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Preface

Some years ago, I began to write a series of papers on "Modes of seasonal adaptation in the insects", which was intended to review existing information and to indicate lines of future research that were particularly important in northern environments such as Canada. The first of these reviews, dealing with winter survival, was published in 1978 (*Can. Ent.* 110: 1167–1205).

Work on subsequent papers in the series was delayed by other commitments, but when the ideas for these papers were developed, it became clear that the focus of the second paper should be narrowed from an originally broader concept to consider dormancies alone. It also became evident that a brief review of the subject could not do justice to the existing voluminous literature, and that a more extended treatment from an ecological rather than a physiological viewpoint, and one that presented tabulated information as well as qualitative discussion, was required to introduce new ideas and orientate future work. Such an extended treatment resulted in this book. Although a manuscript was completed during 1984, delays were introduced by publication procedures and by difficulties in securing funds for publication; the manuscript therefore has been updated to cover the literature through 1985. A few major works that appeared early in 1986 are especially relevant and also have been included.

In preparing this review, I have been encouraged by the members of the Scientific Committee for the Biological Survey of Canada (Terrestrial Arthropods) established through the Entomological Society of Canada, and by the National Museum of Natural Sciences which supports the general operation of the Survey. I am also indebted for comments on one or more individual chapters to Drs. V.M. Behan-Pelletier (Biosystematics Research Institute, Ottawa), W.E. Bradshaw (University of Oregon, Eugene), R.L. Clarke (Carleton University, Ottawa), P.S. Corbet (University of Dundee, Scotland), K.G. Davey (York University, Downsview), D.L. Denlinger (Ohio State University, Columbus), J.A. Downes (Lyman Museum, Ste. Anne de Bellevue, and National Museum of Natural Sciences, Ottawa), R.J. Lamb (Agriculture Canada, Winnipeg), B.J.R. Philogène (University of Ottawa), R.C. Plowright (University of Toronto), R.A. Ring (University of Victoria, B.C.), D.S. Saunders (University of Edinburgh, Scotland), J.R. Spence (University of Alberta, Edmonton), K.B. Storey (Carleton University), and D.D. Williams (Scarborough College, University of Toronto). Errors that remain despite their efforts are my responsibility, of course.

I am also very pleased to acknowledge the careful work of Margaret Ridewood, who has been responsible for diverse typing tasks and for obtaining reference material over the several years during which this manuscript was developed.

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H.V. Danks
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