DEDICATED TO THE PRESERVATION OF THE CALIFORNIA NATIVE FLORA

Volume 17 No. 5 October 1997

NEXT CHAPTER MEETING

Wednesday September 24th at 7:30 pm at the Trinity Memorial Methodist Church in Lone Pine. Turn east on Locust St. (Bank of America) and continue on Locust to 220 N. Lakeview. Wally Wolfendon, Inyo National Forest Archaeologist, will present a talk on the History of Vegetation in the Southern Owens Valley over the past 800,000 years.

NEXT CHAPTER BOARD MEETING

Tuesday, September 16, 7:00 p.m. at Doris Fredendall's residence in Big Pine. All chairpersons are welcome and encouraged to attend.

PRESIDENT'S MESSAGE

This year's Banquet was again a success. It was really wonderful to see everybody there. Bob Haller gave a great slide show on plants from around the world. I was lucky enough to be able to sit at the table with Bob and Nancy during dinner and they sure had some interesting stories to tell about their travels. Thanks again Bob and Nancy for coming over to our part of the state to share with us some of your experiences. I also want to say a big thank you to Steve Ingram and Diane Payne for arranging this year's banquet! They really did a fine job and I know all the members appreciated their efforts.

By the time you receive this newsletter we will have had our first annual native plant sale. We are already talking about what we would like to grow for next year's sale. Get those plants you bought last Saturday into the ground and start making plans for more plantings next year. Let us know how well your plants do - there is so much to learn about growing natives and any insight you share will help us in years to come.

I can hardly believe it but after only six years of trying to unload my job as T-shirt sales person I finally found someone to take over. Cecil Patrick Jr. has kindly agreed to become the new King of the T-shirt sales. I only had to twist his arm a little bit and it should be out of the cast in no time. Of course he now needs help carrying the boxes!

I have sold the last copies of the Crowther's plant list of Bishop Creek. I am also getting low on Mary's book on the Plants of the Northern Mojave. Should we see about getting these printed again?

Summer is winding down but don't think for one minute that our chapter is. We are doing stuff all the time. See you at our next meeting.

……..Scott Hetzler

Upcoming Events

Upcoming Bristlecone Chapter Fall Field Trips

As the days get shorter our field trip season starts to wind down. But, it's not over yet! We still have three very interesting trips scheduled for September and October. For all field trips, be sure to bring plenty of water, lunch, good walking shoes or boots, and appropriate clothing for hot sun or inclement weather. Also useful would be a hand lens, binoculars, camera, floras, and plant lists. Trips will leave at the time announced, so please arrive at the meeting sites a few minutes early. Unless indicated, the average car should do fine. Car pooling is encouraged. Everyone is welcome, but please no pets. If you need more information contact Field Trip Chairperson Mark Bagley at 760-873-5326.

September 13, Saturday. California's Largest Utah Juniper, Inyo Mountains. Leader: Mark Bagley. Meet at 9:00 am at the Glacier View Campground (the old Triangle Campground), at the junction of Hwy. 395 and Hwy. 168 just north of Big Pine. Unfortunately, due to an injury Rick Wheeler, who discovered this big tree, will not be able to lead us. Instead Mark will take us on a walk to see the tree just included in the Society of American Foresters, California Register of Big Trees as the largest Utah juniper in California (and possibly the world). Although it is not particularly tall, it is a massive 27 1/2 feet in circumference at ground level. Located on the crest of the Inyos, just north of Wacoba Pass, the views in all directions are magnificent. Other interesting twisted, stunted junipers and very large pinyons will be seen on the hike up the ridge. It should be a moderately strenuous cross-country hike of about one mile, with an elevation gain of 500 feet. Bring your lunch on the walk.

September 27th, Saturday. Red Rock Canyon (Volcanic Tablelands) Revegetation work party. Leader: Anne Halford. Meet at 9:00 at the "Y" behind the Texaco Station at U.S. Hwy. 395 and state Hwy. 6, or at 9:30 at the intersection of the Chidago Canyon and Red Rock Canyon Roads. We will be planting native grasses and shrubs grown at "The Deepest Valley Cooperative Native Plant Propagation Center" to revegetate a spur road through a significant archaeological site. Please bring gloves, watering cans, hand trowels and shovels.

