

CALIFORNIA NATIVE PLANT SOCIETY San Diego Chapter Newsletter

CHAPTER MEETING

Tuesday, April 17; 7 p.m. Room 104, Casa del Prado Balboa Park

On The Brink: The 10 Most Endangered Plants in San Diego County

Presentation by Vince Scheidt

San Diego County, near the southern end of the California Floristic Province, has long been recognized as one of the world's biodiversity hotspots. The County's rich botanical diversity includes an extraordinary number of rare plant species, some of which have become critically endangered due to the region's extreme growth during the 20th Century. Vince's presentation will describe the ten most endangered plants in San Diego County, all of which are near extinction in the wild, based on an analysis of relevant data sources and the presenter's thirty years of local field experience. Vince Scheidt has been a local environmental biologist for over 30 years. He is a member of the CNPS State Board of Directors and the Chair of the 2012 Conservation Conference Committee. He is also a recovering herpetologist.

Pre-meeting Natives for Novices at 6:30 p.m. Scott Jones will continue the theme of habitats and communities by presenting plantscape-matchup design ideas using species native to the coast and foothills of San Diego County.

7:00 p.m. – refreshments, book browsing, socializing. **7:30 p.m.** – presentation.

Chapter meetings are free and open to the public. They are held the $3^{\rm rd}$ Tuesday of each month (except Aug.) in the Casa del Prado Room 104, just west of the San Diego Natural History Museum in Balboa Park.

APRIL HIGHLIGHTS

We need YOU at **Earth Fair** in Balboa Park on Sunday, **April 22**, to share CNPS information with the public. See **page 3** for details on how you can help!

First CNPS – San Diego Native Plant Garden Tour Go Wild!!! April 28 and 29

Check out our first regional San Diego garden tour showcasing an amazing diversity of native gardens from Fallbrook to Chula Vista. This tour will also provide discounts on plant purchases and entrance to the Chula Vista Nature Center. See page 6 and the enclosed flyer for more information!



April field trips and plant walks are listed on p. 3.

BOARD MEETING

Wednesday, April 4, 6:30 - 8:30 p.m., monthly CNPS San Diego Chapter board meeting to be held at 4010 Morena Blvd, Suite 100, San Diego (Thomas Guide 1248 C4). Exit I-5 to Balboa Dr. east and turn north on Morena Drive. Proceed 1/2 mile and make a u-turn at the Avati Street signal and turn into the driveway for 4010. Drive to the parking lot on the west side (away from Morena). Members are welcome to attend as observers. If you want to discuss an issue, please ask to get on the agenda by sending an email to president@cnpssd.org.

CONSERVATION

Miniature Serengetis

Vernal pools have an image problem. Most people haven't heard of them, and some of those who have regard them as (expletive deleted) nuisances, road ruts, mud puddles, or hog wallows that only geeky biologists would love. Botanists value them for their rarity, and for the iconic tableaus of rings and puddles of vibrant flowers. Even that view is static. We tend to see vernal pools as a rare treasure, something to add to the life list, something photographed for the collection.

This is a problem, because vernal pools have a bad habit of getting in the way of development. Cities like San Diego seem to protect vernal pools because they gotta, not because they wanna. So the remnant vernal pools get the obligatory fence, the obligatory no trespassing sign, and (if we're lucky) explanatory signage about how rare and unique they are. If we're really lucky, there's an overworked land manager coming around to chase us away from them. Occasionally.

Inspiring, isn't it? This isn't to criticize the people who love and care for vernal pools. Thing is, we need more. Fortunately vernal pools are much cooler than their image. They're miniature Serengetis.

Vernal pools only fill after a soaking rain, and every pool is different. Some fill after four inches of rain, some fill after a foot. Once the storm is over, the water starts evaporating and the clock starts ticking. To paraphrase the old Nike ad about cheetahs and gazelles, when the sun comes out, the life in the pools starts running. Fast.

