

Muirhead-Thompson, R.C. *Pesticide Impact on Stream Fauna, with Special Reference to Macroinvertebrates*. New York, NY: Cambridge University Press, 1987. (Reviewed by Lucy Cho)

This book focuses on the pesticides that are found in freshwater and their impact on the macroinvertebrate fauna. It was not written to simply provide data that have been collected by various studies, or to be used as a manual of instruction, but rather its purpose is to evaluate the methods and techniques used by others. It discusses the origins of pesticides in running waters, provides an analysis of the role of the laboratory and experimental methods and evaluates pest control projects.

The laboratory techniques that are discussed in this book are those that have been published and found to be useful. For example, it gives suggestions to use certain species such as the *Daphnia*, or water flea, in studies for practical reasons such as the ease with which they can be cultured and handled in the laboratory. Other techniques that are used in the laboratory include creating in situ artificial communities of streams and channels, designing them not only for single species at a time or groups of similar macroinvertebrates, but also for whole communities, so that they could be studied under conditions that are much more like their natural habitat. Also, another valuable aspect of this book is that it provides an assessment of the progress that has been made in developing these new techniques, particularly sampling techniques. The development of sampling techniques is of high importance because it is key to understanding the short and long-term effects of pesticides on the fauna of the river. In the conclusion of the book, there is a summary and evaluation of the trends that have been observed in the various studies done in the past on pesticides in streams, along with a view of what the future of these studies will be like.

Critique

I found this book very useful in that it seemed to outline all of the major laboratory and research techniques that are currently being used and developed to determine the impact that pesticides are having on stream fauna. Also because it made detailed evaluations of these techniques, it helped me to understand what benefits are offered by them as well as what disadvantages there are to using these techniques. What I liked most about this book was that it provided a general view or summary of the many studies that have been done with various techniques. Naturally, there is a disadvantage to reading a single study that used a particular method because one can not be quite sure how successful the methods they used really were in collecting accurate data. However because this book talked about the general advantages and disadvantages of each technique found from many sources, I feel I have a good understanding of what kinds of techniques were better than others for different types of studies on this topic.

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