

JAMES san jacinto Mountains Reserve

MAY 2016



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Greetings to everyone and to spring! Before delving into the news and announcements, I would like to thank you for your continued support and encouragement. After nearly four years at the James, I have grown even fonder of this neck of the woods than when you first welcomed me as Director. One of the most gratifying aspects of my job is that my responsibilities shift dramatically from day-to-day, from shoveling off the solar panels to launching new programs and applying for grants that will hopefully fund new facilities. I truly enjoy navigating the ever-changing landscape, improving our programs and resources forward for the future while serving a wide assortment of present needs. We strive to create a place where we can support



Jen: pictured with a group of researchers, faculty and reserve directors at a recent field trip to Oasis de los Osos

a host of activities, often at the same time, including top-level research projects and conducting long-term monitoring, data that we share with other scientists and which helps us track the effects of our extended drought and other major changes in our environment. We host courses for students from all disciplines, of all ages, and from all backgrounds. Importantly, in addition to access for researchers and students, the James and Oasis de los Osos Reserves provide a place for the public to better connect with wilderness as well as to connect with the scientists and scholars who study it.

From research to outreach, we continue to strive to better fulfill our mission. Through new programs with local artists and the start of a public lecture series, the Reserves will strengthen ties to our local communities and extend our reach beyond our region. It has been a busy few months—keep reading to see what we've been up to and where we're heading this summer!

*Jennifer Gee
Director of the James Reserve*

IN THIS ISSUE

Research Highlights at the James and
Oasis de los Osos Reserves
Education Highlights

Upcoming Events
Broader Societal Impacts —
Reaching Out to the Public
Trailfinder Notes



Research Highlights

... at the James and Oasis de los Osos Reserves

We welcome our new investigators and hope that their first stay at the James Reserve has been enjoyable and productive! Dr. Amy Litt (UCR) has just started a new pilot. She aims to determine the number of distinctly different lineages of Manzanita (*Arctostaphylos* spp.), which inhabit the James Reserve. Dr. Amanda Fisher has begun floristic studies both at the James and Los Osos. Along with student, Brittany Betz, Amanda will collect and identify the plant species present at the Reserves. The end result will be an archive of plants in the James Reserve herbarium and an updated list of plants found at the James and Los Osos. These monitoring studies are valuable to compare with past surveys and to form a baseline for generations to come. Monitoring will enable researchers to assess the affects of climate on species presence and abundance. Dr. Kirsten Jalvingh from the University of Lausanne, Switzerland is conducting her first year of field work at the



Dr. Kirsten Jalvingh from the University of Lausanne, Switzerland, roasting marshmallows for her first time in the Blair House,

James to study the predation cost of sexual reproduction for a California

walking stick species, *Timema* spp. Kirsty is in residence at the James for the duration of her common-garden experiments which she conducts at the UCR campus. Research at Oasis de los Osos has also increased. This desert site has become a part of a more regional study of Sahara Mustard (Brian Alfaro, University of New Mexico). Los Osos is one of Brian's sample sites for a study that examines seed dispersal and gene flow of this invasive species across the Mojave and Colorado Deserts.

The James Reserve supports several continuing research projects. One of the longest running on-going projects is the reintroduction of the Mountain yellow-legged frogs (2010-present). Some of these frogs should be reaching reproductive age. We will be looking for tadpoles in Indian Creek this summer. Fingers crossed! Returning for their second year at the James Reserve are Kevin Loope (Post-doctoral



Researcher, UC Riverside) and Will Petry (PhD candidate, UC Irvine). Kevin studies nest mate recognition in yellow jacket wasps (*Vespula pensylvanica*). Will examines the invasive plant species English plantain (*Plantago lanceolata*) to monitor climate change. Richard Tanner of Tanner Environmental Services also returned for his second year in a row to survey for spotted owls; however Richard has been monitoring Spotted Owls in the San Jacintos for many years. Additional information on these projects can be found at our website (<http://james.ucnr.org/research-activities/>).

At Oasis de los Osos, Sarah O'Neill (PhD candidate, UC Riverside) continues to investigate the impacts of the invasive Sahara Mustard (*Brassica tournefortii*) on the desert soil arthropod community. From Dr. Emma Aronson's laboratory, Chelsea Carey (PhD candidate, UC Riverside) from is entering her second year of data collection on Aeolian microbial communities in dust. Both projects demonstrate the range of research projects that are conducted in the uniquely situated desert habitat at Oasis de los Osos that surrounds and isolates the James Reserve and other ecological communities in the San Jacinto Mountains.

James Director, Jennifer Gee, recruited a couple of volunteers to help with the Manzanita project, including unsuspecting UCR staff person, Maggie Tello who thought she was just going to pay us a casual visit. Thanks, Maggie!



Occidental undergraduate students release a quail that they banded with Dr. Gee. In honor of the music festival, "Coachella," they called their weekend in the field "Quailchella 2016."

With the close of this academic year, we will be bidding farewell to Nameer Baker (PhD candidate, UCI) as his project nears completion. Nameer Baker has been collecting data at the James on the impacts of climate change on soil microbes throughout the last few years. He is now ready to analyze

his results and write his dissertation. We wish Nameer the best of luck with this next phase of his work and we look



Manzanita flowers that were collected for Dr. Amy Litt's genetics project



forward to adding his dissertation and publications to the growing body of scientific literature conducted at the James.

