

Explore Mission Trails Day May 17

Connecting Children with Nature is the theme of our 2014 Explore Mission Trails Day which will be held on Saturday, May 17. This popular event features free guided nature walks, talks and programs throughout the park, including live animals and special programs for children. The San Diego Natural History Museum and Scholastic Publishing's Ms. Frizzle™ and The Magic Schoolbus© will present a special program for children in the amphitheater at the Visitor and Interpretive Center. This year's program will feature coyotes. There will also be free pony rides, a climbing wall, crafts for children, and many Discovery Stations at the East Fortuna

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Kumeyaay Lake Campground to re-open in June. Details on page 2.

Mission Trails Honors Its Outstanding Volunteers

Congratulations to our Mission Trails volunteers who were honored at the 19th Annual Volunteer Awards Ceremony on Saturday, February 1, 2014, for their outstanding service in 2013. Senior Ranger Matt Sanford presented Wendy Esterly with the Volunteer of the Year Award for her long-time commitment to Mission Trails Regional Park. Wendy is a Trail Guide and avid photographer. She is also a trainer in the annual Trail Guide training class. Wendy was recognized with a plaque and a certificate from San Diego City Councilmember Scott Sherman. Her name also appears on the perpetual plaque on display in the Visitor Center lobby.

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A Message From Executive Director Jay Wilson

We have exciting news for Boy Scouts and Girl Scouts. Beginning in May, Alicia Berg, one of the MTRP Foundation's Educational Program Instructors, will be offering free classes on a monthly basis to assist Boy Scouts and Girl Scouts earn merit badges in a variety of subjects related to Mission Trails. Ms. Berg has developed this new program working with executives from our local scouting councils. She is a qualified Merit Badge Counselor for the Boy Scouts. Her program will include classroom and in-the-field instruction, and will initially be offered on selected Sunday afternoons from 1 to 4 p.m. The classes will target the requirements for specific badges. Information about these programs will be available through the Boy Scouts and Girl Scouts beginning in May. The program is funded through an Environmental Champions Grant from SDG&E.

The MTRP Foundation email list is nearing the 5,000 mark. If you are not signed up to receive our e-news updates, take a couple of minutes and go to our homepage mtrp.org. Scroll down the left hand side to "enter email address." Your email address is secure, and you will receive one or two emails a month updating you about all the activities in the park. It is the best way to keep informed about all the events at MTRP, including guided walking tours, concerts, art exhibitions, star parties, park beautification opportunities, children's classes, and special events like Explore Mission Trails Day on May 17. Take an extra step and invite a friend to join.

Kumeyaay Lake Campground To Reopen in June at Mission Trails!

In March the San Diego City Council voted on budget adjustments for the current fiscal year, and fortunately it included funds that will allow the Kumeyaay Lake Campground (KLC) to reopen sometime in June. The campground has been closed since September of 2011, but is now being readied to reopen for overnight camping on Friday and Saturday nights. Thanks to our District 7 Councilmember Scott Sherman for securing the funding to reopen the KLC and to the entire City Council for supporting the funding. An additional full-time Ranger and a part-time Center Director will be hired to oversee the operation.

The KLC includes 46 rustic campsites (no hookups) and a comfort station with showers. It is adjacent to a small lake, and the wilderness is just steps away with over 50 miles of trails waiting to take you on an adventure. Keep checking our website to learn when the reservation system for the KLC will be operational.

> Scan our QR code



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21st Century Insights into the World of Plants By Audrey F. Baker

Talk about variety! MTRP's botanicals range from the sublime to the bizarre. It's a grand mix of esthetic and unusual charms.

Biologist Daniel Chamovitz, Director of Plant Sciences at Tel Aviv University, reminds us that some of the most important discoveries in biology come from studying plants. His intriguing and highly readable book, *What a Plant Knows*, takes readers on a journey through the senses – those of plant and man – revealing how plants meet environmental challenges by using their own unique resources. Many of the plants familiar to MTRP visitors are at the forefront of world-wide research efforts cited in his book.

Drop the idea that plants are passive objects. The 21st Century has ushered in a revolution in plant research. The mustard plant (*Arabidopsis thaliana*,),"a common weed," led the way. The full sequencing of its DNA in 2000 opened the door to plant study at a molecular level. The results are astounding! Turns out plants see, smell, and touch. *Arabidopsis* helped uncover the mystery of how plants see. Like the human eye, plants have photoreceptors (special proteins) that absorb light waves.

We see in pictures, plants see light in colors. They use blue light for bending toward sunlight, red to measure the length of night, bright red to activate flowering and far-red to de-activate it. They also see you! You are recognized as an object blocking their light!

