Grassland Studies

By Juliet Brodie. 1985. Practical Ecology Series. Allen & Unwin, Winchester, Massachusetts. x + 100 pp., illus. U.S. $9.95.

Grassland is a term that implies very different habitats to different people. Most Canadian biologists would think of the western prairies, or other vast, natural, grass dominated ecosystems of the world: African veldts, Asian steppes, and South American pampas. As such, the title of this volume might be somewhat misleading. Written for the United Kingdom audience, the book attempts to provide, for sixth form (senior high school) students, an ecological study program using the most readily available habitat in that country — open, grass dominated areas. Examples of grasslands given in the preface and introduction include playing fields, lawns, road verges, pasture (of various types), and parks. Certainly such grasslands are located in the neighbourhood of all Canadian high schools.

In 26 "independent" exercises, the author attempts to introduce the teenage student to a range of general ecological parameters through data collection and analysis of simply constructed experiments. Each exercise consists of an introduction with background information, a stated aim(s), a list of required materials, a step-wise procedure, and a series of questions.

Introductory remarks tend to be brief and rather simplistic, even for the intended young audience. This can be easily rectified with supplemental readings or lectures. Materials required are kept to a minimum and, for the most part, are easily acquired or built. Some materials may be difficult for the private individual to acquire (e.g. ethyl acetate and Longworth mammal traps). For even a small-budgeted educational institution the materials required are inexpensive, especially since most can be reused for many years of study. Methods are clearly stated, easy to follow, and often accompanied by example results and data display. The questions that end each exercise are designed to provoke thought on causal factors for observed results, deficiencies and improvement of experimental design and sampling technique, and synthesis with parameters observed in other exercises.

The fact that the book is written for a British audience means the identification guides and keys to vascular plants are useful only in that geographic region, although faunal guides are general enough to be useful almost everywhere. Amended or supplemented vascular plant identification guides are required for the Canadian context. The manual provides an excellent program for investigating the basic factors affecting ecological systems and, to a certain extent, their interactions. Students following the exercises will gain practical experience in the collection of a wide range of biotic and abiotic ecological data, as well as some basic data manipulation and display techniques. With the addition of supplemental reference material tailored to Canadian habitats, the book provides a solid introduction to ecology for the often neglected, serious young student.

S. J. DARBYSHIRE

Biosystematics Research Centre, Wm. Saunders Building, Central Experimental Farm, Ottawa, Ontario, K1A 0C6

ENVIRONMENT

Climatic Change in Canada. 4. Annotated Bibliography of Quaternary Climatic Change in Canada and 5. Critical Periods in the Quaternary Climatic History of Northern North America

Edited by C. R. Harington and G. Rice; Compiled by A. B. Smithers, L. Ghanimé, and C. R. Harington. 1984. Syllogeus 51. 368 pp. and Edited by C. R. Harington. 1985. Syllogeus 55. 481 pp. National Museum of Natural Sciences, Ottawa. Free.

Mark Twain quipped, "everyone talks about the weather but nobody does anything about it." The National Museums series 'Climatic Change in Canada' edited by C. R. Harington certainly brings 'talking about the weather' to a high level of sophistication. Since the weather discussed is generally at least a few centuries old, the contributors can be excused for not trying to change it. These two volumes are the most recent of the series which was begun in 1980, and continued in 1981 and 1983 (Syllogeus Nos. 26, 33, and 49).

The importance of climate to agriculture, forestry and other renewable-resource-based industries warrants for this series a far greater readership than it will likely get, considering the low-key approach the National Museums takes to advertising its publications. The series, which brings together articles in a diverse collection of related disciplines, is based on the belief that "a knowledge of past climate, if carefully