Greetings! At press time, springtime still lingers in the air. Hot weather is impending, but hasn’t struck with its usual Southern Sierra/Central Valley vigor. So, although the hills are yellowing all around, in my native garden in the Tulare County foothills, sage and buckwheat, flannel bush, monkeyflower, penstemon and matilija poppies are still in gorgeous bloom. Soon, however, the native plants will do what they have done for centuries—go into tranquil quiescence, a state that I personally envy. By so doing, energy and resources are conserved until the weather cools and the growing season begins again. It is a lovely cycle of to witness, one of growth and rebirth that uniquely belongs to mediterranean-type climates.

Although summertime means a general break in garden tending, now, actually, is the time to rev up to make plans for the fall planting season. To help you in this endeavor, Alta Peak Chapter Horticulture Chair, Cathy Capone and I will be teaching another native plant landscaping workshop to be scheduled in late August (see pg. 6). This workshop will prepare you with the tools needed to rework your landscape, to design a colorful, drought tolerant native plant garden suited to this climate. This workshop will precede the Chapter’s Annual Native Plant Sale, on October 1, at the Three Rivers Art Center. Members will be able to pre-order at a significant per-plant savings. So, get your friends to join the chapter and participate now!

Speaking of participation, I invite you to get involved in this exceptional group. There are a couple of positions to be filled on the Board, which could be a great introduction to the workings of our Board. The first position is as Educational Grant Program Chair. Our previous wonderful Board member, Betty Avalos, the creator of our Chapter’s grant program, recently retired from our Board. (Many thanks, Betty!) The person in this position would administer this program, already fully in place. Responsibilities would include publicizing our grants throughout Tulare County to students and educational institutions, then helping to select candidates whose projects we fund and ensuring that the recipient fulfills the requirements of the grant.

The second board vacancy is for Membership Chair. The emphasis for this position would be to develop innovative ways to increase our chapter membership and, with the help of the CNPS State Office, keep track of the membership list.

Other ways we encourage you to get involved are to come to our authority-led field trips and events. There is no better short cut to learning about the beautiful plants in our county. We look forward to your engagement in our organization.
The major effort of recent couple of months has been discussing, reviewing, and writing comments, for a DRAFT Environmental Impact Statement for the Tobias Ecosystem Restoration Project (Lead Agency, USDA Forest Service). The project is estimated at 11,000 acres in the Portuguese Pass, Greenhorn Mountains area of southeastern Tulare County, with a small area within Kern County.

Those interested in filing comments, prior to a decision being made, were those interested in or affected by the proposal. CNPS Alta Peak Chapter was on the list of those offered this opportunity. CNPS comments were filed where and when specified.

Three alternative actions are proposed and compared, each responding to major issues identified during scoping. Initially, the proposal was simply to treat about a third of the project acres through commercial thinning of stands of mature trees, to reduce fuels over another third of the acreage, and to decommission 11 miles of Forest Service roads. After public scoping and surveys of soils, permanent streams, and meadows, planners developed three alternatives to the original proposed action:

Alternative 1: No Action. Current management plans would continue to guide management.

Alternative 2: This is essentially the proposed action as initially outlined.

Alternative 3: Eliminates commercial logging by limiting thinning to trees less than 8 inches in diameter, and addresses potential impacts on fuels, wildlife, soils, and watershed resources.

Alternative 2 is presently preferred because it provides a more balanced approach to addressing short-term and long-term ecological concerns and issues while providing timber to the local wood industry.

Uncertainty about botanical nomenclature of species or groupings of taxa were noted and summarized by a generalization about weak botany. The only four species of flowering plants (no ferns, mosses, freshwater algae, lichens are anywhere mentioned) are four species of concern, on a watch list or sensitive. The Chapter remarked on the lack of reference to ecological or ecosystem roles of plants in general, or to particular species. Meadows were considered as a single category. We stated that “all meadows are not the same.” In the section called “Watershed: Affected Environment”, information is essentially about geology and gradients. We interjected the idea that variability of species composition, life span, interactions along and near wet places is an important factor in the overall nature of the environment. Plants are not mentioned as Aquatic Species of interest.

