BOOK REVIEWS

The Study of Behaviour by J. D. Carthy, revised by Philip E. Howse. The Institute of Biology's Studies in Biology, No. 3. Published by Edward Arnold, London. Second edition, 1979, pp 68; price £1·90.

This is one of over a hundred short books on specific topics in biology sponsored by the Institute of Biology. It is meant to provide an authoritative and an up-to-date view of the current status of the study of behaviour in simple language and with examples designed to encourage the reader to begin his or her own investigations. I found it a useful account for a beginner, covering a whole variety of topics: orientation and navigation, sensory factors, courtship, rhythm, hormones and pheromones, learning, social behaviour and behaviour and survival. Many of the interesting facts recently discovered about these topics have been incorporated in the account and are well summarized.

Unfortunately, the book lacks a unifying framework. It treats the various facets of animal behaviour in isolation, and makes only the most cursory attempts to acquaint the reader with the exciting new conceptual developments that have taken place in the study of behaviour over the last fifteen years. These developments have flown from a clearer understanding of the process of adaptation through natural selection, following the work of W. D. Hamilton, J. Maynard Smith, G. C. Williams and R. L. Trivers. In particular, it is now accepted that natural selection acts primarily at the level of the individual. Howse seems quite unaware of this crucial point, regardless of his reference to the ideas on evolution of altruism. For on page 57 he says 'on the whole, a hierarchial system decreases the amount of inter-individual aggression··· in a group ··· This is advantageous because fighting....takes up time which is wasted from the point of view of the group.' This major failure means that the book is not an up-to-date and authoritative view of the study of behaviour at all; rather it is a useful, but conceptually outdated review of a variety of topics related to behaviour.

MADHAV GADGIL

Introduction to Experimental Ecology by T. Lewis and L. R. Taylor. Published by ELBS and Academic Press, London. ELBS edn., 1979, pp xi + 401; price £2·80.

This is the low-priced edition of one of the most popular books on experimental ecology. Meant for both students and teachers, the book shows in an elegant manner, how simple observations on various living forms in the surroundings can be made and how to interpret them. Many of these experiments can easily be conducted by high school students

which will make them take a livelier interest in their surroundings. Since this is supposed to be an introductory book in experimental ecology excessive theory has been avoided but has been fortified with a large number of numerical examples. The authors have also done well to caution the student against the common pitfalls he should guard against.

After a brief introduction on the scope and principles of ecology the book deals substantially with the basic analytical methods in ecology. Then follows a fairly long list of experiments both short term and long term which can be truly enlightening. The authors have provided a small key to these experiments classifying them based on subject and more interestingly on specific requirements like apparatus needed, season, site, labour, duration, etc. A resourceful teacher with motivated students can profitably use the concepts developed in the book for exploring the region. Most of the colleges in India lack the sophisticated equipment needed for the modern biochemical students. These colleges can take up intensive studies on the local flora and fauna, which in the long and the short run can benefit the community a great deal.

Unfortunately the book has a defect in the sense that all the exercises listed are centered around animals and mostly insects. Conceding the fact that these experiments are more easily conceived and conducted to convey an ecological concept, several neat experiments involving plants could have been included. I would think experiments on allelopathic interaction of plants, soil characters affecting seed germination and growth, light and shade on the response of plants to mention a few must have found a place in a book of this type.

The book also contains a number of appendices useful to an experimental ecology student and a subject index. But I should also say even the low-priced edition is beyond the reach of an Indian student.

V. N. VASANTHARAJAN

ANNOUNCEMENTS

World Congress on brain in health and disease

The first World Congress of the International Brain Research Organisation (IBRO) will be held at Lausanne, Switzerland, from April 1 to 6, 1982. The Congress will bring together neuroscientists and clinical neurologists from all over the world to discuss the latest developments in brain research and their clinical applications. The Congress will discuss developments in the following fields : (1) Neuroanatomy, (2) Neurochemistry, (3) Neuroendocrinology, (4) Neuropharmacology, (5) Neurophysiology, (6) Behavioural sciences, (7) Neurocommunications and biophysics, (8) Brain pathology, (9) Clinical and health-related brain science.

Those desirous of participating and or presenting papers should contact Prof. L. J. Garey at the Institute of Anatomy, University of Lausanne, Rue de Bugnon 9, 1011, Lausanne, Switzerland. The organisers are hopeful of extending limited financial support for travel and accommodation.

International colloquium on lipid metabolism and its pathology

An international colloquium on lipid metabolism and its pathology will be held at Lisbon, Portugal, from December 8 to 11, 1980. The colloquium which will act as an international forum will focus attention on lipoprotein structure and metabolism, hiperlipemies, lipids and coagulation, phospolips, lipidosis and techniques of lipid study. On December 12 and 13, 1980, a practical course on lipid determining techniques on hiperlipemies screening, high resolution thin layer chromatography, gas chromatography, ultracentrifugation, electrophoresis and methods for study of apoproteins and HDL cholesterol will be conducted. For the benefit of the participants, an exhibition of equipment and reagents used in lipid biochemistry will also be held. Further details regarding the colloquium can be had from Professor Manuel Jūdice Halpern, Departmento de Bioquimica, Faculdade de Ciências Mēdicas da UNL, Campo dos Mārtires da Pātria, 1100, Lisboa, Portugal.