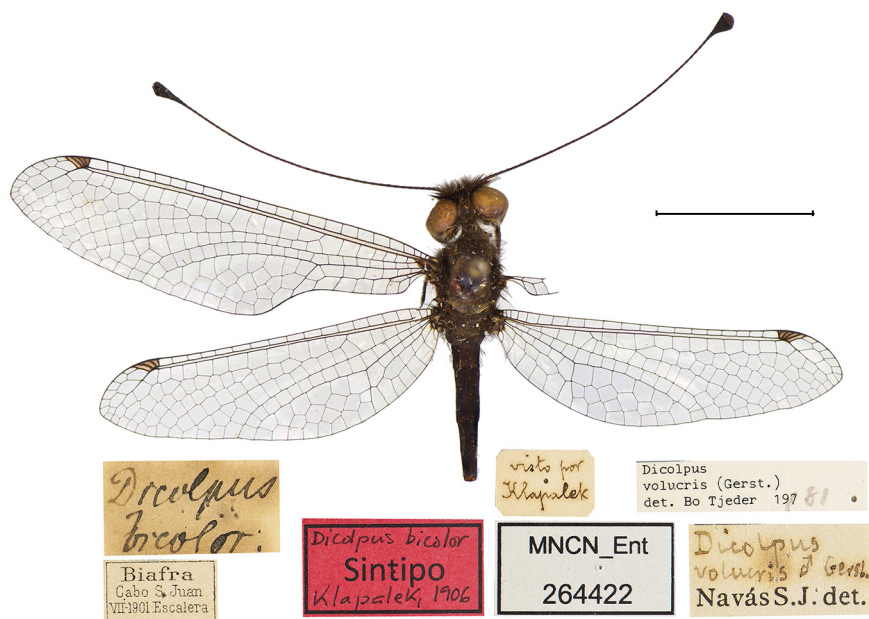


Fig. 2: Lectotype of *Dicolpus bicolor* Klapálek, 1906 (Scale: 10 mm)

[printed] // *Adicolpus / eurypterus* (Gerst.) / det. Bo Tjeder 1981 [printed] // *Dicolpus bicolor* [red label handwritten] / Sintipo [printed] / Klapálek, 1906 [handwritten] // MNCN_Ent. / 264423 [white label with printed black letters and margins] /.

Type condition: Medium, right fore wing missing.

Comment: There are two syntypes in the MNMS collection. Klapálek's (1906) description was based on the male syntype, but he did not publish a figure of the type. VAN DER WEELE (1909a) noted that the type was probably just a colour variation of *Dicolpus volucris* and considered it a new synonym based on Klapálek's (1906) paper. Furthermore, the female specimen of the syntype was assumed to be a specimen of *Dicolpus eurypterus*, but the type specimens were not examined. In 1981, the type specimens were checked by Tjeder, the lectotype was labelled but never published with this designation.

Type of Dicolpus ellenbergeri (Fig. 3). Lectotype male checked, preserved in MNHN. Lectotype (**present designation**): / Lectotypus [printed] / *Dicolpus ellenbergeri* / Navás [handwritten] / design. [printed] Bo Tjeder 1970 [Tjeder's handwriting] [red label] /.

Label information: / *Dicolpus* ♂ / *volucris* Gerst. [white label Tjeder's handwriting and with pointed margins] / det. Bo Tjeder 1968 [printed] // Type [white label in red letters] // Museum Paris / Congo français / Oguuóé / N'Gomo / P. Ellenberger 1906 [blue label with printed letters] // *Dicolpus / Ellenbergeri* ♂ / type Nav. [white label with Navás's handwriting] /.

In NAVÁS (1912c) "Congo francés, Ogué, N'Gomo, P. Ellenberger, 1906".



Fig. 3: Lectotype of *Dicolpus ellenbergeri* Navás, 1912 (n. syn.) (Scale: 10 mm)

Type condition: good, left hind wing missing.

Comment: Lectotype male was labelled and synonymised by Tjeder in 1970, but never published this designation.

Type of Suphalacsa recondita (Fig. 4). Lectotype female checked, preserved in MRAC. Lectotype (**present designation**): / Lectotypus ♀ [red label with printed letters] / Suphalacsa / recondita / Navás [Tjeder's handwriting] / design. [printed] Bo Tjeder 1970 [Tjeder's handwriting] /.

Label information: / Typus [reddish label with Navás's handwriting] // Type [red label with double black margins and in capital letters] // Suphalacsa ♀ / recondita Nav. [white label with Navás's handwriting] / Navás S.J. det. [printed letters] // Dicolpus / volucris Gerst. / det. Bo Tjeder 1970 [white label with printed letters] // Musée du Congo / Malela [white label with printed letters] / 1- XI - 1913 [handwritten] / R. Verschueren [printed] // R. dét / F / 226 [white label with black margin] // 00708 [white label with handwriting] /.

In NAVÁS (1914a) "Criques de Matela, 1er février 1913 (R. Verschueren)".

Type condition: Excellent.

Comment: This species was described twice by NAVÁS (1914a and 1916). Lectotype female was labelled and synonymized by Tjeder in 1970 but never published this designation.



Fig. 4: Lectotype of *Suphalacsa* [sic!] *recondita* Navás, 1914 (n. syn.) (Scale: 10 mm)

Type of Suphalomitus opalinus (Fig. 5). Type female checked, preserved in MNHN. Lectotype (**present designation**): / Lectotype female / *Suphalomitus opalinus* / Navás, 1921 / design.: Ábrahám L. [red label with printed letters] /

Label information: / Type [white label in red letters] // Museum Paris / Oguuoé / Lambaréné / P. Ellenberger 1912 [blue label with printed letters] // *Suphalomitus opalinus* ♀ Nav. [blue label with Navás's handwriting] / Navás S.J. det. [printed] // *Dicolpus* ♀ / *opalinus* (Nav.) [white label with Tjeder's handwriting] / det. Bo Tjeder 1970 [printed] /.

In NAVÁS (1912c) "Congo français, Ogué, N'Gomo, P. Ellenberger, 1906".

Type condition: good, left hind wing missing.

Comment: Lectotype male was designated and placed into a new combination by Tjeder in 1970 but never published this designation. The type was redetermined and *Suphalomitus opalinus* Navás, 1921, proved to be a new synonym of *Dicolpus volucris* Gerstaecker, 1885.

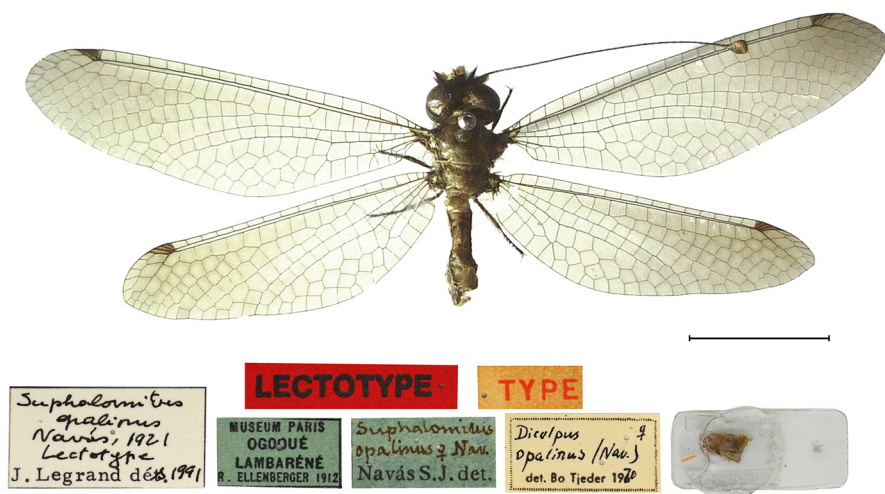


Fig. 5. Lectotype of *Suphalomitus opalinus* Navás, 1921 (n. syn.) (Scale: 10 mm)

Additional material examined:

In coll. SCMK: 2♂ CAMEROON Eastern Region, Atok, on Route N1 Haut Nyong District [4°04'19.9"N 12°48'23.2"E] 01.05.2016 Leg: Sáfian Sz., Simonics G. (NeuAsc422); 2♂ GHANA Western Region Research Centre, Bia National Park 6°34'51.25"N 3°2'21.39"W 09-03.10.2006 Leg: Szabolcs Sáfian, Kwaku Aduse-Poku; (NeuAsc402); 1♂ GHANA Volta Region Amedzofe [6°50'43.0"N 0°26'06.6"E] 22.05.2007 Leg: Sáfian Sz. (NeuAsc403); 1♀ GHANA Volta Region Biakpa-Avatime [6°50'39.6"N 0°25'44.3"E] 19-23.05.2007 Leg: Sáfian Sz. (NeuAsc404); 2♀ NeuAsc405 GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease [6°41'12.2"N 1°20'39.9"W] 13-17.05.2007 Leg: Sáfian Sz. (NeuAsc405); 1♀ GHANA Volta Region Adjeikrom [5°48'54.9"N 0°24'17.4"W] 19-23. 05.2007 Leg: Sáfian Sz. (NeuAsc406); 2♂ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease [6°41'12.2"N 1°20'39.9"W] 10.10.2007. Leg: Sáfian Sz. (NeuAsc469); 2♂ GHANA Central Region Kakum Forest, Abrafo Gyaware [5°20'14.8"N 1°22'41.5"W] 19-25.03.2008 Leg: Sáfian Sz., Csontos G. (NeuAsc408); 1♂ GHANA Aburi Botanical Gardens 5°51'10.68"N 0°10'28.49"W 09.11.2008 Leg: Sáfian Sz. (NeuAsc409); 1♂ GHANA Central Region Abrafo Kakum Forest [5°20'56.3"N 1°22'53.6"W] 03.10.2008 Leg: Kúti Zs., Csontos G., Rendes N., Szabó B. F. (NeuAsc410); 1♂ GHANA Eastern Region Kyebe (Kibi) District Sagyimase forestry access road Atewa Range [6°13'41.1"N

