

NEXT CHAPTER MEETING

Wednesday, May 28th, 7:30 p.m. Methodist Church, Independence on Washington and Center St., 1 block west of the Court House. Carla Scheidlinger will present a talk on Owens Valley water issues with reference to the recently signed Water Agreement and Owens Lake.

Reminder: We are still low on quart cardboard milk cartons for our plant sale. Everyone, please bring at least two containers to the meeting. Thankyou!

NEXT CHAPTER BOARD MEETING

Tuesday, May 20^h, 7:00 p.m. at Doris Fredendall's residence in Big Pine. All chairpersons are welcome and encouraged to attend.

PRESIDENT'S MESSAGE

Last week, my friend Cecil and I went hiking up on the volcanic tablelands north of Bishop. As we hiked along I reflected back to early in the winter when we were receiving such an abundance of rainfall. However, since mid January it hasn't rained at all! Our local annuals, which are dependent on a reliable source of early spring rains for their growth and subsequent flowering, are sparse and stunted. In contrast, our perennial shrubs have been quite happy with this season's timing of rainfall, and are already showing a good amount of vegetative growth and bud formation. By early May, the annual flowers may be a slight disappointment, but our local shrubs promise to put on a great showing. So put your hiking boots on, hit the trails and don't forget to check out all the field trips planned for this spring and summer!!!

.....Scott Hetzler

Upcoming Events

The Sierra Nevada Aquatic Research Lab
(SNARL)

1997 Lecture Series

7 pm Wednesday evenings at the Green Church (Hwy. 395 and Benton Crossing Road). Admission is free and the public is invited. For more information call Leslie Dawson at 935-4356. The Sierra Nevada Aquatic Research Laboratory is part of the University of California's Natural Reserve System.

June 18 Flooding of the Owens Lake Playa and the Renewal of the Historical Aquatic Habitat - Dr. David Herbst, Marine Science Institute, UC Santa Barbara

June 25 Mate Choice and Lekking Behavior in the Sage Grouse of Long Valley - Dr. Robert Gibson, Dept. of Biology, UCLA

July 2 An update on the Carbon Dioxide Emissions in the Mammoth Mountain Area: Implications for Magmatic Unrest - Chris Farrar, US Geological Survey, Carnelian Bay, CA

July 9 Costs and Benefits of Fattening in Ground Squirrels - Dr. Gwen Bachman, Dept. Univ. of Oklahoma

July 16 No program

July 23 The Defenses of Wild Tobacco Against Herbivores - Dr. Rick Karban, Dept. of Entomology, UC Davis

July 30 The Color of Snow: Visible, Infrared, and Microwave Remote Sensing of Mountain Snowpacks - Walter Rosenthal, Institute of Computational Earth Systems Science, UC Santa Barbara

Bristlecone Chapter Spring Field Trips

Upcoming Bristlecone Chapter Spring Field Trips

Although it's been pretty dry in the lower elevations since our last newsletter, we're still hoping for a good display of perennial desert shrubs in late spring. Please join us as we see what Mother Nature provides.

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 619-873-5326.

May 16-18, Friday Night-Sunday. Sierra Spring Sojourn. Bernasconi Education Center, Big Pine.

May 31, Saturday. Owens Valley Alkali Meadows. Leader: Sally Manning. 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. Although it may all look like desert to you, there is a fair amount of native alkali meadow still remaining in the Owens Valley. These meadows contain a high degree of plant and animal diversity and harbor some endemic species.

California's Natural Diversity Data Base has classified alkali meadow in the state as "very threatened." On this trip we will visit several different meadows in the northern Owens Valley near Big Pine and Bishop. All sites are located next to dirt roads, so the walking will be easy.

June 7, Saturday. Long Valley. Leaders: Doris Fredendall and Anne Halford.

Meet at 9:00 am at the "Green Church" on the Benton Crossing Road just off of U.S. Hwy. 395 north of Crowley Lake. We will be visiting the rolling uplands of the Long Valley Caldera that are home to indigo blue delphinium (*Delphinium andersonii*), yellow butterweed (*Senecio spp.*) and alkali lakes and meadows. After lunch we'll also spend some time identifying some of the diverse needlegrasses that add to the plant diversity of this area.

June 21, Saturday. Upper Rock Creek.

