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BOOK REVIEW: ASANTE SANA

Title The Lepidoptera fauna of a crater valley in the Great Escarpment of South Africa: The Asante Sana Project.

Publisher Hermann H. Hacker, Jahnstraße, 96231, Bad Staffelstein, Germany.

Journal *Esperiana* (2019) Memoir **8**: 5–550.

Editors Wolfram Mey and the late Martin Krüger.

Summary This excellent publication is important for all students of Karoo Lepidoptera. It is the first of two books, and covers about half of the lepidopteran families recorded at Asante Sana. 124 new species are described by world renowned experts on Afrotropical Lepidoptera.

Contents

The Asante Sana Project was a research collaboration between the Museum für Naturkunde, Berlin and the Ditsong National Museum of Natural History, Pretoria, and resulted in the first all taxa inventory of Lepidoptera on a local scale in South Africa. All available specialists for the various families were invited or co-opted onto the project, and their scope included specimen preparation, analysis and descriptions. This first publication on the project covers about half of the families and subfamilies encountered, and a second volume will follow in a few years' time. Tribute is paid to the role played by the late Martin Krüger, and the book is dedicated to his memory.

The origin of the project is described and preliminary visits to the study area in the eastern Sneeuberg led to a clear definition of the project's scope. A wider area of study was originally contemplated but it was eventually decided to concentrate on the lepidopteran fauna of the private game farm Asante Sana (12 000 ha). It was also decided that all Lepidoptera would be studied, even taxa that were relatively unstudied and poorly known. The duration of the project was 15 years.

The study area is described and aspects covered are geomorphology, hydrology, geology, climatic conditions, vegetation and historical land-use. The collection sites and dates are then documented. Materials and methods included automatic light traps, light towers, and 160 W bulbs at night; and use of hand nets during the day. The aim was to maximise the yield rather than to make any ecological or biodiversity generalisations. The processing, deposition and curation of the collected material is briefly outlined, and a summary tabulation of the material collected by family and subfamily presented.

The principal author of this chapter conducted extensive botanical exploration at Asante Sana from 2005 to 2017 and recorded 575 plant species (48% of the total known Sneeuburg flora). 19 local and regional mountain endemics have been recorded at Asante Sana, of which six are endemics new to science. The vegetation comprises four Biomes (Albany Thicket, Grassland, Nama–Karoo and Azonal) with six recognised and six putative new vegetation types. Non-native and invasive species are also covered, with some serious problems being caused by an invasive South American cactus in the lowlands and in the montane areas *Nasselia trichotoma* (serrated tussock grass), which not only threatens biodiversity but also livelihoods where it takes over from palatable native grasses.

4) Description of the lepidopteran fauna:

Each chapter includes an introduction, biology, taxonomy, (material) & methods, (results), species review (treatments), discussion, acknowledgements, tabulations, references (literature) and illustrations. A total of 124 new species are described, and four new genera erected. The colour plates include photos of adult moths and genitalia dissections

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