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**New data on *Euchera* HÜBNER, [1826] 1816
(= *Stibolepis* BUTLER, 1878)
(Lepidoptera: Eupterotidae)**

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Abstract

The species group *Euchera* HÜBNER, [1826] 1816, rev.stat. (= *Stibolepis* BUTLER, 1878), rev.syn. is rejected from the *Phiala* WALLENGREN, 1860, and considered as an own genus including 3 species. Two new combinations are established: *Euchera fervidaria* (FABRICIUS, 1787) nov.comb., and *Euchera albida* (PLÖTZ, 1880) nov.comb. The following new synonymies here are established: *Euchera fervidaria* (FABRICIUS, 1787), = *Stibolepis nivea* BUTLER, 1878, nov.syn., = *Phiala (Stibilepis) ochriventris* STRAND, 1911, nov.syn., and *Euchera albida* (PLÖTZ, 1880) = *Stibolepis abluta* HOLLAND, 1893, nov.syn. The male lectotype is designated for *Phalaena fervidaria* FABRICIUS, 1787 from the BMNH collection.

Key words: Lepidoptera, Eupterotidae, *Euchera*, *Phiala*, Afrotropics, taxonomy, new synonymy.

Zusammenfassung

Die Artengruppe *Euchera* HÜBNER, [1826] 1816, rev.stat. (= *Stibolepis* BUTLER, 1878), rev.syn., wird aus der Gattung *Phiala* WALLENGREN, 1860 als eigene Gattung mit 3 Arten ausgegliedert. Folgende Neukombinationen erfolgen: *Euchera fervidaria* (FABRICIUS, 1787) nov.comb., and *Euchera albida* (PLÖTZ, 1880) nov.comb. Folgende neue Synonyme werden geschaffen: *Euchera fervidaria* (FABRICIUS, 1787), = *Stibolepis nivea* BUTLER, 1878, nov. syn., = *Phiala (Stibilepis) ochriventris* STRAND, 1911, nov.syn., and *Euchera albida* (PLÖTZ, 1880) = *Stibolepis abluta* HOLLAND, 1893, nov.syn. Für *Phalaena fervidaria* FABRICIUS, 1787 wird der männliche Lectotypus aus der Sammlung des BMNH designiert.

Introduction

The article deals with a small group of Afrotropical monkey-moths included so far in large and seemingly heterogeneous genus *Phiala* WALLENGREN, 1860 (recte: *Heteromorpha* HERRICH-SCHÄFFER, [1855]). The group joins rather large broad-winged species looking similar males of *Melanothrix* FELDER, 1874. Bright snow white and black wing pattern and extreme rarity their members in the collection allow to suppose they are day-flier or crepuscular moths not attracted (or only weakly so) to any light sources. So far they are known in a very few collected specimens, and 6 names were introduced in connection with this group (chronologically given):

cunina CRAMER, 1782, *Phalaena fervidaria* FABRICIUS, 1787, *Phalaena nivea* BUTLER, 1878, *Stibolepis albida* PLÖTZ, 1880, ?*Phricodia abluta* HOLLAND, 1893, *Stibolepis ochriventris* STRAND, 1911, *Phiala (Stibilepis)*.

It is not quite understandable why so many so different moths are joined within the name *Phiala* at present; the name joins also such taxa as *Lichenopteryx* FELDER, 1874, and *Rhabdosia* HÜBNER, [1820]. All they have very similar male genitalia, with reduced tergal appendages, fused valvae and very long saccus similar related Oriental *Eupterote* HÜBNER, [1820]. We are considering the *Euchera* group as a natural monophyletic complex and therefore given it here as an own genus including three species.

Material and methods

Material studied are from the museums abbreviated here as:

BMNH..... The Natural History Museum, London, UK;

CMNH..... The Carnegie Museum of Natural History, Pittsburgh,USA;

ZMHU Zoologisches Museum der A. Humboldt Universität, Berlin, Germany.

Other abbreviations used are:

TL = type locality;

TS = type species;

HT – holotype;

LT – lectotype;

‘|’ means a new line on the labels.

Photographs of adult were taken by an Olympus Camedia C-750 camera with a Soligor Adapter Tube and Slide Duplicator for Digital 10 diopters modified for object glasses, and were not altered.

***Euchera* HÜBNER, [1826] 1816 rev.stat.**

Verzeichniss bekannter Schmettlinge [sic!]: 305. TS: *Euchera cunica* CRAM. (sic! but given as *Cunicaria* HÜBNER, [1826] 1816, unnecessary replacement name), by subsequent designation by WARREN 1922 – in A. SEITZ, Die Groß-Schmetterlinge der Erde **10**: 444.

= *Stibolepis* BUTLER, 1878 rev.syn. – Annals and Magazine of natural History **5** (2): 463. TS: *Stibolepis nivea* BUTLER 1878 – ibidem **5** (2): 463, by original designation. A subjective junior synonym of *Euchera* HÜBNER, [1826].

In the Genus *Euchera* three species are known.

***Euchera cunina* (CRAMER, 1782): Fig. 1**

Phalaena cunina STOLL in CRAMER, 1782 – De uitlandsche kapellen **3**: 114, pl. 257 (XXL-VII), fig. G. TL: "Sierra Leona". HT: male (?lost).

= *Euchera cunicaria* HÜBNER, [1826] 1816 – Verzeichniss bekannter Schmettlinge [sic!]: 305, an unnecessary replacement name.

