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Introductory Chapter: Habitats of the World

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1. Introduction

Why a book on the habitats of the world? To answer this question, we must immediately clarify what “habitat” means. This word has a clear derivation from the Latin and is a verb: more precisely, it is the third person singular of the simple present of the verb “habito, -as, -avi, -atum, -are” which means “to live.” Therefore, we could literally translate the word “habitat” with “he lives.” So the habitat of an organism (or of an entire community) is the place where it lives or the place where it can be found [1].

Nowadays, we use the term “habitat” in many fields of knowledge and can take on different shades of meaning (architecture, ecology, etc.).

In this book, we want to show some type of habitats of the world. The principal aim of this book is to highlight the importance of the habitats and, especially, of their inhabitants: living beings that occupy a specific space (habitat) and play a specific role in daily life in it (ecological niche). Thanks to a diversified pool of scientists belonging to several world institutions and working on several aspects of the habitats, this book will allow understanding all of it very easily.

The most important aspect that must be understood is that, respecting the habitats, the living beings present in them are respected and that the lives of others depend on them.

2. Habitat is like a home!

Often, when I want to make someone understands the meaning of “habitat,” I take the example of a house with very specific characteristics, where people live. People interact with each other and with the house. All these actions occur, maintaining an equilibrium. If in a house some alterations of the normal conditions occur, this equilibrium will vary. However, when disturbing end, the equilibrium slowly comes back as before. Therefore, we can consider our house a habitat, like others in nature.

3. Habitats of the world

How many habitats are there in the world? Many! They are not easily quantifiable. Each habitat is characterized by an ecological and biological structure and different species of living beings that give it a uniqueness compared to the others.



Figure 1.
Habitat 7140 “Transition mires and quaking bogs” in the SAC IT9350134 “Canolo Nuovo Zomaro, Zillastro” (Reggio Calabria, Italy)—(Ph. C.M. Musarella).

The European Union has launched two important Community Directives for the protection of nature. With the “Habitats” Directive 92/43/CEE, the objective of safeguarding biodiversity through the conservation of natural habitats was proposed, as well as of wild flora and fauna in European territory of the member states to which the treaty applies [2]. The “Birds” Directive 79/409/EEC (the first EU directive on nature conservation) aims at the conservation of wild birds, aiming to protect the habitats of the species listed in Annex I and the migratory ones not listed that return regularly [3].

For the recognition of habitats and for the correct application of the directive, the “Interpretation Manual of the European Union Habitats” was produced, thanks to which it is possible to analyze and describe the extraordinary European naturalistic heritage [4]. All the member states applied these directives to preserve habitats in their territories. To guarantee the long-term maintenance of natural habitats and of species of flora and fauna threatened or rare at community level, the EU has established the Natura 2000 Network [5]. It consists of the Sites of Community Interest (SIC), which each member state has been identified in accordance with the Habitat Directive. Currently, the SCIs have been designated as Special Areas of Conservation (SACs) (**Figure 1**). Natura 2000 Network also include the Special Protection Areas (SPAs) established pursuant to Directive 2009/147/EC “Birds” concerning the conservation of wild birds.

There have been several scientific contributions by various scholars who have studied this important aspect of nature conservation [6–19]. The habitats are studied under several points of view, covering all their aspects [20–29]. We will also see some examples in the chapters of this book.

4. Conclusions

Based on the current world situation in which many habitats are at risk of extinction (not only, therefore, individual species), the knowledge of “places,” in which every living being occupies an important part in the global balance, is more urgent than ever. Only an appropriate and adequate study of all the habitats of the world (including the discovery of new ones), from natural to anthropized ones, will allow us to preserve the biodiversity of our planet as long as possible. The study, however, must necessarily be accompanied by the will of man, the most destructive and invasive species in the world, to limit as much as possible the alterations

it produces and to plan the future while simultaneously providing for adequate compensation measures. Only in this way will the “habitats of the world” have a future.

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Conflict of interest

The authors declare no conflict of interest.

Notes/thanks/other declarations

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