The book is divided into two sections. The first deals with general considerations of mosquito anatomy, biology, zoogeography, and disease relationships. The second and most extensive section consists of a taxonomic treatment of genera and species within the area. Subfamilies and genera are characterized, and diagnostic keys to the adult females and fourth stage larvae are provided for most groups. An illustrated résumé of the salient anatomical features of the adult and larva of each species is presented, along with a concise summary of biology and distribution.

Considering the general editorial excellence of the work, it is unfortunate that the format adopted for synonymy is not consistent with standard usage and is therefore frequently misleading. The description of one new species assures for this book a permanent place in the taxonomic literature. Students of the mosquito fauna of the Australian region will find this work a valuable reference, but, owing to the restricted area considered, the book will be of limited value to culicidologists interested in other geographical regions.

RALPH A. BRAM
Department of Entomology, Smithsonian Institution, Washington, D.C.

Space Science: A Curious Conglomeration

Over the past few years we have witnessed the emergence of a new subject area called "space science," a curious conglomeration of topics having one thing in common: the utilization of data obtained in space. Yet this common element exerts an exceedingly strong coalescing influence on the subjects involved—partly because of the enormity of the costs, which overshadow other factors, and partly because of the novel technology, which bears importantly on all disciplines alike. This somewhat artificial merging of disciplines is reflected in the establishment of institutes or even departments of space science at universities and the appearance of books, such as this one, **Introduction to Space Science** (Gordon and Breach, New York, 1965. 934 pp.), edited by Wilmot N. Hess, intended to survey topics that might depend heavily on space measurements.

Books of this kind undoubtedly fill a need, as there are many people who will want to study a large part of space science—for example, students who know they want to enter the field of space science but are not quite sure about the particular subdivision. And many research workers will find it convenient to have timely reviews of these interrelated subjects in a single volume.

The 23 separate chapters were written by scientific staff members of the Goddard Space Flight Center of NASA. The book is divided into three parts, covering, respectively, the earth and its environment; space (for example, the interplanetary medium, cosmic rays, orbital mechanics, and man in space); and astronomy of the solar system and beyond. Space observations have had little influence on most of the field covered by the last part, and, with the notable exceptions of two articles "The sun" and "Space astronomy," these nine chapters emphasize theory and classical observations.

The background physics required is mostly at the intermediate college level, but some chapters are significantly more advanced. A few authors have carefully derived the fundamental concepts in the subject being discussed. But too often the fundamentals are "pulled out of the hat" and merely quoted, while recent observations are discussed at length. Reference lists have been intentionally limited, with the idea that readers may go to other review articles for more background; however, in a few chapters, the authors list no other general reviews and concentrate mainly on the most recent references to space observations. The historical introductions promised by the editor are not given in several chapters. Although excellent author and subject indices have been provided, cross referencing between chapters is virtually nonexistent. Such are the problems in uniformity when an editor tries to get 30 busy scientists to conform.

In view of the size of the book, not even the reference edition ($29.75 for institutions) is exorbitantly priced, and the professional edition ($10, available only to individuals) is an excellent bargain. (The copyright page of the professional edition contains a boldface, ominous warning of the rights and remedies "the publisher shall exercise" if individuals are caught buying professional editions for institutions.) Moreover, the inexpensive edition is nicely printed and bound with a brilliant purple hard cover, which should make it easy for habitual borrowers to find the volume on the owner's shelf.

JOSEPH W. CHAMBERLAIN
Space Division, Kitt Peak National Observatory, Tucson, Arizona

Soil Analysis

The two volumes of this treatise, **Methods of Soil Analysis**, parts 1 and 2 (American Society of Agronomy, Madison, Wis., 1965. $17.50 each; $30 set), edited by C. A. Black, D. D. Evans, L. E. Ensminger, J. L. White, and F. E. Clark, were jointly sponsored by the American Society of Agronomy and the American Society for Testing and Materials. The volumes contain 133 chapters written by 96 authors. The first volume, *Physical and Mineralogical Properties, Including Statistics of Measurement and Sampling* (894 pp.), contains 6 chapters on the statistics of sampling and measurement, 14 chapters on measuring physical aspects of soil water, 5 chapters on thermal properties, 14 chapters on determining mechanical characteristics of interest to agriculture and soils engineering, 8 chapters on different techniques of mineralogical analysis, and 2 chapters each on textural properties and gas in soils. The second volume, *Chemical and Microbiological Properties* (926 pp.), contains 6 chapters on different methods of elemental analysis, 28 chapters on the determination of 22 elements (nitrogen and carbon rate several chapters each), 3 chapters on exchange capacity and exchangeable ions, 3 chapters on acidity and soluble salts, 7 chapters on organic compounds, and 15 chapters on isolating and counting populations of microscopic soil organisms. As a convenience, each volume contains the same preface plus the table of contents and index to both volumes.

Despite the diversity of authors and subjects, all chapters follow the same general format. An average chapter is about 20 pages long and consists of a brief introduction, a discussion of the principles on which the method is based, a step-by-step description of the method (including descriptions and plans of apparatus, where appropriate), a discussion of the pitfalls and limitations of