

ANIMAL IDENTIFICATION

A Reference Guide

Volume 1

Marine and brackish water animals

Edited by

R W Sims

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INTRODUCTION TO VOLUMES 1 and 2

The proliferation of the zoological literature during recent years presents a bewildering abundance of works to the non-specialist. Nowadays with the exception of the literature on the more popular animal groups from well-worked parts of the world, the newcomer will usually need expert guidance to find suitable information whenever he needs to identify an animal. It is the intention in these volumes to provide that help by listing primary reference sources so that the non-specialist by himself will be able to set about identifying any animal from any part of the world.

Many specialists cooperated in the preparation of this book. They were asked to list references which they have found to be most useful and appropriate for non-specialist use. Further, they were asked to bear in mind the kind of person who would have need of such guidance. The user, for example, could be a newly appointed member of a small laboratory, a parasitologist needing to identify a host species, a fisheries officer attempting to identify species to meet food, export or revenue control regulations, or, perhaps a naturalist wanting to identify the elements of his local fauna.

The primary aim is to cite only the principal reference which, if not enabling direct identification, will at least contain a bibliography listing other useful references.

Two difficulties were encountered constantly; either there was no suitable single reference or a choice had to be made from several publications. In the latter case, the final selection was influenced by many factors, in particular: the presence of keys, the adequacy of the descriptions, the number of illustrations, the size of the bibliography, the date of the publication, the obscurity or rareness of the publication and sometimes the language. Certain assumptions were necessary in order to compile a useful and concise guide. First, the user was assumed either to have sufficient knowledge of zoology to classify animals to phylum, class or order, or, the user would know where to obtain this information, for example from the many volumes of *The invertebrates* by L H Hyman (New York: McGraw-Hill), the *Traité de zoologie* edited by P-P Grassé (Paris: Masson), or the current *Encyclopaedia Britannica* in which every animal group is treated in detail. It was also assumed that the user would have access to a major scientific library containing the works cited or that he would be able to obtain photocopies of these. Within the United Kingdom, a photostat service is available at the Science Museum Library, London SW7 and photocopies can be provided by the British Library Lending Division, Boston Spa, Wetherby, West Yorkshire. Comparable services exist in many countries and the user is recommended to enquire at a national, large municipal or university library for information about the facilities available.

The titles of all the journals listed are abbreviated in accordance with the style of the *List of serial publications in the British Museum (Natural History) Library* (London: British Museum (Natural History), 1975); they are generally those used in the *World list of scientific periodicals* (London: Butterworths, 1964). Reports of expeditions and some other widely known works that were issued in a number of parts are also treated as serials.

Book references cite the name of the author or editor, date, title, place of publication, publisher, volume number (where applicable) and pagination.

The abbreviated names of serials *not* printed in roman characters are transliterated. Cyrillic characters are transliterated in accordance with B S. 2979 (British System) issued by the British Standards Institution. The title, when translated, appears between brackets thus [].

When summaries are provided in another language, or when the language of the paper is not widely known or is not self-evident, for example when the title consists solely of a scientific name, the language is indicated.

References are listed under the appropriate animal groups which are arranged systematically. The entries for each animal group are usually subdivided into a general, a systematic and a geographic section. Further subordinate categories may be used to meet special requirements, for example, a host section is introduced in the case of references to parasitic worms. Occasionally a section is omitted because there are no relevant publications available. Within the sections the references are arranged in either a systematic or geographic sequence, occasionally they are arranged chronologically beginning with the oldest.

When consulting the guide, the user should first turn to the opening references for a phylum or class. These list comprehensive books or works which provide details of classification within the group concerned. This step is important because it will guide the user to relevant entries in any subsequent systematic sections.

Identification to phylum or class seldom causes problems but difficulties may arise with a few of the soft-bodied invertebrates. In this event the user should refer to textbooks or other general works on zoology. The same books may be consulted if the general section does not contain references for recognizing the major subordinate categories within a group.

The user should always refer to the entries listed under the appropriate region in the geographic section as these will contain references not listed elsewhere. In case suitable references enabling direct identification are not cited, the user should always check through the bibliographies of relevant works recommended here.

Further references are listed in the appropriate section and part of the *Zoological Record* published annually by the Zoological Society of London.

NOTES AND ACKNOWLEDGEMENTS

The citations in the geographic sections begin with references to the faunas of the northeast and end with those to the faunas of the southwest of an ocean. The oceanic sub-divisions recognized while not always strictly following oceanographic boundaries are, for the most part, the areas of scientific interest as reflected by the richness of the literature.

The production of this reference guide would not have been possible without the unstinting collaboration of many specialists, mostly members of the staff of the British Museum (Natural History). It is with the utmost sincerity that I wish to thank them for the great care taken in laboriously compiling these detailed lists and for their willing co-operation. They are: Dr C R Curds and Miss I C H Wu (Protozoa, *not* Foraminifera and Radiolaria), Mr R L Hodgkinson (Protozoa: Foraminifera and Radiolaria), Miss S M K Stone (Porifera), Dr P F S Cornelius (Coelenterata and Ctenophora), Dr D I Gibson (Monogenea and Trematoda), Mr R A Bray (Placozoa, Turbellaria and Cestoda), Mrs E A Harris (parasitic Nematoda), Mr P J D Lamshead and Dr H M Platt (free living Nematoda), Miss J S Williams (Acanthocephala), Mr C G Hussey (Mesozoa, Gnathostomulida, Nemertinea, Rotifera, Kynorhyncha, Gastrotricha and Priapulida), Dr P E Gibbs* (Sipuncula and Echiura), Dr J D George (Pogonophora), Mr A I Muir (Myzostomaria and Polychaeta), Mr E G Easton (Oligochaeta and Hirudinea), Miss A S Baker, Miss B E Brewster, Mr K H Hyatt and Mr F R Wanless (Tardigrada and Chelicerata, *not* Pycnogonida), Dr G A Boxshall and Miss A R Gurney (Crustacea: 'Entomostraca'), Miss J P Ellis and Dr R J Lincoln (Crustacea: Peracarida and Chelicerata: Pycnogonida), Mr P F Clark and Dr R W Ingle (Crustacea: Decapoda Natantia), Dr A A Fincham and Miss A R Gurney (Crustacea: Decapoda Brachyura), Dr J D Taylor (Mollusca, *not* Cephalopoda), Mr F C Naggs (Mollusca: Cephalopoda), Mr P J Chimonides and Miss P L Cook (Entoprocta and Bryozoa), Mr E F Owen (Brachiopoda), Dr A C Pierrot-Bults* (Chaetognatha), Miss A M Clark (Echinodermata), Mr G L J Paterson (Phoronidea and 'Protochordata'), Mr O A Crimmen (Pisces), Mr A F Stimson (Amphibia and Reptilia), Dr C J O Harrison (Aves) and Miss J M Ingles (Mammalia). On occasions some compilers sent parts of the preliminary lists to other specialists for comments and suggestions. To these workers and others not acknowledged individually who contributed to this joint endeavour, I am especially grateful.

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