

The Last Island: A Naturalist's Sojourn on Triangle Island

By Alison Watt. 2002. Harbour Publishing, Madeira Park, British Columbia. 192 pages. \$34.95.

Most of this book (pages 15-157) consists of a chronicle of a single field season (late April to 1 September 1980) spent by the author as a field assistant to the late Anne Vallée on the western-most of the Scott Islands off the northwestern tip of Vancouver Island. Triangle Island is famous as the site of an exceptionally unsuccessful lighthouse (too often shrouded in fog) and for its colonies of seabirds. One of these seabird species, the Tufted Puffin, was the subject of Vallée's study. Watt's chronicle is written in diary form and is partly a diary, but is also embellished with details of various aspects of the flora and fauna of the island gleaned from the literature and from conversations with other biologists, as well as historical events and native beliefs along British Columbia's west coast, personal reminiscences, dreams and random thoughts by the author. An introduction (pages 9-13) and "part two" (pages 158-174) chronicle another brief sojourn in August 1996. Watt's text is supplemented with several illustrations of plants, sea life and birds, mostly in colour, with a series of "notes" (pages 179-183) expanding on various biological, geographical and historical details and by a "selected bibliography," guiding the interested reader to sources for more detail on the island, the biology and natural history of some of the species mentioned, the culture of the tribes who frequented the area before Europeans arrived and other topics mentioned in the text.

The book presents a wide sweep of the fauna, flora and geology of Triangle Island and its offshore waters, but it does not offer complete coverage of its natural history. Rather, it presents a sample of the author's observations, sometimes in the context of other local or world-wide knowledge. Apart from a few brief comments and some of the drawings, it offers little in the way of "field guide" elements, as claimed on the dust jacket, but is best described by that dust jacket's characterization as "an intimate memoir." Since I spent a month on the island, I found much of interest in its numerous natural history snippets. For those who haven't been there, its appeal will also lie primarily in

these snippets. The author's skill at presenting the joys and tensions of spending a prolonged field session in close quarters with one other person on an isolated island rich in natural history under highly variable, often rapidly changing weather conditions also provides insight into the sociology of scientific field research.

Watt's research appears to be reasonably thorough and I found few outright errors in the book. Birds are not actually born (pages 74 and 163) – they are hatched. Two genera are not italicized (*Laminaria* on page 96 and *Noctiluca* on page 101), and a few minor grammatical errors escaped editing. As most countries now use metric measurements, the English dimensions of the island (pages 93 and 95) should have been translated into metric for the sake of younger Canadian and other non-U.S. readers. As suggested by its title, the selected bibliography is far from complete, but lists enough references on the island's natural history to guide the reader to more detail. Before reading the book, I checked the index for Green-winged Teal to see whether or not the author had seen some feeding behaviour that interested me during my stay there. This species was not included in the index, but is mentioned briefly on page 144. Curious as to whether or not this was a singular omission, I checked the index for six other species mentioned in the same paragraph (pages 144-145) and found none listed, suggesting that the index is as selective as the bibliography.

In short, Alison Watt's words, paintings and drawings provide colourful examples of several floral and faunal elements of Triangle Island, as well as interactions among some of these elements, information on how some of the knowledge gleaned there fits into the "bigger picture," and the effects that living in near isolation have on the thoughts of field researchers. It provides an interesting introduction to the island's rich natural history, but is not a comprehensive treatise on it.

MARTIN K. MCNICHOLL

4735 Canada Way, Burnaby, British Columbia V5G 1L3
Canada

Nature by Design

By Eric Higgs. 2003. MIT Press, Cambridge, Massachusetts and London, England. 0-262-58226-0. 341 pages. Cloth U.S. \$68; paper U.S. \$27.95.

Nature by Design is a noteworthy exploration of the philosophy of restoration ecology. Beginning with a compelling look at the issues and complexities surrounding the management of Jasper National Park, Eric Higgs walks the reader along a path that explains what ecological restoration is, how and why it is practiced, and the many philosophical issues that weave

through the concept(s) of restoration. The core of this book centers on the changing meanings of restoration and nature while the act of restoration itself, becomes increasingly technological.