A vernal pool is an ecosystem exploding out of the dust in a matter of days, from muddy water, to algae, to plants sprouting, to fairy shrimp, ostracods, water beetles, worms, dragonfly larvae and tadpoles, all racing to grow, mate, and lay eggs or get out before the pool dries. Or before the garter snakes, the ducks, and the crows find them, if the predators inside the pool don't get them first. Even the damp mud is a racing ground, as the famous vernal pool annual flowers grow fast, produce those beautiful masses of flowers, set seed and die. In the end, the pool dries back to hard clay, dust to dust in a matter of months.

It's life in the fast lane, and that's why everything is small in vernal pools. They don't have time to grow big. The neat thing about their tiny size is that you can see all the action in one spot. Better yet, if you're willing to stand still and keep your shadow off the pool, after a few minutes, the animals will get back to their lives. Unlike the African savanna, where you have to get extremely lucky to see one of those iconic cheetah chases, in a vernal pool you can see predation happen right in front of you. A dragonfly larva may catch a tadpole, or a tadpole may go after a fairy shrimp. Or if you're a more peaceful person, you can admire all the oddities, tiny submersed plants producing oxygen a bubble at a time, or a mesa mint nonchalantly growing under an inch of water from a late rain.

It's all about scale, really. Vernal pools are ecosystems compressed in space and time by their ephemeral waters. The rest of the year, their life is dormant, as seeds, spores, cysts, and eggs, or the animals flew or hopped away. Some vernal pool species survive decades, perhaps centuries, of dormancy, although they live only a few weeks in the water. That dormant state is fascinating too, because the respiration rates are so minute that they can be undetectable. If we had enough vernal pools, the biotechs at UCSD could study their various dormancy strategies. Possibly they could learn how to render humans so dormant that we could be shipped to another star, a la *Avatar*. More likely, they'd find new tricks for preserving perishable drugs, or shipping organs longer distances for transplant. Instead, vernal pools are endangered, and we're arguing about how to save them, trying to educate the public not to walk or ride through the pools, and repairing the fences that sometimes offer more provocation to vandals than protection for the pools.

Sad, isn't it? Wouldn't it be better if we could appreciate them for their annual drama, and learn what precious insights they have to offer us?

It's a dry year, but there are still a few active vernal pools out there. Perhaps you will get a chance to see, and appreciate, San Diego's miniature Serengetis.

~ Frank Landis, Conservation Committee Chair

TECOLOTE CANYON NATURAL PARK

April 1, May 6; 9 a.m. to noon. A relaxed opportunity



to learn plant lore of this coastal natural reserve from a CNPS member. Meet at the Tecolote Nature Center. Wear sun protection and comfortable walking shoes, bring water. Rain at 8 a.m. cancels the walk Directions: exit I-5 at Seaworld/Tecolote exit. Go east (away from Mission Bay) on Tecolote, past the ball fields, along the driveway to the very end. Free and open to the public, and parking is also free. The walk is repeated the first Sunday of each month. (No walk at this location in June 2012)

Members Field Trips

Sunday, April 15 (postponed from March due to rain). 9 a.m. – 2 p.m. Ancient Tecate Cypresses of Guatay Mountain. Leader: Bob Greenberg

CNPS members and their guests will see the oldest and highest elevation stand of Tecate cypress (*Hesperocyparis forbesii*) known: at least 145 years old 4,000-4,500 ft. The mature trees appear healthy and vigorous, with lots of cones of various ages. The field trip will be a 5.2 mile round trip hike thru old growth chaparral, including redshank, manzanita, mountain mahogany and creeping sage - at least 100 plant taxa have been identified in the vicinity. The route is an unmarked trail with a 1,600 ft elevation gain/loss and is moderately strenuous - suitable for experienced and fit hikers only. We'll go slow, looking at plants (and resting!)...so we may take 4-5 hours for the round trip. For more information about Tecate cypress, see the article starting on page 4.

Meet at 9 a.m. at the Pine Valley Trailhead parking area in the Cleveland National Forest. From San Diego, drive east on I-8 to Pine Valley exit (about 45 miles). Turn north (left) and drive 0.3 mile to junction with old Hwy 80 in downtown Pine Valley. Turn left (NW) and proceed 1.5 miles to signed turnoff (on left) for Pine Valley Trailhead. Drive 0.5 mile down entrance road to parking area, where we will meet. (see Thomas Guide Map 1237, A4 and A5, shown as Pine Valley - Las Bancas Rd on the map). Nice restrooms are available.