Most mysterious species of the genus; its type was not found neither in BMNH nor in the Naturalis biodiversity Center, where some types by Cramer are kept, and the species is known only after original drawing. I can't be sure if this drawing is really exact but pattern elements of the moth quite distinct from those two other species of the genus, *fervidaria* F. and *albida* PLÖTZ. Ringed abdomen is seemingly a fantasy of the painter. The species was collected in Sierra Leona, on the western end of Africa, in the country with high species endemism.

No one member of this species was seen from the western regions of Africa therefore I can't confirm a status of this species.

HÜBNER in his 'Verzeichniss bekannter Schmettlinge [sic!]: 305 considered the species as a member of the Geometridae and therefore changed the ending on – aria formerly typical for geometrid moths; unnecessary replacement name.

***Euchera fervidaria* (FABRICIUS, 1787) nov.comb.: Figs. 2-4**

Phalaena fervidaria FABRICIUS, 1787 – Mantissa Insectorum sistens species 2: 187. TL: [equatorial Africa] "in Africa aequinoctionali". LT: male (BMNH), here designated.
= *Stibolepis nivea* BUTLER, 1878 nov.syn. – Annals and Magazine of natural History 5 (2): 463. TL: [Nigeria] "Old Calabar". HT: male (BMNH) [examined].
= *Phiala (Stibilepis) ochriventris* STRAND, 1911 nov.syn. – Annals de la Société entomologique de Belgue 55: 163. TL: [Cameroon] "aus Kamerun". HT: female (ZMHU) [examined].

The most widely spread species of the genus known from western part of equatorial Africa. It was found so far from Nigeria, Gabon, and Cameroon. Wide black marginal band with zic-zac white pattern is diagnostic. Costal zone of the fore wing crossed with rather broad black fasciae, sometimes (in females) fused in a complete black band. Abdomen is dark yellow.

A synonymy between *nivea* BUTLER, 1878 and *ochriventris* STRAND, 1911 was never doubt; they are absolutely correspond each other and only were described after different sexes. But a type *fervidaria* F., 1787 was considered for the long time as lost and it was found in recognizable condition in the BMNH, in "Mus. Dom. Banks" collection as a couple of moths. It is a rather worn but completely preserved pair; female is more worn; the male (illustrated) is designated here a lectotype of the species. It bears the following labels: a white circle with inscription "63 | 48", brownish (originally white) dense bottom label with double black frame and inscription (?by FABRICIUS? I saw such hand-written text on most labels of FABRICIUS'S specimens from different collections) "*Phalena fervidaria* | Fabr. Mssa Ins. N 29.", and an additional BMNH staff's white printed label "BMNH #669742" meaning the image inventory number.

In spite the both specimens are really aged and some pattern elements are not clear visible, it is quite understandable that both three taxa under consideration are conspecific therefore the synonymy as pointed above is here established.

***Euchera albida* (PLÖTZ, 1880) nov.comb.: Figs. 5-7**

?*Phricodia albida* PLÖTZ, 1880 – Entomologische Zeitung (Stettin) 41: 87. TL: [Cameroon] "Bonjongo". HT: female (?lost).

= *Stibolepis abluta* HOLLAND, 1893 nov.syn. – Entomological News 4 (10): 343, pl. 15, fig. 14. TL: [Gabon, Ogové River] "Kangwé, West Africa". HT: male (CMNH) [examined].

This species was described based on a single female (at least so it was given in PLÖTZ 1880). The types by C. PLÖTZ were deposited in Naturhistorisches Museum zu Stettin, and were lost during the 2. World War. In 1930s the typical specimen of *albida* PLÖTZ, 1880 was (?) sent to A. SEITZ who illustrated it in 'Die Groß-Schmetterlinge der Erde'; hence, a male specimen is figured there instead a female originally pointed out. This specimen originates seemingly from the collection of ZMHU, where 3 more moths from Cameroon are kept; but their colors are too contrastly shown on the plate.



Figs. 2-4: (1) *Phalaena cunina* STOLL, original drawing from CRAMER 1782, pl. 257, fig. G; (2) *Phalaena fervidaria* FABRICIUS, 1787, ♂, lectotype (BMNH); (3) *Stibolepis nivea* BUTLER, 1878, ♂, holotype (BMNH); (4) *Phiala (Stibolepis) ochriventris* STRAND, 1911, ♀, holotype (ZMHU); (5) *Phiala albida* PLÖTZ, 1880, in A. SEITZ 'Die Groß-Schmetterlinge der Erde'; (6) *Phiala albida* PLÖTZ, 1880, ♂, Cameroon (ZMHU); (7) *Stibolepis abluta* HOLLAND, 1893, ♂, holotype (CMNH).

These specimens are rather well correspond to the original *abluta* HOLLAND than to *albida* PLÖTZ and therefore they all are conspecific. A new synonymy is here established. There is no contradiction between locality "Ogové" given on the label of the typical specimen and "Kangwé" listed in the original description. Kangwé is a village on the Ogové River.

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The images of the typical specimens from the BMNH collection are figured here courtesy of the Trustees.

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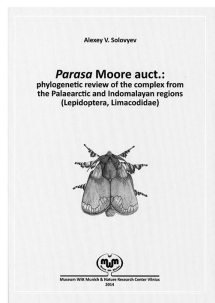
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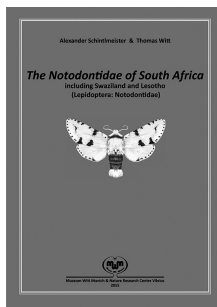
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