

The genetical interest of cancer, and the importance of genetical principles for the study of cancer, thus emerge as beyond question. At the same time the genetical approach is but one of the many which are brought together in a treatment distinguished for the breadth of its view. Few experimental biologists can fail to derive stimulation from Huxley's presentation ; and indeed perhaps the best comment by way of summing up is to say that at least one reader is left with no doubt of the profit which, paraphrasing the words of the preface, biological science will derive from incorporating the cancer problem in its purview. KENNETH MATHER.

THE SPECIES PROBLEM. Edited by E. Mayr. Pub. No. 50 American Ass. Adv. of Science, Washington: Bailey Bros. and Swinfen Ltd., London. 1957. Pp. 395. 80s.

The classification of living organisms into species was developed originally for the convenience of identification. For this purpose the procedure for classifying was, and still is, a problem in itself. With the advent of Darwinism and, more recently, of genetics, it was natural to attempt to reconcile these units of identification with the units of variation and of evolution. Thus arose a new problem of a more profound and formidable character. A symposium to consider the problem was held at the meeting of the American Association for the Advancement of Science in Atlanta in 1955, the proceedings of which are recorded in this book.

The problem is defined and presented in an introduction by Professor Mayr. Contributions follow by Americans eminent in a wide variety of fields, genetics (H. L. Carson and T. M. Sonneborn), physiology (C. Ladd Prosser), embryology (J. A. Moore), palæontology (J. Imbrie) and systematics (V. Grant and J. L. Brooks). Professor Mayr sums up in the final paper.

There is, in general, agreement that the concept of the species in the modern, "biological", sense is meaningful and worthwhile. On theoretical grounds the species concept has been enriched, and has benefited from, the infusion of genetic principles relating to gene flow and to genetic diversity as a basis for adaptive specialisation. In practice, as is made clear, there are difficulties of application, in particular to organisms reproducing asexually. The opinion of the majority of the contributors, and of Professor Mayr, that the benefits outweigh the difficulties, will not surprise and indeed will be endorsed by most biologists. Agreeable a feature though this may be it is perhaps not sufficient to encourage spending £4. There are, however, two other good reasons for recommending this book. Firstly, the papers are admirable, up-to-date summaries of results from an unusually wide range of investigations, each with an approach of its own, and each making its own special contribution to the same central problem. The result is thus to enlarge and extend one's appreciation of the concept of species and speciation. Secondly, Professor Sonneborn's article, dealing chiefly with *Paramecium*, is outstanding for its comprehensive analysis of natural populations considered from the standpoint both of individuals and of genetic systems. H. REES.

INSIDE THE LIVING CELL. By J. A. V. Butler. London: Allen & Unwin. 1959. Pp. 174, with 16 plates. 21s.

Professor Butler is a distinguished chemist who has worked on biological problems and in this book he discusses many of the topics which are important centres of biological research to-day. His subject matter ranges