0°31'34.9"W] 06-10.03.2008 Leg: Sáfián Sz., Csontos G., Vorgas R. (NeuAsc411); 1♂ GHANA Central Region Kakum Forest, Abrafo Gyaware [5°20'14.8"N 1°22'41.5"W] 18-28.09.2007 Leg: Sáfián Sz. (NeuAsc412); 1♀ GHANA Eastern Region Bunso Arboretum [6°16'05.7"N 0°27'40.9"W] 22-30.10.2009 Leg: Sáfián Sz., Walker A., Davey S., Onstein R. (NeuAsc413); 2♀ GHANA Eastern Region Bunso Arboretum [6°16'05.7"N 0°27'40.9"W] 12-20.10.2009 Leg: Sáfián Sz., Walker A., Davey S., Onstein R. (NeuAsc414); 1♀ GHANA WLI Volta Region, Hohoe District, Agumatsa 7°7'2.44"N 0°35'27.16"E 23.04.2009 Leg: G. Csontos (NeuAsc416); 1♀ GHANA WLI Volta Region Hohoe District Agumatsa N07°06.909' E00°35.346' 2005.04.13-17. Leg: Sáfián Sz., Csontos G., Kormos B. (NeuAsc417); 1♂ 1♀ GHANA Eastern Region Sagyimase Trail, Atewa Range [6°13'41.1"N 0°31'34.9"W] 11.10.2009 Leg: Szabolcs Sáfián (NeuAsc418); 1♂ GHANA Volta Region Amedzofe 9-14.III.2009 [6°50'43.2"N 0°25'55.2"E] Leg: Gábor Csontos, Előd Kondorosi (NeuAsc419); 9♂ 3♀ West Africa Republic of GUINEA N'Zerekoré Region Mt. Nimba Ziela 535m N7.71559° W8.35710° 12.03-09. 04.2017 Leg: Gergely Petrányi (NeuAsc424); 1♂ 1♀ West Africa Republic of GUINEA N'Zerekoré Region Mt. Nimba Ziela 535m N7.71559° W8.35710° 01-31.06.2017 Leg: Gergely Petrányi (NeuAsc425); 1♀ LIBERIA Grand Gedeh County Mt. Jideh Putu Mountains [5°40'08.9"N 8°11'34.1"W] 10-20.04.2011 Leg: Szabolcs Sáfián, Márton Strausz (NeuAsc420); 1♂ 1♀ LIBERIA Grand Jideh County Putu Range [5°40'08.9"N 8°11'34.1"W] 19-31.12.2010 Leg: Szabolcs Sáfián, Erika Zakar (NeuAsc421); 4♂ LIBERIA East Region Kagnol Haut Nyong District UFA Concession forest 3°44'34.05"N 13°23'51.97"E 02-06.05.2016 Leg: Sáfián Sz., Simonics G. (NeuAsc423); 1♂ SIERRA LEONE, Belebu, Gola North [7°36'26.2"N 11°01'35.1"W] 17-26.03.2009 Leg: Sáfián Sz. (NeuAsc415);

In coll. ANHRTUK: 1♂ IVORY COAST 60m / Parc National d'Azagny, entrée / Sonaye (Secondary forest) / 05°14'32"N, 04°48'05"W / 25-28.xi.2021 LepiLED Light / Trap. Moretto, P., / Mulvaney, L., Takano, H. / Leg. // (ANHRTUK00355964); 1♂ IVORY COAST 1171m / Mt Tonkoui Peak, / 07°27'15.2"N, 07°38'12.5"W / 9-16.IV.2016 General / Collecting / Aristophanous, M., / Moretto, P., leg. // (ANHRTUK00189305); 4♂ GUINEA 435m / Geipa Camp, Forêt de Diecké / 7°26'7.06"N, 8°50'47.87"W / 05-14.iv.2019 Light Trap / Blended Bulb (250W) / Sáfián, Sz., Koivogui, S. Leg. // (ANHRTUK00189380, ANHRTUK00189382, ANHRTUK00189385, ANHRTUK00189386); 1♂ GUINEA 550m / Guinée Forestière, Forêt Classée / de Ziamia, Trek from Dopamai / Village (Lowland Forest) / 08°11'04"N, 09°27'39"W / 11.iii.2019, general coll. / Sáfián, S., Simonics, G., / Florczyk, K. leg. (ANHRTUK00396804); 1♂ LIBERIA 551m / Wetezu camp, Wonegizi / Nature Reserve, Lofa County / 8°45'57.11"N, 9°34'47.86"W / 19-27.iii.2019 Light Trap / Blended Bulb (250W) / Sáfián, Sz., Koivogui, S. Leg. // (ANHRTUK00189392); 1♂ SIERRA LEONE 1050m / Loma Mountains / Closed-canopy forest / N09°10'35", W11°05'25" / 7-10.vi.2016 Light Trap / leg. Takano, Miles & Goff // (ANHRTUK00189002); 3♂ 1♀ REPUBLIC OF CONGO 480m / Odzala-Kokoua National Park, / Imbalanga Camp / 00°45'47"N, 15°15'39"E / 05-09.iv.2024, MV light trap / Bashford, M., László, G., / Talani, M., Yaba Ngouma, S. leg. // (ANHRTUK00189610, ANHRTUK00189612, ANHRTUK00189622, ANHRTUK00189623); 3♂ REPUBLIC OF CONGO 377m / Nouabalé-Ndoki National Park, / Makao camp / 02°35'42.2"N, 17°10'08.3"E / 15-21.v.2023, MV light trap / Dérozier, V., Kirk-Spriggs, A., / László, G., Mvouende, S. leg. // (ANHRTUK00396469, ANHRTUK00396471, ANHRTUK00396472); 2♂ 3♀ REPUBLIC OF CONGO 570m / Odzala-Kokoua National Park, / Mbomo Headquarters / 00°26'13"N, 14°42'01"E / 28. ix-01.x.2024, MV light trap / Bashford, M., László, G., / Volynkin, A. leg. (ANHRTUK00414107, ANHRTUK00414114, ANHRTUK00414123, ANHRTUK00414129, ANHRTUK00414229); 1♀ REPUBLIC OF CONGO 480m / Odzala-Kokoua National Park, / Imbalanga camp / 00°45'47"N, 15°15'39"E / 04-05. ix.2024, actinic light trap / Bashford, M., László, G., / Talani, M., Volynkin, A. leg. (ANHRTUK00414235); 1♀ REPUBLIC OF CONGO 379m / Odzala-Kokoua National Park, / Lekoli River near Mboko / 00°37'04.79"N, 14°54'27.32"E / 21-23.ix.2024, LepiLED light / trap. Bashford, M., László, G., / Talani, M., Volynkin, A., / Yaba Ngouma, S. leg. (ANHRTUK00414241).

Diagnostic characters: It is the smallest of the known *Dicolpus* species with a wing length of less than 30 mm. There is a strong dimorphism between the sexes, with the male fore wing being strongly curved in the anal and cubital areas. Wing colouration can vary from light brown to completely transparent, and colouration is not a sexual characteristic (Figs. 6-8).

Distribution: Gabon (as *Dicolpus ellenbergeri* - NAVÁS 1912c), Cameroon and Gabon (as *Suphalacsa euryptera* - VAN DER WEELE 1905, 1909b), Liberia, Togo, Nigeria (as

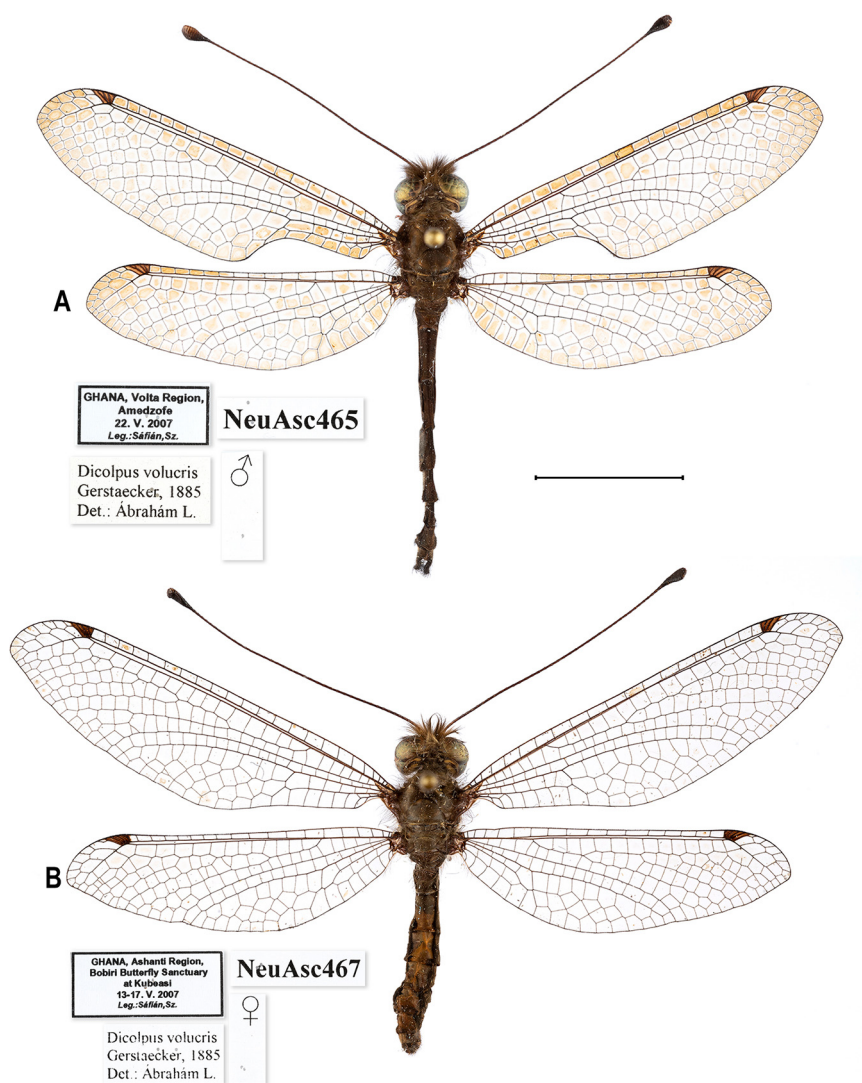


Fig. 6: *Dicolpus volucris* Gerstaecker, 1885, A – male habitus, B – female habitus (Scale: 10 mm)

Suphalomitus opalinus - NAVÁS 1921), DR Congo VAN DER WEELE 1909a, (as *Suphalacsa recognita* - NAVÁS 1914a), Togo (PROST et al. 2022), Ghana, Guinea, Republic of Congo, Sierra Leone (new records in coll. SCMK and ANHRTUK). (Fig. 21).

