

**A TREATISE ON ZOOLOGY,
PART IV: THE
PLATYHELMIA, MESOZOA,
AND NEMERTINI**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649148790

A treatise on zoology, Part IV: The Platyhelminia, Mesozoa, and Nemertini by E. Ray Lankester & W. Blaxland Benham

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

E. RAY LANKESTER & W. BLAXLAND BENHAM

**A TREATISE ON ZOOLOGY,
PART IV: THE
PLATYHELMIA, MESOZOA,
AND NEMERTINI**

A TREATISE ON ZOOLOGY

A
TREATISE ON ZOOLOGY

EDITED BY
desic
E. RAY, LANKESTER
M.A., LL.D., F.R.S.

HONORARY FELLOW OF EXETER COLLEGE, OXFORD; CORRESPONDENT OF THE INSTITUTE
OF FRANCE; DIRECTOR OF THE NATURAL HISTORY DEPARTMENTS
OF THE BRITISH MUSEUM

PART IV
THE PLATYHELMIA, MESOZOA, AND
NEMERTINI

BY
W. BLAXLAND BENHAM, D.Sc.(Lond.), M.A.(Oxon.)
PROFESSOR OF BIOLOGY IN THE UNIVERSITY OF OTAGO, NEW ZEALAND; FORMERLY ALDRICHIAN
DEMONSTRATOR OF ANATOMY IN THE UNIVERSITY OF OXFORD

LONDON
ADAM & CHARLES BLACK
1901

EDITOR'S PREFACE

THE present volume is the "Fourth Part" in order of a comprehensive treatise on Zoology, which has been for some time in preparation under my editorship. In this treatise each of the larger groups of the Animal Kingdom is to be described by a separate author; whilst, as far as possible, uniformity in method and scope of treatment is aimed at. The authors are, for the most part, graduates of the University of Oxford, though it may not be possible to maintain this limitation in future sections of the work.

The general aim of the treatise is to give a systematic exposition of the characters of the classes and orders of the Animal Kingdom, with a citation in due place of the families and chief genera included in the groups discussed. The work is addressed to the serious student of Zoology. To a large extent the illustrations are original. A main purpose of the Editor has been that the work shall be an independent and trustworthy presentation, by means of the systematic survey, or taxonomic method, of the main facts and conclusions of Zoology, or, to speak more precisely, of Animal Morphography.

The treatise will be completed in ten parts of about the same size as the present one. It will at once be apparent that this limitation necessitates brevity in treatment which, however, will not, it is believed, be found inconsistent with the fulfilment of the scope proposed or with the utility of the work

to students. The immediate publication of the following parts may be expected:—

Part I. Introduction and the Protozoa.

Part II. Enterocœla and the Cœlomocœla—The Pori-
fera—The Hydromedusae—The Scypho-
medusae—The Anthozoa—The Ctenophora
(published in September 1900).

Part III. The Echinoderma (published in March 1900).

Part IV. The Mesozoa—The Platyhelmsia—The Nemer-
tini (the present volume).

These parts will be issued, without reference to logical sequence, as soon as they are ready for the press. This procedure to some extent evades the injustice of making an author, whose work is finished, wait for publication until other more tardy writers have completed their tasks.

The following authors have undertaken portions of the work:—Professor Weldon, F.R.S., M.A. Oxon.; Professor Benham, D.Sc., M.A. Oxon.; Mr. G. C. Bourne, M.A. Oxon.; Mr. G. H. Fowler, M.A. Oxon.; Professor Minchin, M.A. Oxon.; Mr. F. A. Bather, M.A. Oxon.; Professor J. W. Gregory, D.Sc.; Mr. E. S. Goodrich, M.A. Oxon.; Professor Hickson, F.R.S. of Manchester; Mr. J. J. Lister, F.R.S., M.A. Cantab.; Mr. Arthur Willey, D.Sc.; Professor Farmer, F.R.S., M.A. Oxon.; Mr. R. I. Pocock; and Mr. Martin Woodward.

E. RAY LANKESTER.

July 1901.

NOTE

It is but just to the author to put on record the fact that the MS. of the chapters on the Platyhelminia were written during the years 1895-97; much of it was printed, and the proofs corrected in 1897; and the whole of the Part was in proof, and most of the figures were already prepared, early in 1898, when the author left England for New Zealand. At the same time the editor is satisfied that no important omissions due to this fact occur in the book, the proofs of which have been revised and some additions made during the present year.

E. R. L.

CONTENTS

CHAPTER XVI

	PAGE
THE PLATYHELMIA—TURBELLARIA	1

CHAPTER XVII

THE PLATYHELMIA—TEMNOCEPHALOIDEA	43
--	----

CHAPTER XVIII

THE PLATYHELMIA—TREMATODA	47
-------------------------------------	----

CHAPTER XIX

THE PLATYHELMIA—CESTOIDEA	93
-------------------------------------	----

CHAPTER XX

APPENDICES TO THE PLATYHELMIA	148
---	-----

CHAPTER XXI

THE NEMERTINI	159
-------------------------	-----

INDEX	197
-----------------	-----

CHAPTER XVI.

PLATYHELMIA—TURBELLARIA.

PHYLUM PLATYHELMIA.¹

CLASS I. TURBELLARIA.

- Order 1. **Rhabdocoelida.**
- „ 2. **Tricladida.**
- „ 3. **Polycladida.**

CLASS II. TEMNOCEPHALOIDEA.

- Order **Dactylifera.**

CLASS III. TREMATODA.

- Order 1. **Heterocotylea.**
- „ 2. **Aspidocotylea.**
- „ 3. **Malacocotylea.**

CLASS IV. CESTOIDEA.

GRADE A. CESTOIDEA MONOZOA.

- Order 1. **Amphilinacea.**
- „ 2. **Gyrocotylacea.**
- „ 3. **Caryophyllacea.**

GRADE B. CESTOIDEA MEROZOA.

Branch a. DIBOTHRIDIATA.

- Order 1. **Pseudophyllidea.**

Branch b. TETRABOTHRIDIATA.

- Order 1. **Tetraphyllidea.**
- „ 2. **Diphyllidea.**
- „ 3. **Tetrarhyncha.**
- „ 4. **Tetracotylea.**

APPENDICES TO PHYLUM.

Rhombozoa, Orthonectida, Trichoplax, etc.

¹ Phylum Platyhelminthes, Lankester, 1890 (*Platyhelminthes*, Vogt, 1851; *Platodes*, Leuckart, 1854; *Platyelminthes*, Gegenbaur, 1859; *Plathelminthes*, Minot, 1877).