

**The Jasper Ridge Biological Preserve Teaching and Reference Collection
of Vascular Plants.
by John Hunter Thomas**

Very soon after Stanford University opened its doors to students on October 1st, 1891, the region then known as Searsville Ridge, now known as the Jasper Ridge Biological Preserve, attracted students and faculty as an ideal area to study the flora and fauna (see: Dorothy F. Regnery, *The History of Jasper Ridge*, Stanford Historical Society, Stanford University, Stanford, California, 1991). Except for a few class notes (see: William R. Dudley (the presumed author), *Notes on Local Trees and Shrubs*, Leaflets I-III, no date) no systematic survey of the vascular plants of the now Preserve was carried out until 1935 when Martha Springer wrote her A. M. Thesis on the area (see: Martha Edith Springer, *A Floristic and Ecological Study of Jasper Ridge*, A.M. Thesis, Stanford University, 1935). Later she received her Ph. D. (see: John H. Thomas, *The History of Botanical Collecting in the Santa Cruz Mountains of Central California*, Contributions from the Dudley Herbarium 5: 148-168, 1961) from the University of Michigan in mycology and since 1947 has been a member of the faculty at Willamette University in Salem, Oregon. She is now retired and still lives in Salem.

Her Thesis includes 330 species and varieties of vascular plants, but does not cite any specimens. I have corresponded with Dr. Springer about specimens. She has replied that her major professor, Dr. Le Roy Abrams, did not want her specimens, for some unexplained reason, and added that somewhere along her various moves she discarded them. The late Prof. Ira L. Wiggins told me that he suspected that the specimens were not of the quality required for deposition in the Dudley Herbarium of Stanford University. Dr. Springer apparently did not search the Dudley Herbarium for specimens, although there are some collected by Prof. Dudley and others. I might just add that I met Dr. Springer several times and took part in the same field trip to Queensland, Australia, in connection with the XIII International Botanical Congress in 1981.

In 1947 John Carter Moer (see: Thomas, p. 159) wrote another thesis on the area (see: John Carter Moer, *An Ecological and Taxonomic Survey of the Spermatophytes of Jasper Ridge*, A. M. Thesis, Stanford University, 1947). Like Dr. Springer he did not cite specimens but have never received an answer. Mr. Moer was for a time in the plant nursery business in Arizona.

In 1962, Duncan McNair Porter who was then a graduate student at Stanford, compiled a third list of plants based on the two theses cited above, a few old specimens in the Dudley Herbarium, and citations in my local flora (see: John H. Thomas, *Flora of the Santa Cruz Mountains of California*, Stanford University Press, Stanford, California, 1961). His paper (see: Duncan McNair Porter, *The Vascular Plants of the Jasper Ridge Biological Experimental Area*, Department of Biological Sciences, Stanford University, Research Report No. 2: 1-24, 1962) listed 458 species, subspecies, and varieties. Some copies of Porter's paper bear some of my annotations. Dr. Porter received his Ph. D. from Harvard University and is now a Professor at VPI and State University in Virginia. He is an expert in the Zygophyllaceae, the flora of the Galapagos Islands, and in particular in Charles Darwin's collections from there.

The disparity in numbers of species is due to the changes in the Preserve boundaries, possible extinctions, inadequate collecting, and year to year variation in climate. Interestingly, neither Springer nor Moer included ferns and fern allies.

I have been collecting vascular plants in the Preserve since about 1960 and have made at least 2000 collections at different seasons of the year. My purpose was and is to write still another list of plants in the Preserve, hopefully with keys. I estimate that there are about 600 species, subspecies, and varieties distributed in nearly 100 families in the Preserve.

Biological Preserves and field stations need floras and faunas that can with effort be used by anyone. But most do not have them!

Thanks to a very generous gift to the Jasper Ridge Biological Preserve it was possible for me to go through most of my Preserve collections last summer and about 900 specimens for the Jasper Ridge Biological Preserve collection were mounted by Angela K. Kalmer, now a Stanford junior in Biological Sciences. In addition another 1000 or so specimens were mounted which will be deposited in the Dudley Herbarium of Stanford University as part of the permanent record of Preserve plants.

Each herbarium sheet will have a label, a map of the Preserve showing the location of the collection, and a tag with the following "Jasper Ridge Biological Preserve Teaching and Reference Collection of Vascular Plants." The Jasper Ridge Biological Preserve Teaching and Reference Collection is precisely that. It is not a research collection (as is the Dudley Herbarium), specimens in it should not be cited, and additions to it should be made only to fill gaps.

There are still a number of labels to be typed, so don't expect the herbarium tomorrow, but we are well on the way.

John H. Thomas
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