For plants, seeing is survival. Rooted to the ground, these sessile beings cannot move toward food. Their sustenance comes through photosynthesis. Using light, they transform water and carbon dioxide into sugar.

Walking the trails of MTRP, we sample a variety of aromatic sensations. Airborne chemicals stimulate the nose, our nervous system carries the message, and our brain invokes a positive response. It takes only one molecule connecting with a specific receptor to sense an odor.

Wild Cucumber by David Cooksy



Plants smell, too, and respond to the stimuli. They emit odors and receive odors that influence their behavior.

A familiar sight at MTRP is Witches Hair – Dodder (*Cuscuta californica*.) Its twinning orange vine reflects it lacks chlorophyll. Without this pigment it cannot photosynthesize and must parasitically rely on others to provide nutrients.

Work with the *Cuscutacea* family revealed Dodder seeks out its host plant, be it sycamore, buckwheat or sumac, through its sense of smell and additionally employs the sense of touch to accomplish the connection.

Its wily seedling is on a mission: find a host – and fast! It probes with a circular movement of its shoot tip until it picks up the scent of a suitable species. Now it is full speed ahead. Reaching the host's stem (touch down!), it twirls itself around it, penetrates its vascular tissue and begins extracting sugars.

MTRP's famed four-seeded Wild Cucumber (*Marah macrocarpus*) also relies on touch for survival. Its highly developed sensitivity displays how important this sense is to its survival. A close cousin, the one-seeded Burr Cucumber (*Sicyos angulatus*), has roving vines with a tactile sensitivity up to ten times greater than the human touch.

As you meander by the gracious Arroyo Willows of MTRP this spring, you may notice one tree under heavy caterpillar infestation, and wonder why neighboring trees are unaffected by the onslaught. You are witnessing "leavesdropping." That's how Dr. Chamovitz describes the phenomena of plants communicating warnings of environmental threats.

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Meet MTRP's New Rangers

Recently, six new Rangers joined the Park staff: Senior Ranger Andy Quinn, Chris Axtmann (whose bio and photo where in the previous issue of our newsletter), Levi Dean, Araceli Dominguez, Andrew Miller and Rebecca Smart. Four of these individuals are filling new Park Ranger positions and two are replacing Senior Ranger Matt Sanford and Ranger Mika Shimada who have recently tranferred to other San Diego parks. If you should see these new Rangers in the park, take the time to welcome these talented and dedicated individuals Photos and bios of all the Park and Foundation staff are on our website.

Andy Quinn was hired in 1995 by the City of San Diego Park and Recreation Department. He has worked in



Community Parks II, Developed Regional Parks and currently in Open Space Division. Andy has held a variety of positions in the Park and Recreation Department, the most recent as a Park Ranger in the Tri Canyon area. Andy graduated from San Diego State University in 1997, majoring in Recreation Administration with an emphasis in Systems Management. Andy has been married for four years to his lovely wife Lorri. He enjoys spending time with his family, attending church, camping, reading, hiking, and listening to music. He loves fitness and running outdoors. He has played guitar, professionally and leisurely, for the past 30 years. Andy loves to travel and has been to England, Philippines, Japan, South Korea, Canada, Portugal,

Levi Dean grew up in Virginia and graduated from the University of New Mexico with a BS in Geography



and a minor in Earth and Planetary Studies. Prior to working for the City of San Diego, he worked as a Recreation Technician for the Bureau of Land Management in Southern Oregon where he was involved in environmental education, GIS mapping and served as the Trails Program Leader for the district. Levi gained much of his related experience working with multiple youth conservation corps in the Rocky Mountains of New Mexico and Colorado. Levi is a musician and songwriter and finds inspiration while spending time in nature.

Araceli Dominguez joined the Mission Trails Regional Park staff in January 2014. Prior to working for the City, she worked for numerous agencies like the Department of Parks and Recreation (California State Parks), National Park Service, County of Ventura Agricultural Commissioners Office, the National Marine Sanctuary Foundation, and Channel Islands Restoration. She



graduated from California State University, Channel Islands in 2007, with a B.S. degree in Environmental Science and Resource Management. When not working, Araceli loves to run especially with her pup Zak. She really enjoys water activities like kayaking, snorkeling, swimming, boogie boarding, but also likes to hike, camp, bake, cook, and garden.

Andrew Miller joined the Mission Trails Ranger Staff in January 2014. Prior to Mission Trails Andrew worked



as a seasonal/part time ranger at several parks including: Pfeifer Big Sur State

Park (California), Theodore Roosevelt National Park (North Dakota), and Yellowstone National Park (Wyoming). In 2010 Andrew graduated from San Diego State University with a degree in Recreation and Tourism Management with an emphasis in Outdoor Resource Management. While not working Andrew enjoys: hiking, surfing, spear fishing, camping, and spending time with friends/family.

