The Natural History of the U.C. Santa Cruz Campus by Tonya M. Haff, Martha T. Brown, and W. Breck Tyler

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Recommended Citation
Available at: https://scholarsarchive.byu.edu/wnan/vol70/iss1/16
BOOK REVIEW


Take this simple test: which large (>15,000 students) U.S. university campus is 80% undeveloped, 20% designated as a natural reserve, and 100% covered by a 361-page natural history guide? Add in clues such as the presence of redwood forests and expansive ocean views, and an answer appears: the University of California, Santa Cruz (UCSC).

There is probably no other institution of higher learning in the world that is blessed with the biodiversity of UCSC. I began learning about the natural history of this special place in 1982, the year I started a 21-year run as a program director for wildlands field studies and as a part-time instructor on campus. I was lucky; that same year, the first edition of The Natural History of the U.C. Santa Cruz Campus was published, and I had a guide to my new home and workplace.

Twenty-six years later, a superb second edition has been published that sets high standards for natural history guides describing any location. Its 10 chapters offer broad as well as deep coverage of nearly everything that roots, crawls, flies, burrows, and cruises campus lands. The new edition has been expanded to include chapters on mushrooms, lichens, and specific animal groups; invertebrates, amphibians, and reptiles join treatments of birds and mammals.

One key organizing feature of the book is that people are considered as part of natural history. Chapter 1 relates the human history of campus lands from prehistory to the present, describing each succeeding wave of human influence from the first native groups, to the Spanish and Anglo settlers, to today’s university community. It is easy to see from the human history that despite a rich biota, UCSC is in no way “pristine.”

Neither are campus lands “stable” in any permanent sense. The campus, located not far from the notoriously active San Andreas Fault, rides on the Pacific Plate as it slides northwest past the North American Plate. I received direct experience in this fact of UCSC natural history in 1989 as I ducked under cascading volumes in the basement of the old science library during the devastating Loma Prieta earthquake. The longest chapter in the book thoroughly covers this and other local geological phenomena. This material grounds readers in the earth history and processes of the area, even if such information cannot eliminate the geological risks of living in central California.

Geographic position deeply influences the flora of UCSC as well. There are some 500 species of vascular plants on a campus of only 809 ha. This remarkable diversity results from the Mediterranean climate, the elevation of UCSC within the Santa Cruz Mountains, and the fact that a host of northern species reach their southern limits in this part of central California. In addition to 8 distinct native-plant communities, UCSC also has a working 22-ha farm and garden along with a 40-ha arboretum containing important collections of Mediterranean Proteaceae and global gymnosperms. Both of these important campus “ecosystems” are included in this book.

The new chapters detailing mushrooms, lichens, and invertebrates are uniformly strong. Each includes general morphology, reproduction, and ecology before covering species specific to UCSC. The writing is clear and invites readers to explore these less-familiar organisms through seeking them out in specific ecosystems around campus. Coverage of amphibians and reptiles is also thorough: 25 species are covered, including every known lizard and snake from UCSC.

It would be difficult to provide similar coverage for the 189 birds and 50 mammals that make UCSC home. Yet over 70 pages are devoted to detailed life histories keyed to campus habitats, and the writing here is particularly
descriptive and inviting. There are even 3 pages devoted to the bats of campus.

The editors have done a fantastic job of knitting together the prose of 11 authors. Every chapter is chock-full of excellent illustrations and maps to prepare readers for exploring UCSC. Chapter references are well chosen and up-to-date. Appendixes list all plants, butterflies, amphibians, reptiles, birds, and mammals documented from campus lands. Plant taxonomy incorporates the latest family-level revisions of the Angiosperm Phylogeny Group, where the Liliaceae, for example, is split into 16 separate families. I find this to be a very helpful addition.

When the first edition of this guide was published, less than 7000 students attended UCSC. Today there are over 15,000, and plans call for 6000 more. Unfortunately, educational mandates will always trump land management at UCSC; even the future of the natural reserve lands is not guaranteed. But if contact with biodiversity leads to better care of the lands on campus, then this essential guide may be the most important tool to ensure that the wild species of UCSC thrive far into the future.

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