Cars should have a National Forest Adventure Pass to park in national forest land. You can buy one up en route by exiting from I-8 at the Tavern Road exit in Alpine, and going to either the Chevron or Valera gas stations that are right next to the freeway. Both are open at 6 a.m., and you can be back on the road quickly.

RSVP at <u>fieldtrips@cnpssd.org</u>. Please note the number in your party, and a cell phone number to help coordinate lost or late attendees. Bring lunch and water, wear good hiking boots and sun protection. Members may bring a guest, or non-members, who want to attend, can join CNPS by completing a membership form and paying membership dues at the trailhead. Membership information is at www.cnps.org Rain at 8 a.m. will cancel the field trip.

Saturday, April 21, 8 a.m. to noon. Del Mar Tunnels and Vernal Pools. Leader: Gina Washington, Park Ranger

The largest old-growth scrub oak grove south of Morro Bay, and vernal pools with endangered species, have been set aside for conservation on lands linking Penasquitos Creek and the San Dieguito River Valley. The intense development around these links has made them precious both for their intended conservation purposes, and as recreational retreats. Gina Washington, senior ranger for the City of San Diego Parks, along with CNPS member Frank Landis, will lead CNPS members (and their guests) on a 5-mile loop through the old chaparral. The trails are called the Tunnels, being enclosed by scrub oak, summer

holly (*Comaristaphylos diversifolia*), California adolphia (*Adolphia californica*), and other plants. Some vernal pool plants may be identifiable.

The Tunnels is officially closed to the public, so CNPS-SD is fortunate to be permitted to view this area with Ranger Washington. The route will include descending and ascending several hundred feet, several times, requiring hiking agility and stamina. Long pants and a hat are advised to protect from scratches. Bring water.

Public Plant Walks

April 7, 10 a.m. till noon. Manzanita Canyon. Paul Hormick and J.R Sundberg lead. Meet at Azalea Park. From University Ave. Turn south on 43rd St. Turn right onto Poplar St. (5-way corner), and continue to the end (Thomas Guide 1269 H7). City Heights neighborhood. Phone: 619-297-2957

April 28, 10 a.m. to noon. Del Dios Highlands Trail. Michael Murphy and Adrienne Heinzelman lead. Meet at 9860 Del Dios Highway. Exit 1-15 at Via Rancho Parkway in Escondido and head west. Turn left at Del Dios Highway. Park in the gravel and dirt parking lot on the right (across from Date Lane), on the west side of Lake Hodges. Note: Trail begins with a steep ascent and then levels off for the remainder of the hike. (Thomas Guide 1129 E7). Escondido. Phone: 858-663-1497.

The **Public Outreach Committee** will be representing CNPS at several events over the next few months. We are looking for friendly, outgoing people to greet the public and share our love of native plants. Our next event will be the Earth Fair in Balboa Park on Sunday, **April 22** from 10 a.m. to 5 p.m. On **May 6** we'll be present at Sustain Scripps Ranch and on **May 19** for Explore Mission Trails Days. If you can spend some time representing CNPS at one of these events, please sign up at the volunteer table at the monthly meeting or send an email to publicoutreach@cnpssd.org or. It's a great way to get involved!

RARE PLANT SURVEYS

How can millions of plants be rare? It's simple: they're tiny, and they only grow in a few spots. It's this last fact that makes them vulnerable to extinction. We've found millions of coastal woollyheads (*Nemacaulis denudata*) at Silver Strand State Beach so far, and we're far from done. If you're interested, most of our surveys last about four hours, and most (not all) of them take place on weekday mornings, to avoid the weekend crowds. If you are interested, contact Frank Landis at

franklandiso3@cnpssd.org to volunteer.

