



Studies on Acridoidea (Orthoptera) with some new records from Fezzan, Libya

MOHAMMAD KAMIL USMANI

Section of Entomology, Department of Zoology, Aligarh Muslim University, Aligarh-202002, India.

E-mail: usmanikamil94@gmail.com

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Abstract

The present study is based on the specimens of Acridoidea during the course of a survey (1993–1996) from various agricultural areas of different regions of Fezzan. Nearly 4,230 specimens were collected from 68 localities and identified down to specific level. From this 50 species of Acridoidea representing 28 genera and 3 families of Acridoidea were identified. Their distinguishing characters and economic importance are given. Bio-ecological data on the species and their relationship with vegetation are also provided. A key to the genera examined is provided. Furthermore, the data resulting from the survey established new records for genera and species of Acridoidea previously known to occur elsewhere in the country and many new localities recorded for others. Among the present material from Fezzan, fifteen genera, twenty-seven species, and eight subspecies are recorded for the first time. Also, three species and three subspecies are reported for the first time from Libya.

Key words: Orthoptera, Acridoidea, diversity, Identification key, Fezzan, Libya

Introduction

Few studies have been undertaken on the Acridoid fauna of Fezzan. The fragmentary notes and records available include those of Salfi (1935a) and Damiano (1969). Little work done on Libyan Fauna has been of taxonomic nature, with little or no attempt to include biological notes on their habitat or food preference.

Keeping in view the economic importance of Acridoidea, a survey of Acrido-fauna was carried out in different regions of Fezzan during the period 1993–1996. The specimens were collected mainly by using sweep-net by surveying important agricultural areas of this region. The major part of material belonged to the subfamily Oedipodinae of the family Acrididae. After the study of specimens originating from this area, it seemed worthwhile to present a more comprehensive picture of the locust and grasshopper fauna of this area than that acquired from the hitherto very insufficient faunistic information. This is the first systematic collection of the grasshoppers and locusts from this area. Further, it has revealed interesting observations on their distribution, biology and pest-plant interactions. Each sample collected and all specimens are recorded with bio-ecological observations and other relevant data (Table 1). The value of this material, however, is that all this quantity of species was found in a comparatively limited area and is accompanied by bio-ecological data. The Acridoids (locusts and grasshoppers) together with other entomological material collected were brought back to the laboratory in order to identify pests down to species and subspecies. The survey yielded a good number of specimens (4,230) belonging to the families Acrididae, Pyrgomorphidae and Pamphagidae from 68 localities which served as a basis for the present critical study. Further it revealed interesting observations on the distribution of grasshopper species in different regions of Fezzan.