
Cytology

This new book by Professor Sharp is intended as an elementary text to be used in courses following beginning botany and zoology. The plan is similar to that of his well-known "Introduction to Cytology," but with the material receiving a simpler treatment in an attempt to meet the level of understanding of students with only an elementary background. The first chapter traces cytological developments and outlines the position of cytology in biological science. The following chapter is a discussion of the organism as a whole and the cell. The next four chapters present the structural components of protoplasts, the physical characteristics of protoplasm, division of the protoplast and the cell wall structures. The structure of chromosomes is discussed and nicely illustrated in Chapter 7. This discussion includes the giant chromosomes of *Drosophila*, *Sciara* and *Chironomus*. The subject of Chapter 8 is Meiosis. The chapter is carefully written and illustrated, including material from both plants and animals. The succeeding three chapters deal with the cytology and reproduction in plants and animals. These are followed by chapters on cytology and Mendelian heredity, chromosomal aberrations, chromosome numbers and their alteration and cytological aspect of hybridity. This includes recent work on the induction of tetraploids by use of colchicine, resulting in new fertile types from sterile but desirable hybrids. A brief summation of our knowledge of the role of cytoplasm in development and heredity appears in Chapter 17. The last chapter adds a new phase and application of cytology to the important biological problem of taxonomy. No specific references are given in any of the chapters. However, at the end, ten pages of "Suggested Reading" are included. This new work of Professor Sharp will likely meet the need of many as a text for undergraduates.—*G. W. B.*

Fundamentals of Cytology, by Lester W. Sharp; 267 pages, 6 x 9, 176 illustrations. McGraw-Hill Book Company, New York. $3.00.