

ANNOTATED CATALOGUE OF AFRICAN GRASSHOPPERS SUPPLEMENT



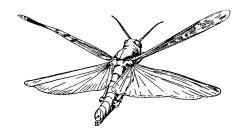


ANNOTATED CATALOGUE OF AFRICAN GRASSHOPPERS

SUPPLEMENT

H. B. JOHNSTON

Anti-Locust Research Centre, London, late Government Entomologist, Sudan



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FOREWORD

One of the obligations of the Anti-Locust Research Centre as a recognized international organization for research and information on locusts and grasshoppers is to make the results of its work known as widely as may be and to keep such information as up to date as possible. These are in themselves good and sufficient reasons for having asked Mr H. B. Johnston to undertake, immediately after the publication of his *Annotated Catalogue of African Grasshoppers*, the preparation of this *Supplement*; but there are further, more compelling, ones. The history of locust and grasshopper control, of many species in many countries, over the past twenty years, has amply demonstrated the necessity of basing that control on as broad a knowledge of the biology of the pest species as is possible; and the foundation of all such work can only be on a basis of taxonomy and systematics. This volume is thus a further tool to those already produced by the Centre for the assistance of acridologists not only in Africa, but the world over.

Mr Johnston has brought to his task knowledge, patience and persistence; he will be rewarded by the surety that this book, like the previous one, is not only a contribution to the subject in itself, but will be instrumental in evoking contributions from others.

P. T. HASKELL

9 December 1966

Director, Anti-Locust Research Centre





PREFACE

It was my great pleasure, some ten years ago, to assist in launching the publication of the *Annotated Catalogue of African Grasshoppers*, a result of years of painstaking work by my old friend and valued colleague, Mr H. B. Johnston. The appearance of that monumental work has been unanimously welcomed by those concerned with the fauna of the African continent for its inestimable value as a comprehensive guide to all the sources of original information, saving them from the time-consuming and often exasperating work of bibliographical excavations.

The appearance of the *Catalogue* has undoubtedly provided a powerful stimulus for the much-needed further exploration of the African grass-hopper fauna, as can be seen in the accelerated flow of new papers dealing with it during the last few years. It is a particularly welcome sign of the present times that much work on that fauna is now being carried out not only by museum taxonomists outside Africa, but also by resident entomologists in scientific institutions and universities throughout the continent. Their work is of particular value because they are able to link up the taxonomy of the insects studied with their ecology, habits and their place in the economy of the country. It is mainly on them that future progress depends and it is for them, working as they are outside large libraries, that the *Catalogue* and the present *Supplement* to it, bringing the available information virtually up to date, will be specially valuable.

The immense task of compiling this information, carried out entirely for the benefit of others, could only be accomplished as a labour of love and Mr H. B. Johnston has fully earned the gratitude of the present and the future generations of acridologists in Africa and elsewhere.

BORIS UVAROV

London November 1966





INTRODUCTION

THE Annotated Catalogue of African Grasshoppers aimed at presenting an index of all information on African Acridoidea up to the end of 1953. The present Supplement continues this index up to the end of 1965. A few important papers published at the beginning of 1966 are also included.

In the twelve-year period since 1953 considerable attention has been paid by Acridologists to the African fauna. This is indicated by the fact that 404 publications, wholly or partly relevant to the subject, have been used in compiling the present work. New genera numbering 113 and 416 new species and subspecies have been described, which is about one-fifth of the total number of African species described before 1953. On the other hand 50 genera and 233 species and subspecies have become synonyms. As a result, calculating on the contents of the Supplement, the African Acridid fauna comprises at present 564 genera and 2,189 species.

Since, with one exception, only new information is included in the Supplement the latter must be used in close conjunction with the earlier work. It is hoped that the plan adopted in the Supplement will make this easy.

The exception referred to above is the genus *Chrotogonus* which has been rewritten according to the revision of the genus by Professor Kevan.

TAXONOMIC ARRANGEMENT

The grouping of genera into families and subfamilies differs from that of the *Catalogue* and follows that recently proposed by Dr V. M. Dirsh, first in 'A preliminary revision of Families and Subfamilies of Acridoidea (Orthoptera, Insecta)', *Bull. Brit. Mus. (Nat. Hist.) ent. Lond.* 10 (9): 349–419 (1961) and later in his larger work *The African Genera of Acridoidea* (Cambridge University Press, 1965). This change in taxonomic arrangement should not affect the usefulness of either *Catalogue* or *Supplement* since these are primarily concerned with recording information on genera and species.

It is believed that all genera of the African continent have been included. The omission of any genera from Madagascar or the oceanic islands already included in the *Catalogue* is due to the absence of new information.

The method of presentation of genera and species follows closely that of the *Catalogue*, but the following points are in addition to those enumerated in the Introduction to the latter.



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ARRANGEMENT OF MATERIAL

The figure within square brackets on the right of the name of a genus or species indicates the page of the *Catalogue* where these are to be found, e.g.

MECOSTIBUS Karsch 1896 [p. 220]

Under each genus and species the numbering of the new citations follows consecutively that of the *Catalogue* to which reference should be made for the earlier history, e.g.

