

SAMPLER

VEGETATION COMMITTEE NEWSLETTER / VOL. 2 / JUNE 1996

*The first issue of the "Sampler", a newsletter from what we then called the Plant Communities Committee (see Name Change), was sent to individuals and chapters according to their prior interest or participation in the early work of this statewide plant science committee. This second issue will be distributed by Chapter Presidents/representatives to all interested members. Most of the content was written by Todd Keeler-Wolf, presently the Committee Chair and co-author of the recently published *A Manual of California Vegetation*. Michael Barbour, the Chair for the first four years, and Cyndi Roye, original member of the committee and one of the CNPS stalwarts who early proposed that such a committee was needed to better meet our mission, submitted portions and the overall content was outlined at the recent, January, meeting of this CNPS Committee. Editing was undertaken by Joan Stewart, Committee member. If you want further information about any of the topics, please contact Joan or Todd.*

Send suggestions or questions to Todd Keeler-Wolf, c/o Natural Heritage Division, Department of Fish and Game, 1416 Ninth St., Sacramento, CA 95814. (916) 324-6857.

Insights into the *Manual*

Since the most tangible and formidable task and result of over 5 years of Committee work was the production of the *Manual*, we begin by offering some comments about this volume.

This first published set of descriptions for the vegetation of the entire state is a testament to cooperation and hard work amongst a number of people. The book brings together what is known about the state's diverse vegetation in a simple guidebook format. We take pride in the product, yet acknowledge that it raises about as many questions as it answers, and we urge everyone to be aware that this first edition is by no means the final statement on the classification of vegetation for California. It establishes a framework for ongoing efforts to define all valid types of vegetation in the state. The information required for complete description of all of California's plant associations and series will depend significantly on the interest and work of our Chapters. At this point we expect that more than half of the associations (analogous to the species in organismal taxonomy), and a smaller number of series (corresponding approximately to genera) remain to be described for the state.

Some of you have expressed concern that certain rare Holland Natural Communities may have been subsumed or obliterated in the new classification. Although some of the Holland Plant Communities may be difficult to find, we attempted to include a complete translation from Holland to this new classification. In some cases the translation is incomplete because only partial correlation exists between the new and the old systems. For example, we have not completely

deciphered the Holland Community "Riversidean Alluvial Fan Sage Scrub". We realize it is made up of several associations and series, but the analysis is not completed yet. To be conservative, we have retained all the old records in the Data Base and will not change them until we are sure that the natural range of variability of that community comprised of the several new vegetation units has been captured, and that the vegetation types are incorporated into the new Data Base records. If you are interested in the rarity ranking of the new vegetation classification, contact Todd in mid-summer when we expect to have completed coding and ranking all the new series.

By reading the book you can quickly determine where there are information gaps. You can then target where work is needed. Each description lists "plot based descriptions" if any are known. These may be based on relevés, quadrants, transects or other quantitative or semi-quantitative sampling methods. If no plot data or no associations are listed, then we obviously have a type which needs further information. Another indicator of information needed is the positioning of a description in the 'habitats or vernal pools' sections of the book, rather than in a series section. Habitat and pool sections were separated from other descriptions to indicate that further quantitative descriptions are essential. Another clue about the lack of information for a series or association is your inability to key it out. New associations and new series are out there, especially in areas where sampling has been sparse (deserts, non-forested parts of the North Coast Ranges, Cascades, Modoc Plateau, Klamath Mountains, for example). As with the Rare Plant *Inventory*, we anticipate regular updates

of the *Manual*. A second edition will be supported by the digital database version that Committee members Bruce Bingham and Charles Convis are presently working on.

Please, use this first version of the *Manual*, and let us know where it is most useful, and where we need to revise or clarify. Just as the *Inventory* has changed, expanded, and incorporated huge amounts of new information from CNPS members, so we intend the vegetation manual to respond to CNPS needs and ideas.

Our Name

For 5 years our committee was known as the Plant Communities Committee, although we never officially adopted this name for ourselves. Though all of us have in one way or another been exposed to a super-organismal view of a plant "community", the concept has been scientifically passé for many years. As used by "community" ecologists in the early 20th century, the word implied a tight interdependence among plant species and distinct boundaries between adjacent "communities". Although there certainly is structure in groupings of plants across any given landscape, the driving forces that bring these species together are not so much related to cooperation but to coincidence. Shared requirements for water, soil chemistry, temperature and shade tolerance bring species together, and species composition changes gradually with these variables along gradients. The word "vegetation"—the arrangement of plant species in a region—more aptly describes what we want to understand than the phrase "plant community". Thus, we voted at our most recent meeting to choose a name that we think best describes the focus of our goals and mission of our committee within CNPS.

Successes in Defining Rare Vegetation

A principle goal of the Vegetation Committee is to develop defensible definitions for some of the state's rarest vegetation types. With help from agencies and CNPS volunteers over the past four years we have targeted and sampled (via the CNPS sampling protocol) several types that were thought initially to warrant immediate attention. Five examples are summarized here to indicate the diversity and utility of the information collected thus far.

Sycamore Alluvial Woodland: Sampled in 1992 and 1993, analysis of 86 samples was completed in 1994. The original concept may be broken into two closely related associations, foothill and southern California types of sycamore-dominated vegetation. We found only about 2000 acres in existence.

