

Pacific Seaweeds – A Guide to Common Seaweeds of the West Coast (Expanded Edition)

By Louis Druehl, and Bridgette Clarkston. 2016. Harbour Publishing, PO Box 219, Madeira Park, BC, Canada, V0N 2H0. 320 pages, 28.95 CAD, Paper.

I have a copy of Clarkston's plasticized pamphlet "A Field Guide to Seaweeds of the Pacific Northwest" and I really like it. It is handy, portable, lightweight and clear. It covers about four dozen of the commonest species, identifying many to the genus level only.

This re-issue of Druehl's original book, published 15 years ago, covers 150 species, found from Homer, AK to Point Conception, CA. Considering the oceans cover 70 percent of our earth, we really know little of the "plant" life in this zone. New species are constantly being identified, and this is reflected in the changes in this edition from the first. This edition also benefits from the fine photographs, taken largely by Clarkston.

There is the expected "Field Guide" section where individual species, like the lovely rosy *Rhododymenia californica*, are depicted, described and compared to similar species. As many species cannot be identified without microscopic examination, these are also taken to the genus level only. An easy-to-use thumbnail photo-key gets the reader started.

However, the book is way beyond a field guide. It has sections on seaweeds in general, explaining their biology, morphology and their place in our universe. For example, seaweeds come in three basic forms; red, green and brown. While red and green are plants, the brown seaweeds are part of the Chromista, a separate kingdom that includes chlorophyll-containing algae. Seaweed ecology is covered in some depth. It describes the reproduction of these organisms, of course. Ever since I crouched over a wave-tossed pool (safely) at Peggy's Cove, Nova Scotia, and listened to a Dalhousie professor's vivid explanation, I knew the sex life of these plants was far more imaginative than the rest of life on earth. The authors have chosen to include some "terrestrial" plants that live in the inter-tidal zone too. Sea grass, *Salicornia* (now called *Sarcocornia*) and one of the ancestors of our commercial strawberries are included.

The surprise comes with the chapters on the cultivation and use by humans, their nutritional value and how to cook them. There are about 20 recipes ranging from

soup to salad. The seaweed is generally used as flavouring, as in dried, crumbled dulse on potatoes. The authors make a strong case for the nutritional value of adding seaweed to our diet, but go on to plea for stringent conservation. Seaweed is best bought from regulated, commercial sources. I wondered about toxic seaweeds; after all, there are many toxic terrestrial plants. This does not seem to be the case. If you over indulge in kelp you take in excess iodine. More bizarre is *Desmarestia*, a brown seaweed, which exudes sulphuric acid when taken captive (exposed to air).

I not only like the information packed in this book, I very much enjoyed the writing style. Stating that "brown seaweeds stand out like an orphaned elephant that has been adopted by a family of mice" is cute, but it also is a good method of explanation. Even funnier is "a zoologist walks into a store with a parrot on his shoulder and the clerk asks 'Where did you get that?' and the parrot responds 'It started as a wart on my butt.'" (Used to clarify parasitism in seaweeds.)

The authors frequently describe the work of others and the important contributions they have made. I was impressed how often those researchers were young people doing their PhD theses. In fact, this is a fertile area for new graduates to study and make their mark on science.

While seaweeds do not have the pizzazz of orchid flowers, fall maples or fly agaric, they are a fascinating group and worthy of study and admiration. This book will help in your hunt for new and old species. It is still small enough (14 × 21.5 mm or 5.5 × 8.5 inches) to carry in the field and in the glove box. I enjoyed reading it more than other, more typical field guides.

One last point: my grandfather said a weed is just a plant in the wrong place. These weeds of the sea are definitely a vital component of ocean life and deserve a better name than "weeds".

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