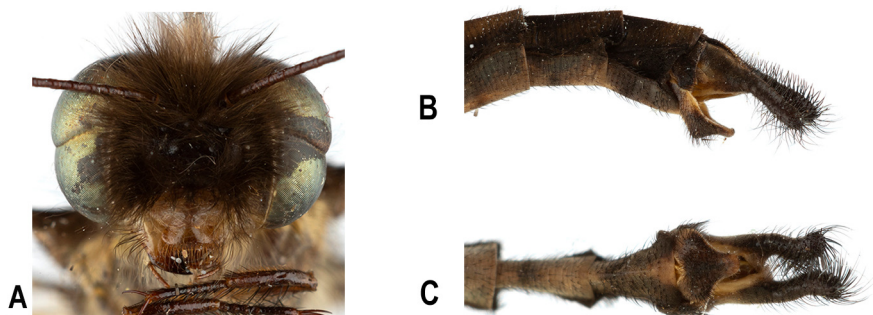


Fig. 7: *Dicolpus volucris* Gerstaecker, 1885, A – head in frontal view, B – male terminalia in lateral view, C – the same in ventral view (Scale: 10 mm)

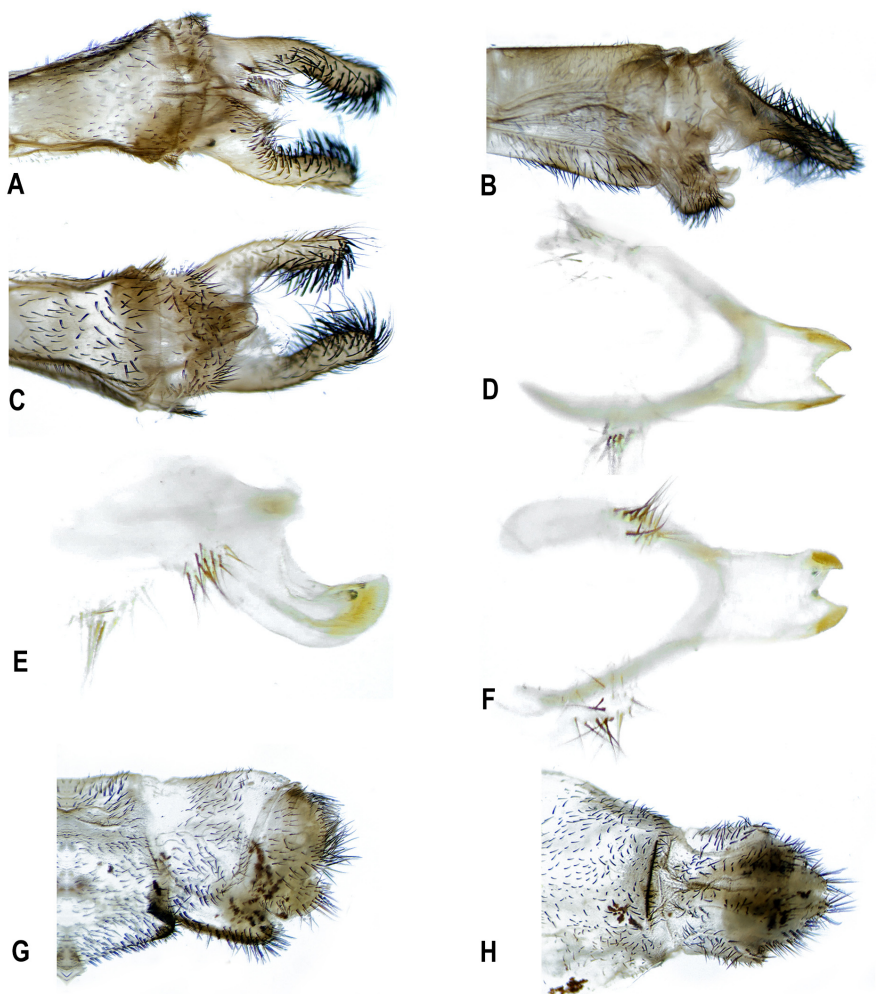


Fig. 8: *Dicolpus volucris* Gerstaecker, 1885, A – male terminalia in dorsal view, B – the same in lateral view, C – the same in ventral view, D – male genitalia in dorsal view, E – the same in lateral view, F – the same in ventral view, G – female terminalia in lateral view, H – the same in ventral view

Dicolpus eurypterus (Gerstaecker, 1885)

Suhpalasca eurypterus Gerstaecker, 1885:6 – (Odescr).

Suphalasca [sic!] *euryptera* Gerstaecker, 1885 – van der Weele 1905-1907 (Dist).

Dicolpus eurypterus (Gerstaecker, 1885) – van der Weele 1909a (Mon, Comb), Navás 1912a (Mon), 1919 (Dist), Prost et al. 2022 (Dist), Aistleitner & Ábrahám 2023 (Dist).

Dicolpus congensis (sic!) Navás, 1923:11 – (Odescr), Michel 2019 (Tax), **n. syn.**

Type of Suhpalasca eurypterus (Fig. 9). Syntype female checked, preserved in EMAU.

Lectotype (present designation): / Lectotype female / *Suhpalasca eurypterus* Gerstaecker, 1885 / design.: Ábrahám L. [red label with printed letters] /

Label information: / Holotypus ♀ [printed] / *Suphalasca* [sic!] *euryptera* [handwritten] / Gerstaecker [red label] // *eurypterus* / Gerst.* / Victoria / 26/9. [18]73. / Buchh. [blue label with black margins and handwritten] // Zool. Mus. / Griefswald / II 27502 /

In GERSTAECKER (1884) "Victoria (Camaroons), Buchholz".

Type condition: excellent, tip of abdomen glued.

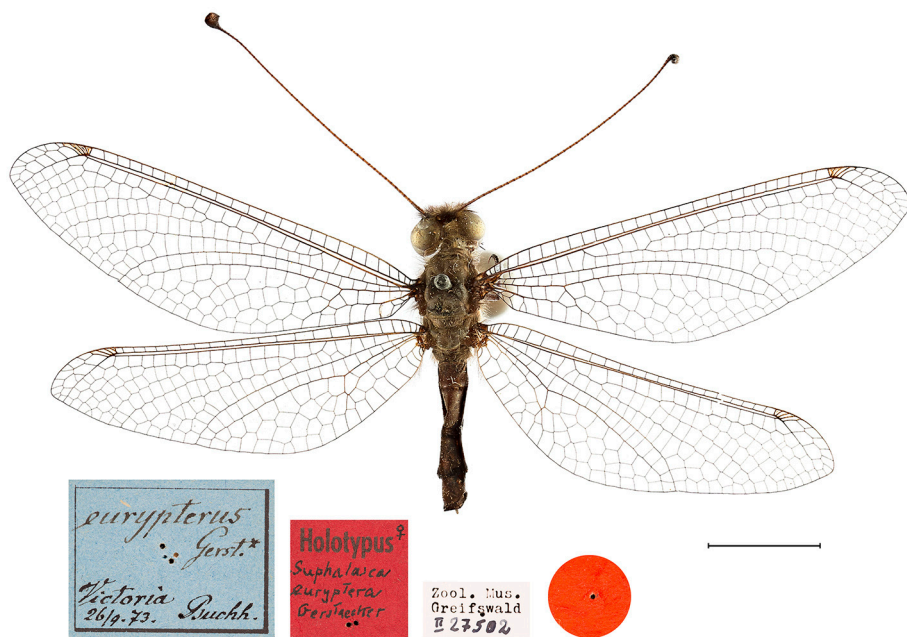


Fig. 9: Lectotype of *Suhpalasca eurypterus* Gerstaecker, 1885 (Scale: 10 mm)

Type of Dicolpus congoensis (Fig. 10). Lectotype male checked, preserved in MNHN.

Lectotype (present designation): / Lectotype [red label in printed capital letters] // *Dicolpus congensis* (sic!)/ Navás, 1923 / Lectotype ♂ [white label with Legrand's handwriting] / J. Legrand dét. 1991 [printed] /

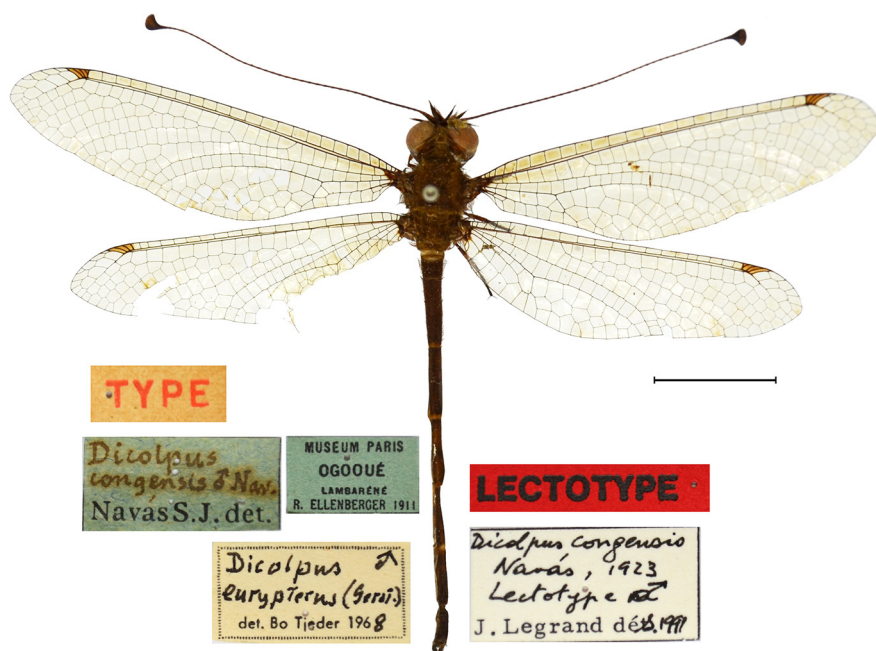


Fig. 10: Lectotype of *Dicolpus congensis* Navás, 1923 (Scale: 10 mm)

Label information: / Type [white label in red letters] // Museum Paris / Ogooué / Lambaréné / R. Ellenberger 1911 [blue label in printed letters] // *Dicolpus* / *congensis* (sic!) ♂ Nav. [white label with Navás's handwriting] / Navás S.J. det. [printed] // *Dicolpus* ♂ / *eurypterus* (Gerst.) [white label with Tjeder's handwriting] / det. Bo Tjeder 1968 [printed] /.