~ Frank Landis, Rare Plant Surveys Committee Chair

RECEIVE YOUR NEWSLETTER ONLINE

To receive your newsletter via email, please contact us at:

newsletter@cnpssd.org

You'll save the chapter and the environment by not receiving a paper copy and save the chapter mailing costs. AND your newsletter will be in **COLOR** and have embedded links!

New BOTANY Book

A new book entitled *Ferns and Lycophytes of San Diego County, California* has been written by SDNHM volunteer, Annette Winner, and Dr. Jon Rebman (SDNHM Curator of Botany) and is in the scientific review process. This new publication is expected to be printed in mid-2012 and will contain detailed information on these ancient and diverse plant groups in our region.

Tecate Cypress

In the hills southeast of El Cajon, my Grandmother's property that was adjacent to my parent's land contained several hedgerows of Arizona Cypress (Hesperocyparis arizonica). They grew without supplemental water along with one old large Coulter pine. Their spicy juniper-like scent was familiar to us as and their cones often became projectiles when we dug forts through the leaf litter below California is home to ten species and several them. varieties of native cypress trees. Many of them have limited distributions due to being confined to unique soil types or other factors, so seven species and two varieties are considered sensitive enough to be placed on the list of rare and endangered plants. The Stephenson's cypress (Hesperocyparis stephensonii) from the west slopes of Cuyamaca Peak is one of them which will be discussed at a The other species, the Tecate cypress (Hesperocuparis forbesii) is not rare where it occurs, but it has a limited distribution and is certainly vulnerable.

Cypress are relatively old plants and they have been found in the fossil record dating back to the Pliocene (Webber, 1933). Tecate cypress themselves have been found in 5 million year old fossil beds (Axelrod 1983). It is thought that during the Pliestocene, they may have been more widespread and later retreated to the unusual soil types that most of them currently occupy. They are presently found on serpentine soils that are famous for their effect on plants due to their high concentrations of magnesium and iron. They are also found on acidic sandstones and in the case of the Tecate cypress, they are found on Gabbro or black granite that like serpentine also supports high concentrations of iron and magnesium but also on metavolcanic rock that composes Otay Mountain. The San Diego area was part of an island arc off of the west coast of North America during the Cretaceous and these islands were composed of volcanic mountains roughly 15,000 to 18,000 feet high (Tanaka et al. 1984). Over the millions of intervening years, these mountains weathered down and eroded and were partially metamorphosed as a result of heating from the formation of the granitic rocks that also occur in this area, becoming harder and more rigid in the process. The metavolcanic rock is very hard and served a variety of uses by the local inhabitants before European contact and is now considered some of the best rock for aggregate in construction. Fortunately, much of it is protected under public ownership. When metavolcanic rock weathers into soil, it apparently creates acidic conditions that also allow it to harbor unusual plants like the Tecate cypress and a good many others.

By now, most botanists are familiar with the numerous changes in the names of cypress and for the Tecate cypress, the number of scientific name changes are greater than most species. These changes are affected by analysis of how closely related the North America cypress species are to those in the rest of the world and how closely Tecate cypress is related to those from Guadalupe Island. It has been referenced as Cupressus guadalupensis S. Watson var. forbesii (Jeps.) Little ; C. guadalupensis S. Watson subsp. forbesii (Jeps.) Beauch.; Callitropsis forbesii (Jepson) D.P. Little; Neocupressus guadalupensis var. forbesii (Jepson) de Laubenfels ; and finally Hesperocyparis forbesii (Jeps.) <u>Bartel (Earle, 2012)</u>. The Hesperocuparis forbesii seems to be the current name with greatest standing and it was included in the revised Jepson Manual that was released earlier this year.

The Tecate cypress was first found on the lower north slope of Otay Mountain, but it occurs in the northern Santa Ana Mountains in Orange County, three locations in San Diego County and in numerous locations south of the border as far as the mountains inland of San Quintin (Earle, 2012; Minnich, 1987). San Diego County supports roughly 5,700 acres of Tecate cypress (County of San Diego digital data base 2010) on Guatay Mountain, Tecate Peak and what is probably the world's largest stand of them on Otay Mountain. The groves on Guatav Mountain are some of the oldest in the region. There are no records of fires on Guatav Mountain and the trees have been estimated to be well over 100 years old which in terms of Tecate cypress is ancient (Ralph Steinhoff, San Diego County Fire Authority, personal communication, 2010). The trees on Tecate Peak are limited in area and have burned several times in recent years and the trees on Otay Mountain have mostly been burned in either the Otay Fire of 2003 or the Harris Fire of 2007 and some also burned in the 1996 Otay fire. A small portion of the forest on Otay Mountain was last burned several decades ago.

