

Preface

Conservation biology is the field that seeks to study and protect the living world and its biological diversity (or “biodiversity” in its shortened form). The field emerged during the last 35 years as a major new discipline to address the alarming loss of biological diversity. The threats to biodiversity are all too real, as demonstrated by the recent recognition that fully one-third of amphibian species are in danger of extinction. At the same time, we continue to be hopeful and inspired by success stories, like increasing sea turtle populations at many locations throughout the world following comprehensive conservation efforts. Many examples described in this book show that governments, individuals, and conservation organizations can work together to make the world a better place for all living things.

After decades of public interest in nature and the environment, the United Nations focused worldwide attention on conservation by declaring 2011–2020 to be the Decade of Biodiversity. The general public has absorbed this message and is asking its political leaders to provide the policy changes needed to address issues of conservation. The last two years have also seen far greater interest in ocean conservation, with the establishment of three new giant marine protected areas, each over 500,000 km² in area. Evidence of the ever-increasing interest in conservation biology is shown by the great intellectual excitement in many journals and newsletters and the large numbers of new edited books and advanced texts that appear almost weekly. International conservation organizations are tackling conservation issues with a multi-disciplinary approach, and an *Encyclopedia of Life* is being developed as an online resource to provide the needed information for conservation issues. Popular magazines, such as *National Geographic*, frequently publish articles with conservation themes.

Large numbers of university students continue to enroll in conservation biology courses. Previous editions of *Essentials of Conservation Biology* have provided a comprehensive textbook for this subject. (*A Primer of Conservation Biology*, in its Fifth Edition, continues to fill the need for a “quick” guide for those who want basic familiarity with conservation biology.) This Edition of *Essentials* provides a thorough introduction to the major concepts and problems of the field. Like its predecessors, it is designed for use in conservation biology courses, and also as a supplemental text for general biology, ecology, wildlife biology, and environmental policy courses. The book is also intended to serve as a detailed guide for professionals who require a comprehensive background in the subject. Readers should enjoy and benefit from the updated full-color illustration and photo program. Highlighted synopses of major points in the text have been added as sidebars and serve as useful study aids.

This Sixth Edition reflects the excitement and new developments in the field. It provides coverage of the latest information available on a number of topics, including the expanding system of marine protected areas and linkages between conservation and global change. It highlights new approaches culled from the recent literature on topics such as citizen science, aerial drones in conservation management, the economic value of wild pollinators, the use of environmental DNA (eDNA) in aquatic environments, and payments for ecosystem services.

In keeping with the global nature of conservation biology, I feel it is important to make the field accessible to as wide an audience as possible. With the assistance of Marie Scavotto and the staff of Sinauer Associates, I have arranged an active translation program, beginning with translations into German and Chinese in 1997. It became clear to me that the best way to make the material accessible was to create regional or country-specific translations, identifying local scientists to become coauthors and to add case studies, examples, and illustrations from their own countries and regions that would be more relevant to the intended audience. To that end, in the past 12 years, editions of *Essentials* have appeared in Arabic, Hungarian, Romanian (two editions), Spanish (with a Latin American focus), and Turkish; and the *Primer* has appeared in Brazilian Portuguese, Chinese (three editions), Czech, Estonian, French (two editions, one with a Madagascar focus), Greek, Indonesian (two editions), Italian (two editions), Japanese (two editions), Korean (two editions), Mongolian, Nepal (in English), Russian, South Asia (in English), Spanish, and Vietnamese. New editions of the *Primer* for Africa, Bangladesh, Brazil, Germany, Iran, Madagascar, South Korea, Laos, Pakistan, Serbia, and Thailand and the *Essentials* in China are currently in production. These translations will help conservation biology develop as a discipline with a global scope. At the same time, examples from these translations find their way back into the English language editions, thereby enriching the presentation.

I hope that readers of this book will want to find out more about the extinction crisis facing species and ecosystems and how they can take action to halt it. I encourage readers to take the field's activist spirit to heart—use the Appendix to find organizations and sources of information on how to help. If readers gain a greater appreciation for the goals, methods, and importance of conservation biology, and if they are moved to make a difference in their everyday lives, this textbook will have served its purpose.

Acknowledgments

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Media and Supplements to accompany Essentials of Conservation Biology, Sixth Edition

Instructor's Resource Library

Available to qualified adopters, the Instructor's Resource Library to accompany *Essentials of Conservation Biology* includes all of the textbook's figures and tables in a variety of formats, making it easy for instructors to incorporate figures into lectures and other course materials. All of the figures have been optimized for use in the classroom and are provided as both low-resolution and high-resolution JPEGs, as well as ready-to-use PowerPoint slides.