In NAVÁS (1923) "Congo gallicus: Ogooué, Lambaréné, K. [sic!] Ellenberger, 1911"

Type condition: Good, the right hind wing incomplete.

Comment: In 1968, Tjeder correctly determined the male type specimen as *Dicolpus eurypterus* (Gerst.) in the collection of MNHN, this lectotype was labelled by Legrand in 1991; the designation has never been published. *Dicolpus congoensis* Navás, 1923 (n. syn.) is a new junior synonym of *Dicolpus eurypterus* (Gerstaecker, 1885).

Additional material examined:

In coll. SCMK: 1♂ CAMEROON Mamfe region [5°43'37.9"N 9°20'00.2"E] 12.1976 (NeuAsc383); 3♂ 1♀ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease 6°41'12.2"N 1°20'39.9"W 10.10.2007. Leg: Sáfián Sz. (NeuAsc374); 1♂ 2♀ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease 6°41'12.2"N 1°20'39.9"W 20-24.09.2007. Leg: Sáfián Sz. (NeuAsc375); 1♀ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease [6°41'12.2"N 1°20'39.9"W] 13-17.05.2007 Leg: Sáfián Sz. (NeuAsc376); 2♀ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease [6°41'12.2"N 1°20'39.9"W] 20-24.09.2006 Leg: Sáfián Sz., Aduse-Poku, K. (NeuAsc377); 1♀ GHANA Ashanti Region Bobiri Butterfly Sanctuary at Kubease [6°41'12.2"N 1°20'39.9"W] 12-19.11.2006 Leg: Sáfián Sz., Larsen T. B. (NeuAsc378); 1♂ GHANA Brong-Ahafo Region Boabeng-Fiema Monkey Sanctuary [7°42'31.9"N 1°41'42.2"W] 12-15.10.2006 Leg: Sáfián Sz., Aduse-Poku, K. (NeuAsc379); 2♂ 3♀ GHANA Central Region Kakum Guesthouse, Kakum National Park

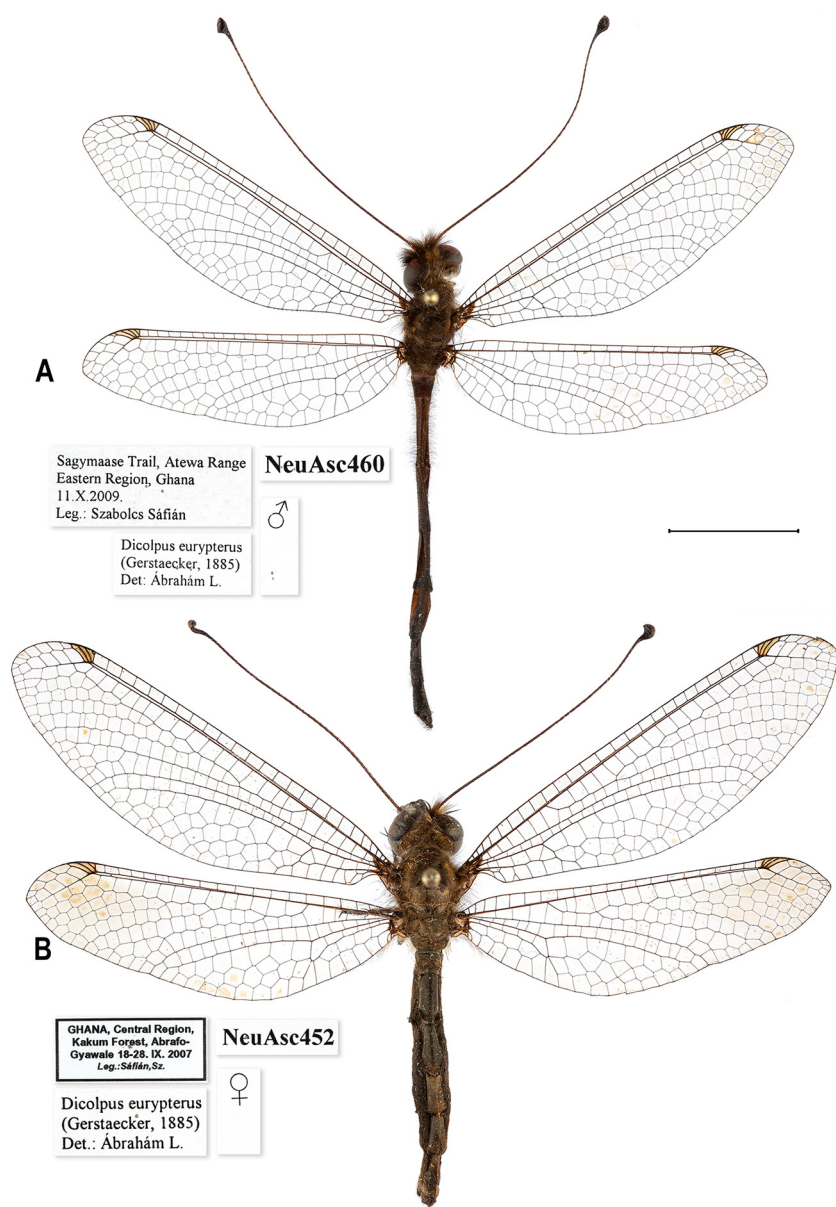


Fig. 11: *Dicolpus eurypterus* (Gerstaecker, 1885), A – male habitus, B – female habitus (Scale: 10 mm)

[5°20'39.2"N 1°22'39.2"W] 22-26.10.2011 Leg: Sáfián Sz., Pühringer F. & Pöll N. (NeuAsc380); 1♀ GHANA Central Region Kakum Forest, Abrafo Gyawale [5°20'14.8"N 1°22'41.5"W] 18-28.09.2007 Leg: Sáfián Sz. (NeuAsc381); 2♂ 1♀ GHANA Aburi Botanical Gardens 5°51'10.68"N 0°10'28.49"W 09.11.2008 Leg: Sáfián Sz. (NeuAsc384); 1♀ GHANA Central Region Abrafo Kakum Forest 5°21'26.28"N 1°22'16.61"W 17-25.02.2007. Leg: Sáfián Sz. (NeuAsc385); 1♀ GHANA Eastern Region Bunso Arboretum 6°16'2.66"N

0°27'37.40"W 10-17.09.2010 Leg: Szabolcs Sáfián (NeuAsc386); 1♂ GHANA Western Region Ankasa National Park Nkwanta Camp 5°16'52.24"N 2°38'25.40"W 6-10.10.2009 Leg: Sáfián Sz. (NeuAsc387); 1♀ GHANA Central Region Abrafo Kakum Forest [5°21'26.3"N 1°22'16.6"W] 17-25.02.2002. Leg: Sáfián Sz., Csontos G., Kormos B. (NeuAsc388); 1♂ GHANA Eastern Region Sagyimase Trail, Atewa Range [6°13'41.1"N 0°31'34.9"W] 11.10.2009 Leg: Szabolcs Sáfián (NeuAsc389); 2♂ GHANA Western Region Research Centre, Bia National Park 6°34'51.25"N 3°22'13.9"W 26.09-03.10.2006 Leg: Szabolcs Sáfián, Kwaku Aduse-Poku (NeuAsc390); 6♂ West Africa Republic of GUINEA N'Zerekoré Region Mt. Nimba Ziela 535m N7.71559° W8.35710° 03.12-04.09.2017. Leg: Gergely Petrányi (NeuAsc393); 1♂ West Africa Republic of GUINEA N'Zerekoré Region Mt. Nimba Ziela 535m N7.71559° W8.35710° 03.12-04.09.2017. Leg: Gergely Petrányi (NeuAsc394); 2♀ West Africa Republic of GUINEA N'Zerekoré Region Mt. Nimba Ziela 535m N7.71559° W8.35710° 18.10-03.11.2017. Leg: Gergely Petrányi (NeuAsc396); 1♂ West Africa Republic of MALI Koulikoro Region Kénieroba (Niger Riverbank) 330m N12.11726° W008.31399° 02.27-03.07.2017. Leg: Gergely Petrányi (NeuAsc395); 1♂ NIGERIA Iita Forest, Ibadan 7°29'46.94"N 3°53'12.43"W 22-31.09.2010 Leg: Szabolcs Sáfián & Ágnes Horváth (NeuAsc392); 2♀ NIGERIA Ibadan Iita Forest [7°29'41.2"N 3°53'28.2"E] 21-30.09.2010 Leg: Szabolcs Sáfián & Ágnes Horváth (NeuAsc382); 1♂ NIGERIA Iita forest, Ibadan 7°29'46.94"N 3°53'12.43"W 22-31.09.2010. g: Szabolcs Sáfián & Ágnes Horváth (NeuAsc463); 1♂ SIERRA LEONE Malema County Mogbaima on Moro River 7°32'21.61"N 10°52'3.22"W 18-22.01.2011 Leg: Szabolcs Sáfián (NeuAsc391).

