Field Guide to the Seaweeds of Alaska

By Mandy R. Lindeberg and Sandra C. Lindstrom. 2010. Alaska Sea Grant College Program, University of Alaska Fairbanks. iv + 188 pages, $30.00 USD.

If you are a student or professional involved in coastal marine science in Alaska, or a naturalist who is resident or visiting coastal Alaska, then this field guide is for you. This book by a world authority on the seaweeds of western North America (Lindstrom) and another professional who is clearly an excellent photographer (Lindeberg) is an important addition to the shelves of anyone concerned with seaweeds on the temperate coasts of western North America. The authors have produced an excellent field guide; indeed, this is the best that I have come across.

Seaweeds are inherently a difficult assemblage of organisms to deal with. They are phylogenetically disparate, and come in a range of sizes from the microscopic to dozens of meters. Their morphology is highly variable both within and among species, and it can take considerable experience to distinguish many of the forms. From a wider perspective, creating a first class field guide is a complex business. It must be accessible for the tyro, and useful for the experienced. It should be large enough for substantial information, and yet not so bulky as to deter you from carrying it with you. It needs to be up to date for the experts, and yet with a comfort level that comes from familiarity with the names and organisms.

Overall, Lindeberg and Lindstrom have overcome these challenges, and the compromises they have made are reasonable. The images are mostly excellent, the text is highly informative without being overwhelming, and it is organized such that critical information is immediately accessible. With its ring binding the volume opens flat, and the book will easily fit into a pack, even if too large for a pocket. The authors have found (or made up) common names for every species they cover, and the guide has visual and descriptive tools for arriving at species names. These are easy to use and a suitable alternative for many who may be intimidated by dichotomous keys. The introductory material covering background information on taxonomy and ecology is useful, and I only wish that the authors had included a general summary of the seaweed flora of Alaska as a whole, and the proportions of species in each of the major assemblages that are treated in the guide.

While the photographs and thumbnails are both attractive and useful, the authors have produced a website (www.seaweedsofalaska.com) that mirrors the field guide and has additional photographs of many species. While the reproduction in the field guide is generally excellent, many of the photographs are stunning on the computer screen. The website then links to AlgaeBase, the most authoritative website for algae, where formal descriptions and taxonomic/nomenclatural information are available. Such links turn this 'simple' field guide into a major learning tool. But while these web tools provide a connection to the larger world of algae, the authors miss out by not connecting directly to a more comprehensive floristic list, or formal keys for the region. There are many algal groups where only a single species might be represented in the guide (e.g., *Ceramium*, *Polysiphonia*, many groups of filamentous red algae). While I would not expect this guide to treat all of the species, it would be helpful to let the reader know that there are additional species for naturalists, especially ones with access to a microscope, to look for in each of these groups. This would be great information to add to the book's website.

There is a growing interest in the collection and use of seaweeds as natural foods. As the authors point out in their introduction, many seaweeds are good to eat. However, the authors don't elaborate on this in a way that would make the uninitiated actually try some algae while on the shore, or tempt them to take home some Laver for drying or cooking. The authors do include a reference to one of several guides to cooking with seaweeds, but perhaps this is an aspect to be developed in the next edition, or on the website.

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