

PHYSIOLOGICAL ECOLOGY

*A Series of Monographs, Texts, and Treatises*

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# Fire and Ecosystems

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ACADEMIC PRESS New York San Francisco London 1974

A Subsidiary of Harcourt Brace Jovanovich, Publishers

QH  
545  
F5  
K68

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INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT  
PERMISSION IN WRITING FROM THE PUBLISHER.

ACADEMIC PRESS, INC.  
111 Fifth Avenue, New York, New York 10003

*United Kingdom Edition published by*  
ACADEMIC PRESS, INC. (LONDON) LTD.  
24/28 Oval Road, London NW1

**Library of Congress Cataloging in Publication Data**

Kozlowski, Theodore Thomas, Date  
Fire and ecosystems.

(Physiological ecology)  
Includes bibliographies.

1. Fire ecology.      2. Fire ecology—United States.
- I. Ahlgren, Clifford Elmer, Date      joint author.
- II. Title.

QH545.F5K68      574.5'222      74-5695  
ISBN 0-12-424255-3

PRINTED IN THE UNITED STATES OF AMERICA

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### I. Introduction

Fire is a tremendous force for change in nature and requires explanation. This chapter begins with a catalog of effects of fire on the life and environment of birds and mammals and provides a starting point for understanding how fire may influence them. During their lifetime, birds and mammals encounter many changes in their environment and easily cope with most of them. What we usually seek to understand are those factors of the animal or its environment that are crucial to its occurrence and abundance. Hence, Sections III and IV attempt an analysis of how kinds and numbers of animals are influenced by fire.

Beyond occurrence and abundance, there is the broader consideration of how species have evolved to live in an environment frequently razed by fire. How have species adapted to conditions caused by fire and what interactions are there between wildlife and their environment that perpetuate the sweep of fire through the forest?