

TREATISE OF ECOLOGY BY ION DEDIU PROF. PH.D. ACAD.

I received the **Treatise of Ecology** (first volume) written by Mr. Ion Dediu, Academician, from Chișinău. I appreciated his ability to encompass everything in a treatise, and we expressed our interest in seeing the following volumes published.

As he planned, Ion Dediu has completed the great Treatise of Ecology, the first truly academic work of the Romanian literature. Many ecology textbooks and treatises have been written in Romanian, but this one is really comprehensive and full of recent information and data.

The five volumes of the treatise are:

1. Introduction to Ecology;
2. Ecology of Populations;
3. Systemic Ecology;
4. Biospherology;
5. Treatise of Theoretical Ecology.

The succession of these volumes has its logic, although they appeared almost simultaneously. The introduction concerning the universe of ecological environment was required for the understanding and elucidation of the basic concepts of this domain included into biological science. This introduction is necessary to improve the knowledge not only of the specialists but of all the inhabitants of this planet.

The second volume, **Ecology of Populations** successfully analyses all the aspects of population notion; it presents the concept of population according to the ecological thinking of the XXI century. Then, it explains complex aspects of the population state and dynamics and, after that, a modern approach to the evolution of the population concept.

The third volume, **Systemic Ecology**, is a good synthesis of everything that makes the foundation of modern ecology - **biogeocoenology** or **ecosystemology** which means the study of ecosystems or **systemic ecology**.

The author perfectly analyses the ecosystem and its two components which form a single unit: biocoenosis and biotope. Based both on his personal experience and modern literature on environment, the author explains all the aspects concerning the structure and functions of ecosystem, the flux of energy and matter and productivity in all its aspects. Also, there are investigated some problems related to self-regulation, homeostasis, ecosystem stability and development. And, after all these, a classification of ecosystems is presented.

In the second part of this volume the biome is presented in a comprehensive way. Starting from definitions and concepts, the author makes a classification of ecobiomes depending on their structure and geographical distribution. This is a unique work in Romanian literature and it is absolutely necessary to understanding the levels of supra-individual organization.

The fourth volume, **Biospherology**, is also a unique work in Romanian literature. Based on G.P. Hilmi concepts (1966), the author believes that the Biosphere is, in the same time, a part of planetary life and a cosmic phenomenon, which brings together the geophysical environment and the living substance of the planet.

V.I. Vernadskii considered the Biosphere as a unique planetary system. He introduced the **“biospherology”** concept just to analyze the phenomenon of life as a whole unit.

The volume has a logical structure. In this context, Biosphere was analyzed from its origin and evolution point of views. There are called into question the principles of organization of the biosphere and its functions. When we look at the Biosphere as a whole, we can analyze the flow of matter and energy on Earth; the author explains the bio-geo-chemical cycles (of carbon, oxygen, nitrogen, phosphorus, water etc.) at a global scale. The author investigated the biosphere evolution during geologic time up to human emergence; and, based on man, up to noosphere shaping as a new layer of planet. The subchapter named “**Noosphere: paradigmatic prolegomena**” is convincing in regard to the high academic level of the entire **Treatise of Ecology**.

The last volume, **Treatise of Theoretical Ecology**, is a synthesis of outstanding issues related to ecology as a science. If Bogdan Stugren, Professor Ph.D., published in 1994 a treatise of **Theoretical Ecology** that explained all aspects of theoretical autoecology and synecology, structure and function of ecosystems, biomass, biosphere and noosphere, Ion Dediu brings up to date the information needed to make all necessary intra- and interdisciplinary correlations.

It is a pleasure to follow this exceptional synthesis made by the author in this volume.

I recommend the **Treatise of Ecology** written by Ion Dediu to all the specialists in ecology and to all those who love and respect nature and life and who are interested in the relationship between humans and nature.

I congratulate the author for the achievement of this magnificent treatise, which enriched his scientific and publishing work and efforts.

If the author used in its volumes the introductory phrase “May God helps us all!” we assure that, indeed, God has helped them all through the appearance of this magnificent work.

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