October 18, Saturday. Owens Lake Wetlands and Dust Mitigation Vegetation Projects. Leader: Carla Scheidlinger. Meet at 9:00 am at the Interagency Visitor Center parking lot, at the junction of Hwy. 395 and Hwy. 136 just south of Lone Pine. The field trip will look at some of the existing plant communities associated with the Owens Lake playa, beginning at the Owens River delta and including spring mounds and shoreline springs and seeps. We will also visit some of the vegetation-based dust mitigation projects on the lake, including the saltgrass panels and the tree rows. Walking will be easy, and four-wheel drive vehicles are a must due to soft and sandy roads. For those without the proper vehicle, carpooling will be encouraged at the meeting site. Bring shoes you don't mind getting dirty/muddy

Field Trip Reports

Long Valley
June 7 - Leaders: Doris Fredendall and Anne Halford

For those that did not attend the field trip to Long Valley on June 7, you missed a very special, not to be repeated excursion led by one of CNPS's rare species- Doris Fredendall. Doris, who only the day before celebrated her 88th birthday was eager to keep us moving along as there were many plants to see. Several stops presented many plants growing only in the alkali meadow communities of Long Valley. Of these we saw the alkali dandelion (*Agoseris apargiodes*), alkali hawksbeard (*Crepis runcinata* ssp. *hallii)*, alkali cordgrass *(Spartina gracilis*), alkali ivesia (*Ivesia kingii* var. *kingii), Hespirochiron californicus,* and the alkali blue-eyed grass (*Sisyrinchium halophilum)*. Other species encountered were the beautiful solitary sego lily *Calochortus bruneaunis, Astragalus johannis-howellii, Gayophytum diffusum, Delphinium andersonii* (whose buds resemble the shape of dolphins!), and the diminutive *Navarretia breweri.* Many of the folks driven by Doris' enthusiasm were startled at the dazzling meadow of alkali shooting stars (*Dodecatheon pulchellum).* With the snowcapped mountains on the western horizon, the experience to be in this meadow is inexpressible!

We took our lunch by the warbling waters of Layton Springs where Tui Chubs dream and eagles of red columbine (*Aquilegia formosa)* guard the song of

these waters.

To end our day, there was a surprise celebration honoring Doris' birthday and thanking her for sharing her dreams, knowledge and wild stories of years gone by. These words of Wendall Berry seem to sum up the day. "The abundance of this place, the songs of its people, plants and birds, will be health and wisdom, and indwelling light". Many thanks to Doris for a wonder-filled day!

……..Denise Waterbury

Upper Rock Creek
June 21 - Leader: Steve Ingram

The highlight of our Upper Rock Creek field trip was seeing six species of penstemon in bloom. Our first stop in an old gravel pit above Tom's Place allowed us to compare the bright red tubular corollas of firecracker penstemon (*Penstemon eatonii)* with the more snapdragon-like, vermilion corollas of Bridges' penstemon (*P. rostiflorus)*. Then we scrambled upslope to view the lovely blue Inyo penstemon (*P. papillatus)*.

On our second stop, just below the East Fork Campground, we walked upstream on the east side of Rock Creek, seeing a multitude of flowers that included two blue-purple species of penstemon: Rydberg's meadow penstemon (*P. rydbergii* var. *oreocharis*) and Sierra penstemon (*P. heterodoxus* var. *cephalophorus)*, and three species of paintbrush: (*Castilleja angustifolia, C. linarifolia,* and *C. miniata*). At our final stop near Rock Creek Lakes Resort, we ate lunch along the stream and capped the trip with the beautiful rose-purple mountain pride (*Penstemon newberryi* var. *newberryi*).

……..Mary Allen

Tasting the Sweetwaters

The alpine zone of the beautiful Sweetwater Mountains was the destination of 19 Polemonium-seekers from the Eastern Sierra and the Bay Area on the weekend of July 26-27. Daniel Pritchett and Sally Manning graciously escorted us through quiet aspen groves, lush mountain meadows filled with flowers, and lofty overlooks up to our camp site along Cottonwood Creek. There, we were serenaded by a lively stream hidden among large patches of *Polemonium occidentale*, the first of the three members of the *Polemonium* Genus we were to see on the trip. Also growing near camp were *Platanthera leucostachys*, *Amoneta* mushrooms, *Lupinus* spp., and large, showy displays of *Geranium richardsonii*. On an afternoon walk up a Calochortus-covered ridge, thunder rumbled close by, parkas flew out of packs, and a storm sent us back to camp. Wine, wild mushrooms, discussions of mountain lions and bighorn sheep, and anticipation of the upcoming steep, strenuous climb kept us occupied around the campfire that evening!