Southern Maritime Chaparral: Over 60 samples taken in San Diego and Orange counties are now being related to a large data set of chaparral from nearby Cleveland National Forest. Preliminary results distinguish the coastal chaparral from other inland types. The improved definition of this vegetation will assist in the identification and conservation of the best remaining sites and will be integrated into recovery plans for rare species associated with the vegetation type.

Riversidean Alluvial Fan Sage Scrub: Over 100 samples taken in San Bernardino, Los Angeles, and Riverside counties indicated a need to work out complex successional relationships within types once considered simply alluvial scrub. Certain types are critical habitat for listed plant species, and this study will drive Habitat Conservation planning both for the vegetation and the associated rare species.

Island Oak Forest of Santa Catalina: A study of the unique scrub oak vegetation of Santa Catalina Island has been conducted over the past two years, supporting the work of the Catalina Conservancy to protect the oak variability here. **Valley Oak Riparian Forest.** Over 40 samples have been collected, with comparative work in uplands to begin this summer.

We hope and expect that continued work from CNPS chapters, as well as agency staff and other individuals, will provide additional data about rare and interesting vegetation types. Field data can be downloaded into analytical programs, and classification and ecological relationships between samples described. The Vegetation Committee will support this work by offering to guide, analyze, and summarize sampling projects. We propose that there be several "sampling jamborees" over the next year, follow-up field workshops to discuss and practice sampling and managing data. From you, we ask ideas about which vegetation "plant communities" you are particularly concerned about or interested in. We can then help develop and participate in sampling and analysis procedures. Send suggestions or questions to Todd Keeler-Wolf, c/o Natural Heritage Division, Department of Fish and Game, 1416 Ninth St., Sacramento, CA 95814. (916)324-6857.

Vegetation Mapping in Anza-Borrego Desert State Park

Under an agreement with California State Parks, the California Department of Fish and Game is mapping the series-level vegetation of Anza-Borrego Desert State Park using the CNPS Vegetation Committee classification. Armed with the tools of Global Positioning System units and aerial photographs on which they have delineated polygons of similar-appearing vegetation, stout-hearted DFG and DPR staff members and CNPS volunteers set out to determine, by sampling, the veracity and identity of as many polygons as they can... does this polygon represent an apparently homogeneous stand of vegetation? If so, what is it?

Because of the project's extent (700,000 acres) and the large size of most of the delineated polygons, the map team has made the carefully considered decision to modify the protocol presented in the *Manual*. Environmental characteristics are sampled using techniques described in the *Manual*, but layers of plant

cover are sampled using relevés instead of transects. Data gathered using this quantitative method will be analyzed to determine dominance, with which the polygons will be labelled. We also hope these data will allow us to define further Sonoran desert plant associations. The resulting vegetation map will be part of a Resource Inventory for a general plan for Anza-Borrego Park that State Parks is currently developing. State Parks will also use the map as a baseline from which to monitor long-term vegetation changes in the park, to plan management projects such as control of invasive exotic plants, and to evaluate potential impacts of projects within and adjacent to the unit. Our mapping work now allows DFG, DPR, and CNPS to test the applicability of the CNPS classification and techniques to large-scale mapping projects.

Coordination of Vegetation and Rare Plant Committees in CNPS Plant Science Programs

From the beginning, five years ago, the Vegetation Committee has worked with the Rare Plant program to help identify and conserve native plants in California, and the Rare Plant program has been a strong supporter of the Vegetation Committee. It is recognized that broader multi-species categories can address the protection of a system that supports the individual species, providing another tool to conserve California's flora. Many examples of the cooperation between the two committees and individuals working in these programs could be cited. CNPS views the combined plant science programs as providing an integrated and mutually supportive core to all the other efforts of the organization. Tactics to protect plants will, and must, vary with the situation, and approaches based on understanding a vegetation type as well as focusing on individual population conservation are both useful, in different ways, at different times. The Vegetation Committee will continue to work, as part of the Plant Sciences Program, to further our shared CNPS mission.

News of Related Events and Meetings

On March 28 Michael Barbour, founding Chair of the Vegetation Committee, spoke to the California Biodiversity Executive Council about *A Manual of California Vegetation*. He highlighted the values of having a unified vegetation classification for statewide consistency in biodiversity assessment and the important role many federal, state, and private organizations and agencies have had in the development of the classification. This presentation impressed these persons with the significance of the classification, will foster its statewide use, and incidentally sold numerous copies of the book !!

CNPS and the Botanical Society of America, Pacific Section, are sponsoring a symposium on June 25 at the meeting of the Pacific Division of the AAAS at San Jose State University. The Abstract for this session states: "During the last five years, the California Native Plant Society has worked with botanists from academia and state and federal agencies to create a classification of state vegetation that would be consistent, uniform, and appropriate for conservation and management objectives. The classification is the subject of a recent (1995) publication titled *A Manual of California Vegetation*. This symposium is a summary of the classification, the quantitative sampling method on which it is based, and the archival analysis system which is being built to expand and refine the work into the near future. The classification begins at a general physiognomic level and works down to approximately 250 more local floristic variations called series. In contrast, some symposium speakers call for a concerted effort now toward an alternative approach: one that begins with describing the estimated 2000 plant associations of the state, and which then builds a classification from them, from the bottom to the top, according to methods widely used in other parts of the world", (For lists of speakers and topics, call Joan Stewart, Todd or Michael or see 15 April 1996 Newsletter of the Pac. Div., AAAS)