DESCRIPTION

Quantitative methods specifically tailored for the marine biologist

While there are countless texts published on quantitative methods and many texts that cover quantitative terrestrial ecology, this text fills the need for the special quantitative problems confronting marine biologists and biological oceanographers. The author combines common quantitative techniques with recent advances in quantitative methodology and then demonstrates how these techniques can be used to study marine organisms, their behaviors, and their interactions with the environment. Readers learn how to better design experiments and sampling, employ sophisticated mathematical techniques, and accurately interpret and communicate the results.

Most of this text is written at an introductory level, with a few topics that advance to more complex themes. Among the topics covered are plot/plotless sampling, biometrics, experimental design, game theory, optimization, time trends, modeling, and environmental impact assessments.

Even readers new to quantitative methods will find the material accessible, with plenty of features to engage their interest, promote learning, and put their knowledge into practice:

* One or more examples are provided to illustrate each individual quantitative technique presented in the text

* The accompanying CD-ROM features two multimedia programs, several statistical programs, help to run complex statistical programs, and additional information amplifying topics covered in the text
Quantitative Analysis of Marine Biological Communities, with its extensive use of examples, is ideal for undergraduate and graduate students in marine biology. Marine biologists, regardless of their level of experience, will also discover new approaches to quantitative analysis tailored to the particular needs of their field.

ABOUT THE AUTHOR

GERALD J. BAKUS, PHD, is Professor of Biology at the University of Southern California. He has more than five decades of experience in biology and the marine sciences. In addition to his many published research and review articles, Dr. Bakus is the author of Quantitative Ecology and Marine Biology and Coral Reef Ecosystems.

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