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## BOOK REVIEW

BAUMANN, R.W., A.R. Gaufin, & R.F. Surdick. 1977. The Stoneflies (Plecoptera) of the Rocky Mountains. *Memoirs of the American Entomological Society*, 31, i + 208 pp. American Entomological Society, 1900 Race St., Philadelphia, PA., U.S.A., 19103. \$10.00

Being then unaware that this monograph was in press, and being interested in Plecoptera, I wrote Dick Baumann about some possible sources of additional Canadian stonefly material. For answer, several weeks later, I received the copy I use for this review.

The literature on North American aquatic insects appears, of recent years, to be increasing to flood proportions. It is welcome and much needed, partly in view of the present interest in, and concern with, the natural environment and water quality. For those living in or close to the North American Cordillera as a whole, this publication must be especially welcome, despite its nominal restriction to the Rocky Mountains.

It is designed to be '.....a useful tool to the many persons presently conducting research in flowing water ecosystems in the Rocky Mountains.....'; and to '.....stimulate interest in the distribution of stoneflies in western North America....'. This will unquestionably prove to be so, but it is these very restrictions which give rise to the severest criticism. The authors have adhered rigidly to them, with the result that the book is of little *other* immediate use!

The organization is as follows: Introduction; Study area; Species list; Key to Families; treatments of each family, within which the lower taxa, to species, are treated; References; Index. Keys are provided to taxa of all levels, and to the sexes and known nymphs. Under each species are provided the following: synonymy; type locality; geographic range (broad); distribution in Rocky Mountains (detailed); and discussion, which includes information on habitat and emergence season. For each species male and female terminalia are illustrated. Also, for selected taxa, illustrations of wings, eggs, and habitus of nymphs and adults are provided.

The following points are worthy of note. 1). Except for the synonymy citations, no bibliography for each species is provided, to include, for example, information on way of life. The introduction does mention a few general references for the area but, basically, the reader, having identified a specimen, is left to institute a full literature search for information relating to that species. 2). Known distribution is listed under general, and Rocky Mountains. There are three points to note here: a). No maps, except that in the introduction which 'sets the scene', are provided. It seems to me that maps could substitute for the textual description

very adequately, and use little more space. They would also be much more useful in visualizing and comparing known ranges of species. b). The authors accept a rather broad definition of the Rocky Mountains (which is explained in the introduction). Hence, localities in British Columbia are listed which might not normally be accepted as part of the Rocky Mountain system. Notwithstanding, I think Osoyoos and Okanagan Lake are too far west to be comfortably part of the Rockies. Also, Summit Lake is only about 130 miles from Vancouver! Perhaps in Canada we are spoiled by having that marvelous western boundary to the Rockies, the Rocky Mountain Trench. c). I'm not sure that the MacKenzie Mountains of the Northwest Territories are part of the Rockies proper, though comparison of the two faunas cannot but prove fruitful. However, one cannot complain at the rather broad view of the Rockies taken here— the publication simply embraces a larger area than the title strictly implies, which is all to the good. 3). Despite the authors' contention that the southern Rockies (on the approaches to the Mexican border) are the most interesting of their four subdivisions, by reason of greater dissection, and isolation of populations by intervening arid areas, and I don't dispute it, I think the northern, Canadian, portion also holds considerable interest, harbouring as it must, some element of a Beringian, indeed Holarctic, fauna. Unhappily, this area is poorly explored and is only now becoming accessible without great expenditure of trouble, time, and funds.

The illustrations are generally excellent to superb (happy evidence of an increasing general trend in taxonomic illustration these days). Some, however, I would judge as only good. The anomaly is explained by the participation of 10 illustrators! The change in styles is evident from plate to plate and, personally, I find it slightly disruptive. Unfortunately, in many plates, the printers have reduced the illustrated area excessively, leaving large areas of white at the edges. Generally, the illustrations do not suffer from this, but there would certainly have been no harm in having them larger, making fuller use of the space available. Some illustrations are spaced too far apart on the plates, which is no fault of the printers. Happily, contrary to some previous practice, the species' names have been relegated to the legend at the bottom of the plates, not placed beside the relevant drawing. A minor point is that the figure numbers of each illustration, on some plates at least, are too large by far. They tend to swamp the drawings. Drawings of the genitalia are presented in standard aspects, with occasional obliques added where especially needed.

The beginner is well served by a series of fully labelled drawings at the beginning of the family treatments.

The only descriptions provided are for genera and higher taxa; these are generally only diagnostic, comparative statements.

Not being particularly *au fait* with Plecoptera systematics at present, I cannot comment on that aspect of the paper, except to point out that basically the authors adhere to the recent work of Illies in 1966, and Zwick in 1973, with some later modifications as suggested by Steyskall and Baumann.

One important omission in this monograph, explainable by the avowed purpose of the work but unfortunate for all that, is the absence of a discussion of evolutionary aspects of the fauna. One hopes it will follow eventually.

The printer has done an excellent job, so far as definition of illustrations and type is concerned, on excellent low-gloss paper. The scarlet cover ensures easy finding on a shelf of books and papers.

And, finally, to be rather parochial (I refuse to say provincial!) for a moment, this book provides the final link in a series of publications which will enable the Plecoptera fauna of Alberta to be elucidated without difficulty. It deals with the mountain fauna to the west; a recent monograph by Gaufin *et al* deals with the fauna to the south (Montana); Lloyd Dosdall's thesis, soon to appear in this journal, deals with the fauna to the east (Saskatchewan); and I don't anticipate the lack of literature to the north will create much difficulty. I, and others in Alberta with similar interests, must surely thank these authors.

Despite some sins of omission, and a few minor ones of commission, mentioned above, I consider this monograph to be a most welcome and useful addition to the literature about the fresh-water biota of western North America.

Andrew P. Nimmo