

Book Reviews

SOILS— Their formation, classification and distribution.

E. A. Fitzpatrick. Longman Group Ltd., London. 1980. £25 Stg.

This new book on SOILS has a subtitle "Their formation, classification and distribution" and the publisher's blurb claims that it is a completely rewritten new edition of "PEDOLOGY — a systematic approach to Soil Science", published by Oliver & Boyd in 1971. Why Dr. Fitzpatrick's new publishers used a new (and somewhat misleading) title is not immediately apparent since this book contains very little on the edaphological aspects of soil science.

As a treatise on pedology this book is certainly very welcome and should grace the shelf of any professional who can afford the price. For his (her) outlay he (she) will get very well presented work with an enormous selection of line-drawings, maps and diagrams; a wide variety of monochrome photos of soilscapes, profiles and thin-sections (as well as some colour plates) and an up-date discourse on most aspects of pedology. It certainly fulfills its claim as a book prepared as an aid to teaching and will find appreciative users amongst graduates and undergraduates as well as teachers.

The first third of the book has a fairly standard presentation with chapters on the factors and processes of soil formation and on the properties of soils and their constituent horizons. Considerable attention is given to the micromorphological features of soils. The Fitzpatrick stamp is clearly seen in Chapter 5 on Nomenclature and Classification. He repeats and strengthens his 1971 rejection of the A/B/C system of horizon designation and hierarchical classification systems. He expands his own concept of soil designation formulae, introduces the concept of reference soil segments and provides a key to his own list of horizon names. Rather than hierarchical systems he still contends that the soil continuum is best divided into arbitrary segments and that the use of segment symbols to produce formulae for soils achieves almost unlimited versatility in designating soils and in producing an *an hoc* system of classification.

Chapter 6 (100 pages) gives a brief discussion of the major soil classes of the world including their subdivisions. The principal nomenclature is that of the F.A.O. and is augmented by U.S.D.A. and Fitzpatrick terms. Tables of approximate equivalents for various national systems (e.g. Australia, Brazil, Canada, France) are included and the general characteristics, field morphology, analytical data, genesis, distribution and use of some of the major subclasses are given.

In his final chapter on soil relationships Dr. Fitzpatrick discusses relationships between soils and various factors of soil formation and the spatial variability of soils with the aid of maps, aerial photographs and schematic cross-sections. The book closes with appendices on soil minerals, soil horizons *a la* Fitzpatrick, a glossary of soil science terms, and a concise list of references.

This is a very well presented book, with good reproduction on high quality paper and should find favour with most readers. Whether those who already possess "PEDOLOGY" will regard the new material in "SOILS" worth the price is a debatable point; it should however be of great assistance to those who do not possess or have access to a modern treatise on Soil Science. Foresters whose main concept

of soils is that of “the natural medium for plant growth” will quickly realise, on reading this book, that the concept of soils as “a 3-D natural organised body” is equally tenable. Being written by a scientist who is as well acquainted with the natural habitat of many of our imported exotics as well as with soil-forming conditions on the Atlantic fringe of Europe, this book may be more appealing and applicable than others on the same topic.

J. F. Collins.