

## First data of Cossidae (Lepidoptera) of the Central African Republic

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Present paper provides the first data of Cossidae of the Central African Republic (8 species) based on the materials of the collection of the African Natural History Research Trust (Leominster), Museum Witt (Munich), and the private collection of Manfred Ströhle (Weiden). Six species (*Assegaj clenchi* Yakovlev, 2006, *Gumilevia zhiraph* Yakovlev, 2011, *Aethalopteryx squameus* (Distant, 1902), *Eulophonotus myrmeleon* Felder, 1874, *Strigocossus crassa* (Drury, 1782), and *S. elephas* Yakovlev, 2013) are found for the first time in the fauna of CAR.

**Keywords:** entomology; Cossidae; carpenter moths; Cossinae; Zeuzerinae; Central African Republic; new records; fauna

About 200 valid taxa of Cossidae are known from the Afrotropical Region (Yakovlev, 2011). The carpenter moths of this region have earlier been relatively poorly studied. There are, however, publications available on the carpenter moths of Zimbabwe (Yakovlev & Lenz, 2013), Malawi (Yakovlev & Murphy, 2013), Zambia (Yakovlev, 2014), and Swaziland (Yakovlev & Witt, 2016a). Mey (2015, 2016, 2017) provided a detailed revision of the South African Cossidae. Finally, descriptions of new taxa from Cameroon, Kenya, and Ethiopia have recently been published (Yakovlev & Sáfián, 2016; Yakovlev & Witt, 2017a, b). The Cossidae fauna of the Central African Republic have remained so far completely unknown. Only two species have earlier been published from this country: *Aethalopteryx grandiplaga* (Gaede, 1930) (Yakovlev, 2011) and *Pseudozeuzera biatra* (Hampson, 1910) (Yakovlev & Witt 2018).

### Materials and methods

The material was examined in the collections of the African Natural History Research Trust (Leominster), Museum Witt (Munich), and private collection of Manfred Ströhle (Weiden). Images of adults were taken by the digital camera of Apple iPhone 7, illuminated in lightbox.

### Abbreviations

ANHRT – African Natural History Research Trust, Leominster, UK

CAR – Central African Republic

DMP – Ditsong National Museum of Natural History (formerly Transvaal Museum), Pretoria, South Africa

NHMUK (formerly BMNH) – The Natural History Museum (formerly British Museum of Natural History), London, UK

MWM – Museum Witt, Munich, Germany

RMCA – Royal Museum of Central Africa, Tervuren, Belgium

ZMB – Museum für Naturkunde, Berlin, Germany

### Results

#### *Assegaj clenchi* Yakovlev, 2006

Fig. 1

Yakovlev, 2006: 204.

Type locality: Congo, Cozala Nat. Park.

Type material (holotype) in coll. MWM, examined.

Material examined: 1 male, Central African Rep., 10 km NNE Mbäiki, N 03°56' / E 18°00', 445 m, 11.12.2010, leg. J. Halada (coll. Ströhle, Weiden).

Distribution: Congo, Nigeria, Cameroon (Yakovlev, 2011), CAR (new record).

***Gumilevia zhiraph* Yakovlev, 2011**

Fig. 2

Yakovlev, 2011: 12

Type locality: [Congo], Uele, Paulis [Isiro].

Type material (holotype) in coll. RMCA, examined.

Material examined: 1 male, Central African Republic, Bangui, N 04°20' / E 18°32', 350 m, 20.09.2000, leg. local collector, ex coll. Th. Greifenstein (coll. MWM).

Distribution: Congo, Uganda (Yakovlev 2011), CAR (new record).

***Aethalopteryx grandiplaga* (Gaede, 1930)**

Fig. 3

*Xyleutes grandiplaga* Gaede, 1930: 547.

Type locality: Kamerun, Namiong, b. Lolodorf, a. Lokunjeffluss.

Type material (holotype) in coll. ZMB, examined.

Material examined: 1 male, Oubangui, Chari, Tchad, Bangui (coll. NHMUK).

Distribution: CAR, Congo, Cameroon (Yakovlev, 2011).

***Aethalopteryx squameus* (Distant, 1902)**

Fig. 4

*Duomitus squameus* Distant, 1902: 213.

Type locality: Transvaal, Pretoria (S. Africa).

Type material (cotypes) in coll. NHMUK and DMP, examined.

Material examined: 1 male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5'' / E016°13'02.6'', 20–23.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT); 1 male, Central African Rep., 90 km NE Nola, N 04°07' / E 16°37', 560 m, 5-9.12.2010, leg. J. Halada (coll. Ströhle, Weiden).

