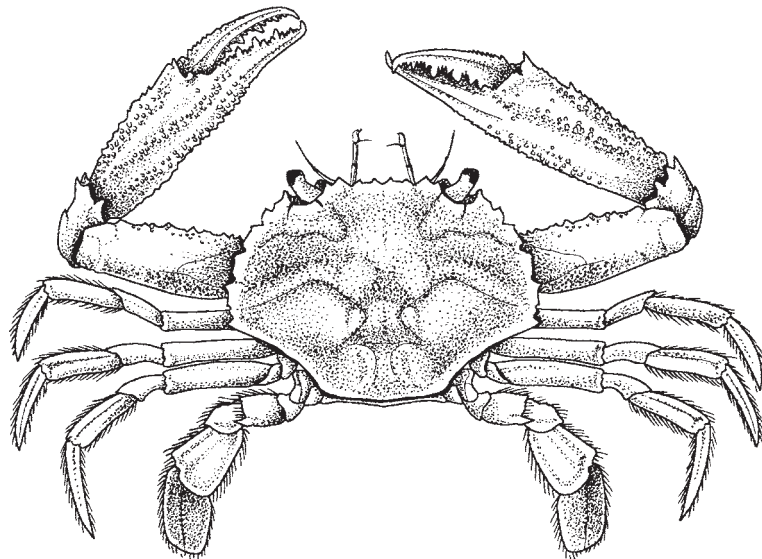


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PREFACE

H.R.H. Prince Saud bin Faisal bin Abdulaziz
Patron
Fauna of Arabia

It gives me pleasure to introduce the twenty-second volume of the “Fauna of Arabia”, another important contribution to our ever-growing body of knowledge on the biodiversity of the Arabian Peninsula and its surrounding seas. This knowledge is fundamental to the conservation of our natural heritage. The Kingdom of Saudi Arabia and its neighbours have signed the Convention on Biological Diversity, joining the community of nations who have pledged to prevent the loss of the planet’s invaluable plant and animal resources. In the Kingdom’s efforts to protect endangered species, the National Commission for Wildlife Conservation and Development (NCWCD), in cooperation with various ministries, has once again stepped up its conservation efforts by developing a new national conservation strategy.

As part of this strategy, NCWCD updated its System Plan of Protected Areas which aims at conserving as much as possible of the Kingdom’s biological diversity. The protected areas established thus far, covering five percent of the Kingdom’s total surface, include the Rub Al-Khali Wildlife Management Area, the second largest wildlife protectorate in the world. The long-term goal is to increase this figure to ten percent, divided up among 35 protected areas managed by NCWCD. Partnerships with other government agencies, organisations, and local communities are being developed to protect additional sites. Besides the Convention on Biological Diversity, other international agreements, such as the Man and Biosphere and World Heritage programmes, the Ramsar and Bonn Conventions, are increasingly being utilised as frameworks for protected area planning and management. At the local level, collaborative management with local communities and the incorporation of traditional practices relevant to conservation are receiving particular attention.

Within this complex strategy to preserve wildlife in its natural ecology through the establishment of protected areas, as stipulated by the Royal Decree of 1986 establishing NCWCD, the “Fauna of Arabia” has its firm place. I once again take this opportunity to congratulate the contributing scientists on their outstanding achievements.



FOREWORD

H.E. Dr Saleh bin Abdulrahman Al-Athel
President
King Abdulaziz City for Science and Technology

In the name of Allah, and prayers and peace upon his messenger.

Islamic teachings maintain that nothing has been created without value and purpose. All creatures are signs of the Creator and glorify Him in unique ways. They all contribute to our common good. Hence, although humans have the right to use these resources, they are not allowed to abuse them, but are required to pass them on to future generations in an unimpaired condition.

Carrying out zoological research and applying the results which are published in the “Fauna of Arabia” to resource management and conservation is part of this obligation. For an effective conservation of biodiversity to be formulated, the distribution of species needs to be accurately documented and for many taxa this can only be done by experienced taxonomists. Given Arabia’s high diversity of terrestrial and marine taxa, a very large number of specialists is required to fulfil this task. So far, more than 350 taxonomists from all continents have contributed papers to the “Fauna of Arabia”, but there is still a considerable number of animal taxa remaining on the shelves of natural history collections and awaiting study, because of a lack of taxonomic specialists. A substantial part of the studies published over the past 27 years has to be attributed to the input from non-professional or amateur researchers who, in addition to professionals working at museums or universities, have contributed important papers. Since the inception of the “Fauna of Arabia”, amateurs have generated many valuable records of species occurrence, providing essential information for conservation planning. Eminent amateurs like John Gasperetti and Edward Wiltshire, who have passed away in recent years, have conducted some of the most outstanding studies published in the series. But in the long run, even the contribution of amateurs cannot reverse the overall decline of taxonomy. Even though traditional taxonomy remains essential, the increased use of molecular techniques in systematics requires skills and laboratory facilities beyond the reach of amateurs. Students of biology should be encouraged to attend taxonomic courses, to develop high-quality identification skills, and to choose taxonomy as a career option. Biodiversity research is not only an indispensable basis for sustainable development and for reinforcing the durability of our national economy, but also contributes to safeguarding a dignified place for humans in nature.

