

LITERATURE OF INTEREST

Grasses in California. By B. Crampton. 178 pp. University of California Press, Berkeley. 1974. \$3.95 (paperback). Keys, descriptions, and illustrations of most common California grasses.

Sierra wildflowers: Mt. Lassen to Kern Canyon. By T. F. Niehaus, 223 pp. University of California Press, Berkeley. 1974. \$3.95 (paperback). Keys, diagnoses, and illustrations of most common species.

Introduction to California plant life. By R. Ornduff. 152 pp. University of California Press, Berkeley. 1974. \$3.95 (paperback). A discussion of California plant communities, including their origins, adaptations, and responses to environmental factors.

Native shrubs of the Sierra Nevada. By J. H. Thomas and D. R. Parnell. 127 pp. University of California Press, Berkeley. 1974. \$3.95 (paperback). Descriptions and illustrations of most common species.

The boojum and its home. By Robert R. Humphrey. 214 pp. University of Arizona Press, Tucson. 1974. \$6.95. A treatise on the ecology and natural history of *Idria columnaris* in Baja California.

The distribution of forest trees in California. By J. R. Griffin and W. B. Critchfield. 114 pp. Illustrated. Research Paper PSW-82/1972. Pacific Southwest Forest and Range Experiment Station, USDA, Forest Service, P.O. Box 245, Berkeley, California 94701. \$1.75.

Natural vegetation of Oregon and Washington. By J. F. Franklin and C. T. Dryness. viii + 417 pp. Illustrated. General Technical Report PNW-8. Pacific Northwest Forest and Range Experiment Station, USDA, Forest Service, Portland, Oregon. \$7.45. A revision of *Vegetation of Oregon and Washington* prepared for the XI International Botanical Congress in Seattle, 1969.

REVIEWS

Coastal ecology, Bodega Head. By MICHAEL G. BARBOUR, ROBERT B. CRAIG, FRANK R. DRYSDALE, and MICHAEL T. GHISELIN. 338 pp., 89 figs., 15 tables, 2 appendixes. University of California Press, Berkeley. 1973. \$10.95.

Coastal ecology, Bodega Head consists of eight short chapters covering parts of the history, some of the ecological research, and descriptions of the rocky, muddy, and sandy seashore communities and grassy headlands of Bodega Head, a small peninsula on the Pacific Coast 72 km (45 miles) north of San Francisco. The last part of the book contains checklists of Bodega Head plants and vertebrates, descriptions of methods used, a selected bibliography, and a literature cited section.

Although the title implies a general treatment of coastal ecology, the book is concerned primarily with Bodega Head, and appears only haphazardly to touch upon other coastal areas or to discuss fundamental processes or principles of coastal systems. The authors often digress, taking the reader off on asides that are usually interesting, but just as often questionable as to how they relate to coastal ecology or Bodega Head.

A segment of the general public, visitors to the region, nature lovers, and professional biologists would be interested in Bodega Head biology, and yet, the book appears to possess shortcomings when any of these audiences are considered. Many descriptions of organisms or communities were written without apparent attempts at simplification or organization, or regard for the kind of presentation necessary for comprehension by the novice, but are near nothings when examined by the professional looking to expand his knowledge in this area. The numerous little physiolog-

ical projects presented are also disconcerting, since in most cases, the results of small pilot studies, single samples, one instance, a set of readings, or incomplete information are presented in graphic or tabular form as substantial data, where it can only be misleading to the novice and distasteful to the professional.

Several academic questions are pursued, such as the community concept, zonation, the individualistic hypothesis, climax concept, and the like, which can only cloud the minds of the general reader attempting to learn about Bodega biology, while contributing nothing new to the thinking of professional biologists.

Discussions and topics that I looked forward to were often neglected or deficient. An interesting Indian history of Bodega Head (Chapter 7), and all the details of planning an atomic power plant at Bodega Bay are presented, while neglecting to develop a meaningful vegetational history, which I believe to be more pertinent to the understanding of present-day Bodega Head. I was disappointed that the questions of why Bodega Head is treeless, how long coastal grasslands might have been in existence, how coastal grasslands might have been formed and what factors contributed to their maintenance, and the possible relationships between the geomorphology and fault zone to soils, seepage, drainage, and vegetation were not discussed.

The role of salinity in controlling the germination of coastal plants, already, capably described in several publications by author Barbour, is emphasized to the point of neglecting other important aspects of coastal ecology, including wave action, sand transport, dune formation, dune-building plants, and the life cycle and ecological roles of the strand and salt marsh. What effects has the introduction of the non-native beachgrass had on Pacific Coast dunes, what native plants have been excluded, and how has this affected dune dynamics?

Along with the expected misspellings of Latin names, misuse of terms (I believe coastal strand should include the lower, middle, and upper beach, including the dunes), and misrepresentations of facts (common and snowy egrets may eat similar foods, but certainly procure them in different ways), many ecological features were neglected such as the role of runoff in removing salts, the effects of fresh-water seepage on beach plants, the ameliorating effects of marine air, and the reproductive habits of various plants and animals (sea rocket fruits are produced in pairs, with one abscising and the other persisting, thereby helping to explain why most seedlings are found near parent plants).

The various appendixes, and the literature cited section, are of use to both amateur and expert. The reader will encounter interesting ideas and facts, but I am afraid the book generally represents a premature venture as a comprehensive treatise of coastal ecology or of Bodega Head.—RICHARD J. VOGL, Department of Biology, California State University, Los Angeles 90032.

Flora of the Pacific Northwest: An illustrated manual. By C. LEO HITCHCOCK and ARTHUR CRONQUIST. Illustrated by Jeanne R. Janish. xix + 730 pp. University of Washington Press, Seattle. 1973. \$19.50 (text), \$25.00 (trade).

This manual, a direct outgrowth of the five-volume *Vascular plants of the Pacific Northwest*, has been most welcomed by both professional and amateur botanists of the Pacific Northwest. At last we have a reasonably sized, illustrated compendium of the plants of this area. The illustrations unfortunately have been greatly reduced from those found in larger work; however, they do provide an accurate visual guide for the enthusiastic plant identifier. Many new sketches have been provided for the keys, and even more would be desirable but I am sure that overall size of the manual precluded their inclusion. The presence of the illustrated keys provides for the first time in North America an excellent model for presentation in major floristic works. This unique feature will entice many more people to learn about our vascular plant resources. One problem the user has with the illustrations concerns the man-



Vogl, Richard J. 1974. "Coastal ecology, Bodega Head by Michael G. Barbour, Robert B. Craig, Frank R. Drysdale, Michael T. Ghiselin." *Madroño; a West American journal of botany* 22, 404–405.

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