

he carries laboratory research in plant physiology, with its many limitations, into the field, where the life processes of plants, though more difficult to study, can be investigated under entirely natural conditions. He emphasises that records obtained of a plant's behaviour at any given time or at stated intervals do not reveal the many fluctuations which the plant undergoes during the whole period of the day, for plant environments experience more widely different ranges and variations of climate than those recorded by the usual meteorological instruments.

Suggestive ideas, often based on isolated investigations and experiments, indicate to the field ecologist the many avenues of research still awaiting him. The interpretations suggested for many well-known phenomena will prove of considerable interest and value to the botanist, horticulturist, agriculturist, and forester, and illustrate the part that botany plays as a basic science for all these forms of study of plant life.

The last chapter, devoted to principles of experimental ecology, contains an interesting and suggestive "Survey of Adaptation Forms": a contribution to the classification of plants on ecological principles. The field botanist is left to develop this scheme and complete the 'key' to plant life in relation to ecological characters. The author closes with the remark, which by now will have been impressed upon his reader, that "the detailed ecological analysis of an association is, however, an extremely troublesome and tedious undertaking".

The translation has been rendered into simple language which enables the arguments to be followed readily by any student of botany.

*Cancer and Scientific Research.* By Dr. Barbara Holmes. (Sheldon Books of Popular Science.) Pp. 160. (London: The Sheldon Press; New York and Toronto: The Macmillan Co., 1931.) 3s. 6d. net.

ACTIVE research into the cause of cancer is now running mainly along two lines. Laboratory workers are particularly concerned with the experimental production of cancer by tar and other similar irritating agents, and with the fowl tumours which may be transmitted from bird to bird by an ultra-microscopic agent. Statisticians and hygienists, on the other hand, are attentively and fruitfully examining the relation between modes and habits of life and the occurrence of malignant tumours. Particularly encouraging is the fact that these two methods of approach have in recent years converged to the common conclusion that much cancer is due to external influences rather than to any inherent vice in the body, and should therefore be preventable.

We do not know of any short semi-popular publication in which the important facts—and some of the theories—are set out so plainly as they are here, and with as good an instinct for grain rather than chaff. The common significance of the human and animal experience is well brought out. Dr. Holmes wisely confines herself to the causes of cancer, and

scarcely mentions treatment. We can commend her book to biologists in general even more heartily than her father does in the preface.

*A Brief Introduction to the Use of Beilstein's Handbuch der organischen Chemie.* By Prof. Ernest Hamlin Huntress. Pp. viii+35. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1930.) 5s. net.

THIS is an interesting booklet designed to help the young student in mastering the intricate system of classification used in the last edition of Beilstein's "Handbuch". A very comprehensive account of this is given at the beginning of vol. I of the "Handbuch"; but the system is naturally so complicated and difficult to understand that properly to assimilate it requires a better knowledge of German than most young students possess. Notwithstanding the excellent compendia that exist, Beilstein is still the best and most used source of information on organic compounds, and it is essential that anyone intending to specialise in organic chemistry should be able to find his way in it easily and rapidly.

The booklet under review gives a very concise, clear, and intelligible account of the system of classification of the alicyclic and homocyclic divisions, and concludes with a number of examples to illustrate the fundamental points involved.

The printing is good and is singularly free from typographical errors. Its sole disadvantage is the price, which is high for a 35-page booklet.

*The Monadology of Leibniz: with an Introduction, Commentary and Supplementary Essays.* By Dr. Herbert Wildon Carr. Pp. ix+213. (London: The Favil Press, 1930.) 10s. net.

THE popularity of Leibniz in recent years gives an added interest to this new critical edition of the masterly epitome of the great philosopher's views. A running commentary accompanies each paragraph of Prof. Carr's translation, and illuminates the condensed thought of the "Monadology". The elucidations of Leibniz himself on the origin and meaning of the theory of monads, on the reform of the ontological argument, on the definition of matter, on the nature of free-will and the theory of pre-established harmony, together with Prof. Carr's supplementary essays on the monadology, are a useful help to the understanding of this work, which is but a small part of Leibniz's philosophy. T. G.

*How You Work: an Introduction to the Human Body.* By Dr. Isabel Wilson. Pp. xi+178. (London: Gerald Howe, Ltd., 1930.) 3s. 6d. net.

THIS delightful little book is so attractively written and couched in such simple language that no child ought to be denied the opportunity of hearing, from teacher or parent, about the working of its little body. There can be no better exercise for the attainment of human understanding and happiness than that of starting to think biologically at an early age.