

Preface

Much has happened in the field of animal behavior since the initial publication of this book in 2004. In this second edition, I have tried to capture the exciting advances that have occurred in ethology and ecology over the last five years. Recent research findings have given me ample opportunity not only to update and expand on the studies presented in the book, but also to reinforce the first edition's focus on ultimate and proximate causation, as well as its unique emphasis on natural selection, learning, and cultural transmission.

The heart of this book continues to be an examination of the empirical, theoretical, and conceptual foundations upon which the field of animal behavior rests. This examination, by necessity, involves a thorough integration of ultimate and proximate perspectives on ethology. Throughout the book, I analyze the extent and manner in which natural selection, learning, and cultural transmission shape behavior. I delve deeply into the neurobiology, physiology, endocrinology, molecular genetics, and development influences underlying animal behavior. I also emphasize in all the chapters how it is the *interaction* of all these forces that is important, as the tapestry of animal behavior is created from weaving all of its components into a beautiful whole.

My aim is to explain underlying concepts in a way that is scientifically rigorous but, at the same time, accessible to students. Each chapter in the book has a sound theoretical and conceptual basis upon which the empirical studies rest. The presentation of theory, sometimes in the form of mathematical models, is not meant to intimidate students but rather to mesh with the glorious examples of animal behavior that surround it. The goal is to produce a book that instructors can use in their courses as well as in their research programs. My hope is to have a written book that students will actually enjoy and will recommend to their friends as a "keeper."