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Book Notices

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New Paths in Genetics

This book by one of the most widely known of English biologists reviews the trends in three branches of contemporary genetics. The treatment of no subject is intended to be exhaustive, since the book is based upon a series of lectures delivered at the University of Groningen, Holland, in 1940, at which the author intended to emphasize those phases of contemporary genetics with which he has had the widest personal contact.

Genetics is related to biochemistry chiefly by considering cases of plant pigmentation for which both genetic and chemical information are most complete. Other cases, including metabolic disturbances in man, are briefly summarized. The relationship of genetics to development is treated from the standpoint of the effect of various mutant genes upon embryological and histological processes, chiefly in the mouse and rat. No attempt is made to survey the numerous cases of developmental genetics in insects. Greatest space is devoted to the problems of human heredity. By means of examples, the author considers the influences of non-genetic agents such as the mother’s age upon the frequency of occurrence of certain abnormalities, the mutation rate of certain human genes, the selective disadvantages of certain others, the importance of detecting and estimating genetic linkage in man, and the importance of understanding the exact mode of action of the so-called modifying genes.

In general the book is intended for the reader with an elementary grounding in genetics, but not with an intimate grasp of all the technical tools.—E. L. Green.