Essentially, the Chapter wanted to express the concern that plant issues were not well reviewed in discussing the effects of the several proposed treatments. Our comments concluded by remarking that the long term purposes of public forest lands (to maintain sustainable productive ecosystems dominated by native species, to conserve rare and imperiled taxa, and to protect water quality and forest ecosystem services and resources) need to be the clearly stated goal of management in these forests.


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Chapter Grant Report
River Ridge Institute Takes the Money and Runs…

by Gary Adest, President, River Ridge Institute

River Ridge Institute, a non-profit organization that teaches and demonstrates sustainable and regenerative land use on River Ridge Ranch in Springville, California, received funding from the Alta Peak Chapter of the California Natives Plant Society. The purpose of the grant was to provide money for equipment and supplies to teach Tulare County youngsters about nature- specifically, the structure, function, diversity and beauty of our native plants. No time was wasted.

What better way to do that than on the 722-acre protected nature reserve of River Ridge Ranch? Each year for a decade, River Ridge Ranch has opened its gates to students learning through a program entitled Trout in the Classroom. This program is sponsored by California Department of Fish and Wildlife and administered and delivered locally by the Tulare County Office of Education and the Kaweah Fly Fishers. This year, the program was assisted by Americorps Volunteers from Sequoia Riverlands Trust and their Education Director, Bud Darwin. Additional funding for the program came from the Tulare County Ag Commissioner’s office. These donors, teamed with the fabulous volunteers who help deliver the course content, allowed about 600 elementary school students to come to River Ridge in March and April and participate in a curriculum that stresses water and land: The Water Cycle, The Watershed, River Ecology. Students spend an entire day that includes science, art and the release of their trout fingerlings that they have raised from eggs in their classroom aquaria.

The plant-related part of the curriculum was new this year and involved students learning the major trees and shrubs (e.g., Valley Oak, Fremont Cottonwood, Oregon Ash, Redbud, Arroyo Willow and Buttonbush). Students picked a leaf of the plant of their choice and then created a take-away print (suitable for framing, of course!) by using the materials provided via the Alta Peak Chapter. They also learned about the function of roots, trunks, leaves, veins and photosynthesis while walking the Nature Trail along the North Fork of the Tule River.

The Board of River Ridge Institute thanks Alta Peak Chapter of CNPS for their assistance.

Rare Plant Report

by Ann Huber

On May 1, Alta Peak members, who have signed up to be notified of “last minute rare plant treasure hunts”, were invited to join me to find and survey the Mineral King Road populations of the rare Munz’s iris (Iris munzii). We found many still in peak bloom showing their exquisitely beautiful white to purple flowers. Even at this time of year, the rocky outcrops and road pullouts were in full bloom with an incredible diversity of wildflowers. Some others that we saw in abundance included unusually large fairy lanterns (Calochortus amoenum), flannel bush (Fremontodendron californicum), Madia elegans, native grass (Melica californica), Penstemon sp. (possibly P. heterophyllus), fiesta flower (Pholistoma auritum), and Hansen’s larkspur (Delphinium hansenii).

If you would like to be added to the list of members to contact for future last minute rare plant treasure hunts, please call me at (559) 561-4562. Leave your name, email address or phone number and preferred method to be contacted.

For more information, see riverridgeinstitute.org.
Suggestions for Watering and Establishing Native Plant Gardens

by Melanie Keeley

Establishing native plants in your garden is fairly simple if you follow some basic principles. Adhering to seasonal cues will start you off right; most horticultural activities take place in the cool, moist season, from fall into early spring. By far, watering is the most critical of the native plant care tasks and can result in either survival or loss. The following suggestions are to help your garden “weather” the arid, hot months ahead.

Site Characteristics and Planting:

- Best time to plant in Tulare County is during the cool, rainy season. Plants that can establish deep root systems will be more likely to survive our hot, dry summers.
- Background: Know what environment your plant comes from. If it naturally grows in riparian or wetland areas, you can and will need to water more than a plant whose origin is from the chaparral or desert.
- Plants with similar water requirements should be combined in the same hydrozones.
- Know your soil’s drainage characteristics. For example, clay retains water much longer, requiring less water than the more porous decomposed granite.
- Many drought tolerant plants are generally considered to be established after about three years and may be able to survive with minimal or supplemental water in times of extended drought, if planted in a location that suited to their needs.