INTRODUCTION

Volume 22 of the “Fauna of Arabia”, which follows shortly after the publication of volume 21, contains a variety of papers on marine and terrestrial invertebrates. Volume 23 will also be published soon, eliminating the backlog of manuscripts which has resulted in some very unfortunate delays in the publication of papers submitted during the last few years. From now on, authors may again be assured of a speedy publication of their articles.

We again mourn the passing away of two eminent entomologists and established contributors to the “Fauna of (Saudi) Arabia”. On 24 September 2005 Dr Alfred Kaltenbach died, aged 86. Born on 13 May 1920 in Vienna, his ambition even from early youth was to become a zoologist. However, in 1939 World War II broke out, and he was drafted into the German army where he served until 1944, followed by ten months as a prisoner of war in American custody. Even during these harsh years he pursued his interests in zoology. In 1946 he enrolled at the University of Vienna, starting his studies in biology. In 1949 he had the opportunity of participating in a collecting trip to Iran, his first contact with the Middle East. During this field trip, which lasted for 14 months, he decided to do his Ph.D. research on Surra, a vector-transmitted disease of camels and horses. Upon his return to Vienna, he submitted his thesis and earned his doctoral degree in 1951. During the following 12 years, he took various jobs to earn a living and worked as an unpaid volunteer at the Vienna Natural History Museum, until in 1963 he was finally taken on to the staff. A few years earlier he had begun his studies on praying mantids (Mantodea), which became his field of taxonomic specialisation. He studied Orthopteroidea and Mantodea from various parts of Europe, Asia, Africa, and Oceania and became the foremost authority on the Mantodea of the Middle East. Alfred Kaltenbach continued working long after his retirement in 1985. He published three major papers on praying mantids in the “Fauna of Saudi Arabia”. As is far too often the case, nobody followed in his footsteps and the region is now left without a specialist on Mantodea.

Dr David Greathead, who died in the UK on 13 October 2006, aged 74, was a specialist on Bombyliidae and other Diptera, especially in the Afrotropical Realm, and an expert on the biological control of crop pests and weeds. He graduated from Imperial College, University of London, in 1953 and worked for the following eight years for the Anti-Locust Research Centre and Desert Locust Survey. During that period he did much field research in Ethiopia, Somalia, Kenya and the Aden Protectorate. In 1962 he was recruited by the Commonwealth Institute of Biological Control (CIBC) to establish its East African Station in Uganda, where he remained under increasingly difficult political circumstances until 1973. He then returned to the UK and served as Assistant Director (1976-85) and then Director (1985-91) of the International Institute of Biological Control (IIBC, formerly CIBC). His early interest in bombyliid predators on egg pods of the desert locust, *Schistocerca gregaria*, developed into his long-term involvement in bio-systematic research on the Bombyliidae, but these and other studies of Diptera were incidental to his main work in biological control. In 1971 he published “A Review of Biological Control in the Ethiopian Region”, followed in 1976 by “A Review of Biological Control in Western and Southern Europe” (co-authored with J.K. Waage) and, in 1983, “Opportunities for Biological Control of Agricultural Pests in Developing Countries” (also co-authored with J.K. Waage). After his retirement from IIBC in 1991 he was awarded an Honorary Senior Research Fellowship at the Centre for Population Biology at Imperial College at Silwood Park, UK, and was still professionally active at the time of his death. Over a period of almost fifty years he published many papers in scientific journals, including three important papers in the “Fauna of (Saudi) Arabia”.

We are very grateful to H.R.H. Prince Saud bin Faisal bin Abdulaziz, Patron of the “Fauna of Arabia”, for his continuous support. H.E. Prof. Dr Saleh Al-Athel, President, Prof. Dr Abdullah A. Al-Rasheed, Vice President for Scientific Research, and Mr Hamad M. Al-Hinty, Director General for Scientific Awareness and Publishing, King Abdulaziz City for Science and Technology (KACST), deserve our thanks for their support in publishing this volume. We are grateful to the members of the Editorial Board at KACST for their advice, namely: Prof. Dr Abdullah A. Al-Rasheed, Chairman; Prof. Dr Abdulrahman I. Alabdula’aly, Director General of the Research Funding and Grant Programme; Prof. Dr Ahmed Al-Harbi, Research Professor; Dr Daham I. Alani, Advisor; Mr Hamad M. Al-Hinty and Mr Abdullah H. Al-Naser, Scientific Research Advisors. Our special thanks are once again due to Prof. Dr Abdulaziz H. Abuzinada for his continuous advice and guidance. Ms Eveline Junqueira drew the vignette on the cover of this volume. Dr Keith Harris contributed the obituary notice of David Greathead.

Riyadh, Frankfurt, Basle and Darmstadt

The Editors