The natural history of Tecate cypress like most cypress is tied to the fire regime (Rodriguez-Buritica, 2010; USDA Forest Service, 2012, U.S. Fish and Wildlife Service, 2010). They have serotinous cones that are round, the size of a quarter with five sided plates and that typically stay on the trees for a very long time, sealed shut. When a fire burns the adult trees that are generally killed, the heat from the flames cause the cones to open and release high numbers of seeds. Due to a variety of natural factors, the mortality rate is high on seeds and seedlings so a large number of seeds is necessary to replace the adult trees. The trees must be mature enough to produce cones and the cones must be in great enough number for new trees to grow after a fire. Studies by Dr. Paul Zedler (1995) indicate that the trees need to be several decades in age to produce enough cones for the replacement of the forest after a fire. If the trees are too young, the stand can be reduced in area or eliminated (also de Gouvenain and Ansary, 2006). (Con't on page 7)

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INVASIVE PLANTS

RESTORATION OPEN HOUSE



Saturday, April 7, 9:00 a.m. (Other dates & times may be arranged.)

You are invited to tour the restoration areas along Artesian Creek, west of Rancho Bernardo. This is your chance to tour a successful on-going restoration of some 300 to 400 acres of coastal sage with a riparian corridor. There are large areas of native vegetation, lots of native wildlife and a gorge with waterfalls. There are also areas in before and intermediate states that show what has been done.

Reservations are required; we are limited as to how many we can take at any given time. Terrain varies from easy to very rugged. We can accommodate most people so please indicate your ability/limitations and we will plan accordingly. Refreshments will be served after the tour. **RSVP to invasiveplants@cnpssd.org**.

The Invasive Plants group cares for open spaces. In doing so, we provide participants the opportunity to learn, hands-on, about invasive pest plants and to become part of the solution. Through a program of interactive learning and hands-on experience, targeted to you, the individual learns principles and techniques that help nature heal degraded native habitats. Contact: invasiveplants@cnpssd.org.



Members of the Gothic Volunteer Alliance help regularly at the Old Town Native Plant Garden. Photo by Pat Fishtein.

First CNPS-SD Native Plant Garden Tour April 28 & 29

Our inaugural, region-wide, native garden tour is this month! We are getting some great press - Todd Gloria, City of San Diego Councilman for District 6 and water conservationist, has agreed to be an honorary Co-chair for the Tour. He is a big supporter and features water-wise gardens within his district on his Facebook page.

Nan Sterman has also agreed to be honorary Co-chair. Many of you know Nan from her CNPS activities and her writings in the Union-Tribune. We expect a feature article in the UT this month, so keep on the lookout for it.

In the mean time, buy your tickets now and also buy chance drawing tickets - the five landscape designers who have donated their services look forward to creating beautiful projects for the lucky winners.

Please spread the word! Tell your friends and help us make this new San Diego Native Plant Garden Tour a success. We have a beautiful new web page for the 2012 Garden Tour: http://www.cnpssd.org/tour/

Send an email or call either Clayton Tschudy (858-774 7692; tschudyecodesigns@gmail.com) or Susan Krzywicki (gardening@cnpssd.org).

Garden Work Parties

Old Town Historic State Park Native Garden: April 14 (Saturday), 1:00 to 3:00 p.m. Watch out Exotic Grasses, We Are after You!

The Native Plant Garden in Old Town State Historic Park is being developed to illustrate the California native plants that grew near the San Diego River when the Spanish arrived in the 1780's and found Cosoy, a thriving Native American village, at this location. These plants provide food, fuel, shelter, clothing, art, tools, and medical supplies to those who know how to use the plants. The Garden was initiated six years ago and phase one is progressing well, thanks to volunteers who enjoy helping each other care for the Garden.