Leader: Steve Ingram. Meet at 9:00 am at the USFS kiosk at the bottom of Rock Creek Canyon near Tom's Place. Join Steve for a moderate hike to see the many different Penstemon species of this area and the other upper montane splendors Rock Creek is renowned for.

July 6, Saturday. Schulman Grove - White Mountains. Leader: Lynna Walker.

Meet at 9:00 am at the Visitor's Center at Schulman Grove. Join long time naturalist Lynna Walker for an easy to moderate walk along the trails that wind through the ancient Bristlecones and other floristic wonders of this area.

July 26 and 27, Saturday and Sunday. Sweet Water Mountains. Leader: Daniel Pritchett and Sally Manning. Meet at 1:00

pm in front of the Mono County courthouse in Bridgeport. This overnight trip promises to be a real treat. We will be camping at Lobdell Lake at 9200 ft. No camping facilities are available so be prepared with the appropriate car-camping gear. People who do not want to camp are welcome to attend for just the afternoon. Lobdell lake is an artificial lake and is a popular fishing and camping site for the locals. The lake used to be stocked with arctic greyling (and may still be, for all I know)! There are numerous aspen bark carvings along the road to the lake.

Saturday afternoon we will botanize around camp. Early Sunday morning those who are adventurous and/or foolish will hike up the Deep Creek drainage to reach the summit of the range. En route we will see three Polemoniums; *P. occidentale*, *P. pulcherrimum*, and *P. chartaceum* (at the very top). The hike will very strenuous and difficult and include an elevation gain of up to 2500 ft. The hike will be cross-country for all but the first mile and will include steep climbs up through a lodgepole pine forest which will give way to steep climbs and traverses up steep talus and across alpine fell fields, which may have showy displays of Phlox and Hulsea. It will take at least three hours to reach the top. 4-wheel drive recommended.

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.

While spring planting is a known balm to the soul and a great joy after the long, cold winter, better results for the native plant can often be achieved from fall planting. In our hot summer climate, many plants that are planted in the spring do not have time to establish a vigorous root system before the scorching weather arrives. Without strong roots the plant struggles during the summer. Flowering during that first summer is usually meager and can rob vital and needed energy from the plant.

Planting in the fall, four to six weeks before the first hard frost, encourages the plant to build a healthy root system. The plant isn't programmed at that cooler time to create lots of green leafy growth nor to bloom, so all its energy can go towards root growth. In the following spring, the grower and the growee (the plant in question) can reap the benefits of that root growth. Strong and numerous new stems along with lots of flowers are the rewards waiting for a healthy, well-established plant!

For the first time there will be many interesting and beautiful native plants available this fall for such enlightened planting as described above. The Bristlecone chapter will be sponsoring their first native plant sale tentatively scheduled for September 6. Seeds of many local native plants were collected last summer and are being propagated now. Remember that the beautiful penstemons, buckwheats, asters and various other plants you are admiring in the wilds now will probably be available at

our sale this fall!

Anyone interested in seed collecting for next year or in helping to grow the plants for his year's sale is encouraged to call Karen Ferrell-Ingram at 387-2913. The next work party for the plant sale will be on May 26 at 9:00 am at the native plant propagation center at the White Mountain Research Station in Bishop.

.....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.

"The wood of the trembling aspen will never be of value to the lumberman". When Donald Culross Peattie penned those words for his 1950 "A Natural History of Western Trees," the uses of quaking aspen (*Populus tremuloides*) were unassuming: tongue depressors, popsickle sticks, wooden matches, excelsior, and pulp for the paper mills. Even so, the annual cut was pushing 200 million board feet.

Today, Peattie would be surprised to find the cut of aspen over 600 mbf, with the increase due largely to the advent of oriented-strand-board (OSB). Over the last two decades, as easily accessible old-growth Douglas-fir became increasingly scarce, 4' by 8' panels of OSB have replaced Doug-fir plywood for many construction purposes. It is now common to see the walls and roofs of homes entirely sheathed with OSB, in which large chips of aspen (and sometimes secondary woods) are "oriented" and glued together.

Several traits make aspen perfect for such manufacture. Its soft wood is readily chipped, but tough. It seasons with little

shrinkage and glues well. And it is handily harvested due to its curious capacity for growing in clonal groves.

