

**HORMONES AND HEREDITY; A
DISCUSSION OF THE
EVOLUTION OF ADAPTATIONS
AND THE EVOLUTION OF SPECIES**

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Hormones and heredity; a discussion of the evolution of adaptations and the evolution of species
by J. T. Cunningham

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J. T. CUNNINGHAM

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A DISCUSSION OF THE EVOLUTION OF
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OF SPECIES

BY

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PREFACE

My chief object in writing this volume was to discuss the relations of modern discoveries concerning hormones or internal secretions to the question of the evolution of adaptations, and on the other hand to the results of recent investigations of Mendelian heredity and mutations. I have frequently found, from verbal or written references to my opinions, that the evidence on these questions and my own conclusions from that evidence were either imperfectly known or misunderstood. This is not surprising in view of the fact that hitherto my only publications on the hormone theory have been a paper in a German periodical and a chapter in an elementary text-book. The present publication is by no means a thorough or complete exposition of the subject, it is merely an attempt to state the fundamental facts and conclusions, the importance of which it seems to me are not generally appreciated by biologists.

I have reviewed some of the chief of the recent discoveries concerning mutations, Mendelism, chromosomes, etc., but have not thought it necessary to repeat the illustrations which are contained in many of the volumes to which I have referred. I have made some Mendelian experiments myself, not always with results in agreement with the strict

Mendelian doctrine, so that I am not venturing to criticise without experience. I have not hesitated to reprint the figure, published many years ago, of a Flounder showing the production of pigment under the influence of light, because I thought it was desirable that the reader should have before him this figure and those of an example of mutation in the Turbot for comparison when following the argument concerning mutation and recapitulation.

I take this opportunity of expressing my thanks to the Councils of the Royal Society and the Zoological Society for permission to reproduce the figures in the Plates. I also desire to thank Professor Dendy, F.R.S., of King's College for his sympathetic interest in the publication of the book, and Messrs. Constable and Co. for the care they have taken in its production.

J. T. CUNNINGHAM.

LONDON, *June* 1921.

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