

**HALF HOURS WITH
THE MAMMALS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649088560

Half hours with the mammals by Charles Frederick Holder

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

CHARLES FREDERICK HOLDER

**HALF HOURS WITH
THE MAMMALS**



OKAPI (3-151)

Tragelaphus

HALF HOURS
WITH
THE MAMMALS

BY

CHARLES FREDERICK HOLDER

AUTHOR OF "ELEMENTS OF ZOOLOGY," "STORIES OF ANIMAL
LIFE," "LIFE OF LOUIS AGASSIZ," ETC.



NEW YORK ·· CINCINNATI ·· CHICAGO
AMERICAN BOOK COMPANY

COPYRIGHT, 1907, BY
CHARLES F. HOLDER.

ENTERED AT STATIONERS' HALL, LONDON

THE MAMMALS.

W. P. I.

PREFACE

At the present day education is not complete without definite courses of nature study. We are living in an age of strenuous business life and activity, where the best equipped students along the various lines secure the best positions. Time was when zoölogy, botany, and kindred nature studies were classed with music and the so-called dead languages, and were taken up as incidentals or were employed in "mind training"; but to-day there are a thousand branches of trade and commerce which require knowledge that can be obtained only through nature study.

It is not necessary that the student, unless he intends to be a teacher of science or a professional naturalist, should be able to pass examinations in the abstruse classification of animals or delve into difficult anatomical studies. What the average student needs is a broad and general idea of animal life, its great divisions, and notably the relationship of the lower animals to man in an economic sense, the geographical distribution of animals, etc. It is vastly more important for the coming lumber merchant to know the relationship which forests bear to the water supply, and to have a general idea of forestry and the trees which make forests, than to be able to recite a long formula of classification or analysis, of value only to the advanced student or specialist. The future merchant who is to deal in alpaca, leather, dye, skins, hair, bone products, shell, pearl, lac, animal food products, ivory, whalebone, guano, feathers, and countless other articles

derived from animals is but poorly equipped for the struggle for business supremacy if he is not prepared by nature study, nature readings, and other practical instruction along these lines.

It is believed to-day by those who have given the subject the closest attention that the initial move of the teacher should be to call the attention of the child to the beauties of nature, the works of the Infinite, and thus early inculcate a habit of observation. The toys of the kindergarten should be fruits, flowers, shrubs, trees, pebbles, and vistas of mountains, hills, lakes, and streams, and nature study in some form should be continuous in school life.

In the following readings the story of the mammals has been presented on broad lines, divested of technicality, and at almost every step supplemented by forceful and explanatory illustrations as ocular aids to the reader. The subject has been divested of dry detail, and I have introduced notes and incidents, the results of personal observation and investigation in various lands and seas, and have given attention to the often neglected fauna of the Pacific coast as well as that of other regions.

While the volume is a supplementary reader, the matter is so arranged that it can be used by the teacher as a text-book, and the pupil who undertakes the various "half-hour readings" of this series will have covered in the main the ground of the ordinary text-book for intermediate grades in the form of readings. In a word, I have endeavored to make this volume a popular combined review and supplemental reader on the mammals.

CHARLES F. HOLDER.

PASADENA, CALIFORNIA.

CONTENTS

CHAPTER	PAGE
I. MAMMALS	9
II. ANCESTORS OF MAMMALS	18
III. THE EGG-LAYING MAMMALS	27
IV. VALUE OF MAMMALS TO MAN	31
V. THE POUCHED ANIMALS	39
VI. SOME TOOTHLESS MAMMALS	46
VII. THE SEA COWS	55
VIII. THE WHALES	60
IX. SOME INSECT EATERS	72
X. THE GNAWERS	81
XI. SOME HOOFED ANIMALS	100
XII. THE EXTINCTION OF ANIMALS	111
XIII. THE ELEPHANT	121
XIV. THE DEER	133
XV. GOATS AND SHEEP	142
XVI. THE ANTELOPES	147
XVII. THE OX AND THE BISON	153
XVIII. THE CAMELS	157
XIX. THE FLESH EATERS	160
XX. THE BEARS	166
XXI. THE SEALS	176
XXII. THE SEA-LION ROOKERIES	180
XXIII. THE MONKEYS	185
XXIV. EARLY MAN	195

CHAPTER	PAGE
XXV. EARLY AMERICANS	200
XXVI. AMERICAN NATIVE RACES OF MEN	208
XXVII. ADAPTATION OF MAMMALS TO VARIED CONDITIONS	219
XXVIII. THE GAMES OF MAMMALS	226
XXIX. THE INTELLIGENCE OF MAMMALS	230
XXX. GEOGRAPHICAL DISTRIBUTION OF MAMMALS	240
XXXI. MAMMALS UNDERGROUND	248
INDEX	251