Distribution: South Africa, Botswana, Mozambique, Malawi, Ghana, Angola, Tanzania (Pinhey, 1979; Vári et al., 2002), CAR (new record).

***Pseudozeuzera biatra* (Hampson, 1910)**

Fig. 5

*Duomitus biatra* Hampson, 1910: 131-132.

Type locality: S. Nigeria, Old Calabar [Calabar city].

Type material (holotype) in coll. NHMUK, examined.

Material examined: 1 male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5'' / E016°13'02.6'', 28–29.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT).

Distribution: Sierra Leone, Nigeria, Ghana, Uganda, Cameroon, Togo, CAR, Congo, Gabon (Schoorl, 1990; Yakovlev, 2011; Yakovlev & Witt, 2018).

***Eulophonotus myrmeleon* Felder, 1874**

Fig. 6

*Eulophonotus myrmeleon* Felder, 1874: pl. 82: fig. 9.

Type locality. Cape of Good Hope [South Africa].

Type material (holotype) in coll. NHMUK, examined.

Distribution. Continental part of Afrotropical Region (Pinhey 1979; Yakovlev 2011). New record for CAR.

Material examined: 1 male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5'' / E016°13'02.6'', 20–23.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT); 1 male, Central African Rep., 30 km N Nola farm, 11-14.11.2012, leg. J. Halada (coll. Ströhle, Weiden).

***Strigocossus crassa* (Drury, 1782)**

Fig. 7

*Phalaena (Noctua) crassa* Drury, 1782: Pl. 2: fig. 1

Type locality. Sierra Leon [Sierra Leone].

Type material is lost.

Material examined: 28 males, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5'' / E016°13'02.6'', 10–29.ii.2012, Expedition Sangha 2012, P. Moretto leg.; 5 males, CAR, PN de Ndoki, Lac 1, bord du Lac1, N02°28'51.0'' / E016°13'04.5'', 13–14.ii.2012, Expedition Sangha 2012, P. Moretto leg.; 3 males, CAR, PN de Ndoki, Lac 1, plateforme azobe, 35 m, N02°28'51.0'' / E016°13'04.5'', 4–5.ii.2012, Expedition Sangha 2012, P. Moretto leg.; 2 males, CAR, PN de Ndoki, Lac 1, plateforme ayous,

N02°28'40.5" / E016°13'02.6", 28–29.ii.2012, Expedition Sangha 2012, P. Moretto leg.; 2 males, CAR, PN de Ndoki, Mboki, 24.i.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT).

Distribution: Africa (from Central to Southern Africa). New record for CAR.

### *Strigocossus elephas* Yakovlev, 2013

Fig. 8

Yakovlev & Murphy 2013: 381.

Type locality: Uganda [Uganda], Gulu distr., Ajulu.

