

## Book Review

### *Isolated Wonder: A Scientist in the Robinson Crusoe Islands*

By Tod F. Stuessy

Stuessy TF. 2024. *Isolated Wonder: A Scientist in the Robinson Crusoe Islands*. St. Louis (MO): Missouri Botanical Garden Press. 335 p. 6 x 9 in., Paperback. \$30.00. ISBN-13: 9781935641285.

**T**HIS BOOK PRIMARILY COVERS SOME OF THE author's more noteworthy and interesting experiences associated with a long-term botanical research program carried out on the remote Robinson Crusoe Islands. These are more formally referred to as the Juan Fernández Islands or Archipiélago Juan Fernández (in Spanish). This group of islands, governed by Chile, are located west of that South American country's continental mainland, in the southern Pacific Ocean. The Juan Fernández Islands consists of three separate islands. Two of these, Robinson Crusoe Island and the nearby, but much smaller, Santa Clara Island, are 667 km west of continental Chile. The third, Alejandro Selkirk Island, is further west, 848 km from continental Chile.

Juan Fernández, a Spanish navigator, discovered the islands in 1574. Prior to this date, there is no evidence that humans had ever lived, or even visited, this archipelago. Even today, there are few inhabitants—around 900 total—almost all living in the village of San Juan Bautista on Robinson Crusoe Island. There are no permanent inhabitants on Alejandro Selkirk Island, which only has a small fishing community, occupied by approximately 20 families, just eight months out of the year (October to May). In 1704, Alexander Selkirk, a Scottish sailor, was voluntarily marooned on Robinson Crusoe Island, after a strained relationship developed with his ship's captain. Alexander Selkirk remained on the island for four years and four months before

being rescued. His story served as inspiration for the famous novel *Robinson Crusoe* by Daniel Defoe, which is how this island got its name.

Geologically, the islands are volcanic in origin, formed within the Nazca Plate by an underlying mantle hot spot, as this tectonic plate slowly slid eastward. Robinson Crusoe Island is four million years old, with 95% of its surface having been lost to erosion and subsidence. Alejandro Selkirk Island is younger, at one million years old, with only 28% of its surface having been lost. The author and his colleagues considered the Juan Fernández Islands to be an ideal location for botanical evolutionary research. This was due to the relatively

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young (geologically), but very different ages of the two main islands (four million years versus one million years), and the presence of a substantial, but not overwhelming number of endemic plant species. Consequently, from 1980 to 2011, the author and his colleagues conducted

12 field research expeditions on the Juan Fernández Islands in order to study evolutionary aspects of endemic plants. The author's goal for this book, however, was not to impart a dry scientific discourse on research methodology and results. It was, instead, to provide the general reader—in an engaging and entertaining manner—with an insight to what botanists do and why their work is important, thereby enhancing the public's attitudes toward this scientific discipline.

The book contains a preface, 14 chapters, and two appendixes. The preface discusses the motivation, purpose, and source material for the book.

*Chapter 1—Corrales de Molina* catches the reader's attention by recounting a very challenging (and risky) 1996 field excursion on Robinson Crusoe Island carried out for collecting endemic plant specimens.



**Chapter 2—Meeting Mario** details the background for a 1977 trip to Chile, and the actual trip itself, where the author first met with colleagues at the University of Concepción and began planning the botanical research program conducted on the Juan Fernández Islands.

**Chapter 3—Expedition Preparations** focuses on various aspects of arranging scientific field expeditions to the remote Juan Fernández Islands, particularly regarding pre-expedition communication and supply provisioning. It especially underscores the difficulties involved and changes over the years.

**Chapter 4—Previous Visitors** begins with an account of the discovery, settlement, and economic development of the islands. The last part of the chapter covers previous botanical expeditions.

**Chapter 5—Bizarre, Unusual, and Interesting Plants** highlights both the dominant and the more atypical plants endemic to Robinson Crusoe Island and Alejandro Selkirk Island.

**Chapter 6—Arrival and Departures** describes the logistics of getting supplies and personnel to Robinson Crusoe Island by boat in January 1980 (first expedition) and events related to the return by airplane from Robinson Crusoe Island in January 1997 (eighth expedition).

**Chapter 7—Island Living** recounts base camp accommodations in the town of San Juan Bautista on Robinson Crusoe Island from 1980 to 2010, camping in tents during field excursions, and precautions for medical emergencies.

**Chapter 8—Real Isolation** provides details on a 1986 field expedition by boat to Alejandro Selkirk Island, with special attention devoted to efforts ensuring adequate availability of the provisions needed for the month-long stay at this very remote location.

**Chapter 9—An Improbable Encounter** describes the author's first meeting his future wife on the 1986 field expedition, the following courtship, and marriage in 1988.

**Chapter 10—The Call**, in the first part, recaps logistics and the actual field excursions for the 1999 expedition, having the goal of mapping vegetation on Robinson Crusoe Island. The last part of the chapter covers the author's response to a family medical emergency back on mainland Chile.

**Chapter 11—Isolation Revisited** documents the last field research expedition (2011) to Alejandro Selkirk Island which was tasked with two objectives: (1) producing a modern vegetation map of the island and (2) examining the genetic variations of endemic plants.

**Chapter 12—The Heavy Hand of Humans** details the adverse human impacts on flora and fauna of the Juan Fernández Islands.

**Chapter 13—Scientific Accomplishments** summarizes the major research achievements, and some of the methodology employed, for the field expeditions from 1980 to 2011.

**Chapter 14—Perspectives** begins with how the author first became interested in his chosen scientific profession, and Central and South American culture, through inspirational undergraduate courses taken at DePauw University. It ends

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with the author expressing concern with religious beliefs being accepted as alternatives, or even a substitute, for scientific facts (i.e., evolution versus creationism).

**Appendix 1** is a table listing expedition dates, along with the participating personnel, their affiliated institutions, and their designated specialties.

**Appendix 2** is a bibliography of published research from the 12 botanical expeditions (1980 to 2011) carried out on the Juan Fernández Islands by the author and his colleagues.

This book is very well written, and holds the reader's attention from the very beginning. The first chapter in fact describes a daylong field excursion on Robinson Crusoe Island, starting from the base camp in the village of San Juan Bautista, hiking up into rugged mountains, and encountering steep

drop-offs descending back down the mountains to the opposite side of the island. Then there was the hazardous endeavor of loading the scientists from the rocky shore into the boat sent to collect them, and finally, a trip through rough waters back around the island to the base camp. Useful maps on the inside of the front and back book covers show key locations referenced on both Robinson Crusoe Island and Alejandro Selkirk Island. A section of color images is provided, which serves to clearly depict some main points of the book. Grayscale images are mostly of good quality.

As detailed throughout the book, botanical field research, especially in a remote location such as the Juan Fernández Islands, is definitely not a paid luxury vacation. Hardships are encountered, but the rewards regarding the valuable scientific knowledge obtained can be of great significance. The book certainly achieves the author's goal of enlightening the reader—and doing so in an engaging and entertaining manner—about the nature of botanical research and its importance. Plus, the reader does not need a background in botany to find this book both enjoyable and insightful. I really wish that there were more books like this that enhance public attitudes toward science, hopefully inspiring a new generation of students to pursue scientific careers.

Consequently, after reading the book twice, I give it my highest recommendation.

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