- 3. Hysiella inermis Kirby 1910: 384 (last citation in Catalogue).
- 4. Pseudohysiella inermis Dirsh 1962b: 330 (first entry in Supplement). New combinations are treated as in the example just given.

An asterisk denotes the genera, species and subspecies which have been described since 1953.

The numbering of species adopted in the *Catalogue* has been omitted to allow of the insertion of new species alphabetically.

Citations of descriptions of either the male or female of a species, of which only one sex has previously been described, are followed, where possible, by particulars of locality and location of the specimens used by the author.

Short items as, e.g. 'Type lost' or 'Lectotype 3' are entered under the relevant citation or with the authority in parentheses following. A few noted too late for insertion in this way are placed under 'Additions and Corrections'. The omission of a species indicates that there is no new information on it. The omission of the number of a citation from the summary indicates that the citation in question is a record of capture only or that the species is merely figured. In the former case the country is recorded if a new record.

A glance at the summaries shows that the Morphology, Ecology and Biology of the older species has received increasing attention during the last decade. In the summaries only a general indication can be given of the contents of papers. Thus 'Morph.' covers a wide variety of morphological subjects. A reference to the title of a paper in the Bibliography will often give a clue.

BIBLIOGRAPHY

The 404 publications referred to above have nearly all been issued since 1953, but a few earlier papers, overlooked in preparing the *Catalogue*, have been included.



INTRDOUCTION

In a few cases it has been found necessary to refer again to certain publications issued before 1953, the titles of which are found in the bibliography to the *Catalogue* and not repeated in the *Supplement*.

SYNONYMY

Only new synonyms published since 1953 are specifically indicated, in italics. Cross-references are used in the text, e.g. under the genus Lamarckiana.

aestuans (Saussure 1887) [p. 41]

see Lobosceliana cinerascens p. ...

Where two genera are synonymized it is understood that all the species of the junior genus are to be transferred even though this is not stated by the author. Also any new species described later under the junior genus are similarly treated.

GEOGRAPHICAL DISTRIBUTION

The records of countries are grouped under the same headings as in the *Catalogue*. Those listed may be either new ones not already found in the *Catalogue* or those of countries previously catalogued but on which new information has been published. The inclusion of these latter will, it is hoped, assist students requiring information on the fauna of particular countries.

In the case of new species the name of the type country is not repeated in the Summary unless localities in the country in addition to those of the type are recorded. In the summaries the new names of countries are used, but the exact designation used by the author of new species is quoted. For every African species country lists are given in Dr Dirsh's work mentioned above.

LOCATION OF TYPES

The following should be added to the list to be found on page xv of the *Catalogue*.

Amer. Mus. = American Museum of Natural History, New York.

Basel Mus. = Naturhistorisches Museum, Basel, Switzerland.

Bologna Mus. = Istituto di Entomologia, Universitá di Bologna,

Bologna, Italy.

Bremen Mus. $= \ddot{U}$ berseemuseum, Bremen.

Copenhagen Mus. = University Museum, Copenhagen, Denmark. Calif. Acad. = California Academy of Science, San Francisco,

U.S.A.

Florence Mus. = Museo di Zoologia, Florence, Italy.

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Inst. Parc. nat.	=Institut des Parcs Nationaux, République du
Congo	Congo.
Linn. Soc. Lond.	=The Linnean Society of London, Burlington
	House, London, W. 1.
Lund Mus.	=Lund University Entomological Museum,
	Lund, Sweden.
Lyman Mus.	=Lyman Entomological Museum, MacDonald
	College, Quebec, Canada.
Nairobi Mus.	=Coryndon Museum, Nairobi, Kenya.
Naples Mus.	=Istituto di Zoologia dell'Universitá di Napoli,
	Naples, Italy.
Prague Mus.	= National Museum, Prague.
S. Afr. Mus.	=South African Museum, Cape Town.
Rhodesia Mus.	= National Museum of Rhodesia, Bulawayo.

ACKNOWLEDGEMENTS

Mention is here made, in grateful acknowledgement, of authors who have sent copies of their papers. This has greatly facilitated the work.

Thanks are due to Mr W. K. Ford, Liverpool Museum, for information on the location of the Malcolm Burr Socotra types.

The help of Señor R. Morales Agacino, Madrid, in pointing out certain omissions from the *Catalogue* is gratefully acknowledged.

Professor D. K. McE. Kevan has kindly given assistance in the arrangement of certain Pyrgomorphid genera and with the Bibliography. Dr N. D. Jago has sent a list of Corrections applicable to the *Catalogue*. For his trouble in doing this I am most grateful.

I have to thank Dr P. T. Haskell, Director of the Anti-Locust Research Centre, for the provision of accommodation and facilities for the preparation of the work.

For his active interest and help during the preparation of the work sincere thanks are due to Dr V. M. Dirsh.

It is a pleasure to include Miss J. E. R. Salter and the library staff for help in using the facilities of the Centre's library.

Lastly Sir Boris Uvarov, K.C.M.G., F.R.S., to whose initiative the compilation of the *Catalogue* was due, has again opened his vast store of knowledge and experience of the subject. His advice at every stage and his suggestions for overcoming difficulties have added immeasurably to the value of the work. It is a pleasure gratefully to acknowledge his help.