
Project Update: Arthropods of Old-growth Forests

The Survey began an old-growth forest project in 1991 in an attempt to focus on the arthropod biodiversity of these habitats of great faunal interest. Old-growth forests are relatively little known in terms of invertebrates, and moreover few old-growth forests in Canada remain undisturbed despite their great interest in the context of biodiversity and conservation.

Discussions at the Scientific Committee suggested several generalizations that might help to steer appropriate work.

Requirement for appropriate sampling procedures

Many people in various agencies are beginning studies on arthropods of old-growth forests because of the biodiversity and conservation interests of these habitats. However, some of them possess relatively little knowledge of what is required for a study of the arthropods, and nor is the sampling from one study to another standardized, hindering potential comparisons. The Survey therefore prepared a brief outlining how to plan a study of arthropod biodiversity, and how to choose appropriate sampling methods. This brief was published in 1994 (see page 31).

Requirement for specific funding

Arthropod sampling, sorting, identification and analysis on the scale required for biodiversity studies of old-growth forests is very time consuming. It is not feasible to conduct satisfactory studies by piecemeal or volunteer effort. Therefore, a major cooperative proposal for an NSERC strategic grant was developed, proposing a study of the biodiversity of several key old-growth forests across the country. Although the support of many interested agencies was obtained, the application was unsuccessful, and work continues to be supported by smaller-scale funding for individual projects.

Use of residual collections

The large numbers of studies underway in old-growth forests means that a wide variety of material is now being mass collected from a variety of forest types in various places across the country. However, most projects concentrate on only a few groups, and potentially valuable residual material may or may not be kept after the groups of interest have been extracted. Some means to retain and take advantage of this material is being considered by the Survey's old-growth forest subcommittee (S.A. Marshall, Chair).

Requirement for liaison among different projects

Many of the different projects across the country operate more-or-less independently, and some groups are not aware of similar or related work being done by other groups elsewhere. A partial synopsis of studies was therefore assembled from questionnaire responses for the Newsletter (Newsletter of the Biological Survey of Canada (Terrestrial Arthropods) 13(1): 10-14, 1994). The Survey's subcommittee is considering how to improve liaison further, including the possibility of a newsletter about old-growth forests.

Studies of biodiversity of the arthropods of old-growth forests on a suitable scale still await additional major funding. Nevertheless, the project has already contributed to education, standardization, and cooperation in this arena. To provide additional background information, an article in this newsletter (see p.) summarizes some features of an old-growth forest site in Oregon that has been relatively well studied.
