



METADATA

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Abstract

In recent years, the important ecosystemic role of natural terrestrial ecosystems has been recognized, together with the need for their effective protection. This necessity requires the knowledge of their Ecology, in order to ensure in a biocentric basis, the valuable functions, products and services they provide. The purpose of the book is to introduce University students of the first academic years in Forestry and Biology, to the basic concepts of the Ecology of Terrestrial Ecosystems. It is hoped that the book will provide the necessary background that will support later the knowledge on the management (including the restoration, conservation and protection) of natural ecosystem, their structural components and their wider compositions. The book is divided into 10 teaching units (TU), which discuss concepts mainly related to the abiotic component of natural terrestrial ecosystems and their productivity, with a final reference to the non-forested natural

land and forests of Greece. The first teaching unit (TU1) aims to introduce the reader to the science of Ecology of Terrestrial Ecosystems. The TU2 discusses the atmospheric components of ecosystems, specifically solar radiation, temperature, and atmospheric moisture and air. The TU3 and TU4 analyse the effects of the substrate (parent rock material, soil structures, soil water, organic matter, soil biological factors). In the TU5 an understanding of the primary productivity of natural ecosystems is attempted, and in TU6 the concepts of global patterns of primary (vegetation) productivity are presented. In the TU7 the global variations of vegetation (biomes) are described. The TU8 of the book aims to introduce the reader to the ecosystems and terrestrial vegetation of the areas around the Mediterranean. Finally, the last two teaching units (TU9, TU10) discuss and analyze the typologies of forest vegetation (non-forested natural land, forests) of Greece.

