PREFACE

During the fall of 2013, we taught a seminar course together on island ecology at the University of Florida, and the genesis of ideas for this book was in large measure an outgrowth of this class. At the beginning, we had intended to write a review paper that covered both historical and contemporary aspects of the biology of snakes on islands. Then, we scrapped this idea and replaced it with a goal of producing an academic book that focused on aspects of island ecology and biogeography as viewed through the lens of the many studies in which snakes have been a biological focus of such investigation.

Islands have been appreciated as natural "laboratories" for investigations of ecology, biogeography, and evolutionary biology since the time of Wallace, who dedicated a large amount of his writings to islands, including his seminal work *Island Life*, and Darwin, who was profoundly affected by his observations in the Galapagos Islands. In the 1960s, MacArthur and Wilson produced an important and influential theoretic framework for subsequent investigations of biodiversity and dynamics of insular biogeography. Since MacArthur and Wilson's pioneering efforts, a robust literature on insular ecology and biogeography has continued to grow, and understanding the successful existence and adaptations to conditions on islands has advanced. Various investigators have extended earlier theoretic studies to increase understanding of important phenomena such as adaptive radiation, energetics, paleogeography, plasticity of colonizing biota, trophic changes, morphological evolution, and climate change.

For reasons of practicality and personal interests, various specific elements of biota have been investigated as model organisms for clarifying insights regarding particular features of island ecology. Reptiles on various islands have replaced endotherms as primary herbivores and top carnivores. Because of ectothermy, reptiles have advantages over endotherms in exploiting scarce resources in circumstances that are challenging to the success of birds and mammals. Snakes are known to be very successful colonizers of islands, and

roughly 60% of literature on insular squamate reptiles deals with snakes. Indeed, studies of snakes have contributed much to our understanding of insular ecology, and these vertebrates are important subjects for investigating questions that might be difficult to approach in other systems. Details concerning the reasons why snakes have been successful in living on islands may be found in Chapter 1.

We have been fortunate to observe snake populations on many islands throughout the world, including key locations in South America, the Gulf of California, Taiwan, Australia, and the tropical Pacific. In many instances, snakes on islands occur in amazing numbers and are often a dominant aspect of the local fauna. To produce this book, we have recruited authors from among authorities throughout the world who have focused influential studies of snakes that occupy interesting and important systems on various islands or archipelagos. As a concluding chapter, we have included studies of the spectacular tepuis that comprise an exceptional example of "ecological islands" in South America. All of the various authors provide entertaining narratives of the system they studied, woven as a fabric with solid empirical information, scientific theory, and personal insights regarding ecological and evolutionary principles as revealed by spectacular snakes and their adaptations to living on islands.

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