Education highlights

Since the last newsletter, the James Reserve has continued to play an important role in the field biology component of many courses that give students hands-on experience with data collection. Dr. Stephen Davis from Pepperdine brought his plant biology class of 32 students to the James. Dr. Vered Mirmovitch from West Los

Angeles College used the James to introduce her mostly urban students to nature. Dr. Jeanne Bellemin from El Camino College brought her field entomology class to sample the insect life of the James. Dr. Edith Allen led a group at the James for the Riverside Metropolitan Museum CalNat course. Dr. Jay Brewster from Pepperdine brought his gifted undergraduates. They are part of distinguished program called National Science Foundation Research Experience for Undergraduates. Sean Quarnstrom from our sister campus at Merced, visited the James to fulfill the field observation module of his undergraduate field

ecology class. In addition to inviting students to the James, sometimes we make trips to bring the James experience to students. We arranged for one of our graduate students to give a presentation to Environmental Science high school students Idyllwild Arts Academy. In the same spirit of taking the show on the road, Jen helped four Occidental undergraduates with scheduling conflicts to make up a field trip for their Avian Biology course, taught by Dr. John McCormack. The students spent the weekend in the field learning about desert ecology as well as how to catch, band and release quail.

Broader societal impacts

... reaching out to the public

The James and Oasis de los Osos Reserves are uniquely poised to reach out and communicate to the public. In November, Assistant Director, John Laundré gave a public presentation on the trail camera project that captures images of wildlife that lives in the backyards of Idyllwild. His presentation at the Idyllwild Community Center Lecture Series was well attended and followed up with many enthusiastic questions. Dr. Laundré also manned an informational booth for the public at the annual Coachella Valley Wildflower Festival held in March in Palm Desert.

In February, Director Jennifer Gee, gave back-to-back presentations “off the hill” at the Sea and Sage Audubon Conservation Lecture Series at Irvine. She followed up two days later with a presentation at our sister reserve, Sedgwick, in their Public Lecture Series. Jennifer will also participate in the public “Nature of Nature” lecture series the James Reserve co-sponsors with the local Idyllwild Nature Center. As the

James is celebrating its 50th year of being a Natural Reserve, Dr. Gee will give the audience at the Nature Center an overview of the half century of discoveries that have happened at the James. In addition to giving public lectures and presentation, we continue to write a monthly column in the local paper, the Town Crier, and regional magazine, Palms to Pines. Past contributions can be found at our website (<http://james.ucnrs.org/outreach-at-the-james/>).

Upcoming Events

50th Celebration of the James—this June 5th celebration will be coupled with the annual summer meeting of the most important and influential part of the James’ history, the Trailfinders. In addition to the celebration and in



Friends of the San Jacinto Mountain County Park received a \$1,000 Idyllwild Community Fund Youth Grantmaker award at Idyllwild School. Accepting the check from Holly Guntermann was Nature Center Park Interpreter Amanda Allen.

keeping with the Trailfinder tradition of educating youth, we are partnering with the Idyllwild Nature Center to develop a Junior Ranger program that is based at the James Reserve. The new cohort of rangers will be getting training at our 50th. We have also opened the event to our Idyllwild and UCR



families and friends. It promises to be a day of good presentations, good memories, good music and just good old-fashioned fun!

The Art of Science—

In collaboration with the Art Alliance of Idyllwild, the James will host a workshop where we will bring children, art, and science together at the James. Six artists will be paired with six researchers. Scientists will lead 12-18 year old students in activities related to research that they conduct both at the James and around the world. The artists will build on those research themes during the afternoon session, using artistic media to help really understand the science. Topics range from blue-belly lizards to collecting and preserving plant specimen for herbarium collections.

Images of the James—The James will host a photography contest in partnership with the Art Alliance. The best images will be selected to be included in the 2017 Town Crier calendar, dedicated to the James. In addition to the calendar, Middleridge Winery Tasting Gallery will host an exhibit of the James Reserve images in the upstairs gallery at the brand new Middleridge Winery tasting gallery in Idyllwild (<https://www.middleridge.com/About-Us/Our-Tasting-Room>). We plan to use this art showing to share more about the history of the James, including Harry James' passion for photography.

All in all, our calendar is beginning to fill for the summer. We'll have lots to report in our fall-winter newsletter!



The Hale Library where the Trailfinders will gather for their annual fall meeting (November 7, 2016).

Trailfinder News

May 2016

Fellow Trailfinders and Friends,

In the name of Harry and Grace James, the Trailfinders continue to provide support to the purpose, programs, facilities, and staff of the James Reserve. We hope to see a number of you at its 50th Anniversary celebration this coming June 5. This year, Roger Samuelsen who led and guided the UC Natural Reserve System through its formative years will be joining us again.

We are happy to announce that our November 2016 lunchtime reunion will once again be held in Pasadena. Jim Moule has access to our using the library room of the historical Hale Solar Laboratory located between Cal Tech and the Huntington Library. Food will be provided without cost, but an RSVP will be needed. Monday the 7th is our target date.

At our last November meeting at my home in Whittier, among other reports we learned how Peter Pohl made his way from the Zillertal of the Tryol to Southern California and how he learned to swim underwater with his eyes open. You'd never guess.

Lolomi,

Jim Halley

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Update: 50th Anniversary of the James – June 5th, 2016





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If you wish to support the James Reserve, you can make a donation in the following ways: Please make your check to the “UCR Foundation” and write in the memo line “James Reserve-200330.” Do include a note if your gift is in honor or in memory of a friend or loved one. Mail to the UCR Foundation, 1136 Hinderaker Hall, Riverside, CA 92521. You can also donate online by going to <https://advancementservices.ucr.edu/AdvanceOnlineGiving/search> . Choose “College of Nat & Agr. Science and under that follow the link to “Natural Resources” and then “James San Jacinto Mountains Reserve. Thank you!