The next day we climbed steadily up the Deep Creek drainage, through *Aconitum columbianum*, *Aquilegia formosa*, and *Dugaldia hoopseii* (among many other flowering spp.) in moist areas, and woodlands of *Pinus contorta* var. *murrayana*, and *P. albicaulis* on sideslopes above the creek. Above treeline, on open rocky slopes we found the sub-alpine *Polemonium pulcherrimum*, and at an elevation of around 11,000' Daniel found a new population of *P. chartaceum* (a CNPS list IB species) growing amid dazzling displays of *Hulsea algida*.

A welcome lunch on the summit ridge was accompanied by menacing gray thunderclouds forming almost within reach. A quick climb to the summit of Mt. Patterson (passing another population of *P. chartaceum* en route) was followed by a scramble back down the drainage. Thank you Daniel and Sally for a grand adventure. Lets make it a repeated visit for our chapter.

……..Kathy Devall

Slate Creek, Mono County
Leader: Mark Bagley

Word of mouth has spread the fame of the Hoover Wilderness which extends northward from Tioga Pass. The access is easy, the terrain gentle and extensive, the mountain backdrop varyingly colorful and resplendent under a reliably azure dome.

So the seven of us were not alone. But we found room enough, and bloom enough, though the landscape was drier than some of us expected.

En route to the Hall Natural Area we tarried near a campground, investigating the very different species inhabiting the micro-environments. In drier areas grew the showy bushes of *Spirea densiflora* along with *Sedum obtusatum* ssp. *obtusatum,* Sierra

stonecrop, and *Cymopterus terebinthinus,* terebinth pterixia.

The white petals of *Horkelia fusca,* dusky horkelia, enlivened a wider variety of sites.

We crossed a stream where *Delphinim glaucum,* mountain larkspur, heaved its flowers high as the human eye. Senecio and arnica shone golden among a throng of blooms which included lilies and orchids.

Leader Mark Bagley discussed some of the geological and climatological forces which created our surroundings. And he related some of the contributions of the Hall natural Area. From plants nurtured at this high-altitude open-air "laboratory" scientists have learned much about the roles of genetics and the environment in the species studied.

Slow was our progress in then nearby meadows as Mark helped identify yellowing grasses, sedges and rushes. I learned to look closely at three species of Castilleja: *C. applegatei, C. miniata,* and *C. lemmonii*. Six species of Potentilla were also identified.

Upon finding purple and white gentians I struggled with their new names, *Gentianopsis holopetala*, and *Gentiana newberyii* var. *tiogana* - and with the fact that these blooms indicate summer's approaching end.

"And back to camp I go with my notes", wrote John Muir, "the best of them printed upon my mind as dreams".

……..Larry Nahm

Conservation

DFG wrote last month with the news that comments regarding the proposed Owens Valley turkey introduction should be sent to: Mr. Terry Mansfield, Chief, Wildlife Management Division, California Department of Fish and Game, 1416 Ninth St., Box 944209, Sacramento, CA 94244-2090. I contacted Ms Patty Wolf, the Region 5 Director, (to whom I had previously asked people to send letters) about the fate of letters sent to her. She assured me she will get them to Terry Mansfield, but she also mentioned that she could only recall having received a single letter! To be absolutely sure your letter gets in the record, please re-send it to the address given above.

While there are no shortage of national and state conservation issues with which to be concerned, we have a unique issue here in the Owens Valley, i.e. the water agreement with L.A. Dept. of Water and Power. There is an urgent need for people who have the time and fortitude to read technical reports relating to the Lower Owens River Project. If citizens do not read the reports and give feedback, the project will, by default, be controlled by LAWP's consultants. There is a real opportunity for public involvement, but it is in danger of being lost.