In coll. ANHRTUK: 1♂ IVORY COAST 40m / Banco National Park / 05°23'3.8"N, 04°03'11.2"W / 29.xi-5. xii.2019 LepiLEDLight / Trap. / Aristophanous, M., / Dérozier, V., / Moretto, P., / Outtara, S. Leg. // (ANHRTUK00189045); 1♂ 1♀ IVORY COAST 174m / Taï National Park, / Taï Research Station (SRET) / 05°50'00"N, 07°20'32.0"W / 25.iii-17.iv.2017 MV Light Trap / Aristophanous, A., / Aristophanous, M., / Geiser, M., Moretto, P. Leg. // (ANHRTUK00189151, ANHRTUK00189407); 6♂ 3♀ GUINEA 771m / Ditinn, Chute de Ditinn (Guinea / Savannah and Gallery Forest) / 10°49'08"N, 12°11'30"W / 18-25.ix.2019 General



Fig. 12: *Dicolpus eurypterus* (Gerstaecker, 1885), A – head in frontal view, B – head, thorax and legs in lateral view, C – male tergal segment 2-3 with long hairs in dorsal view, D – male terminalia in ventral view, E – the same in lateral view

Coll. / Geiser, M., Leno, M., / Koivagui, S., Miles, W., / Mulvaney, L., Safian, Sz. Leg. (ANHRTUK00189535, ANHRTUK00189065, ANHRTUK00189066, ANHRTUK00189068, ANHRTUK00189069, ANHRTUK00189071, ANHRTUK00189072, ANHRTUK00189073, ANHRTUK00189086; 3♂ GUINEA 435m / Geipa Camp, Forêt de Diecké / 7°26'7.06"N, 8°50'47.87"W / 05-14.iv.2019 Light Trap / Blended Bulb (250W)/ Sáfián, Sz., Koivogui, S. Leg. // (ANHRTUK00189377, ANHRTUK00189381, ANHRTUK00189388); 1♀ LIBERIA 530m / Foya Proposed Protected Area / Lofa County. 10-19.xi.2017 / 7°56'36"N, 10°16'36"W / MV Light Trap (125w)/ Aristophanous, M., Sáfián, / Sz., Simonics, G. & Smith, L. Leg. (ANHRTUK00189037); 1♀ REPUBLIC OF CONGO 349m / Likouala Prov., Nouabalé-Ndoki / National Park, / Makao forest / 02°36'42.5"N, 17°09'23.8"E / 23-29.ix.2022, General Coll. / Dérozier, V., Fouka, B, / Kirk-Spriggs, A., Takano, H. leg. (ANHRTUK00189598); 1♂ 2♀ REPUBLIC OF CONGO 372m / Sangha Prov., Nouabalé-Ndoki / National Park, / Mbeli camp / (Gilbertiodendron forest) / 02°14'23.8"N, 16°23'52.1"E / 1-10.x.2022 MV Light Trap / Dérozier, V., Fouka, B, / Kirk-Spriggs, A., Takano, H. leg. (ANHRTUK00189601, ANHRTUK00189604, ANHRTUK00189599); 1♂ 1♀ REPUBLIC OF CONGO 377m / Nouabalé-Ndoki

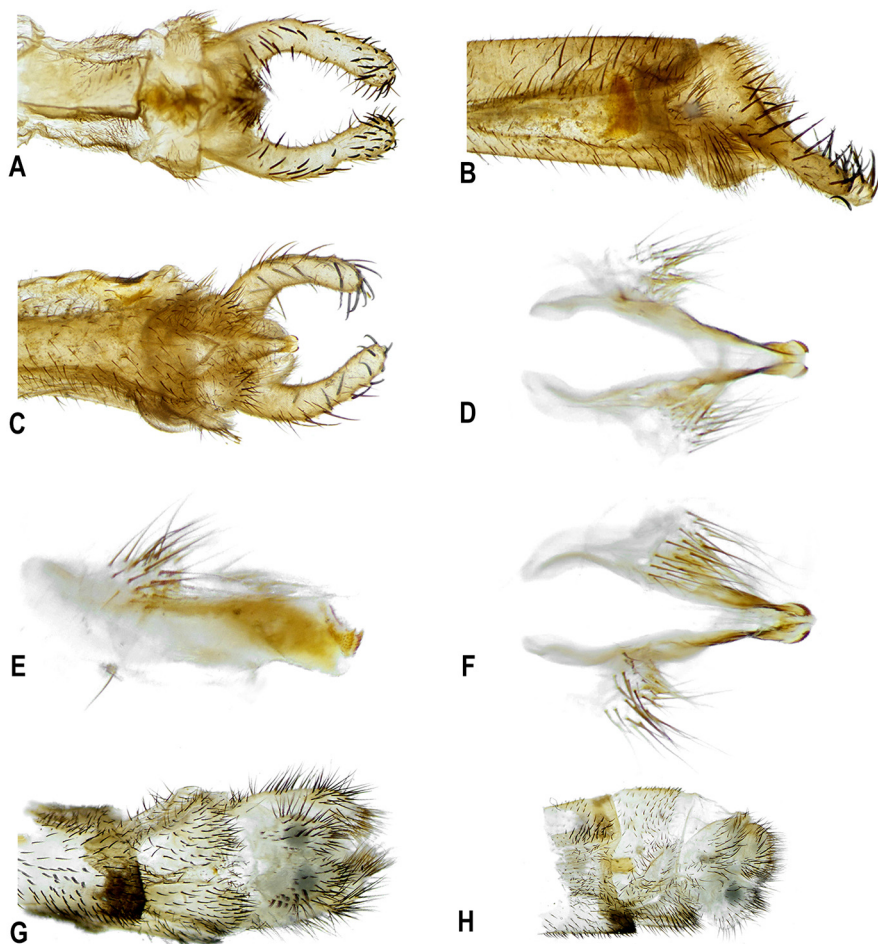


Fig. 13: *Dicolpus eurypterus* (Gerstaecker, 1885), A – male terminalia in dorsal view, B – the same in lateral view, C – the same in ventral view, D – male genitalia in dorsal view, E – the same in lateral view, F – the same in ventral view, G – female terminalia in ventral view, H – the same in lateral view

National Park, / Makao camp / 02°35'42.2"N, 17°10'08.3"E / 15–21.v.2023, MV light trap / Dérozier, V., Kirk-Spriggs, A., / László, G., Mvouende, S. leg. // (ANHRTUK00396467, ANHRTUK00396470); 2♀ ZAMBIA 1400m / Hillwood, Ikelenge / (Miombo / Riverine forest mosaic) / 11°16'02"S, 24°18'59"E / 23–30.xi.2019 LepiLED Light / Trap. Bashford, M., Miles, W., / Mulvaney, L., Smith, R. Leg. // (ANHRTUK00189445, ANHRTUK00189366)

Comment: A new genus was designated by TJEDER (1992: 165) as “*N. gen. type species: Suhpalacsa eurypterus Gerstaecker, 1884*”, but due to his advanced age, the description and revision of the genus were delayed. The reference to the new genus name was not found in TJEDER (1992) and TJEDER & HANSSON (1992), but during the checking of type specimens in collection of MNMS a female specimen of syntypes of *Dicolpus bicolor* Klapalek, 1906 was labelled and determined by Tjeder in 1981 as “*Adicolpus eurypterus (Gerst.)*”. This name has never been published later.

D. eurypterus is the largest *Dicolpus* species; the length of the wing is always longer than 30 mm. Long hairs cover tergites 2–3 of males. Females are usually larger than males (Figs. 11–13). Based on the shape of the hind margin of the male fore wing and the spines on the veins, it can be easily distinguished from *Dicolpus orientalis* van der Weele, 1909, and *D. martoni* sp. n. (Figs. 19–20).

Distribution: Cameroon (GERSTAECKER 1884, VAN DER WEELE 1905, DR Congo (NAVÁS 1923), Benin (PROST 2022), Ghana, Guinea, Mali, Nigeria, Sierra Leone (new records, in coll. SCMK and ANHRTUK). (Fig. 22).

Dicolpus orientalis van der Weele, 1909

Dicolpus orientalis van der Weele, 1909: 266 – (Odescr), van der Weele, 1910 (Rdescr), Navás 1912a (Mon).

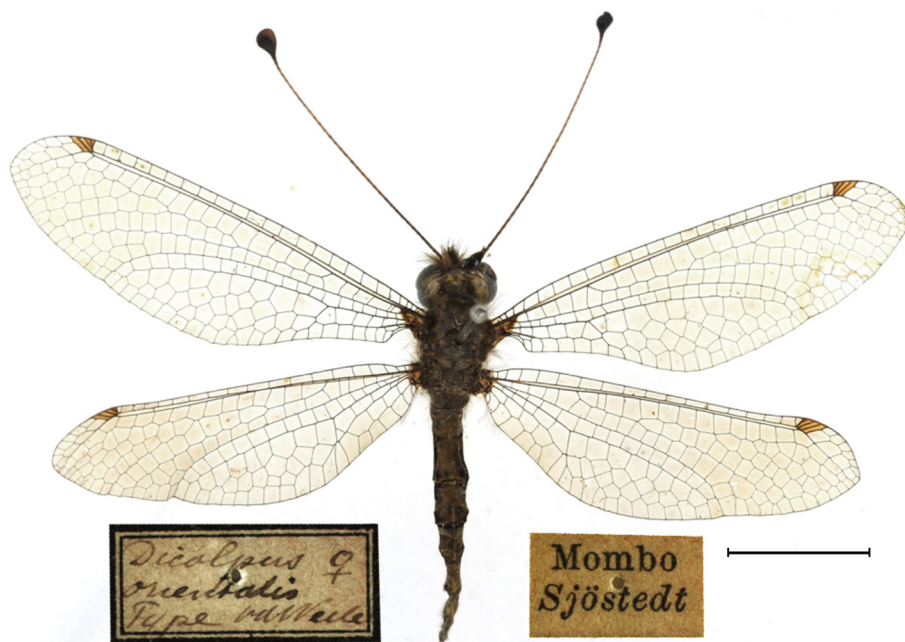


Fig. 14: Lectotype of *Dicolpus orientalis* van der Weele, 1909 (Scale: 10 mm)

Type of Dicolpus orientalis (Fig. 14). Female syntypes checked, preserved in RMNH. Lectotype (**present designation**): / Lectotype female / *Dicolpus orientalis* / van der Weele 1909 / design.: Ábrahám L. [red label with printed letters] /.

Label information: / Mombo / Sjöstedt [white label in printed letters] // *Dicolpus* ♀ / *orientalis* / Type vdWeele [white label with Weele's handwriting] /.

In VAN DER WEELE (1909a) "3♀♀ aus Usambara, Juni 1906 von Prof. Y. Sjöstedt gesammelt".

Type condition: Excellent.

Additional material examined:

In coll. SCMK: 1♂ TANZANIA Usambara Mts. Amani 16-17. 12. 1997 Leg. Werner & Lizler.

In coll. ANHRTUK: 1♂ TANZANIA 850m / Mizimu, Mwanihana / Udzungwa Mountains N.P. /07°48'21.8"S, 36°51'09.5"E / 9-11.iv.2011 Light Trap / leg. Smith, R. & Takano, H. (ANHRTUK00189452).

Comment: VAN DER WEELE (1910) initially intended to publish the description of the species in English. Nevertheless, the volume containing the description of the species was published after issuing his monograph in German (VAN WEELE 1909a). In both publications, he described the species as "n. sp.". Consequently, the subsequent publication (VAN DER WEELE 1910) can only be regarded as a redescription (OSWALD 2025).



Fig. 15: *Dicolpus orientalis* van der Weele, 1909, A – Male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax and legs in lateral view

According to the literature and the checked collections, it is a very rare species since the only type specimens have been documented (VAN DER WEELE 1909a). For the purposes of the present study, a male specimen was collected at the type locality.

