

RESEARCHES IN NATURAL HISTORY

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Researches in Natural History by John Murray

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JOHN MURRAY

**RESEARCHES IN
NATURAL HISTORY**

1830

RESEARCHES
IN
NATURAL HISTORY.

Second Edition.



— Equidem credo, quia uti divinitus illis
Ingenium. Vrad.

BY JOHN MURRAY,
F.S.A. F.L.S. F.H.S. F.G.S. &c. &c.

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PREFACE

TO THE SECOND EDITION.

THIS volume is a new edition, or rather a new work, and fraught, it is hoped, with renewed interest, from the increased number of facts and recorded phenomena. Much has been expunged that was, on reflection, presumed to belong more naturally to another branch of science, or at least made the question too complex and abstruse; such as the preliminary remarks on Light, which might generally be supposed extraneous and irrelevant. Subsequent researches and more extended experiments have also enabled me to modify and enlarge my remarks, or fortify and confirm my previous conclusions.

The least agreeable part of my task is to combat the opinions of those from whom I differ. I allude here to the paper of Mr. Blackwall in the Linnean Transactions on the ascent of the gossamer spider, and the subsequent controversy to which it gave rise, and to Mr. Rennie's Remarks in "Insect Architecture." My views on the principles by which the gossamer spider effects its ascent, possessed as they were of *novelty*, and published long before Mr. Blackwall had ever turned his attention to the subject, could not be expected to run the gauntlet of public opinion without scrutiny, and accordingly they have been canvassed and questioned. I trust it will be found that the facts

are honestly stated, and the opposite opinion weighed without prejudice in the balance of induction. As regards myself, the more I extend my observations the more fixed and settled is my conviction. Should the agitation of this very curious subject excite others to the enquiry (and it seems to have already roused M. Virey in France), it will accomplish something; and should future investigation prove me in error, I shall cheerfully acknowledge my mistake;— my conclusions *may* ultimately be found incorrect, but the registered facts will still remain the same. Unfettered by any hypothesis or preconceived opinion, I shall continue my researches and pursue my experiments. In order to afford a better illustration of some of the luminous animals, terrene as well as marine, described, and a phenomenon connected with the flight of the spider, a plate has now been added to the volume, from the lithographic press of Mr. Hullmandel.

What has been withdrawn is substituted by new and interesting matter obtained from various sources, intermixed with details of original research and remark: in the disposal of these accumulated materials I have endeavoured to be select, and as little diffuse as possible. In reference to the phosphorescence of the ocean, I confess myself under considerable obligations to Mr. Thompson's curious and original "Zoological Researches,"— a work that bears in addition to its other interesting qualifications the evidence of much industry. To its ingenious author we owe the discovery of that "rara avis" the *pentacrinus europæus*, found in a living form in the Cove of Cork.

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