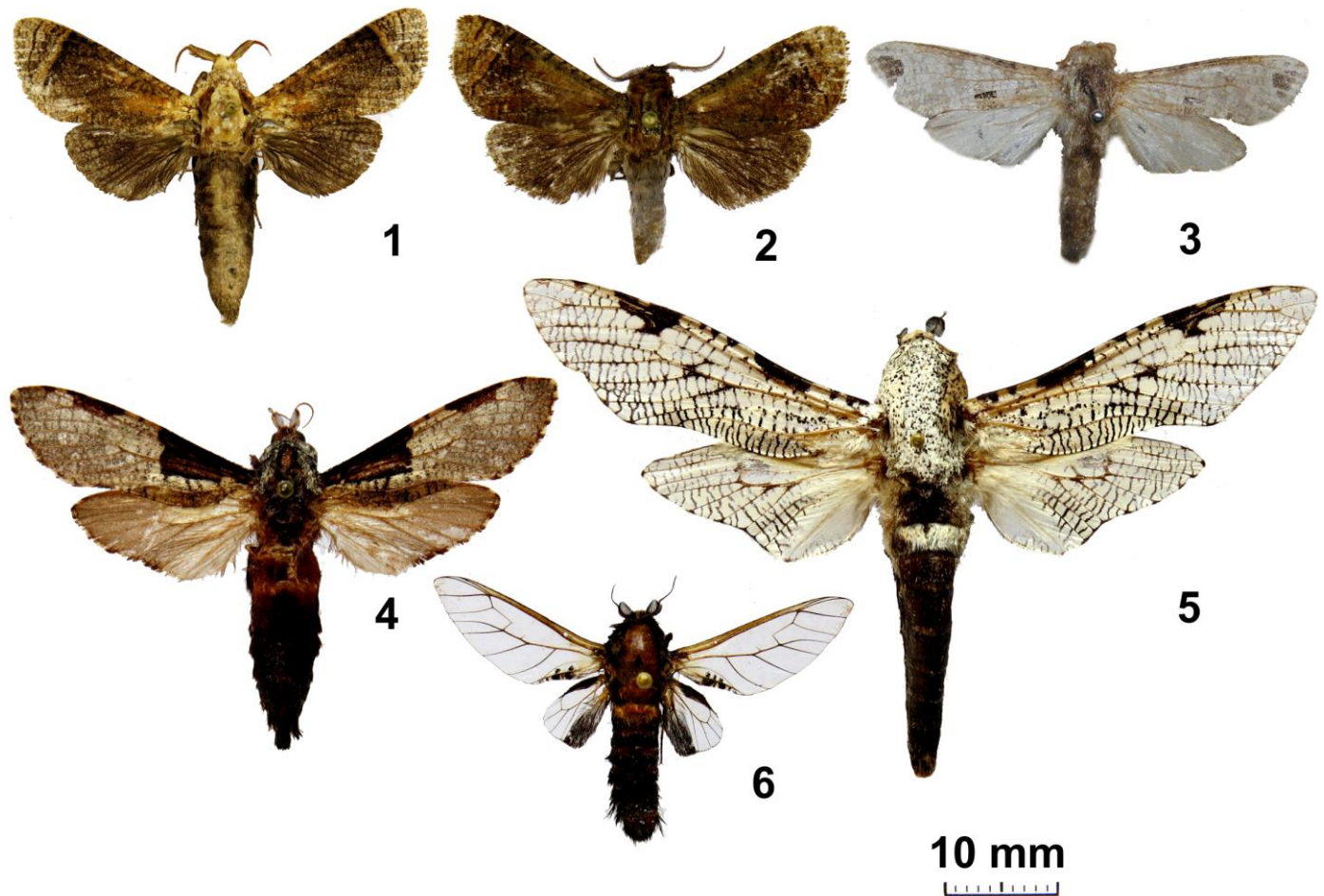
Type material (holotype) in coll. MWM, examined.

Material examined: 4 males, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5" / E016°13'02.6", 18–29.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT).

Distribution. Central and Southern Africa (Yakovlev & Murphy, 2013). New record for CAR.

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**Figures 1-6. Adult Cossidae from CAR:** 1. *Assegaj clenchi* Yakovlev, 2006, male, Central African Rep., 10 km NNE Mbäiki, N 03°56' / E 18°00', 445 m, 11.12.2010, leg. J. Halada (coll. Ströhle, Weiden); 2. *Gumilevia zhiraph* Yakovlev, 2011, male, Central African Republic, Bangui, N 04°20' / E 18°32', 350 m, 20.09.2000, leg. local collector, ex coll. Th. Greifenstein (coll. MWM); 3. *Aethalopteryx grandiplaga* (Gaede, 1930), male, Oubangui, Chari, Tchad, Bangui (coll. NHMUK); 4. *A. squameus* (Distant, 1902), male, Central African Rep., 90 km NE Nola, N 04°07' / E 16°37', 560 m, 5-9.12.2010, leg. J. Halada (coll. Ströhle, Weiden); 5. *Pseudozeuzera biatra* (Hampson, 1910), male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5" / E016°13'02.6", 28–29.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT); 6. *Eulophonotus myrmeleon* Felder, 1874, male, Central African Rep., 30 km N Nola farm, 11-14.11.2012, leg. J. Halada (coll. Ströhle, Weiden).



**Figures 7-8. Adult Cossidae from CAR:** 7. *Strigocossus crassa* (Drury, 1782), male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5" / E016°13'02.6", 10–29.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT); 8. *S. elephas* Yakovlev, 2013, male, CAR, PN de Ndoki, Lac 1, chabilis1, N02°28'40.5" / E016°13'02.6", 18–29.ii.2012, Expedition Sangha 2012, P. Moretto leg. (coll. ANHRT).