Rebecca Smart has worked for the City of San Diego Park and Recreation Department since October 2012, and joined the Mission Trails Regional Park



Ranger team in January 2014. Prior to moving to San Diego, Rebecca worked as a Park Ranger II Officer for the City of Phoenix, Arizona Parks and Recreation Department, Natural Resources Division for ten years. Rebecca grew up in the Los Angeles foothills and mountains, where she developed a love of the outdoors, camping, and all things wild. Rebecca is passionate about conserving and protecting our precious natural resources and public lands for current and future generations. She loves wildlife and domestic animals, particularly canines. Rebecca is also passionate about music, dance, literature, and lifelong learning.

Farewell Senior Ranger Matt Sanford



After serving the public for two and a half years at Mission Trails Regional Park, Matt has transferred to the Tri-Canyon area of the Open Space Division of the San Diego Park and Recreation Department. Matt has been working as a Ranger for the City for nearly seven years.

Volunteers, continued from p. 1

Other volunteers receiving awards for outstanding service in 2013 were: Nancy Reed, Visitor Center; Harriet Fremland, Gift Shop; Doug Perl, Park Patrol; Audrey Baker, Trail Guide; Vance Mills, Habitat Restoration; Cathy Perry, Park Beautification; Terry Gaughen and Bob Graham, Trail Restoration. Certificates of recognition from San Diego City Councilmember Scott Sherman were presented to each of these outstanding volunteers.

Five year service awards were presented to Audrey Baker, Nancy Conyers, Harriet Fremland, Mike Gibbs, Arleen Hitchcock, Jo Mink, Nancy Reed, Flavio Santoyo, Ruth Savage, Gerry Tietje, Wayne Cherry, Louise Thomas, John Hopper, and Bob MacDonald.

Ten year service certificates were presented to Myrna Bateman, Terry Esterly, Wendy Esterly, Linda Hawley, and Henry Shenkman.

Fifteen year service certificates were presented to Paul Globerson, and Ann Sixtus.

Twenty year service certificates were presented to Doug Fenske, Bill Howell, and Connie Wood

A very special thank you goes to O'Hungry's Restaurant in Old Town and Mission Trails Regional Park Foundation for providing the evening's dinner.

The Mission Trails Regional Park Foundation extends sincere thanks to our 2013 Volunteer Awards Ceremony door prize contributors. Birch Aquarium Cheer's Deli Dave's Flower Box Living Coast Discovery Center Mission Trails Visitor Center Gift Shop O'Hungrys Restaurant Starbucks The Trails Restaurant Viejas Casino

The annual volunteer awards event is sponsored by Mission Trails Regional Park Foundation and the City of San Diego Park and Recreation Department.

Photo Contest Date Change

The 2014 Amateur Photo Contest exhibition will be held from September 13 to October 10. The deadline for submissions is September 6.

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You won't hear whisperings amongst the trees. They stealthily interact by chemical communication, transmitting smells (airborne pheromonal messages) that signal both affected and unaffected trees to produce toxic phenolic and tannic chemicals to make themselves unpalatable to the invaders.

Small animals that feed on insects recognize these defense chemicals and beat a quick path. The process is analogous to trees signaling the cavalry to come to the rescue!

Wonder how plants handle the stresses of daily life. They self-medicate. Willows (like all plants) produce salicylic acid, the original aspirin, which activates their immune system to fight infection. Another MTRP native, the tenacious Cocklebur (*Xanthium strumarium*) with its uncharitable prickly burs, demonstrates even a robust plant can be undermined by touch. Researchers learned that under minimal daily tactile contact its leaves turn yellow and die. (Plant lovers take warning! Even well intended kindness can lead to growth arrest!)

With spring many of us will dust off the pruning shears. Take a sigh of relief. Plants do not feel pain. Their responses are strictly automatic, and do not include an emotional response. Ours are subjective. Each of us has a threshold concerning touch and pain. One step over it, and ouch! Ions are activated that channel to psychological reactions (fear, panic, sadness) releasing our emotions.

Chamovitz contrasts eccentric studies with reliable science. In the 1970s two books captured the public imagination with strange claims about plants. Retallack's *The Sound of Music and Plants* correlated rock music with antisocial behavior and claimed both are harmful to plants and humans. *The Secret Life of Plants* (Tompkins and Bird) made "bizarre" claims about similarities between plants and human beings.

