Preface

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Over the past quarter century, the number of published papers on grenadiers has climbed steeply, concomitant with the world's fisheries expanding its efforts into the deep sea as the more-easily exploitable shallow-water resources become more decimated. In of itself, the study of the biology of deep-sea organisms continues to ignite the minds of scientists wishing to better comprehend how these organisms can not only survive, but often thrive, under extremely inhospitable conditions. Grenadiers being among the most abundant and diverse fishes in the deep-sea are understandably the focus of many biological studies of deep-sea organisms and processes. The explosion of new and improved technologies that aid studies of living organisms in the deep oceans (ROVs, landers, GIS, echo sounders, digital and video photography) have resulted in astonishing discoveries of hitherto unknown life styles, morphologies, habitats, and behavior.

Following the first book entitled "Grenadiers of the World Oceans: Biology, Stock Assessment, and Fisheries" published in 2008 by American Fisheries Society (editors A.M. Orlov and T. Iwamoto), a number of authors approached us asking about a subsequent follow-up to that book. They felt the usefulness of having a single reference source for recent papers on a variety of topics concerning grenadiers. We queried numerous colleagues about their interest in contributing to a second volume, and we received an enthusiastic response, which prompted a search for a publishing outlet and a call for papers. We were fortunate to have the Editorial Board of "Journal of Ichthyology" ("Voprosy Ikhtologii") step forward and offer one volume of their journal as an outlet.

The second volume is a collective effort of scientists representing various countries, including Australia, Canada, Falkland Islands, Mexico, New Zealand, Norway, Russia, Spain, United Kingdom, and USA. Papers in this second volume cover various topics, including applicability of acoustic methods to monitor abundance of grenadiers, distribution and abundance of grenadiers in various areas based on the use of different fishing gears (trawls, traps), age and growth, and records of rare species. Four papers deal with diets, feeding habits, and trophic ecology of grenadiers that help better understand the trophic position of these fishes in food webs and their role in deep-sea ecosystems. Two papers are of particular concern: the first examined abundance of grenadiers at varying spatial scales with focus on the influence of corals, the second evaluated potential sustainability of deep-sea fisheries for grenadiers. These papers underscore the vulnerability of most large deep-sea bottom fishes like grenadiers, whether targeted in fisheries or caught incidentally as by-catch. Geographically, the papers cover a wide span of the World's oceans, including the Mediterranean, western Africa, northern and southwestern Atlantic, Mid-Atlantic Ridge, northern and southwestern Pacific, and the Southern Ocean. We hope that this volume will attract the attention of a wide international scientific audience interested in deep-sea biology and fisheries.

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We dedicate this volume to Nikolai V. Parin (21.11.1932–18.04.2012), Doctor of Science (Biology), Professor, Corresponding member of the Russian Academy of Sciences (RAS), long-time head of the Laboratory of Oceanic Ichthyofauna of the P.P. Shirshov Institute of Oceanology, RAS, honorary foreign member of the American Society of Ichthyologists and Herpetologists, European Ichthyological Society, Japanese Ichthyological Society, former Editor-in-Chief (>20 years) of the journal "Voprosy Ikhtologii"/"Journal of Ichthyology". Dr. Parin was internationally recognized not only for his taxonomic and biogeographic studies of the deep-sea and open-ocean fishes, some of which were ground-breaking, but also for his exceptional encouragement and support of collaboration with ichthyologists around the world. His efforts and accomplishments in this regard were all the more amazing considering that they came during a difficult period in Russian history, when international cooperation, especially with the U.S., was at a low ebb. It was through his support that one of us (TI) was able to spend more than four months working on grenadiers with his staff and with others from Moscow State University. His efforts at collaboration were highlighted during a 1988–1989 R/V *Vityaz'* cruise to the western Indian Ocean, when he had seven foreign ichthyologists aboard representing Australia, Denmark, Germany, Great Britain, and the USA. "Nik" Parin's life work is huge and its influence is destined to continue long into the future.

Tomio Iwamoto and Alexei Orlov, co-editors