The April work party will get rid of as much exotic grass as possible. Each year we have less weedy grass, due to our hard work, cutting off the exotic grass' annual seed set and digging out sod forming perennial exotic grasses.

Wear sun protection, and bring gloves and your favorite weeding tools including sharp spades and hoes. If you don't have tools or gloves, share the tools that are provided by CNPS and the Gothic Volunteer Alliance, whose members partner in caring for the Native Plant Garden. Bring water. Restrooms are nearby.

The Native Plant Garden is located at the far west end of Old Town State Historic Park, at the corner of Congress and Taylor Streets, opposite the train/trolley/bus station. If you come by public transit, cross at the corner and you are there. If you drive, park for free in the lot next to the Garden off Taylor and Calhoun, or in the CalTrans parking lot across the street on Taylor, which offers free parking to Old Town visitors on the weekends.

The Old Town State Park Native Plant Garden Work Parties are monthly on the second Saturday, from 1 PM to 3 PM.

Point Loma Native Plant Garden: April 7 and 15, 9:00 – noon. Rain cancels; bring water; no facilities; tools/supplies provided. Usually the first Saturday & third Sunday of each month. Contact Richard@sandiegoriver.org for more info.

Tecate Cypress (con't from page 4)

The flammability of the trees in their surrounding chaparral habitat has a bearing on how likely it is that the trees will burn. Young age chaparral and fires that occur during typical summer conditions may not burn as intensely and eliminate whole stands. However, during periods of single digit humidity and blast furnace-like winds, even younger vegetation may be vulnerable.

As was mentioned above, Otay Mountain contains the largest known stand of these trees. Photographs from the 1930's illustrate patches of relatively tall forest and areas of dense chaparral on Otay Mountain. During 1979, a fire burned through stands of mature trees in an area that had not been burned since 1943. These trees then were replaced with new trees that grew to substantial size but then burned again during the Otay Fire in 2003, starting the cycle again. In 1996, a fire burned over portions of the western side of the mountain. While there appeared to be good reproduction following the 2003 fire, it remains to be seen if there has been an overall reduction in area of cypress as a result of that fire. It is often difficult to see young cypress in the midst of chaparral regrowth. There was concern that the area of these trees would burn again in the 2007 Harris Fire and, in fact, CALFIRE personnel were ready to attack if it did, but the combination of younger age vegetation and weather conditions allowed for the fire to generally burn out when it reached the cypress that burned in 2003 (Thom Porter CALFIRE, personal communication 2007). While the 2007 fire burned areas of coastal sage scrub that also burned in 2003, it double burned only a relatively small portion of the cypress. Instead, it burned over the remainder of the cypress, roughly 70 acres on the west that had not burned in 2003 or 1996 including some really large and old trees. The current status is that only a small portion of the cypress forest on Otav Mountain has survived unburned through both 2003 and 2007 consisting of roughly 80-100 acres directly northwest of the highest point (Google Earth Images). If a fire was to burn over the mountain within the next 20 years, it would likely result in a major reduction in the cypress. This creates a management issue for how to prevent that from occurring. Otay Mountain has typically been subjected to numerous burns each year from fires that are started along the U.S./Mexico border. It may be necessary for specific treatments to keep fires from affecting the regenerating forest on Otay Mountain for the future.

The Tecate Peak stand appears to have suffered a reduction in area due to the sequence of multiple fires in that area over the past 40 years. The Guatay Mountain stand is still intact with very old trees. South of the border where less effort is placed on stopping fires, the trees occur in a number of locations that have been subjected to fire. In some spots, it appears that fire may have reduced the trees where skeletons are visible with no recruitment of seedlings. In other locations, they appear to be doing well following fires and in still others, old age groves still exist. One other biological concept of note is that the Thorne's hairstreak butterfly, Callophrys gryneus thornei, is only found on Tecate cypress and on Otay Mountain. There was a great deal of concern following the fires that it may have been very heavily affected or potentially eliminated; however, it still persists.

