

FIELD IDENTIFICATION GUIDE TO THE LIVING MARINE RESOURCES OF THE EASTERN AND SOUTHERN MEDITERRANEAN

Michel Bariche ^{1*}, Monica Barone ², Nicoletta De Angelis ³ and Piero Mannini ⁴

¹ American University of Beirut - michel.bariche@aub.edu.lb

² Environmental Protection Agency - Tuscany Region (ARPAT)-Via Marradi 114, 57126 Livorno, Italy.

³ FAO - Fish Finder (Species Identification and Data Programme) - Viale delle Terme di Caracalla 00153 Rome

⁴ FAO - Regional Office for the Near East and North Africa, PO Box 2223 Cairo, Egypt

Abstract

The field identification guide surveys marine organisms of commercial and potential commercial importance. The region covered extends from the Mediterranean coast of Turkey proceeding in a general southwestern direction to that of Morocco. Species were selected carefully according to economic interest, commonness and sometimes according to their endangered or invasive status. A total of 372 marine species were considered, including the most common exotic ones. Also presented are their relevant diagnostic features, biological information, and geographical distribution while highlighting their importance on local fisheries. The entire field guide was translated into Arabic for a better accessibility among non scientists in Arabic speaking countries.

Keywords: Fisheries, Alien species, Biogeography, Eastern Mediterranean, Western Mediterranean

Limited knowledge and skills for marine species identification are among the main weaknesses affecting the coastal waters fisheries in the eastern and southeastern Mediterranean countries, namely Turkey, Cyprus, Syria, Lebanon, Egypt, Libya, Tunisia, Algeria, and Morocco. Imprecise species identification hinders accurate estimation of commercial landings and all attempts to develop and manage sustainable fishery measures. The field guide is the first attempt to provide a comprehensive survey of marine species likely to be encountered in fishery landings, on the market and at sea in the covered area. There is a pressing need for such a modern reference work as no similar publication has been presented in over 20 years [1]. Furthermore, the field guide is an original effort to highlight the commercial importance of recent marine introduced species, most of which have well established populations. The field guide is largely based on an extensive list of relevant bibliographic references but also incorporates and organizes a compilation of raw data gathered by nine fishery experts from each of the respective countries.

After a brief introduction of the Mediterranean ecosystem's general features and biodiversity, a section is dedicated to landing statistics reported by all concerned countries since the year 1950. A special emphasis is made on introduced species of commercial importance and on those that are a potential threat to humans, fisheries, and the ecosystem. The marine organisms considered were organized under major taxonomic groups and subgroups. These were crustaceans (stomatopods, shrimps and prawns, lobsters, crabs), molluscs (gastropods, bivalves, cephalopods), echinoderms (sea urchins), and fishes (lampreys, cartilaginous fishes, bony fishes, chimaeras), as well as sea turtles and marine mammals. The most relevant morphological terms and measurements, essential for identification, are described by means of labeled illustrations and a glossary. Each chapter is dedicated to one of the aforementioned taxonomic groups and starts by an introduction summarizing general information such as morphology, biology, as well as the commercial importance concerning this specific group in the Mediterranean. The information given by species contains the valid scientific name as well as the official FAO common names in English, French, and Spanish. In addition, a provisional Arabic common name was recommended. Brief information regarding relevant diagnostic features, biological information and habitat, importance to fisheries and geographical distribution of the species is also included. Conveniently, accurate line drawings for all species complement the information. Particular care was taken to make the field guide user-friendly and accessible to the general public without the need for prior knowledge in marine biology or fisheries. Concurrently, it can be used as a practical working tool for scientists, fisheries professionals, and inspectors reporting landings at the national level, as well as by fishermen, students, sports anglers, and naturalists. It is also expected to serve as a baseline document for environmental assessments and fisheries management. Furthermore, the entire field guide was translated into the Arabic language for a better dissemination among Arabic-speaking users, particularly fishermen. Most commonly used vernacular names in Arabic, Turkish, and Cypriot Greek were also summarized in tables that can be found at the end of the document. An undertaking of this magnitude was done in the hopes of establishing a better form of communication among interested individuals. This "Field Identification Guide to the Living Marine Resources of the Eastern and Southern Mediterranean" was prepared under the coordination of the Fisheries and Aquaculture Management Division, Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations

(FAO).

References

1 - Fischer W., Bauchot M.-L. and Schneider M. (eds.), 1987. Fiches FAO d'identification des espèces pour les besoins de la pêche. (Révision 1). Méditerranée et mer Noire. Zone de Pêche 37, FAO, Rome. 1529 p.