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## Lepidoptera Africana Part 1

### The Lepidoptera of the Brandberg Massif in Namibia

#### Part 1

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### **Zusammenfassungen (Auswahl)**

#### **Introduction: Research on Lepidoptera of the Brandberg in Namibia**

**(Insecta, Lepidoptera)**

Wolfram Mey

**Abstract.** This article introduces the inventory study of the Lepidoptera fauna of the Brandberg Massif in Namibia. It provides background information on the concepts behind the study, the sampling methodology and detailed information on the study area and sites sampled. Three expeditions have been undertaken to the Brandberg from 2000-2002. The primary objective of the field work was to capture all occurring species on the wing at the collecting time. The whole spectrum of the order was considered. The collected material represents a comprehensive sample and gives a first insight into composition and dominance structure of Lepidoptera in Namibia. Species were identified as morphospecies and sorted to families. The families are studied by specialists and the taxonomic results are published in separate chapters. The total number of species and specimens taken at light is documented for each collecting site. The data are used to describe several aspects of  $\alpha$ -diversity and to evaluate faunal similarity, species richness and efficiency of sampling methods.

#### **Tortricidae (Lepidoptera: Tortricoidea)**

Leif AARVIK

**Abstract.** The following new taxa are described from the Brandberg Massif, Namibia: *Eugnosta cataracta* AARVIK sp. nov., *E. namibiana* AARVIK sp. nov., *E. meyi* AARVIK sp. nov., *Selania costifuscana* AARVIK sp. nov. and *Thiodia excavana* AARVIK sp. nov. *Laspeyresia platydryas* MEYRICK, 1932 is proposed as a new synonym of *Cydia malesana* (MEYRICK, 1920) comb. nov.

#### **Coleophoridae (Lepidoptera, Coleophoridae)**

Giorgio BALDIZZONE & Hugo W. VAN DER WOLF

\* Contribution to the knowledge of Coleophoridae, CIV

**Abstract.** Fifteen new species of the genus Coleophoridae, HÜBNER, 1822 are reported from Namibia. They were collected during three expeditions to the Brandberg Mountain, Namibia (2000-2002) and collecting trips by W. MEY in Namibia and South Africa in 2001 and 2003, and by H.W. VAN DER WOLF in South Africa in 1995. They are described as: *Coleophora afrotropicalis* sp. nov., *C. namibiae* sp. nov., *C. kruegeri* sp. nov., *C. capricornis* sp. nov., *C. brandbergella* sp. nov., *C. sanella* sp. nov., *C. arens* sp. nov., *C. aquacadentis* sp. nov., *C. albadomina* sp. nov., *C. damarella* sp. nov., *C. monticola* sp. nov., *C. austrina* sp. nov., *C. meyi* sp. nov., *C. namella* sp. nov. and *C. ugabensis* sp. nov.

### **Bucculatricidae (Lepidoptera, Gracillarioidea)**

Wolfram MEY

Abstract. Eight species of the genus *Bucculatrix* have been found on the Brandberg, Namibia. Six of them proved to be unknown and are described herein as: *B. wittnebeni* sp. nov., *B. eugenmaraisi* sp. nov., *B. kirkspriggsi* sp. nov., *B. damarana* sp. nov., *B. daures* sp. nov., and *B. lutaria* sp. nov. In addition the description of *B. hobohmi* sp. nov. is provided, a species collected in a region near the Brandberg. The male genitalia of the new species are illustrated. Their presumed relatives are indicated.

### **Epermeniidae (Lepidoptera, Epermenioidea)**

Reinhard GAEDIKE

Abstract. The only individual of the family Epermeniidae from the Brandberg, collected by Wolfram MEY, is a new species of the genus *Ochromolopis*. It is described as *Ochromolopis namibica* sp. nov. In addition, the description of two new species from the Transvaal is presented. They are described as *Epermenia bicornis* sp. n. and *E. bulbosa* sp. n.

### **Galacticidae (Ditrysia incertae sedis)**

Wolfram MEY

Abstract. The family Galacticidae with the genus *Homadaula* is recorded for the first time from Africa south of the Sahara. *Homadaula albida* sp. nov. was discovered in the Brandberg area. A second Namibian species, *Homadaula ravula* sp. nov. was collected in the Caprivi and in adjacent areas. Both species are described and the diagnostic characters of the male and female genitalia are illustrated. *Homadaula calamitosa* (MEYRICK, 1930) is redescribed based on a female paralectotype. In addition, an unnamed *Homadaula* species is recorded from Kenya. The unresolved systematic position of the family is briefly discussed. A check-list of all nominal taxa from Africa and West Asia is provided to facilitate the future study of the Galacticidae.

### **Tineidae (Lepidoptera, Tineoidea)**

László GOZMÁNY

Abstract: During several entomological expeditions to the Brandberg Massif, Namibia, 110 specimens of the family Tineidae were gathered. The study of the material resulted in the detection of 16 new species which are described as: *Dinica vulcanica* sp. nov., *Criticonoma calligrapta* sp. nov., *Ceratophaga neodyras* sp. nov., *Tineomigma transiens* sp. nov., *Proterospastis brandbergica* sp. nov., *P. platyphallos* sp. nov., *Gephyristis magica* sp. nov., *Neoepiscardia namibiae* sp. nov., *N. bicornuta* sp. nov., *Parapachtharthra euzona* sp. nov., *P. meyi* sp. nov., *Orocrypsona punctirama* sp. nov., *O. micraula* sp. nov., *O. periacantha* sp. nov., *O. rhyparala* sp. nov., *Hapsifera euschema* sp. nov.

