

Foreword

Fire in the forest came to be viewed in a new perspective during the decades of the 1960s and the 1970s. Instead of being regarded as an unmitigated threat to be suppressed wherever practicable, it was seen increasingly as an integral part of ecological processes. Accordingly, it claimed attention as a tool of environmental management and as an object of new research.

This volume, produced under the leadership of two Canadian scientists, illustrates lucidly the shift in view with respect to both management and investigation. Focussed on the great belt of tundra and northern and central boreal forests encircling the northern hemisphere, it examines those ecosystems in a pioneering fashion.

Experience with fire management and fire prevention in portions of the Asian, European and North American land masses is reviewed against the background of studies of fire frequency and its physical and biological consequences. The great bulk of research on fire ecology has been directed at temperate regions. Much less work has been done on northern ecosystems, and it therefore was important for purposes of sound environmental management to draw together the findings from workers on both continents and to test the validity of temperate zone generalizations. The greater length of fire rotation periods and the smaller variety of organisms are among the distinctive features of the northern environment.

While the evidence in this report is made available for the first time in one place, it also reveals the large gaps remaining. And it underlines the need for further international cooperation.

The resulting report forms a sector of a large effort which is nearing completion through the collaboration of scientists dealing with fire in temperate and Mediterranean zones. It is anticipated that a final summary and interpretive volume will become part of the SCOPE series in the future.

SCOPE programmes typically seek to advance knowledge of the effects of human activities on the environment and the consequent implications for public welfare. They are interdisciplinary and international and are directed at problems of global significance. In that mode, this volume integrates the contributions of a variety of disciplines and of scientists and scientific organizations from northern circumpolar countries in a framework which will support a larger synthesis on the ecology of fire.

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