~ Tom Oberbauer

Axelrod, D. I. 1983. New Pleistocene conifer records. University of California publications geologic sciences 127:1-108.

de Gouvenain, R. C. and A. M. Ansary. 2006. Association between fire return interval and population dynamics in four California populations of Tecate cypress (Cupressus forbesii). The Southwestern Naturalist 51(4): 447–454.

Earle, C.J. 2012. Gymnosperm Data Base: Cupressus forbesii. http://www.conifers.org/

Minnich, R. A. 1987. The distribution of forest trees in northern Baja California, Mexico. Madrono. 34(2): 98-127. Rodriguez-Buritica, S, K. Suding and K. Preston. 2010. Santa Ana Mountains Tecate Cypress (Cupressus forbesii) Management Plan. California Department of Fish and Game and Nature Reserve of Orange County. 159p.

Tanaka, H.; Smith, T. E.; Huang, C. H. 1984. The Santiago Peak Volcanic rocks of the Peninsular Ranges batholith, Southern California: volcanic rocks associated with coeval gabbros. Bulletin Volcanologique, Volume 47, Issue 1, pp.153-171

U.S. Fish and Wildlife Service. 2011. Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List Thorne's Hairstreak Butterfly as Endangered. Federal Register 76(36): 9991-10003.

USDA Forest Service. 2012. Fire Effects Information: Cupressus forbesii.

http://www.fs.fed.us/database/feis/plants

Webber, I. E. 1933. Woods from the Ricardo Pliocene of Last Chance Gulch, California. Contributions to paleontology, Carnegie Institute of Washington 42:

Zedler, P. H. 1995. Fire frequency in Southern California shrublands: biological effects and management options. In. Brushfires in California Wildlands: Ecology and Resource Management. J.E. Keeley and T. Scott eds. International Association of Wildland Fire, Fairfield, WA. Pp. 101-112.

OTHER ORGANIZATIONS' ACTIVITIES RELATED TO NATIVE PLANTS

(included in CNPS-SD newsletter as space allows)

Anza-Borrego Desert State Park Botany Society

Monday, April 9, 10 a.m. Larry Hendrickson, staff advisor for the Anza-Borrego Desert State Park Botany Society, will describe the rare and unusual plants of the park at a meeting in Borrego Springs Hendrickson, a self-taught botanist, has been studying and documenting the plants in the desert and mountains of the region for the last 25 years. The meeting, open to the public, is slated to start at 10 a.m. at the park's Visitor Center. He is a field associate with the botany department of the San Diego Natural History Museum, and has collected more plants for the museum's Plant Atlas Project than any other participant.

South Bay Botanic Garden (Southwestern College)

Saturday, April 14, 4:00-5:30 p.m. Grand Opening of the California Native Garden. See the brand new California Native Plant garden and discover some great plants for your yard.

San Diego Natural History Museum FREE Guided Nature Hikes

For more information or directions, visit http://www.sdnhm.org/calendar or call (619) 232-3821; option 4 (M–F).

Sunday, April 1, 9 a.m. Garnet Peak. Intermediate; 3 miles; up to 500 feet elevation change. Garnet Peak offers dramatic views of the desert and the Laguna Mountain Range. This trail takes us through Jeffrey pines to high chaparral. Directions:(Cleveland National Forest) From I-8 take Sunrise Hwy (S1) north. Drive 13.5 miles to the Penny Pines turnout near Mile Marker 27 and park. A National Forest Adventure Pass is required to park. No facilities. Allow 1.5 hours driving time.

Saturday, April 7, 8 a.m. Iron Mountain. Intermediate; 7 miles; up to 1500 feet elevation change. A steady uphill climb takes you through exceptional native vegetation. At the summit trail junction, choose to turn around or continue to the summit for a magnificent view of the mountains and valleys. **Directions:** (Poway) From Hwy. 67 exit east into the Iron Mountain parking lot at Poway Rd. Bring adequate water and food. Allow 40 minutes driving time. Chemical toilet and water.

