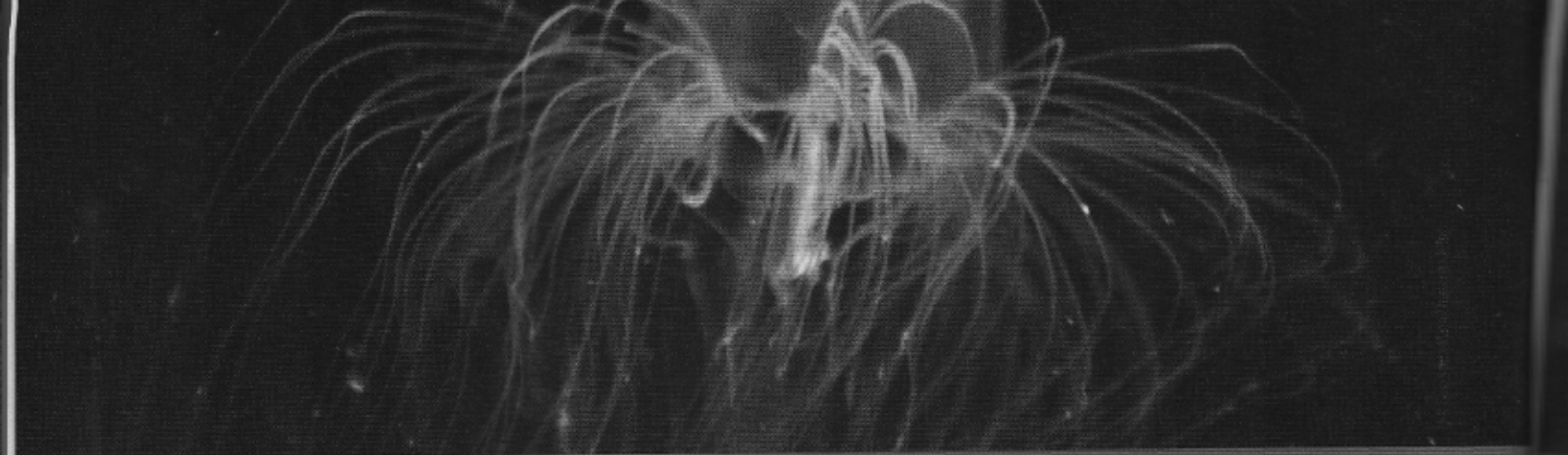




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Audience

We have written this book for students in the environmental biology, college-level students in the environmental biology, and challenge of understanding marine organisms, the environment in which they live, and the challenges they face as the environment changes. We assume no previous knowledge of marine biology, however, some exposure to the basic concepts of biology is helpful. This book uses selected groups of marine organisms to develop an understanding of biological

Although we intend the sequence of topics to be flexible, we have organized the book into four sections. The first section, "Introduction to the Marine Environment" (Chapters 1-4), highlights the many ways that the ocean realm differs from other environments. It covers the physical environment, the chemistry of seawater, and the biology of the ocean. We introduced an entire chapter on marine invertebrates (Chapter 5), highlighting the mechanisms behind ocean movement and how ocean movement affects marine life. Then we provide a brief summary of basic chemical and biological principles that are unique to the ocean for the beginning student (Chapter 6). The next portion of the book summarizes life in the sea with two chapters dedicated to autotrophic producers (Chapter 7) and Chapter 8 for microbial and non-microbial producers (Chapter 9) and two chapters covering marine consumers (Chapter 10) and Chapter 11 for birds and marine mammals (Chapter 12). We have organized the third section of the book around the major marine habitats: coastal (Chapter 13), the open ocean (Chapter 14), and the deep sea (Chapter 15). Chapter 16 includes descriptions of the polar seas and their