

New Edition of an Essential Resource!

Biology of the Southern Ocean

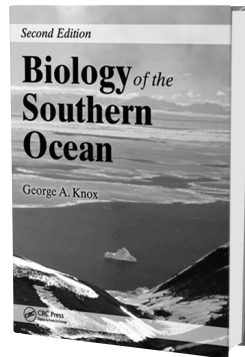
Second Edition

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Marine Biology • Series Edited by Peter L. Lutz

Takes a multidisciplinary approach that covers all aspects of the Southern Ocean

First published in 1993, **The Biology of the Southern Ocean** has been referred to as international research at its best and an invaluable reference. Drawing on the considerable volume of information published in the last ten years, this **Second Edition** retains the format that made the first edition a popular bestseller, while updating the information with the latest research results available.



The book begins with a description of the physico-chemical environment and, in a logical sequence, covers phytoplankton and primary production, the sea ice microbial communities and the secondary consumers, the zooplankton. The author includes an extended chapter on the biology and ecology of Antarctic krill that highlights its central position in the Southern Ocean food web. A series of chapters consider the higher consumers, nekton (with an emphasis on cephalopods) fish, seals, whales, and seabirds. The following chapters explore selected ecosystem components; the benthic communities, life beneath the fast ice and ice shelves, recent advances in understanding decomposition processes, and the role of bacteria and protozoa.

The author synthesizes ecosystem dynamics, with an emphasis on the pelagic ecosystem. He covers resource exploitation, the impact of such exploitation on the marine ecosystem, and the problems involved in the management of the living resources. His epilogue summarizes the extent to which our understanding of the functioning of the Antarctic marine ecosystem has changed in the last 50 years; for example, there has been a dramatic change in our view of krill and its role in the Southern Ocean marine ecosystem. The book concludes with the statement that research carried out under the AGCS Programme and the Scientific Committee on Antarctic Research (SCAR) will continue to provide critical information on the functioning of Antarctic marine ecosystems.

Intended for those with an ongoing interest in Antarctic research, conservation, and management, this volume represents one of the most authoritative resources in the field as it covers all aspects of this important marine ecosystem.

Features

- Includes more than 300 diagrams, tables, maps, and photographs, most of which are either new or redrawn
- Contains an extensive reference list that serves as a departure point for more detailed research on aspects of the Southern Ocean
- Focuses on marine biology while successfully taking a multidisciplinary approach by viewing the Southern Ocean within the context of geological time, meteorology, and physical and chemical oceanography
- Includes three new chapters on the impact of increased UV radiation, the human impact on the marine environment, and the impact of global warming on Southern Ocean marine ecosystems

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