Both used controversial and unorthodox experimental models outside the scientific method. Unfortunately, the "anecdotal information" remains in the public mind.

Current science reveals plants are deaf. Biologically they have no need to hear. Secured to soil, plants don't need to hear warning to retreat or vocalize to communicate imminent danger. They stand their ground!

Citing studies on "buzz pollination," the author acknowledges there is the possibility that plants employ alternatives to hearing. The rapid vibration of a bumblebee's wing muscles produce high-frequency pulses. When the bee physically contacts the plant, it responds, releasing pollen. This may be analogous to a deaf person's ability to respond to vibrations in music without hearing them.

With intriguing topics (like plant memory and spaceflight confirmation of Darwin's astonishing observations) and Chamovitz's clear and witty writing style, the 141-page *What a Plant Knows* speaks volumes to plant lovers!

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Staging Area. The Lake Murray and Santee Kiwanis Clubs will be selling hamburgers, vegeburgers, hotdogs and refreshments at the Mission Trails Visitor Center and East Fortuna staging area respectively.

Corporate sponsors to date include Republic Services, SDG&E, Olive

Notable Donations

January 1 - March 31, 2014

Steward - \$5,000 - \$9,999 Steven R. Prewitt Trust, Mission Trails Endowment Trust Fund at the San Diego Foundation Republic Services

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Garden Restaurants, and Superior Ready Mix. Business support through in-kind services is being provided by San Diego Family Magazine, Mission Publishing Group, and O'Hungry's Restaurant.

The City and County of San Diego are providing support through their Special Promotional Program Fund and Community Enhancement Fund respectively.

Explore Mission Trails Day is presented by the City of San Diego Park and Recreation Department, Mission Trails Regional Park Foundation, and San Diego City Councilmember Scott Sherman.

Mission Trails Regional Park Donor Opportunities

By donating to Mission Trails Regional Park Foundation, you are preserving the past and investing in the future.

Mission Trails Regional Park Foundation provides opportunities for individuals, businesses, community organizations, and foundations to support a variety of programs and projects within the park. Community support is important to ensure adequate funding to maintain the award winning Mission Trails Regioanl Park Visitor and Interpretive Center and the multiple amenities the park has to offer.

Special event and project sponsorship are also available. Sponsorships for Explore Mission Trails Day, an annual event held each May, range from \$500 to \$5,000. Exhibit sponsorships begin at \$2,500. Bench and table sponsorships range from \$1,500 to \$4,000 depending upon the item and its location in the park. Contact Mission Trails Regional Park Foundation at 619-668-3280 or mtrp@mtrp.org for additional information.

Names of contributors of \$1,000 or more will be engraved on the donor board displayed at the Visitor and Interpretive Center. Yearly donations of \$100 or more are accumulated from year-to-year for donor recognition purposes.

Become a Business Friend of Mission Trails

Business Donors making contributions of \$100 to \$500 are eligible for a web site link from the Mission Trails web site for a period of six months. Business Donors making contributions of \$500 and above are eligible for a period of one year.

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Mission Trails Regional Park Foundation, Inc.

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Mission Trails Regional Park News is a publication of the Mission Trails Regional Park Foundation, Inc., published four times a year.

Roland Roberge, Editor.

A COPY OF THIS AND PAST NEWSLETTERS ARE AVAILABLE ONLINE: mtrp.org/newsletter.asp

Welcome to Our New Trail Guides

We are pleased to announce that we've had another successful Trail Guide training class with 24 new trail guides graduating on Saturday morning, March 29. This was the 20th annual graduation ceremony. Four of our new Mission Trails Rangers were in this class. Congratulations to all the students. As usual, they studied hard, completed the walkthroughs and written final exam, and, most of all, enjoyed the class. They will be a great addition to our Trail Guide program.

Thank you also to the training team for their outstanding efforts that made this year's class a success. Team members are: Bill Howell, Wendy Esterly, Judy Alvarez, Bill White, Fred and Linda Kramer, and, of course, Ranger Heidi Gutknecht. Pictured below, top row (l to r): Daniel Carlson, Derryck Jones, Jim Phelps, Ranger Levi Dean, Ranger Araceli Dominguez, Carol Withers; Middle row (l to r): Marty Fink, Rich Robertson, Kim Seltmann, Debbie Loureiro, Jon Cooper, Rose Cooper, Jennifer Stone; Bottom row (l to r): Pat Dugan, John Pfeifer, Jeri Thronburg, Leo Ellingson, Mary Wagner, Lee Spencer. Not pictured: Brian Arnold, Lisa Marie Bader, Melinda Janecek, Ranger Andrew Miller, and Ranger Rebecca Smart. Photo: Wendy Esterly.



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