

INTRODUCTION TO THE BIOLOGICAL SURVEY OF CANADA

The Biological Survey began as the Pilot Study for a Biological Survey of the Insects of Canada, an idea proposed by the Entomological Society of Canada in 1974. This idea stemmed from the realization that the insect fauna of Canada, despite its scientific and practical importance, was very inadequately known: about 66,000 species of terrestrial arthropods are believed to occur, but only about half of these have even been described. The understanding of the fauna of Canada was therefore by no means commensurate with needs relating not only to insects of agricultural, forestry and medical significance, but also to the more diffuse requirements of environmental concerns and the management of complex living natural resources. Moreover, systematic resources were inadequate for the tasks required, especially in the absence of any group charged with a national scientific overview of research and needs in insect taxonomy and ecology.

The Pilot Study was carried out in 1977-1978 by means of a successful unsolicited proposal funded chiefly by Supply and Services Canada. It served further to establish a group that could fulfil its primary recommendation: the Biological Survey would act as a focus for the discussion of scientific needs in insect systematics and faunistics in Canada, as a clearing house for information, and as a catalyst to coordinate the investigation of the fauna of Canada from a national scientific standpoint. The Pilot Study was carried out by a small Secretariat and a larger widely representative expert Scientific Committee established by the Entomological Society of Canada.

The Pilot Study was asked, among other requirements, to recommend the form that a continuing Biological Survey should take; it concluded that the system of a Secretariat and Scientific Committee tested in the Pilot Study was efficient and should be continued, and that the logical permanent location for a broadly-based and long-term enterprise of this sort is the National Museum of Natural Sciences, which is charged among other responsibilities with the acquisition and dissemination of knowledge on the fauna and flora of the country.

The Pilot Study was completed in 1978, and was followed shortly by a second major unsolicited proposal by the Entomological Society of Canada, for a general review of the present state of knowledge of arctic arthropods, an important and characteristic element in the Canadian fauna. This was carried out by the Director of the Secretariat, supported by the Scientific Committee; and this mechanism of Secretariat and Scientific Committee has been stabilized as a basic feature of the continuing project. When the review of arctic arthropods was completed in 1980, the National Museum of Natural Sciences decided to support the Secretariat and the Scientific Committee by direct contracts with the Director of the Secretariat and the Entomological Society of Canada respectively, and the project has been retitled the Biological Survey of Canada (Terrestrial Arthropods). This title accords with a conclusion of the Pilot Study that the insect survey should be regarded as a model for other parallel arrangements in due course to deal with other groups of plants and animals.

Several of the recommendations of the Final Report of the Pilot Study have thus been put into effect, and the project continues in its broad role to develop and coordinate national initiatives in taxonomic and ecological entomology. The Scientific Committee has been augmented by representatives of the National Museum of Natural Sciences and the Biosystematics Research Institute.

The activities of the Survey have resulted in several publications (see pp. 6-8). These and other products of Survey initiatives have shown that the Biological Survey is indeed a valuable catalyst for work on the fauna of the country.