The differential characteristics of the males are given on the basis of the additional material. The species is distinguished by the thoracic pattern in the dorsal view, the presence of small yellow spots on the lateral corner of the prescutum, the lateral side of the scutellum, and the metascutellum. The wings are often tinted. The hind margin of the fore wing, extending beyond the anal area, is straight, and the ambient vein has not got any spine-like microtrichias (Fig. 19). The ventro-caudal process of the ectoproct is characterised by its robust structure, moderate length, and inward and upward curvature (Figs. 15-16).

Distribution: So far, this species is known only from Tanzania (VAN DER WEELE 1909a) (Fig. 21).

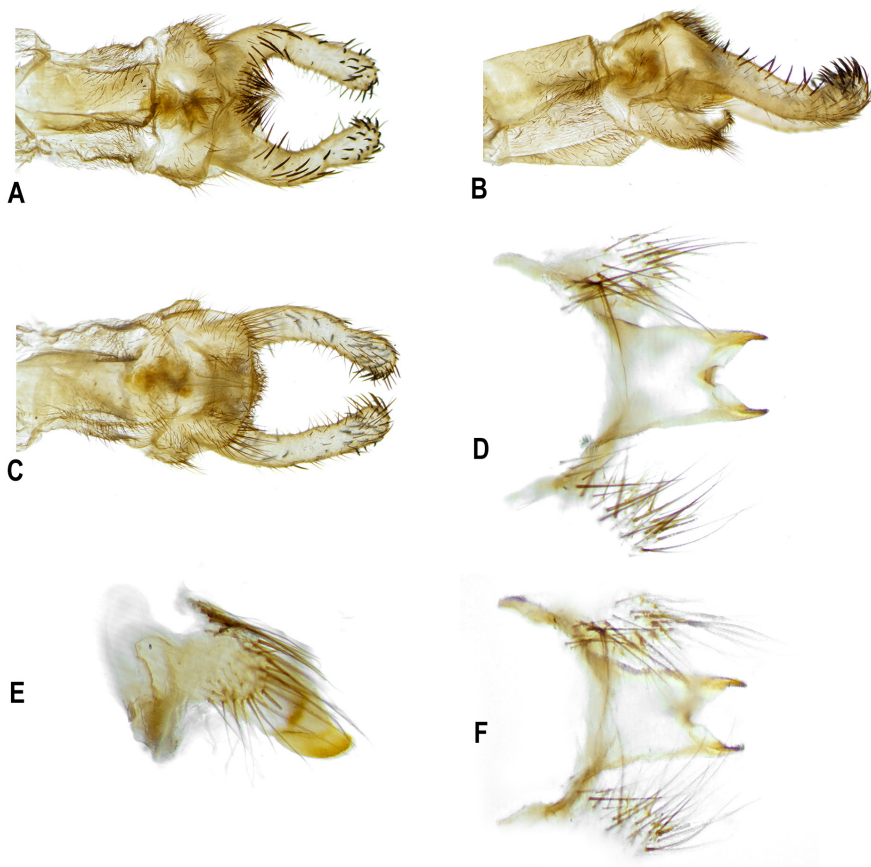


Fig. 16: *Dicolpus orientalis* van der Weele, 1909, male terminalia A – in dorsal view, B – in lateral view, C – in ventral view, D – male genitalia in dorsal view, E – in lateral view, F – in ventral view

***Dicolpus martoni* sp. n. (Figs. 17-18)**

zoobank: LSIDurn:lsid:zoobank.org:pub:67FF5F4B-528A-4522-A7C1-B1A1884B4D9B

Material examined: Holotype ♂: / RSA Free State 20km S / Harrismith, Strekfontein Dam N. R. / 28°23'59"S, 29°23'59"E / 1750m 12.01. 2011 / Sovhivko leg. [white label in printed letters] /.

Paratypes 1♂: / MOZAMBIQUE, Cabo Delgado / Prov. Quirimbas NP. / Tarabito Reserve / (-12°48.974S, 039°41.725E) / 336m 19-25.03.2018. / Marek Bakowski leg.; 1♂ MOZAMBIQUE, Cabo Delgado, / Prov. Ancuabe district: Quarimbas National Park, / Tarabito Hills, 336 m asl. -12.816233, 39.695417, / 04-08. 04. 2022 Marek Bakowski leg.

Deposited: Holotype ♂ deposited in the Ripp-Rónai Museum, Kaposvár, Hungary; 1♂ paratype in the Upper Silesian Museum, Bytom, Poland. and 1♂: paratype in the entomological collection at Adam Mickiewicz University, Poznan, Poland.

Diagnosis: The new species resembles *Dicolpus eurypterus* (Gerstaecker, 1885) and *Dicolpus orientalis* van der Weele, 1909. The male specimens of the new species can be easily recognized by the concave hind margin and pattern of spine-like microtrichia in the anal and cubital margins of the fore wing (Fig. 19., see keys for male species), furthermore the stout and curved caudo-ventral process of the ectoproct (Fig. 18A–C). It is only known from SE Africa.

Measurements: (n=3♂): Antenna 22-23 mm, Fore wing: 30-31 mm long, 9 mm wide, Hind wing: 26-27 mm long, 7.5 mm wide.

Head (Fig: 17B–C): Vertex brown with long, dense, soft and pale hairs. Frons dark brown with long, dense, soft and brown hairs. Long, dense, soft and pale tufts of hairs intermingled with brown ones on anterior tentorial pits. Gena shining black next to frons but dominantly shining yellow next to eye, with pale hairs. Clypeus yellow with pale hairs on lateral margin. Labrum yellow with sparse shiny brown and ochreous hairs curved to mouthpart. Base of mandible yellow with pale hairs laterally and with dark brown apices and inner margin. Maxillary and labial palpi yellow, basal parts with long pale hairs, distal parts dark with rigid shiny black setae at the joins of last two segments. Occiput and postorbital sclerite yellow, hairless. Eye rather large, divided with a suture-like inflection transversally, lower and upper parts approximately same sizes. Antennae almost reach to pterostigma of fore wing. Scape and pedicel yellow with long, dense, soft and pale hairs intermingled with black ones. Flagellar segments subequal, yellowish-brown, asetose. Club large, subglobular-shaped with flattened apex, brown and with short black setae.

Thorax (Fig: 17A–C): Pronotum narrow with both flexed upwards and brown margins, and yellowish-brown pattern medially. Pubescence on margins moderately long, soft and pale. Lateral projection with long, soft and brown hairs. Notum yellowish to brown with moderately long, sparse and brown hairs. Sides brown with wide, longitudinal and yellow band right below wings covering sparse, white hairs on upper part, and sparse, brown hairs on lower part.

Wings (Fig: 17A and D): Fore wing subtriangular-shaped. Anal area rounded concave beyond anal angle. Membrane transparent. Venation yellow to brown. Microtrichia spine-like on cross-veins next to ambient vein in anal and cubital area. Pterostigma rhomboid-shaped, slightly boarder than deep, opaque and yellow with 4-5 brown cross-veins. Rs with 5-6 branches. Apical area rounded, beyond vein Sc+R with two rows of cells. 7-8 radial cross-veins in front of origin of Rs in fore wing.

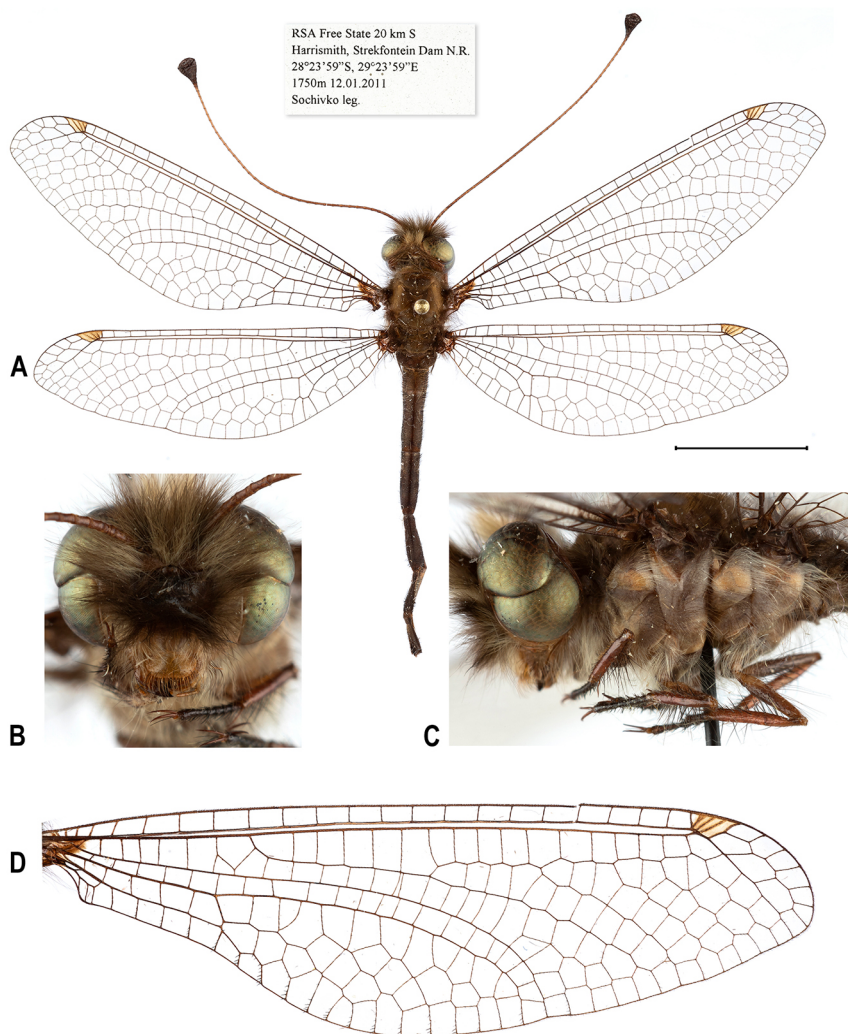


Fig. 17: *Dicolpus martoni* sp. n., A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax and legs in lateral view, D – Forewing in dorsal view (magnified)

Hind wing shape and colourization like fore wing. 4 radial cross-veins in front of origin of Rs. Rs with 5 branches. Apical area rounded beyond vein Sc+R with two rows of cells.

