

PREFACE

The theme of this book is a return to complete and in-depth information. In the frenetic tempo of modern times, we often bypass this goal. In our multitasked lives, we tend to have a focused search for specific items of information we need at the moment, usually on Internet search engines such as Google or on electronic databases and digital libraries. After we are provided an array of sources, we grab the particular piece of information and move on. Perhaps the new culture of science of keeping focus in the specific objective at hand and not delving deeper is an adaptation to the speed at which changes are coming. A colleague recently confided that a genetics professor that has been around for decades has no advantage over a post-doc because the genetic techniques are changing so fast that both are challenged equally in keeping up. As the Red Queen (in *Through the Looking Glass*) said, “It takes all the running you can do, to keep in the same place.” PhD candidates in genetics, when analyzing their data and writing their dissertations, are finding the techniques they used in obtaining their data are becoming out of date during the four or five years they were in graduate school and so they need to publish each individual chapter before they finish their dissertation.

Lu Eldredge always had been different. Lu may have started after particular facts, but he always wanted to learn the whole story and would keep digging deeper even when most others would have considered they had enough. At the University of Guam, the University of Hawai‘i and the Bishop Museum, Lu mentored young scientists and students and was an encyclopedic source of information for the tropical Pacific. When a student or colleague asked for information on a little-known creature or location for which there seemed to be almost no information, he would always find in his files important articles from obscure sources. This book is dedicated to the memory of Lucius G. Eldredge (1938–2013).

Lu was renowned for compiling files of every publication, including technical reports, grey literature, and even newspaper and magazine articles, in existence on the marine fauna of Pacific islands, both by animal group and by island. The records of quantitative coral-reef surveys and monitoring programs in the middle of the past century are especially valuable, but these were done before data were recorded electronically and have the potential to be lost. Lu compiled a number of bibliographies, one of which was a collection of all survey reports, technical reports and publications of all the Pacific Island coral-reef sites that had been surveyed or monitored. It is especially valuable for people who are about to do a survey of a coral-reef site to determine if there is a quantitative record for the same site decades previous.

Hawai‘i is the only state for which there exists a complete listing of all described species. This results from Lu’s rigorous and relentless scouring of the literature. The annual *Records of the Hawaii Biological Survey* is a registry of all native and introduced species of plants and animals in the Hawaiian Islands. Lu coedited the *Records of the Hawaii Biological Survey* since 1999 and was working towards publishing an update of this summary list of Hawaiian species when he passed away. Lu also coedited with the late Dennis Devaney two important volumes from the *Reef and Shore Fauna* series published by the Bishop Museum that covered 17 phyla of Hawaiian invertebrates.

Hawai‘i is almost certainly the tropical geographic region for which the information on introduced marine animals and algae is most complete. Starting in the 1980s, Lu and James Carlton worked together to document and validate the sites of origin, the dates of introduction, and present day status of introduced marine and brackish water animals and algae. In 2009, they published this comprehensive inventory through the Bishop Museum entitled *Marine Bioinvasions of Hawai‘i*. As Lu diligently produced this project, he mentored students and colleagues in designing and acquiring funds for major research endeavors towards discerning previously undetected introduced marine species and determining their effects on native communities.

— Charles Birkeland