

Preface

Unique Approach

I have been an active researcher and teacher of ecology at the University of South Florida for 20 years. Most of my students are sophomores, juniors, or seniors who have completed their prerequisites in mathematics, chemistry, and basic biology classes. Many of these students want to connect what they learn in class to real-world problems. One of the biggest changes that we as a society face is global change, those alterations in the global environment that may alter the Earth's ability to sustain life. As defined by the U.S. Global Change Research Project, such alterations include changes in climate, land productivity, oceans or other water resources, atmospheric chemistry, and ecological services. Global change is effected by a variety of factors, including elevated atmospheric carbon dioxide, sulfur dioxide, and nitrogen dioxide; invasive species; habitat destruction; overharvesting; and water pollution. Thus, one of my goals in creating a new ecology textbook is to show how ecological studies are vital in understanding global change. A focus on global change, however, is just one of the book's innovative areas of emphasis.

This is the first ecology book to make use of McGraw-Hill's unique Connect system, a powerful online learning assignment and assessment solution. For each chapter, there are about 30 multiple choice, true/false, matching, or ranking questions, plus additional types of questions relating to art and photographs, art labeling, and fill-in-the-blank. I have found that the use of such material, when used as homework, results in an improvement in grades. Nearly all my students have responded positively to this approach as it keeps their skills sharp and helps them prepare for exams. I hope your students will find it useful, too.

"The overall strengths are 1) examples the author gives when discussing ecological issues and problems, and 2) the up-to-date material and information that emphasizes the key points the author is making."

Andrew Goliszek, North Carolina A&T State University

"The writing, which has always been a strength of Dr. Stiling's books, is excellent; the use of examples and data is just right (not too much, not too little); the level of math is appropriate and handled well; and the pedagogical aids are excellent."

Daniel C. Moon, University of North Florida

"The Stiling manuscript makes it very easy to apply many of the laboratories the students conduct to the theories of ecology. The Feature Investigations are a great starting point for the topics covered in each chapter."

Pat Clark, IUPUI