Watering and Watering Systems:

- To determine when to water, look at plant symptoms for clues: leaf color, posture and leaf drop. Sometimes a leaf that is normally green can take on a faded, sickly cast when under drought stress. Yellowing or wilting leaves can be symptomatic of either too much or too little water. This comes about because either way, the water-absorbing root hairs cannot conduct water into the plant. If the plant has been kept too dry, the root hairs have burned back, or, if too wet, the root hairs rot off. If you observe wilting and/or leaf loss, the key is to examine the soil by digging down a couple of inches below the soil surface in a number of places to evaluate moisture levels before watering. If the soil is wet, do not water; conversely, if the soil is clearly dry, watering is necessary. Generally, if in doubt, do not water—continue to carefully monitor the plant and soil until you are certain of its need for water. It is much easier to add water to a plant than it is to dry out a water-saturated specimen. Once again, this is true unless a plant is naturally from riparian or wet areas, in which case, it would benefit from continually moist soils.
- A $10 moisture meter, available at most hardware stores, can demystify subsurface soil moisture levels in the rootball and in surrounding soils. These easy-to-use tools will save you a lot of plants in the long run.
- During the “rainy season”, you may need to water your plants if an extended dry period occurs during this time.
- When you do need to water during the hot season it is best to water on cooler or cloudy days in advance of predicted heat waves. Also, avoid mid-day watering when temperatures are the hottest.
- Watering in hot weather can accelerate soil-borne pathogens that cause root and crown rot. Some native species are particularly vulnerable because of their sensitivity to root rot. One such plant is flannel bush (Fremontodendron), one of the most beautiful of our local native shrubs. Although it is super drought tolerant, during the last years of drought, I’ve had to water my recent transplants in the summers. My method: I let a hose positioned about 2’ above the plant trickle down deep for several hours. My theory is that it gives the water time to reach the root mass at cooler soil depths where the fungus isn’t as active. The first two summers, I watered 3 times, while last summer, I watered only once. Now, in its third year, I’m expecting that the plant is established and will not need supplemental water again.
- View recently planted vegetation in an otherwise mature landscape often to determine water needs.
- Don’t rely entirely on an automated watering schedule, check your soil and watch your plants for under or over-watering symptoms! The moisture needs of plants fluctuate with the weather, time of year and as plants grow and mature so, pre-programmed watering schedules should be re-evaluated often.
- A plant’s roots can be structured like the tap root like a carrot, or spreading near the surface, or a combination of both, as well as others too numerous to mention. Irrigation types and coverage should match their needs. For example, oak trees generally have both deep and surface roots, so, if a young transplant is to be watered, the system should provide adequate coverage both deep and broad. Desert species tend to have more shallow and fibrous-root systems. They need water where their roots are. Spreading ground covers tend to like widespread coverage of the soil also, especially those that take root at the ground. Multiple emitters may be added as the plant grows to cover its widening rootzones.
- If you are using a drip or micro-irrigation system, examine the micro-emitters, spaghetti tubes, connections and controller functioning often. This is essential as the heads often clog or blow off. Tubing can be chewed by rodents in search of water.

Miscellaneous Tips:

- Allow leaf litter to remain on the ground under the canopy. This natural mulch will nutrify the soil while keeping the ground cool, moist and weed-free. The native mulch will also support the growth beneficial soil biota called mycorrhizae.
- Long-standing member and experienced native plant grower, David Graber keeps his garden healthy by watering the same amount as the total average annual precipitation of the area in which he lives. In the Sierra Nevada foothills, cont’d on pg 5
Establishing Native Plant Gardens….cont’d from pg 4

that average is approximately 25-27”. Over the last drought years, Dave has had to supplement a lot, while this year, less so. He waters occasionally during periods of drought during the winter, but primarily, he waters to extend the rainy season, meaning that he waters later through the spring and into early summer. Then he begins watering earlier in the fall, once the temperatures cool. He waters in the summer only rarely. This technique closely matches natural precipitation patterns.