Legs (Fig: 17C): slim, moderately long. Coxae brown with dense white hairs; femora yellow to brown with sparse, long and dark brown hairs. Femora as long as tibiae. Tibiae reddish brown with long, sparse, scattered, stiff and black bristles. Tarsal segment 1-4 equal on fore and middle legs, segment 5 slightly smaller than tarsal segments 1-4 combined. Tarsal segment 1 considerably longer than segment 2-4 together and about half length of tarsal segment 5 on hind leg. Tarsi brown to black with stiff, black bristles. Tibial spurs reddish brown, subequal, as long as segment 1 on fore and middle legs, and somewhat shorter than segment 1 on hind leg. Claws reddish brown.

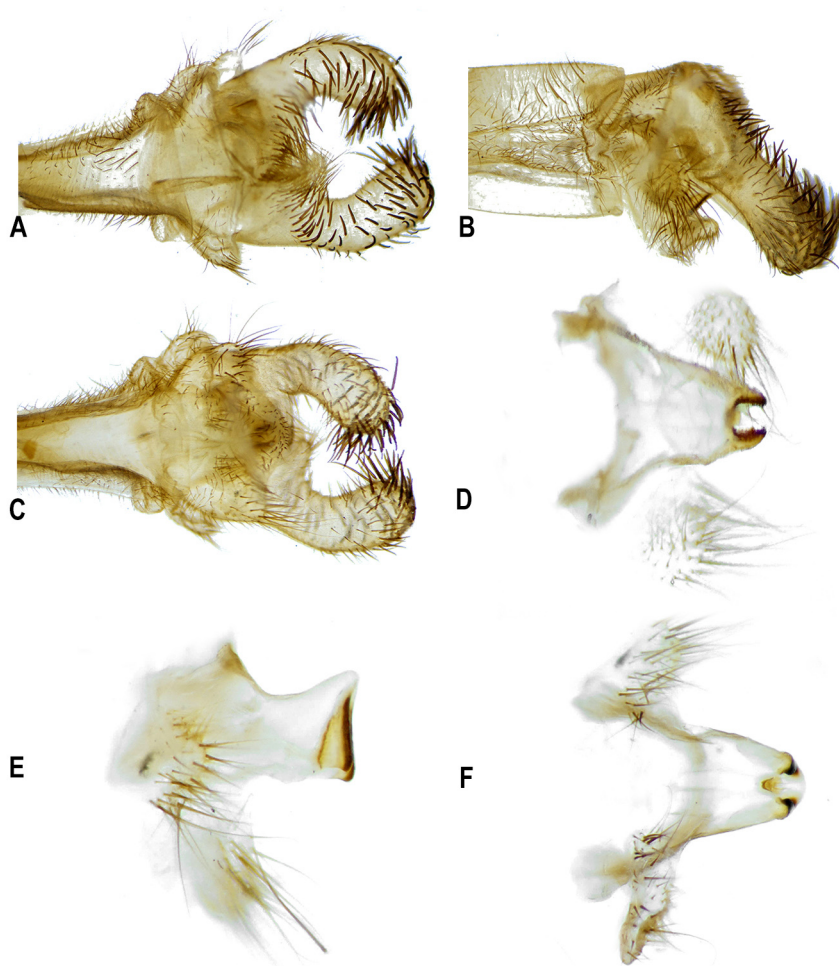


Fig. 18: *Dicolpus martoni* sp. n., A – male terminalia in dorsal view, B – the same in lateral view, C – the same in ventral view, D – male genitalia in dorsal view, E – in lateral view, F – in ventral view

Abdomen: slightly longer than wings. Tergite 1 divided, brown with long, soft and brown hairs. Tergite 2 as long as wide and brown, covered with moderately long, stiff and black setae. Other tergites elongated and brown with same setae as those of tergite 2. Sternite 2 yellowish brown with long, sparse and pale hairs. Sternite 3 brown with short, stiff and black setae laterally.

Terminalia and genitalia (Fig. 18A–F): Male ectoproct brown with stout, curved, inwardly caudo-ventral processus covered with stiff and black bristles, caudal part slightly thickened. Sternite 9 pentagonal-shaped and with three caudal lobes in ventral view. Central lobe not remarkably prominent. Lateral lobes with long, stiff and black bristles. Gonocoxites 9+11 (gonarcus and parameres) as in Fig. 18D–F in dorsal, lateral, and ventral views.

Female. Unknown.

Etymology: The new species name, *martoni* is derived from the Hungarian given name: Márton, (Martinus in Latin), who is a relative of the author.

Distribution: The new species is known only from South Africa and Mozambique (Fig. 22).

Keys for the species

Males

1. Hind margin in fore wing concave beyond anal angle.....2
 - Hind margin in fore wing straight beyond anal angle, ambient vein without any conspicuous spine-like microtrichia (Fig. 19E–F).....*D. orientalis*
2. Hind margin in fore wing strongly concave, ambient vein only with dense microtrichia (Fig. 19A–B).....*D. volucris*
 - Hind margin in fore wing only slightly concave.....3
3. Hind margin in fore wing with conspicuous spine-like microtrichia on ambient vein (Fig. 19C–D).....*D. eurypterus*
 - Hind margin in fore wing asetoae on ambient vein but spine-like microtrichia on veins run to ambient vein in anal and cubital areas (Fig. 19G–H).....*D. martoni* sp. n.

Females (excluding unknown female of *D. martoni* sp. n.)

1. Length of fore wing longer than 30 mm.....2
 - Length of fore wing always less than 30 mm, hind margin in fore wing straight beyond anal angle (Fig. 20A–B).....*D. volucris*
2. Hind margin straight beyond anal angle (Fig. 20C–D).....*D. eurypterus*
 - Hind margin remarkably concave beyond anal angle (Fig. 20E–F).....*D. orientalis*

Excluding species from *Dicolpus*

Three further species were listed in the genus *Dicolpus* (s.l. VAN DER WEELE 1909a) (*Dicolpus primitivus* van der Weele, 1909, *Dicolpus sjostedti* (van der Weele, 1905) *Dicolpus latreillei* Navás, 1911) but according to the previous (ÁBRAHÁM 2023) and the current revision, these species do not belong to the genus *Dicolpus*.

Discussion

The first comprehensive summary of *Dicolpus* species was published by VAN DER WEELE (1909a), TJEDER (1992) also dealt with revising the genus, but due to his old age and weak eyes, he could not complete that and never published his partial results. However, he left some important notes in the examined and labelled collections. TJEDER (1992) had previously included three new, undescribed genera in the tribe Encyopini (van der Weele, 1909a) (N. gen. 1-3), naming their type species. During the revision of the type specimens of the collections, we found Tjeder's notes, which revealed how he would have modified the classification of VAN DER WEELE (1909a).

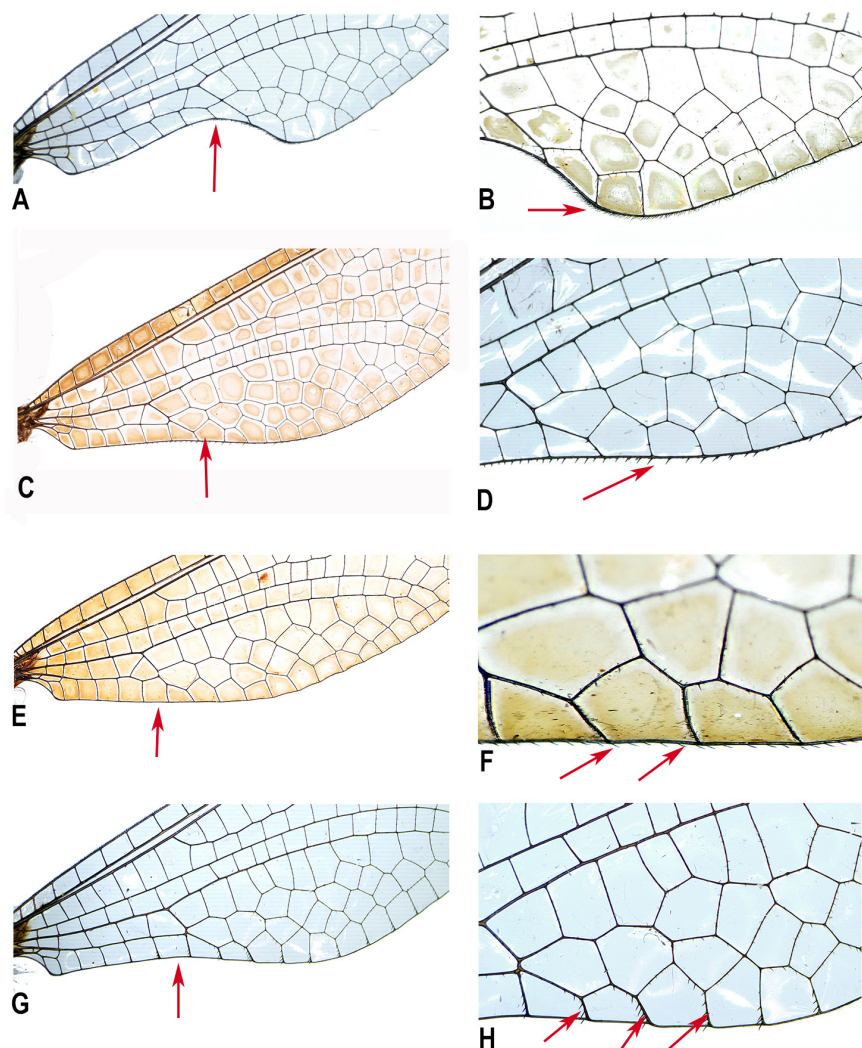


Fig. 19. A – Hind margin of male forewing, A – *Dicolpus volucris* Gerstaecker, 1885, B – the same, magnified, C – *Dicolpus eurypterus* (Gerstaecker, 1885), D – the same, magnified, E – *Dicolpus orientalis* van der Weele, 1909, F – the same, magnified, G – *Dicolpus martoni* sp. n., H – the same, magnified

VAN DER WEELE (1909a) listed five species (*D. primitivus*, *D. eurypterus*, *D. volucris*, *D. orientalis*, *D. sjostedti*) in the genus *Dicolpus*. Of course, a new *Dicolpus* species (*D. latreillei* Navás, 1911) was also described after the publication of his monograph (VAN DER WEELE 1909a), but based on current examination of the type specimen, three species must be excluded from the species of *Dicolpus*.