A related situation exists with regard to management of ongoing groundwater pumping. Under terms of the water agreement, meetings of the Technical Group (the scientists from both Inyo County and LADWP who monitor and control the pumping) will be open to the public. Meetings of the Inyo County Water Commission (a board appointed by the County Supervisors to oversee the water agreement) are already open but private citizens rarely attend. There is a great need for people who have the time to familiarize themselves with issues related to pumping and who will attend these meetings and make comments when appropriate. In my experience scientists, as well as politicians, may behave very differently when they know their actions are under public scrutiny.

If you are interested in these or any other issues, please contact me at P.O. Box 1411, Bishop, CA 93515.

……..Daniel Pritchett

Owens Valley Water Settlement To Provide Major Habitat Restoration

After 25 years of litigation and negotiations, the restoration of over 60 miles of the Owens River and many additional Owens Valley habitats will finally commence. After nearly 85 years of destructive water practices in the Owens Valley by the City of Los Angeles, a huge restoration of a western arid land environment is set to begin. An historic memorandum of understanding between Inyo County, Los Angeles, two state agencies and two local environmental groups has led to the acceptance of the joint Inyo-Los Angeles Long Term Groundwater Management Plan and EIR by the Third District Court of Appeal in Sacramento, ending the lengthy litigation. This MOU has resolved

disagreements that the Friends of the Court (the Sierra Club, Owens Valley Committee, Fish and Game, and State Lands Commission) had with the 1991 EIR written for the Long Term Groundwater Management Plan.

Both environmental groups had been supportive of the long term agreement which contained significant protection for groundwater and vegetation. However, neither group could accept the flaws and omissions of the accompanying EIR which did not adequately address environmental impacts which occurred between 1970 and 1990. The settlement achieves more environmental protection and restoration than would have been achieved through more years of continuing litigation over the EIR. The approval of the settlement sets in motion a large number of beneficial environmental projects that would probably not have been initiated if Court action had resulted in preparation of yet another EIR.

The MOU calls for a number of projects and studies to benefit the environment of the Owens Valley. The most significant are:

1) The Lower Owens River Project. By the year 2003 the Los Angeles Department of Water and Power (LADWP) will begin releasing water along 67 miles of the Owens River north of Owens Lake. Goals, schedules and commitments of minimum and maximum flows of water have been set. Riparian habitat will be created and improved, a waterfowl area of 1500 acres near Blackrock Springs and 325 acres at the Owens River delta will be created. An EIR and a management plan will be prepared for this project.

2) Additional Mitigations. By the year 2000 LADWP will supply 1600 acre feet of water per year to restore or establish and maintain 300-400 acres of wetland

3) Owens Valley Management Plans. LADWP will develop management plans for lands where there are problems caused by grazing or other uses. Priority will be given to riparian areas and sensitive habitats. Development of these plans must begin by 2002 and be completed by the year 2007. Los Angeles has NEVER had management plans for its thousands of acres of land in the Owens Valley nor has its grazing program EVER complied with the California Environmental Quality Act - always claiming an exemption.

4) Yellow-billed cuckoo habitat. By the year 2000 two critical riparian habitats for cuckoos, Hogback Creek and Baker Creek, will be evaluated and enhancement plans will be developed.
Key provisions of the Long-term Groundwater Management Plan and EIR include:

1) Joint management of groundwater pumping by Inyo County and Los Angeles that prohibits groundwater mining and long-term damage to vegetation that is groundwater dependent.

2) Control of salt cedar (Tamarix), an exotic and destructive weed.

3) Revegetation of lands most severely impacted by LADWP's water pumping in the past.

4) Funding of the Inyo County Water Department by Los Angeles, in order that the county can independently monitor the management of the valley's water and vegetation, and additional annual payments to Inyo County for its general fund and for parks.
Now that settlement has been reached, a series of timetables begins, lasting up to 10 years, that will lead to implementation of the MOU, Long Term Management Plan, and EIR mitigations. As signatories to the MOU, the Sierra Club and Owens Valley Committee will be participating in planning for the restoration projects. There will be a lot of work to do to make sure that the restoration projects that are the promise of this historic settlement are implemented to the greatest benefit of our environment. It will also be important to monitor the actions of the City and County as they implement the Long Term Management Plan.

