
Preface

The conservation of the natural and economic heritage represented by Mediterranean lagoons and estuaries and the associated adjacent areas (wetlands, reed beds, *sansouires* and salt marshes) calls for an in-depth scientific knowledge of the past and present state and the functioning of these environments, and particularly of their plant and animal components. It is on this basis that appropriate management policies can be formulated.

Classed as transition zones between land and sea, these special ecosystems are matters of concern for both scientists and managers. The former group has accumulated significant knowledge of their abiotic characteristics and their functioning. They are now investigating the individuality of the resident populations, their interactions with the adjoining ecosystems and their future in the context of climate change. The latter group is seeking scientific and technical tools that will enable them to use these environments to their full potential, taking into account the increasing anthropic pressures.

In this series of books, divided into three stand-alone, complementary volumes, we have brought together scientific knowledge amassed over nearly two centuries on the fishes of the Mediterranean lagoons and estuaries. This summary has been compiled from documents published in local and international reviews and in general or specialized bioecological works on pure and applied ichthyology. We are, however, conscious that an entire fringe of works concerning lagoon and estuarine fishes has been omitted, this being the "gray literature" consisting of expert reports, academic projects and theses, etc.

The first volume, entitled *Diversity, Bioecology and Exploitation*, is a non-exhaustive approach to the characteristics of lagoons and estuaries, from a "geo-geographical", hydrological and general bioecological viewpoint, and also

looking at the ecophysiology and behavior of the fishes that live there. The general features of the exploitation and management of fish resources are also considered.

The second volume, *Sedentary Fish*, is devoted to the fishes that are so named because, being very euryvalent, they live out their entire lifecycle inside lagoons and estuaries. These fishes are not all specific to these environments; some have their counterparts in the sea or in fresh water.

The third volume, *Migratory Fish*, is concerned with fishes that, after spending time in lagoons, are obliged to return to their native marine or river environment to complete their lifecycle (genetic migrations), the physicochemical conditions in lagoons and estuaries (temperature, salinity, turbidity, etc.) being incompatible with the water properties required for their reproduction. Strictly hydroclimatic events can also be at the origin of migratory journeys.

The data provided in volumes two and three of this series of books are at three taxonomic levels: family, genus and species. Those concerning family and genus are relatively brief and general, while those relating to species are exhaustive and very detailed, for every aspect dealt with: systematics, genetics, phylogenesis, ecology, biology, behavior, etc.

This summary has been designed to permit rapid and comprehensive access to the body of scientific knowledge on lagoon and estuarine fishes and their sources. These data are indispensable in order to develop projects of research, infrastructure, management and conservation concerning these environments and their populations.

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