

FIRE ON EARTH: AN INTRODUCTION

By Andrew C. Scott, David M. J. S. Bowman, William J. Bond, Stephen J. Pyne, Martin E. Alexander
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It has been a pleasure to review *Fire on Earth: An Introduction*, a book that fills an important gap in the recent literature. In fact, it comprehensively covers nearly everything related to vegetation fire, with emphasis on how such an ecological factor has shaped the planet and affected the behaviour of the creatures living on it. Beyond the wealth of information it provides, the book stands out for its many beautiful colour photos, and highly explanatory diagrams and maps, which clearly help to illustrate the phenomena described. The related captions often end with key concepts, which further help readers in understanding. Last but not least, it impresses by the extensive and up-to-date literature cited with more proposed for further study.

The book consists of four parts, with a total of sixteen chapters. Part one describes what is fire, what are its sources, what types of fire do occur, what are the effects of fire on soil, vegetation and climate and the products of combustion. A reflection of the interest of the first author, ample space in this latter section is dedicated to charcoal, to its ecological role and to the opportunity it offers to infer the history of climate, vegetation and fire. Another welcome aspect is the attempt to shed light on the varied and sometimes confusing fire-related terminology. The first part concludes with an intriguing reconstruction of the geological history of fire, essentially based on charcoal as fossil record. Part two is focussed on fire as a driving factor of life on Earth. Plant, wildlife and human interactions with fire and their evolutionary adaptations and strategies to survive and even take advantage from its occurrence. Part three of the book covers the long and complex mutual ‘love–hate’ relationship between fire and humanity, from man’s dawn to the

on-going Anthropocene, when the dynamics of fire on Earth were fundamentally rewired. Part four, the final hundred or so pages, provides a very insightful overview of the complex fields of fire management, wildland fire behaviour, models, systems and guides for predicting such behaviour.

Some concepts are repeated throughout the text, perhaps sometimes excessively so, but this is useful for instilling these in the reader’s mind.

As a European fire researcher, I must admit that I found the book somewhat too America- and Australia-orientated. Furthermore, I do not always agree with the authors when they seem to indiscriminately stigmatise some fire-fighting strategies, in particular the use of powerful means and large crews. In a world where the human population is expected to reach nine billion by 2050, effective ways of fire suppression may be essential in the rapidly expanding interface between urban and wildland areas. For example, in the Mediterranean basin, a densely populated area where wildfires are common in a landscape dominated by an unnatural fuel assemblage, effective suppression has become a necessity.

Overall, the book provides an excellent, multidisciplinary introduction to fire, authored by leading experts in their fields, written in a very accessible style and supported by superb illustrations and extensive references. Hence, I highly recommend it to potential readers, who may be upper level undergraduate students, graduate students, teaching staff and everyone working, or simply interested, in the area of environmental science. For less experienced readers, the book may represent a suitable springboard for launching into the ‘vast sea’ of fire ecology and management.

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