TJEDER (1992) also assigned a new genus to *D. primitivus* in his monograph, whose name (*Apodicolpus*) was found in the collections. To describe the new genus, it will be necessary to collect freshly collected specimens in the future. According to MICHEL

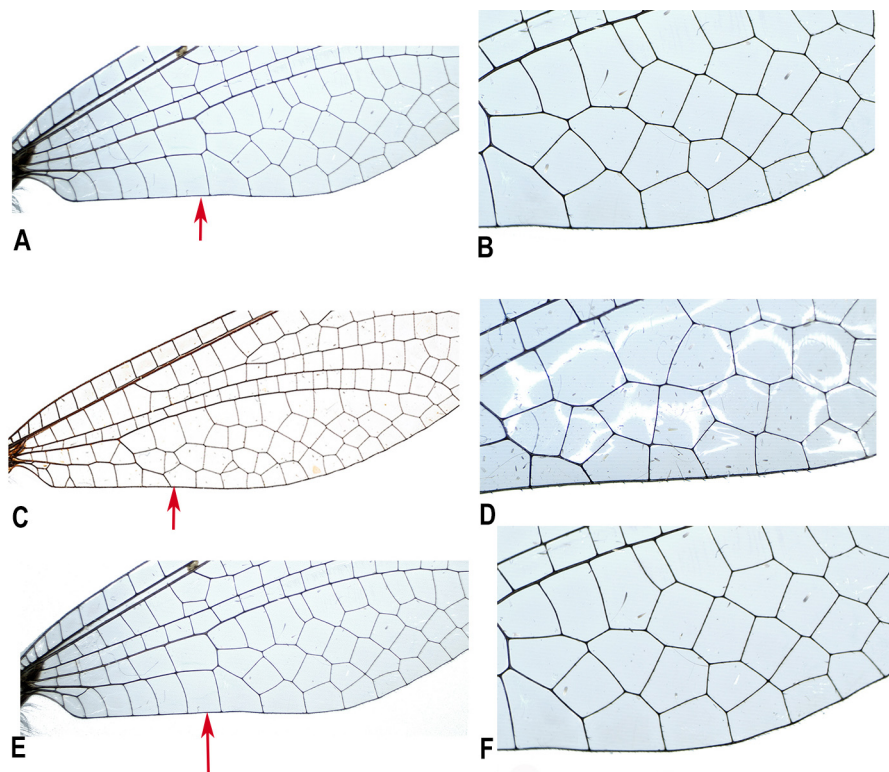


Fig. 20. Hind margin of female forewing A – *Dicolpus volucris* Gerstaecker, 1885, B – the same, magnified, C – *Dicolpus eurypterus* (Gerstaecker, 1885), D – the same, magnified, E – *Dicolpus orientalis* van der Weele, 1909, F – the same, magnified

(2019), the type material *Disparomitus maynei* Navás, 1925 is conspecific with *D. primitivus*, too.

The morphological features of the type specimen of *D. latreillei*, the relatively low number of cross-veins in the costal area, suggest that the type belongs to the genus *Proctarrelabis* Lefébvre, 1842, but freshly collected specimens are also needed to confirm this in the future.

D. sjostedti was also studied by TJEDER (1992), and I confirmed Tjeder's unpublished result (ÁBRAHÁM 2023) that it had to be moved to a new genus as *Bellulula* Ábrahám & Tjeder, 2023.

During the current revision, four valid *Dicolpus* species were found. According to TJEDER (1992), based on his collection labels, only the type species (*D. volucris*) belongs to the genus *Dicolpus*, and he would have placed *D. eurypterus* into a new genus (*Adicolpus*), but this division has not been confirmed. *D. volucris* shows significant sexual dimorphism, but the characters of the other species form a transition and can be grouped into a series of characteristics based on the hind margin of the fore wing (*D. eurypterus*, *D. volucris*, *D. martoni* sp. n., *D. orientalis*). The male genital organs' morphological features do not provide confirmation of the species being placed in a new genus.

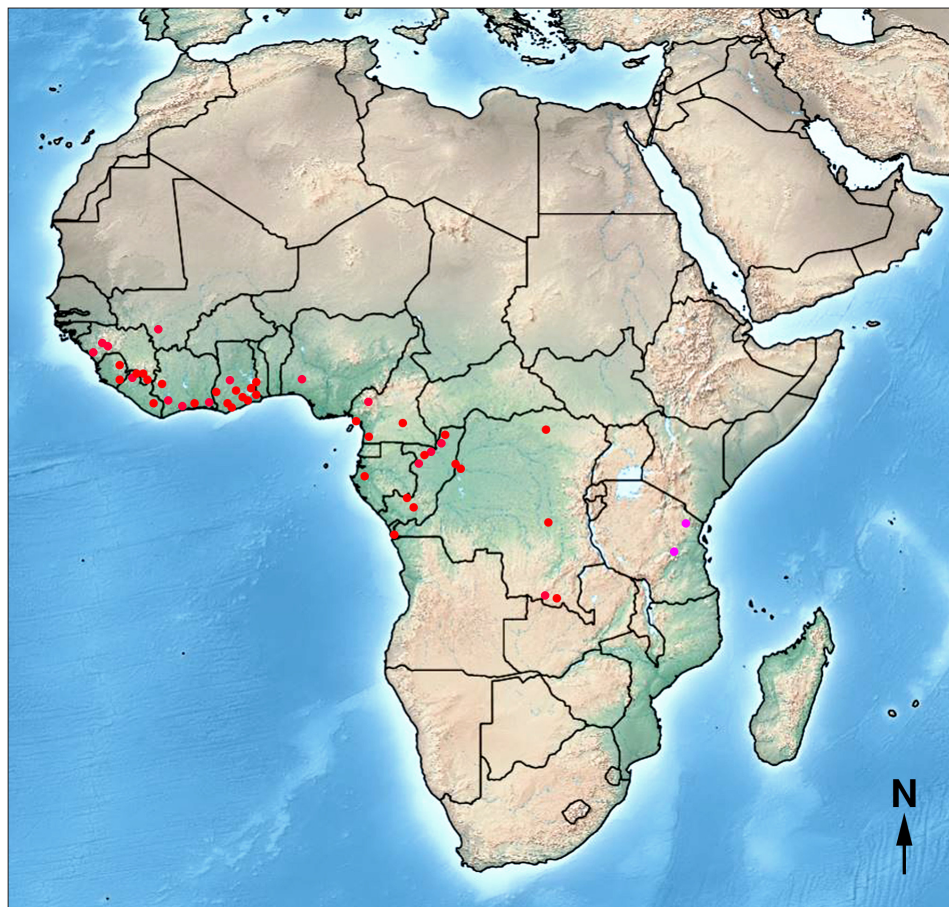


Fig. 21. Distribution of *Dicolpus volucris* Gerstaecker, 1885 (red dots) and *Dicolpus orientalis* van der Weele, 1909 (pink dots) in Africa

Future research may refine the current results because the female of *D. martoni* **sp. n.** is not known, and genetic testing may also give new pieces of information.

According to our current knowledge of the distribution of the genus *Dicolpus* occurs in the Afrotropics. Two species (*D. volucris* and *D. eurypterus*) have a wide distribution in West and Central Africa, one species (*D. orientalis*) comes from East Africa, and a new species (*D. martoni* **sp. n.**) was found in South-East Africa. However, the distribution of the species in the genus is not sufficiently known yet.

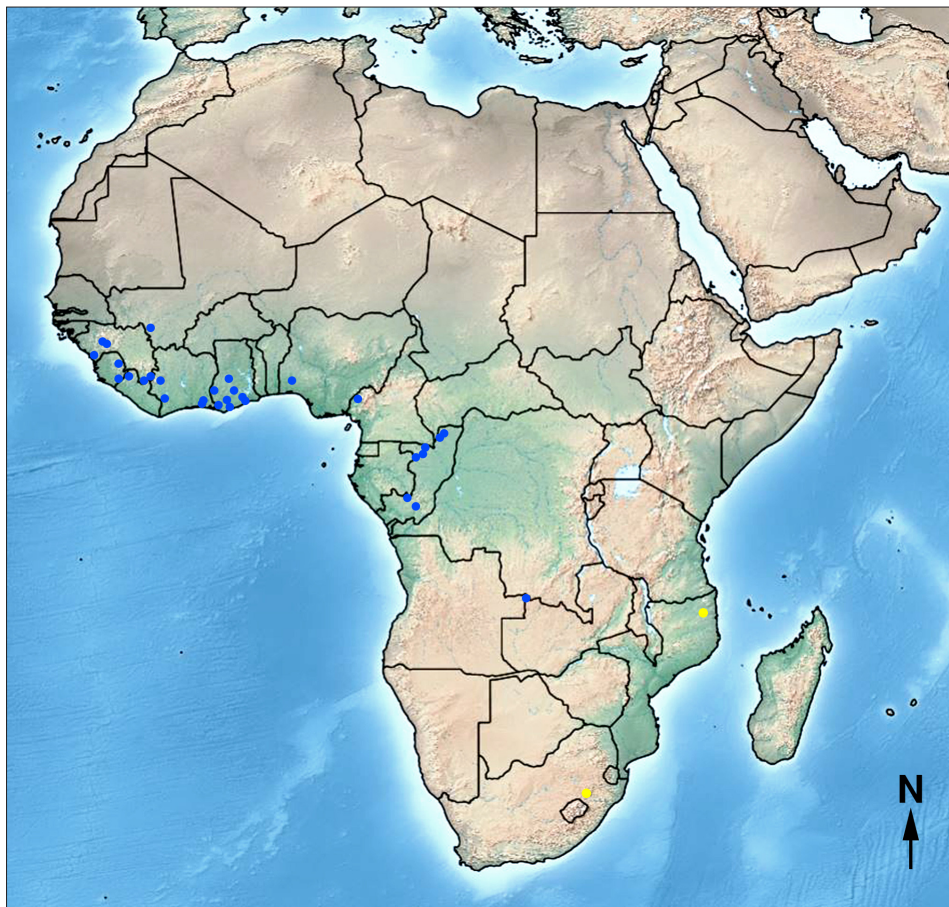


Fig. 22. Distribution of *Dicolpus eurypterus* (Gerstaecker, 1885) (blue dots) and *Dicolpus martoni* sp. n., (yellow dots) in Africa

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