Two new genera were established: *Tineomigma* gen. nov., and *Orocrypsona* gen. nov.

The male genitalia and the adult moths of the new species are illustrated. The diagnostic differences to related species are given and assumed relationships are briefly discussed.

### **Geometridae (Lepidoptera, Geometroidea)**

Martin KRÜGER

Abstract. A survey of the geometrid fauna of the Brandberg Massif, Namibia, yielded 37 species belonging to this family. Distribution of these taxa over subfamilies reflects the general pattern of species richness in southern Africa, with seven species each for Geometrinae and Sterrhinae, eight species of Larentiinae, and 16 species of Ennominae being recorded between 2000 and 2002. A total of 298 specimens were collected, mostly at ultraviolet lights, with some specimens being caught in Malaise traps. Four species of Ennominae proved to be new to science: *Aethiopodes meyi* KRÜGER, 2003, and *Pseudeuchromia*

naufrecta sp. nov., *P. xena* sp. nov. and *Pachycnemoides pseudognophoides* sp. nov., described below. The discovery of the two *Pseudeuchromia* species is remarkable in that it constitutes the first record from the Afrotropical Region of this otherwise Oriental genus. First records for Namibia are provided for five species: *Epirrhoe edelsteni*, *Eupithecia laticallis*, *Mesocolpia lita* (Larentiinae) and *Drepanogynis ennomaria*, and *Hemixesma anthocrenias* (Ennominae). Information on species richness per locality, arranged according to increasing altitude, is presented in form of a table, and comments are provided on faunistic elements.

## **Noctuidae, Catocalinae, partim (Lepidoptera, Noctuoidea)**

Lars KÜHNE

Abstract. The species of the genera *Ulotrichopus* WALLENGREN, 1860, *Audea* WALKER, 1857, *Tachosa* WALKER, 1869, *Hypotacha* HAMPSON, 1913, and *Crypsotidia* ROTHSCILD, 1901 which have been collected on the Brandberg and in other parts of Namibia are recorded for the first time. The following nomenclatorial changes are proposed at the generic level: *Metoposcopa* STRAND, 1912 syn. nov. of *Tachosa* WALKER, 1869.

Three synonyms at the species level are found: *Audea arabica* REBEL, 1907 syn. nov. of *Ulotrichopus tinctipennis* (HAMPSON, 1902). *Audea antennalis* BERIO, 1954 syn. nov. of *A. melanoplaga* HAMPSON, 1902, *Lophotidia trisema* HAMPSON, 1913 syn. nov. of *Tachosa sagittalis* (HAMPSON, 1912).

Two new combinations are introduced: *Lophotidia brunnescens* PINHEY, 1968 comb. nov. of *Xanthodes* GUENÉE, 1852, and *Tachosa fumata* (WALLENGREN, 1860) comb. nov.

Six species and one subspecies are described as new: *Tachosa aspera* sp. nov., *Hypotacha retracta waterbergensis* ssp. nov., *Hypotacha catilla* sp. nov., *Hypotacha austera* sp. nov., *Hypotacha pulla* sp. nov., *Hypotacha parva* sp. nov., *Hypotacha brandbergensis* sp. nov. and *Crypsotidia longicosta* sp. nov. The adult moths and the genitalia of the new species are illustrated in detail.

## **Tischeriidae (Lepidoptera, Tischerioidea)**

Rimantas PUPLESIS, Arunas DIŠKUS & Wolfram MEY

Abstract: Three species of the family Tischeriidae were collected during three expeditions to the Brandberg and to the Waterberg in Namibia: *Coptotriche africana* PUPLESIS & DIŠKUS, 2003 and *Tischeria sparmanniae* PUPLESIS & DIŠKUS, 2003 are known to be rather widely distributed in southern Africa, while *T. antilope* PUPLESIS, DIŠKUS & MEY, 2003 is currently known from the Waterberg only. Additionally, one unnamed species *Tischeria* species 6547 has also been found among historical material collected by G. HOBOHM in Namibia in 1946. The description of the four Namibian species is presented with black and white drawings of the adults and their genitalia. An updated check-list comprising all currently known species of Tischeriidae in the southern part of Africa is given.

## **The Brandberg in Namibia – a centre of endemism and refuge of Lepidoptera (Insecta)**

Wolfram MEY

Abstract. This paper is an initial approach towards elucidating the role and position of the Brandberg from a biogeographical point of view. It focus on disjunct distribution patterns at the species level which came to light with the detection of new Lepidoptera species. Seven disjunction types were recognised, ranging from disjunctions confined to Namibia and South Africa to intercontinental disjunct patterns with the Palearctic and Oriental Regions. The genesis of these disjunctions is briefly discussed and several examples of species from different Lepidoptera families are provided for each type.