These clones may consist of hundreds of genetically identical stems which have sprouted from a single interconnected root system. When the trees are harvested or burned, the root system quickly sends up new stems to regenerate the stand. Thus, though individual trees rarely survive 200 years, the clone may be persistent: most Great Basin clones are thought to be at least 8,000 years old.

The clonal tree/root is roughly analogous to that of mushroom/mycelium, some of which also attain great size and age. Given that aspens and fungi share a preference for damp soils, are there huge, aged mychorizal marriages of aspen and fungi?

Though reproduction is primarily by root-sprouting, quaking aspen has by its windblown seed developed the widest range of any North American tree. It is a component of boreal forests from Newfoundland to Alaska, of the eastern hardwood forest as far south as Kentucky, and of montane and subalpine forests through the Rockies to northern Mexico. There are relict stands in the White Mountains of Eastern California and the Bodie Hills, and aspens line eastern Sierra streams as far south as the north fork of Lubken Creek.

Wherever it grows, quaking aspen is easily recognized by its nervous foliage and powdery whitish bark. From the foliage comes the species name *tremuloides*. *Tremuloides* refers to the closely related trembling aspen (*Populus tremula*) of Europe, and can be translated as “resembling trembling”.

The bark, food for beavers and rabbits, has

The bark, food for beavers and rabbits, has long served as a carved bulletin board. At several locations in the eastern Sierra, passing miners and sheepherders incised in the bark of aspens their names, dates, and messages. This rich anthropological lore dates to at least 1887. These individual aspen stems will soon be gone, and the carvings with them, but underground...

.....Andrew Kirk

Field Trip Reports

Death Valley

March 22 - Leader: Mark Bagley

On a nice Saturday, March 22, a couple of dozen desert-loving faithfuls met at Stove Pipe Wells to see what botanical wonders we could find this year. Remember, last year was absolutely dismal. Well, read on - it was quite passable; not great, not poor.

We first went up Mud Canyon with two stops along the way to the kiosk rest stop where we had lunch. Annuals were not extra good for size, but there was a plentiful variety. Mark Bagley, our leader for the day, was busy pointing out the varieties of phacelias, gillias, cammisonias, cryptanthas, eriogonums, etc. as well as special beauties such as small mohavea (*Mohavea breviflora*) and desert five-spot (*Eremalche rotundifolia*).

After lunch we went up to the parking area at the mouth of Titus Canyon, parked, and took a stroll northerly towards the next canyon. Although we didn't quite get there because of time constraints we saw a lot of new plants for the day. Special were desert mimulus (*Mimulus bigelovii* var. *cuspidata*), Death Valley sage (*Salvia funerea*), sticky-ring (*Anulocaulis annulata*), rambling milkweed (*Sarcostemma hirtellum*), and Fagonia (*Fagonia laevis*).

It was getting on towards 4 pm, but we still took the time to stroll up Titus Canyon a ways. We saw ground cherry (*Physalis crassifolia*), bushy cryptantha (*Cryptantha racemosa*), Valentine plant (*Pterostegia drymarioides*), arrowleaf (*Pleurocoronis pluriseta*), and many other shade and moisture-loving canyon types. All in all - a very good trip. Thanks, Mark, for this one.

.....Vince Yoder

Death Valley Plant List Notes

Compiled by Vince Yoder

Mud Canyon

Trichoseris platyphylla - gravel ghost
Larrea tridentata - creosote bush
Atriplex hymenelytra - desert holy
Mohavea breviflora - small mohavea
Chaenactis carphoclinia - desert pincushion
Monoptilon belliodes - desert star
Cryptantha spp.
Geraea canescens - desert sunflower
Tidestromia oblongifolia
Phacelia crenulata
Phacelia calthifolia
Cuscuta spp. - dodder
Mentzelia spp.
Eriogonum trichopes - yellow turbans
Camissonia claviformis - little brown-eyes
Gilia latifolia
Chorizanthe rigida - spineflower
Eremalche rotundifolia - desert five-spot

Titus Canyon

Amphipappus fremontii - chaff-bush
Eriogonum inflatum - desert trumpet
Eriogonum tomasii
Spharalcea ambigua - globe mallow
Mimulus bigelovii var. *cuspidata* - monkeyflower
Oligomeris linifolia
Salvia funerea - Death Valley sage
Bebbia juncea var. *aspera*

Anulocaulis annulata - sticky-ring

Death Valley list cont'd.