There will be many reports to review and comment on, and meetings to attend. CNPS members and other environmental groups must be kept informed. Your participation could be crucial to making sure the settlement is implemented properly. Just imagine 67 miles of rewatered river with rich riparian vegetation filled with bird song each springtime dawn. If you would like to be kept informed about the progress of restoration in the Owens Valley or if you would like to help with our efforts, please write:

……..Mark Bagley

Native Plant Notes

Native Plant Notes is a column for sharing techniques about how to grow our native plants. All contributions are welcome so let your ideas germinate.

Desert Colors in the Garden

Even when viewed at sixty m.p.h. along Highway 395, apricot mallow (*Sphaeralcea ambigua*) is one of our showiest native plants, prompting many roadside botany stops in spring. Its glowing orange flowers are often seen along the roadsides and tucked in rocky locations in the Owens Valley and the foothills on either side. Apricot mallow has a wide range of distribution, occurring from 500 to 7500 feet in elevation from Mexico north to Utah.

With its fuzzy grey leaves and bright orange flowers, apricot mallow makes a wonderful accent plant in the garden. It could be the focal point of a colorful landscape surrounded by some of its naturally occurring companions such as desert allysum (*Lepidium fremontii*), brittlebush (*Encelia actonii*), and desert needlegrass (*Achnantherum speciosum*). In our hot and dry summer climate, apricot mallow (and some of its above mentioned companions) can go through a dormant stage. Some well chosen native
species could provide color during this time such as horsebrush (*Tetradymia* spp.) or the buckwheats (*Eriogonum* spp.)

The biggest concern with growing apricot mallow in the garden is making it too happy. Rich soil and frequent watering may give wonderful
results for a year or two, but beware of giving this plant too much of the good life.

Apricot mallow will die an early death if too well treated. Give it a lean soil, full sun, and a deep watering now and then. New plantings always need more frequent watering and a thick layer of organic mulch.

Apricot mallow has proven to be fairly easy to propagate from seed. The hardest part seems to be avoiding the irritating hairs on the fruits while cleaning the seeds. To germinate in the spring, good results have been produced by pouring just boiled water over the clean seeds and letting them soak for 24 hours. Sow the seeds in a soil-less potting medium, transfer to a sandy potting mix when plants are an inch or two high, then put out into the ground in the fall.

Good luck and enjoy fall planting!

……..Karen Ferrell-Ingram

Tree Lore

Tree Lore is a series by Andrew Kirk that will be devoted to the identification, distribution and natural history of our native trees.

Amazing as it seems in this age of laser levels and Global Postitioning Systems, surveying once consisted of people carrying transits and measuring chains from section corner to section corner, over all but the most rugged terrain. This continent was surveyed sixty-six feet (one chain) at a time. Where inconvenient or impossible to set a corner monument, the surveyors recorded the distance to a nearby boulder, old stone wall, or tree.

So it was that United States Government Land Office surveyor S.A. Hanson blazed a curl-leaf mountain mahogany (*Cercocarpus ledifolius* var. *intermontanus*) near June Lake, and incised in its exposed cambium the symbols 1/4S. At the time - August 9, 1979 - the tree was recorded as 6" in diameter. Today, more than one hundred years later, it has grown to only about 12" in diameter; its bark has not fully healed and the surveyor's symbols are still legible.

Such slow growth is typical of mountain mahogany, which can live hundreds of years without exceeding ten meters tall. This slow growth creates a wood so dense that even well-seasoned samples sink in water. Only two tree species in the lower 48 states have denser wood: desert ironwood (*Olneya tesota)* and lignum vitae (*Guaiacum officinale,* the hardest known wood, found in limited numbers in southern Florida).

The name Mahogany originally referred to Honduras mahogany (*Swietenia mahogoni)*, arguable the world's finest cabinet wood. Taking advantage of mahogany's cachet, timber traders "borrowed" its name for unrelated genera. Unsuspecting consumers then purchased African, Australian, and - especially - Phillippine "mahogany's" at inflated prices.

Cercocarpus wood is indeed mahogany-colored, a gorgeous deep brownish-red. Hobbyists with sharp tools and lots of patience will find it holds fine detail and takes a high polish. There is little trade in Cercocarpus lumber, since the crooked little trees rarely provide a sawlog. But as fuel for the woodstove it is unsurpassed, and burns more like coal
than wood. Great quantities were made into charcoal during the heyday of western hard-rock mining.