Written for both the novice and experienced in the field of restoration ecology, Higgs' book is imaginatively organized. In the first chapter, Higgs does a first-rate job of highlighting the philosophical problems of restoration, with a poignant example comparing Jasper National Park and Disney World's themed Hotel,

the Wilderness Lodge. I found Higgs' thoughts on the concepts of wilderness vs. wildness and "freak landscapes" enormously interesting. In the second chapter, the reader is introduced to three diverse restoration projects from around the world. These projects differ in their scale, intent (or goal), and method and serve well the ideas posed in the remaining chapters – Higgs regularly comes back to these examples to illustrate a point. Chapter 3 explains what ecological restoration is and provides some history to the restoration movement. It is unusual that the subject of the book isn't properly defined until the middle, but Higgs makes it work and the book flows like a good story.

The concept of historicity is central to the fourth chapter which asks the restoration ecologist how the reference condition (or the state to restore a place back in time to) is decided. It is this chapter where the course of the book changes and the reader starts on a more philosophical journey. Chapter 5 explores the issue of commodification and the increasing technological nature of restoration while Chapter 6 explores the alternative, a more traditional approach founded on community based initiatives. In the final summary chapter, the author effectively brings all his examples and arguments together and suggests that in order for ecological restoration to prosper into the future, we must communicate effectively with each other and not sit idle as landscapes all around us rapidly grow outside the historical range of natural variability.

Following the text of the book, rich footnotes give the reader both valuable reference and provocative

anecdotal information. More information is contained in the bibliography which is followed by an ample index.

Higgs's writing style is clear and fluid. The narrative, filled with personal accounts and stories, is not something to be read quickly. It takes time for the concepts and ideas to sink in and take shape to hold a deeper meaning. Those looking for specific instructions on how to accomplish a restoration project will be disappointed. However, this book would be required reading for anyone in the field of ecological restoration, and more than just an interesting read for the general reader. Further, the casual reader may get just as much out of the book by reading only the beginning and concluding chapters which concisely sum up the thoughts and arguments, instead of plowing through the entire text. This is a testament to the author's skill.

Higgs openly states that this book is for an audience who are looking for ways to solve problems – environmental in nature – in a better way. However, like any good philosophy book, *Nature by Design* asks more questions than it answers.

KIRK MONTGOMERY

Department of Geography, University of Calgary, Earth Systems Modelling Lab, Earth Sciences Building, Rm 356, 2500 University Drive N.W. Calgary, Alberta T2N 1N4 Canada

Present address: 410-8604 Gateway Boulevard, Edmonton, Alberta T6E 4B6 Canada

Spreadsheet Exercises in Ecology and Evolution

By Therese M. Donovan and Charles W. Welden. Sinauer Associates Inc. Sunderland, British Columbia. 556 pages. \$38.95.

Spreadsheet Exercises in Conservation Biology and Landscape Ecology

By Therese M. Donovan and Charles W. Welden. Sinauer Associates Inc., Sunderland, British Columbia. 464 pages. \$41.50.

A core component of biological study is the suite of theoretical models that researchers have developed to describe and forecast biological phenomena. Browse through any introductory ecology textbook and you'll find models for nearly every quantifiable biological process. Models are used to answer questions in every area of natural history study: what is a sustainable harvest level for a fishery? what is the likelihood that a rare species will go extinct? what is the best foraging strategy for a particular animal? With their *Spreadsheet Exercises*, Donovan and Welden present a series of computer-based assignments to guide students through the development and application of models to a variety of such ecological and evolutionary scenarios.

The intended audience for these books undergraduate biology students for whom each chapter provides a practical exercise to complement course lectures. The first six chapters of each book provide a brief review of basic statistics while introducing the concept of computer modelling. As the target audience likely has or will receive instruction in biological statistics the treatment here is very light – just enough to refresh the fundamentals and introduce the novice to key concepts.

The remainder of each book is given over to the exercises. Each chapter begins with a brief theoretical review followed by step by step instructions explaining how to convert the theory into a computer simulation. Some of the chapters stand alone, but generally the later chapters within a section build upon earlier work. For example, in the ecology section the chapter on reproductive value assumes previous completion of exercises on life tables, geometric and age-structured