Sarcostemma hirtellum - rambling milkweed
Fagonia laevis
Eucnide urens - rock nettle
Viguiera reticulata - net-leaf viguiera
Senecio mohavensis - mojave senecio
Physalis crassifolia - ground cherry
Xylorhiza tortifolia - mojave aster
Chamaesyce parishii - rattlesnake weed
Pleurocoronis pluriseta - arrowleaf
Cryptantha racemosa - bushy cryptantha
Gilia spp.
Ephedra funerea - Death Valley ephedra
Aristida purpurea - three-awn
Perityle emoryi
Prenanthes [*Lygodesmia*] *exigua*

Alabama Hills

April 12 - Leader: Vince Yoder

“Proud-pied April, dressed in all his trim, has put a spirit of youth in everything” wrote William Shakespeare. In the Alabama Hills we enjoyed that trim. We even had a spirited youth, named Keegan, who bounded over the boulders and made several discoveries for us.

Leader Vince Yoder, compiler of a new booklet on the plants of the Alabama Hills, directed us first to a rocky area. Here we observed *Pelleae mucronata* var. *californica* (bird’s foot fern). Blooming nearby was *Delphinium parishii* ssp. *parishii* (desert larkspur).

Participants, numbering about 25, then walked for an hour or two amid spectacular vistas in a gentle granitic landscape “widely known for its extraordinary floral display in an arid desert setting”. Yellow flowers dominated the display, in such species as *Eriophyllum wallacei* (Easter bonnets), and *Malacothrix glabrata* (desert dandelion).

There was much to see. The umbels of *Lomatium mohavense* (Mojave parsley) reminded me of the alpine species I know. *Grayia spinosa* (spiny hopsage), and *Artemisia spinescens* (budsage), have greened up. We found *Lycium cooperi*, peach thorn, and the colorful *Astragalus coccineus* (scarlet locoweed).

At lunch I reduced Doris’ supplies of cookies, after which Vince produced a

cheese-burro. It was no Mexican dish, but a hybrid, *Hymenoclea salsola* x *Ambrosia dumosa*.

The next stop was a spring just north of the Whitney Portal Road. We looked in vain for orchids which Vince has recorded here, but were rewarded with *Arabis glaucovalvula* (blue-podded rock cress), *Scrophularia desertorum*, and *Mimulus guttatus* (common monkey flower). Nearby grew *Achnatherum speciosum* (desert needlegrass), black brush (*Coleogyne ramosissima*) and open petals of the evening primrose.

We ambled a final hour to a riparian habitat below a residential area. Among greening *Betula occidentalis*, (water birch), sparkled the dainty white flowers of *Smilacina stellata* (star flower lily). Also in bloom were specimens of *Loeseliatstrum matthewsii* (sunbonnets), *Rafinesquia neomexicana* (desert chicory), and a showy mentzelia. Here we also recorded a single blooming specimen of *Tetradymia axillaris* var. *longispina* (cotton-thorn).

Our wild desert garden supplied a most satisfying show, especially considering the extreme dryness which has prevailed since the end of January.

.....Larry Nahm

New Members

The Bristlecone Chapter Warmly Welcomes
the Following New Members

Cecil Patrik
Bishop

Jennifer Berman
Crowley Lake

Lisa Bryant
Bishop

**Correction: In Derham's oak distribution chart
(Vo. 17 No. 2) remove M from Lime Cyn.**

Next Newsletter Deadline: June 28th

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

<input type="checkbox"/> Student/Retired/Limited Income	\$20.00
<input type="checkbox"/> Individual or Library	\$35.00
<input type="checkbox"/> International	\$35.00
<input type="checkbox"/> Family or Group	\$45.00
<input type="checkbox"/> Supporting	\$75.00
<input type="checkbox"/> Plant Lover	\$100.00
<input type="checkbox"/> Patron	\$250.00
<input type="checkbox"/> Life	\$500.00
<input type="checkbox"/> Benefactor	\$1,000.00
<input type="checkbox"/> 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.
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California Native Plant Society
Bristlecone Chapter
 HCR 67 Box 35
 Independence, CA
 93526

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