For more detailed explanations, I recommend the Care & Maintenance of Southern California Native Plant Gardens, a practical guide to growing native plants by Bart O’Brien, Betsey Landis, and Ellen Mackey (available from amazon.com). Published in 2006, by Rancho Santa Ana Botanic Garden, the Theodore Payne Foundation and the California Native Plant Society, this wonderful bi-lingual book additionally covers topics on soil and nutrition, planting techniques, pruning, plant pests and more.

If you have other horticultural successes you’d like to share with your fellow Alta Peak Chapter members, we’d like to hear! Please either contact me directly (mbaerkeeley@gmail.com) or message us on our Alta Peak Chapter Facebook page at facebook.com/altapeakchapterCNPS.

Summer Native Plant Garden Tasks

• Control weeds with soil solarization late June – early September. 1) Cut weeds down to the ground, 2) Remove the bulk of the flower heads and vegetation, 3) Lay and secure plastic sheeting over weedy site. 4) Leave plastic on ground for 3 or 4 months. High soil temperatures should reach about 130F+ and heat should cook and kill the weeds and seed in the soil.

• Mulch with organic material around native plants to cool roots, retain soil moisture, add nutrient, and foster soil biota.

• Prune to shape and to remove dead wood. 1) Take out no more than 10-20% live vegetation off of a plant at a time, 2) Most evergreen trees should be pruned in the summer to late summer. 3) Evergreen shrubs such as manzanitas (Arctostaphylos); Oregon Grape (Berberis); Bush Anemone (Carpenteria); California Lilac (Ceanothus); Coffeeberry (Rhamnus aka Frangula) can be pruned from now into mid-summer. 4) Perennial flowers can be dead-headed now.

• Plan for fall plantings – Create your native plant design and make your plant list. (See notices of upcoming Alta Peak Annual Native Plant Sale and Native Landscape Workshop in this issue.)

• Relax and stay cool. Most work on native plant gardens occurs in the fall to spring!

CNPS’ Newest Book
by Melanie Keeley

California’s Botanical Landscapes
A Pictorial View of the State’s Vegetation

For its sheer visual excitement and inspiration, one of my favorite of the California Native Plant Society’s publications, was California’s Wild Gardens, published in the late 1990’s. To me, it served not only as a motivator to travel to botanists’ much loved and unique California native plant havens, but it pictorially showed me what plants bloomed and belonged together in nature, inciting me to try to duplicate these wonderful textual and color combinations in my own garden. The text, written by some of the state’s best botanists, helped me to understand what made these places significant, botanically and geologically, while highlighting the critical importance of their protection.

I am thrilled to announce that there is a brand new successor to my long-time favorite CNPS coffee table book: California’s Botanical Landscapes, A Pictorial View of the State’s Vegetation. This book, out in the spring of this year, “…provides a vivid exploration of the Golden State’s native vegetation. Each chapter focuses on one of 14 ecoregions, illuminating their unique plant species and communities through a phenomenal array of photographs paired with in-depth, interpretive descriptions written by California’s top plant ecologists. This book serves to inspire—with beautiful, vibrant depictions of the landscape—and to enhance understanding of current vegetation patterns…”

Available at the Chapter Native Plant Sale on October 1, 2016. Also available at store.cnps.org for $39.95.
DIY Native Landscaping Workshop

Saturday, August 27, 2016 from 9 am-Noon
College of the Sequoias in Visalia, CA*

Instructors:
Melanie Keeley, Native Plant Specialist, Sequoia and Kings Canyon National Parks and Alta Peak Chapter President
Cathy Capone, former owner of Cal Natives Nursery in Porterville and Alta Peak Chapter Horticulture Chair

The traditional garden of expansive lawns, lolly-popped shrubs, and sporadic trees are a thing of the past. With California’s unprecedented drought, it is time for a beautiful new model. California native plants not only use a fraction of the water that typical gardens do, they are attractive and colorful as well. In this class, designed for native plant novices, we will help you learn 1) how to ditch your lawn, 2) how to select tried and true native plants, 3) how to combine them for maximum effect and 4) how to design your own drought tolerant native garden. With a plan in place, you can landscape your garden in manageable steps. This is a great opportunity to transition from a high care, water indulgent garden into a natural, sustainable low water use, beautiful garden.