Sunday, April 8, 9:00 a.m., Juaquapin Creek Loop. Intermediate, 6 miles; up to 1000 ft elevation change. We walk along a beautiful, shaded creek to the lunch stop at the moteros. **Directions:** (Cuyamaca Rancho State Park) From I-8 exit north onto Hwy. 79. Continue to large parking area on the right, just before Sweetwater Bridge,

1/2 mile past the Green Valley Falls Campground. No facilities. Allow 1.5 hours driving time.

Saturday, April 14, 2012 9:00 a.m. Santa Margarita Ecological Reserve. Rating: Intermediate; 4 miles; up to 1500 feet elevation change. Canyoneers have permission to guide at this SDSU field station for this date only. This hike has it all: varied plants along Stone Creek and the Santa Margarita River at the bottom of the gorge with steep areas in open chaparral. Directions: (Fallbrook) From I-15 exit west on Mission Rd. (S13) and turn right onto Willow Glen Rd. Drive to the end of Willow Glen and continue right (north) on Stage Coach Lane. The gate to the reserve will be open a half-hour before the hike. Follow the Canyoneer sign to the parking area. No facilities. Allow 1.5 hours driving time.

Sunday, April 15, 2012 9:00 a.m. Manzanita Canyon. Rating: Easy; 2 miles; up to 200 feet elevation change. We start from the Azalea Park recreation center and ascend into Manzanita Canyon's riparian and chaparral habitats. **Directions:** (City Heights) From south I-805 exit left (east) on Home Ave., then turn left onto Fairmount Ave. Go southwest on Poplar St. and northwest on Snowdrop St., which becomes Manzanita Drive.

Sunday, April 15, 2012 9:00 a.m. Horsethief Canyon. Rating: Intermediate, 3 miles; up to 1000 ft elevation change. Take a 400-foot descent to the canyon floor. A flat trail to Pine Valley Creek will lead you through live oaks, sycamores, and wildflowers.abundance of wildflowers. Directions: (Cleveland National Forest, Pine Creek Wilderness Area) From I-8 east, exit south on Japatul Valley Rd. to Lyons Valley Rd. Follow it to the trailhead at Mile Marker 16.4. A National Forest Adventure Pass is required to park. (Please refer to Parking Fee Information on the calendar page.). Allow 1.5 hours driving time. No facilities.

The CNPS-SD Newsletter is published 12 times a year. The newsletter is not peer reviewed and any opinions expressed are those of the author identified at the end of each notice or article. The newsletter editor may edit the submittal to improve accuracy, improve readability, shorten articles to fit the space, and reduce the potential for legal challenges against CNPS. If an article, as edited, is not satisfactory to the author, the author can appeal to the board. The author has the final say on whether the article, as edited, is printed in the newsletter. Submissions are due by the 10th of the month preceding the newsletter; that is, March 10 for the April newsletter, etc. Please send submittals to newsletter@cnpssd.org.

CALENDAR FOR APRIL 2012

4/1: Tecolote Canyon Public Walk (p.2)

4/7: Point Loma Native Garden Work Party (p.6)

4/4: Board Meeting (p. 2)

4/7: Public Plant Walk – Manzanita Cyn (p.3)

4/14: Old Town Work Party (p.5)

4/7: Restoration Open House (p.5)

4/15: Member Field Trip - Guatay Mountain (p.3)

4/15: Point Loma Native Garden Work Party (p.6)

4/17: Chapter Meeting (p. 1)

4/21: Member Field Trip – Del Mar (p.3)

4/28-29: Garden Tour (p. 5)

4/28: Public Plant Walk – Del Dios Highlands (p.3)

MEMBERSHIP APPLICATION		
Student or Limited Income \$25;Individual \$45;Family	or Library \$75	
Plant Lover \$100;Patron \$300;Benefactor \$600;Ma	riposa Lily \$1,500	
Name(s):		
Address:		
Phone: e-mail:		
Mail check payable to "CNPS" to: CNPS, 2707 K Street, Ste 1, Sacramento, CA 95816.		

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April 2012 Newsletter

Dedicated to the preservation of California native flora

CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO

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