

## Book Review

**Biospeleology: The Biology of Cavernicolous Animals.** By A. VANDEL.  
Translated by B. E. Freeman. Pp. xxiv + 524, 11 plates. Pergamon Press, 1966.  
Price £7.

Few people realize that Biospeleology is such a vast subject. Basically it embraces all underground forms of life with special reference to their ecology, biochemistry, physiology and behaviour, but it also involves cave physics, chemistry and climatology, and to combine all these disciplines into one volume is indeed an ambitious project. Within the limits of the sub-title, "The Biology of Cavernicolous Animals", Professor Vandel's work attains considerable success.

The book is divided into six parts covering nearly all aspects of cave biology and probably the most interesting sections are those devoted to the physiology and behaviour of cave animals. All biologically minded cavers will find great interest in the chapters on "Echolocation in Bats" and "The Eye Systems of Cavernicoles". Stimulating reading is provided throughout. Professor Vandel is at times somewhat controversial especially in the last chapters of the book where he puts forward some of his own theories on the evolution of cave animals. Only brief mention is made of plants, fungi, protozoa and bacteria as they are outside the scope of the book, but their importance is not overlooked in the section on nutrition and food-chains.

There is a superb bibliography which unites many hitherto scattered references, and this should prove extremely useful to the serious biospeleologist. The subject index is adequate, and in addition there is a full author index. At £7 the price is high, but not prohibitively so for a volume which is an indispensable reference work for anyone with a keen interest in the biology of caves.

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