## References

- Distant, W.L. (1902). Descriptions of new species of Heterocera from the Transvaal. *The Entomologist*, 35, 212-214.
- Drury, D. (1782). *Illustrations of Natural History, wherein are exhibited upwards of two hundred and forty figures of Exotic Insects, according to their different genera, very few of which have hitherto been figured by any author, being engraved and coloured from (etc.)*. London: B. White. 3(): i-xxvi, 1-76, index, pls. 1-50.
- Felder, C. (1874). Lepidoptera. Heft IV. Atlas der Heterocera Sphingida-Noctuida. In: Felder, C., Felder, R. & Rogenhofer, A.F. *Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Wüllerstorff-Urbair. Zoologischer Theil. Zweiter Band. Abtheilung 2, Heft 4, 1-20, pls. 1-140*. <http://dx.doi.org/10.5962/bhl.title.1597>
- Gaede, M. (1930). 23. Familie: Cossidae. In: Seitz, A. (Ed.), *Die Gross-Schmetterlinge der Erde*. Vol. 14. Alfred Kern Verlag, Stuttgart, pp. 539-551.
- Hampson, G.F. (1910). Descriptions of new African Moths. *The Annals and Magazine of Natural History, including zoology, botany, and geology*. Ser.8, 6, 116-141.
- Mey, W. (2015). Revision of the genus *Arctiocossus* Felder, 1874 and allied genera (Lepidoptera: Cossidae: Cossinae). *Annals of the Ditsong National Museum of Natural History*, 5, 28-55.
- Mey, W. (2016). A taxonomic and faunistic study of the Cossidae of southwestern Africa (Lepidoptera: Cossidae). *Annals of the Ditsong National Museum of Natural History*, 6, 146-198.
- Mey, W. (2017). Corrections and additions to the Cossidae of southern Africa (Lepidoptera: Cossidae). *Entomologische Zeitschrift*, 127 (4), 218-222.
- Pinhey, E.C.G. (1979). Cossidae. *Moths of Southern Africa. Description and colour illustrations of 1183 species*. Rotterdam, 273 pp.
- Schoorl, J.W. (1990). A phylogenetic study on Cossidae (Lepidoptera: Ditrysia) based on external adult morphology. *Zoologische Verhandlungen*, 263, 1-295.
- Yakovlev, R.V. (2006). New Cossidae (Lepidoptera) from Asia, Africa and Macronesia. *Tinea*, 19(3), 188-213.
- Yakovlev, R.V. (2011). Catalogue of the Family Cossidae of the Old World. *Neue Entomologische Nachrichten*, 66, 1-129.
- Yakovlev, R.V. (2014). Cossidae (Lepidoptera) of Zambia. *Check List*, 10(4), 724-728. <https://doi.org/10.15560/10.4.724>
- Yakovlev, R.V. & Lenz, J. (2013). On the Fauna of Cossidae (Lepidoptera) of Zimbabwe with description of a new species. *Zootaxa*, 3718(4), 387-397. <https://doi.org/10.11646/zootaxa.3718.4.8>
- Yakovlev, R.V. & Murphy, R.J. (2013). The Cossidae (Lepidoptera) of Malawi with descriptions of two new species. *Zootaxa*, 3709(4), 371-393. <https://doi.org/10.11646/zootaxa.3709.4.5>
- Yakovlev, R.V. & Sáfíán, Sz. (2016). *Geraldocossus* gen. nov. (Lepidoptera, Cossidae) from Mount Cameroon (West Africa). *Zootaxa*, 4114(5), 595-599. <https://doi.org/10.11646/zootaxa.4114.5.8>
- Yakovlev, R.V. & Witt, Th.J. (2016a). Carpenter-Moths (Lepidoptera: Cossidae) of Swaziland, South Africa. *Far Eastern Entomologist*, 311, 9-12.
- Yakovlev, R.V. & Witt, Th.J. (2016). Cossidae (Lepidoptera) of Pakistan. *Biological Bulletin of Bogdan Chmelniyskiy Melitopol State Pedagogical University*, 6(2), 67-76. <http://dx.doi.org/10.15421/201636>
- Yakovlev R.V. & Witt Th.J. (2017a). Four new species of *Azygophleps* Hampson, 1892 (Lepidoptera, Cossidae, Zeuzerinae) from Africa. *Zootaxa*, 4303(3), 437-444. <https://doi.org/10.11646/zootaxa.4303.3.9>
- Yakovlev, R.V. & Witt, Th.J. (2017b). Eight new species of genus *Camellocossus* Yakovlev, 2011 (Lepidoptera: Cossidae) from North and East Africa. *Russian Entomological Journal*, 26(2), 151-159.
- Yakovlev, R.V. & Witt, Th. (2018). Redescription and Catalogue of little known Genus *Pseudozeuzera* Schoorl, 1990 (Lepidoptera: Cossidae). *Russian Entomological Journal*, 27(3), 289-292. <https://doi.org/10.15298/rusentj.27.3.09>

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