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978-1-108-08126-9 - Evenings at the Microscope: Or, Researches among the Minuter
Organs and Forms of Animal Life

Philip Henry Gosse

Frontmatter

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Until the nineteenth century, the investigation of natural phenomena, plants and animals was considered either the preserve of elite scholars or a pastime for the leisured upper classes. As increasing academic rigour and systematisation was brought to the study of 'natural history', its subdisciplines were adopted into university curricula, and learned societies (such as the London Zoological Society, founded in 1826) were established to support research in these areas. These developments are reflected in the books reissued in this series, which describe the anatomy and characteristics of animals ranging from invertebrates to polar bears, fish to birds, in habitats from Arctic North America to the tropical forests of Malaysia. By the middle of the nineteenth century, this work and developments in research on fossils had resulted in the formulation of the theory of evolution.

Evenings at the Microscope

English zoologist Philip Henry Gosse (1810–88) spent several years studying the biodiversity of habitats in North America and the Caribbean. His *Naturalist's Sojourn in Jamaica* (1851) is reissued in this series. When he settled on the Devonshire coast, the area proved equally rich for research. In this 1859 publication, the deeply religious Gosse considers the 'Divine mechanics' of animal body parts and microorganisms seen through the lens of a microscope. He leads the reader through a selection of specimens ranging from a hog's bristle to the shoe-like protist *Paramecium*. Gosse's writing style, enlivened with anecdotes and literary references, earned him considerable appreciation among Victorian audiences. His entertaining text is complemented by more than 100 illustrations which showcase his draughtsmanship. While the work shares its year of publication with Darwin's groundbreaking *Origin of Species*, Gosse's religious views firmly shaped his interpretation of the specimens on show.

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EVENINGS AT THE MICROSCOPE;

OR,

RESEARCHES

AMONG THE MINUTER ORGANS AND FORMS OF

ANIMAL LIFE.

BY

PHILIP HENRY GOSSE, F.R.S.

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P R E F A C E.



To open the path to the myriad wonders of creation, which, altogether unseen by the unassisted eye, are made cognisable to sight by the aid of the Microscope, is the aim and scope of this volume. Great and gorgeous as is the display of Divine power and wisdom in the things that are seen of all, it may safely be affirmed that a far more extensive prospect of these glories lay unheeded and unknown till the optician's art revealed it. Like the work of some mighty genie of Oriental fable, the brazen tube is the key that unlocks a world of wonder and beauty before invisible, which one who has once gazed upon it can never forget, and never cease to admire.

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This volume contains but a gleanings: the author has swept rapidly across the vast field of marvels, snatching up a gem here and there, and culling one and another of the brilliant blossoms of this flowery region, to weave a specimen chaplet, a sample coronal, which may tell of the good things behind. Yet the selection has been so made as to leave untouched no considerable area of the great field of Zoology which is under the control of the Microscope; so that the student who shall have verified for himself the observations here detailed, will be no longer a tyro in microscopic science, and will be well prepared to extend his independent researches, without any other limit than that which the finite, though vast, sphere of study itself presents to him.

The staple of the work now offered to the public consists of original observation. The author is far from thinking lightly of the labours of others in this ample field; but, still, it is true that, respecting very many of the subjects that came under his notice, he found, in endeavouring to reproduce and verify published statements, so much perplexity and difficulty, that he was thrown back upon himself and nature,

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compelled to observe *de novo*, and to set down simply what he himself could see. The ever accumulating stock of observed and recorded facts is the common property of science; and the author has not scrupled to reproduce, to amplify, or to abridge his own observations which have already appeared in his published works and scientific memoirs, as freely as he would have cited those of any other observer, in which he had confidence, and which were germane to his purpose. Yet in almost all cases the observations so used have been subjected to renewed scrutiny, and have been verified afresh, or corrected where found defective.

In order to relieve as much as possible the dryness of technical description, a colloquial and familiar style has been given to the work; which has been thrown into the form of a series of imaginary *conversazioni*, or microscopical *soirées*, in which the author is supposed to act as the provider of scientific entertainment and instruction to a circle of friends. It is proper to add, however, that the precision essential to science has never been consciously sacri-

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ficed. A master may be easy and familiar without being loose or vague.

A considerable amount of information will be found incidentally scattered throughout the work, on microscopic manipulation,—the selecting, securing, and preparing objects for examination;—an important matter, and one which presents a good deal of practical difficulty to the beginner. Not a little help will be afforded to him, also, on the power to observe and to discriminate what he has under his eye. In almost every instance, the objects selected for illustration are common things, such as any one placed in tolerably favourable circumstances, with access to sea-shore and country-side, may reasonably expect to meet with in a twelvemonth's round of research.

The pictorial illustrations are almost co-extensive with the descriptions; they are one hundred and thirteen in number; all, with the exception of eighteen, productions of the author's own pencil, the great majority having been drawn on the wood

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direct from the Microscope, at the same time as the
respective descriptions were written. He ventures to
hope that they will be found accurate delineations of
the objects represented.*

TORQUAY, *February*, 1859.

* The subjects on pp. 51, 58, 118, 120 (the lower figures), and 184,
have been copied, under the courteous permission of the publisher,
from Dr. Carpenter's valuable work, "The Microscope, and its
Revelations." (Churchill, London.)

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