Cercocarpus ledifolius enjoys a bit of local commercial fame in Meadow Farm's mahogany-smoked meats. Their smokehouse burns a few cords of dead-and-down mountain mahogany annually. In their showroom north of Bishop is a large slab of mountain mahogany said to be three-hundred years ~~old~~.

Trees, like people, often embody striking ironies. Mountain mahogany is no exception: venerable age, granitic wood, craggy mien - all spring from seeds with tails most delicate, spiraling and feathery. In late summer/early autumn - right now! - the mountain mahogany's are cloaked in those seed plumes. When back-lit, such mahogany's are identifiable at a thousand meters…or 50 chains.

……..Andrew Kirk

The California Flora Database Project

A couple of years ago the California Flora Database (CalFlora) was made available to anyone with a computer and modem. After downloading it and putting it into a database program, one had the ability to do several neat things. One could make a list of all plants that are known to occur in a particular county (I came up with a list of 1520 plants for Inyo County). One could, after keying out a plant, look it up in the database to see if it is known to occur in the county and habitat in which it was collected and check on the ID (but not an absolute check since county data are not error free). One could, if bitten by the history bug, come up with a list of plants named for an historical personage. (I found 31 California plants named for William Brewer, including , of course red heather, *Phyllococe breweri*. These were among the many plants collected by Brewer, second in command of the Whitney Geological Survey in the 1860's, and worked up by Asa Gray and Sereno Watson at Harvard).

The database was developed by Dr. Ann Dennis (USDA Pacific Southwest Research Station, Berkeley) using a digitized version of Munz' Flora and the CNPS Inventory of Rare and Endangered Plants. It contains data for "6717 California vascular plant taxa".

More recently the database has been made available on-line with several features added that make it a valuable aid in plant identification. It is "a collaborative project of the USDA Forest Service, the UC Berkeley Digital Library project, the UC Davis Information Center for the Environment and others", according to the web site. Especially helpful are color photos of many of our native plants. The late Brother Alfred Brousseau took over 11,000 35 mm slides of some 2000 California plant species. This collection has been integrated into the CalFlora on-line database.

What's available in the on-line version when you type in the name of a plant species:

- If available, a photo of the plant.
- Taxonomic, distribution, and habitat data for the species.
- A link to data on the plant in the USDA PLANTS database.
- A map showing distribution of the plant by county in California.
- A map showing North American distribution of the plant by state and province.
- Links to other databases of systematic data.

Some limitations of the database:

- No authors or synonyms are given
- Nomenclature is based on Munz. However, according to Dr. Dennis, the nomenclature is being updated , along with other aspects of the database.

The URL (internet address) for the CalFlora database is : http://elib.cs.berkeley.edu/calflora/

……..Larry Blakely

New Members

The Bristlecone Chapter Warmly Welcomes the Following New Members

Ruth Hill

Bishop

Geoff McQuilkin
Lee Vining

Penny Perdue
Bishop

Jeff White
East Lansing, Michigan

Next Newsletter Deadline: October 29th.

THE CALIFORNIA NATIVE PLANT SOCIETY - Membership Application

The California Native Plant Society is an organization of lay persons and professionals united by an interest in the plants of California. It is open to all. The society, working through its local chapters, seeks to increase the understanding of California's native flora and to preserve this rich resource for future generations. Varied interests are represented.

Name_____ P.O. Box or Street_____
City_____ State_____ Zip Code_____ Phone_____
I wish to be affiliated with the Bristlecone Chapter_____. Other_____.

Membership Category

___ Student/Retired/Limited Income	$20.00
___ Individual or Library	$35.00
___ International	$35.00
___ Family or Group	$45.00
___ Supporting	$75.00
___ Plant Lover	$100.00
___ Patron	$250.00
___ Life	$500.00
___ Benefactor	$1,000.00
___ Corporate	$1,000.00

Please make check payable to: The California Native Plant Society. **Mail to:** Bristlecone Chapter, CNPS. HCR 67 Box 35, Independence, CA 93526.

Gift Contribution: Where most needed_____. Conservation_____.

THE BRISTLECONE CHAPTER NEWSLETTER comes out bimonthly. It is mailed free to members of the Bristlecone Chapter, CNPS. The subscription is $5.00 per year for others. Editor: Anne Halford.

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