Registration fee: CNPS members - $40, Non-members - $50
Note: By joining the Alta Peak Chapter of the California Native Plant Society at this time, you will also be eligible to pre-order native plants, at a 10% discount, prior to our October 1 Annual Fall Plant Sale.

Pre-registration is required. Class size is limited.
Call 559-799-7438 for registration, as well as questions.
*Directions to location will be given at time of registration.

Heads Up…. Bryophyte Chapter Event
22nd annual SO BE FREE
Coming on March 27-30, 2017
St Anthony Retreat Center, Three Rivers CA
Local Alta Peak Chapter members are encouraged to participate.

What Are Bryophytes?
by Melanie Keeley

Welcome to the wide world of mosses, liverworts and hornworts also known generally as Bryophytes. These non-vascular plants are ubiquitous throughout the landscape. They grow on almost all surfaces: rock, soil, wood, in streams and meadows at all elevations. Although they are strongly affected by changes in moisture, precipitation and temperature, they can be found growing from arid to aquatic situations. While they are minute in stature, they are evidently visible. Though there are well over 600 species throughout diverse climates and landscapes in California, they are among the least known and recognized plants in the plant kingdom.

Bryophytes are considered to be important indicator species of larger environmental issues. Interestingly, scientists consider them to be “bio-monitors” of man-made or naturally induced environmental change. Lacking roots and vascular systems typical of higher plants, bryophytes take in moisture and nutrients directly through the single cell thickness of their leaves. This characteristic and others make them highly sensitive and vulnerable to changes in air and water quality as well as to other environmental effects such as increased levels of ultraviolet radiation, which can quickly cause genetic mutations. They have also been found to accumulate heavy metals such as lead from the environment, a concern because of the cumulative buildup in the food chain.
Chapter Board Meeting
July 30, 2016 at 9:30 am
Home of Melanie Keeley in Three Rivers
Call Melanie at 559-799-7438 for directions.
We may have a working lunch, so, please bring a brown bag lunch.
Melanie will supply morning snacks and beverages.

Chapter Board meetings are open to all Chapter members. If you are interested in joining the Board, contact President Melanie Keeley. The positions of Membership Chair and Education Chair are open. Other positions, such as Legislative Chair and Historian are available, also. Join us!

Editor’s Note
by Elsah Cort

You are invited to receive your newsletter via email with a color pdf file. If you wish to discontinue your paper copy, or just want to see the newsletter in color, please send an email to altapeakchapter@gmail.com with your name. You will receive a reply email verifying your request.

You will also be placed on a Chapter email list for occasional updates for Chapter events like added field trips or changes in programs. You will not be inundated with emails from the Chapter.

Call for Contributors for Chapter Newsletter

Chapter members are encouraged to send articles, topics, photographs, and interesting native plant tidbits to include in our newsletter and/or online sites. The contributors for this newsletter have been primarily Board members, but we would love to hear the voices of our general members.

You can share stories about your personal experiences with native plants, learning about them, finding them in the natural landscape or how you have integrated them into garden landscapes.

Send contributions to altapeakchapter@gmail.com.

Alta Peak Chapter ❖ Online Resources

website: altapeakcnps.org
facebook page: facebook.com/altapeakchapterCNPS
email: altapeakchapter@gmail.com
CNPS State Website: cnps.org

Dogwoods blooming in Giant Forest, photo © Elsah Cort
CNPS MEMBERSHIP FORM

Name: ______________________________________________________

Address: ________________________________ __________________________

City/Zip: ______________________________________________________

Telephone: ______________________________________________________

Email (optional): ______________________________________________________

I wish to affiliate with: ____ Alta Peak Chapter

Other Chapter ____________________

Membership Category:

____ Student/Limited income, $25
____ Individual, $45
____ Family $75
____ Plant Lover, $100
____ Patron, $300
____ Benefactor, $600
____ Mariposa Lily, $1500

Mail with check to CNPS, 2707 K St., Suite 1, Sacramento, CA 95816, or you can join or renew automatically year after year via the website — cnps.org — and click on JOIN.