

INFECTIOUS DISEASE UPDATES

By Sara Souza

Lyme & Other Tick-Borne Diseases

It's springtime, peak season for wildflowers and ticks! Avoid wooded and brushy areas with high grass and leaf litter; walk in the center of trails. Find and remove ticks from your body as soon as possible. Examine gear and pets. (from [Preventing Tick Bites](#), CDC).

"New tick-borne diseases are cropping up across the country. Over the past 50 years, scientists have discovered not only Lyme disease but at least 11 other diseases carried by ticks. And the diseases are steadily spreading."

- [Beyond Lyme: New Tick-Borne Diseases On The Rise In U.S.](#) (NPR report March 11, 2017)
- [Lyme Disease in California](#) (UC Integrated Pest Management)
- [Interactive Map of Lyme Disease and Tick Surveillance in California](#) (CDPH)
- [Proper Removal of Attached Ticks](#) (CDC)

Valley Fever

[As Valley fever cases spike, experts say awareness is vital](#) (Sacramento Bee) Sammy Caiola, March 8, 2017

Locally, doctors at UC Davis also have seen an increase in Valley fever infections. In October 2015, UC Davis doctors identified five cases; last October they had more than 20.

"Essentially about four months ago we noticed a huge spike in positive samples," said Dr. George Thompson, co-director of the Coccidioidomycosis Serology Lab at UC Davis Medical Center.

Difficult to diagnose because its symptoms can resemble the flu or pneumonia, Valley fever spreads through airborne spores from a fungus called coccidioides, Thompson said. The disease, which primarily lives in the soil in the West and Southwest, usually is brought to the surface by agricultural, construction and other outdoor work.

Full article: <http://www.sacbee.com/news/local/health-and-medicine/article137271023.html> [Preventing Work-Related Valley Fever](#) (CDPH)

Zika

Zika virus is transmitted to people primarily through the bite of infected *Aedes aegypti* mosquitoes (also known as yellow fever mosquitoes) or *Aedes albopictus* mosquitoes (also known as Asian tiger mosquitoes). These mosquitoes are not native to California. To date there has been no local mosquito-borne transmission of Zika virus in California. Thus far in California, Zika virus infections have been documented only in people who were infected while traveling to areas with ongoing Zika transmission, through sexual contact with an infected traveler, or through maternal-fetal transmission during pregnancy. Zika virus during pregnancy can cause microcephaly and other severe brain defects in infants. Additionally, there is an association between Zika and Guillain-Barré Syndrome (GBS), a disease affecting the nervous system.

As of March 17, 2017, there have been 524 travel-associated Zika virus infections in California. CDPH centers and programs continue to monitor Zika virus disease. Further information: [CDPH Zika Updates](#)

Field Safety Has No Borders!

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Planning

Limited access to services and medical care, unreliable communications and changing conditions – these risks are inherent to a broad range of field projects. Key safety principles to support *all* field researchers:

- Do a hazard assessment; review location intel, be familiar with local norms and endemic risks
- Consider transportation options and road safety
- Prepare and get relevant training; discuss concerns and precautions
- Establish communication and check in procedures; acknowledge the risks inherent to working alone (see attached poster)
- Know your resources, how to get help; register your trip for UC travel program support via Connexus or [UC Away](#)
- All of these actions can be documented and shared via a **Field Safety Plan**. A sample template can be found [here](#)

Many researchers are using UC's travel services, but there's still outreach to do. According to trip registration data from UC Away for 2016, almost 10,000 trips were registered with the purpose identified as research. And the destinations are broad, Berkeley researchers alone travelled to over 450 unique airport codes in 2016! (Please note incomplete data; trips booked via Connexus do not collect purpose of trip).

Risk Assessment

Top reasons researchers get into trouble, per a recent NSF report on field safety risk management, include **lack of field experience, pushing limits, cavalier or complacent attitude and dumb bad luck**. Three of these can be addressed – but it's critical to acknowledge that in natural environments not all hazards can be controlled. These factors considered in a University context:

- *Lack of field experience*: There is high level expertise among faculty and research scientists, career staff; but often limited experience among students and new grad student researchers. Mentoring, training and collaboration are critical.
- *Pushing limits*: Field safety plans should acknowledge "No Go" criteria, conditions recognized too unsafe to continue, such as high winds, lightning or washed out roads. While leading a research trip is not the best time to push limits. Effective leaders establish boundaries and "No Go" criteria, and stick to them. Stepping back is difficult when focused on research goals, but crucial for the ultimate success of the project.
- *Cavalier or complacent attitude*: Set the tone for a safe trip; promote safe choices, actively listen to concerns. It's an uncomfortable and potentially dangerous situation when a trip leader is too cavalier or complacent. Ideally all group members have the confidence and assertiveness to speak up about unsafe conditions or concerns.
- *Dumb bad luck*: Okay, accidents happen. Could better planning, training or leadership keep that unplanned situation from getting worse? Can a life be saved? Always have a plan in place in case of an emergency!

Additional guidance related to risk assessment, decision making and effective communication are available in the new UC Field Operations Manual.

NEW: UC FIELD OPERATIONS MANUAL NOW AVAILABLE ONLINE!

Content includes best practices for trip leaders, planning, training, risk assessment, effective communication, common field hazards, and campus resources and policies. Topics will expand as technical guidance and best practices are compiled.

Unique References and Model Programs

University of Alaska Fairbanks

Field Safety Program (Remote travel plans, skills/survival training, hazard assessment procedures): <https://research.uaf.edu/research-process/field-safety>

University of Toronto

Safety Abroad Program (includes workshops for grad students, H&S guidance, high risk travel, etc.): <https://www.studentlife.utoronto.ca/cie/safety-abroad>

NSF Workshop Report

[Arctic Field Safety Risk Management](#)

Training Update

This academic year, 120 field researchers and staff have completed Wilderness First Aid and CPR training coordinated through the CoE at UC Berkeley, Yosemite Field Station, Hastings Reserve and UC Riverside. This popular class builds skills in first aid, planning, decision making and leadership relevant to outdoor work. Many campuses also offer WFA through their outdoor recreation programs. Additionally, Field Safety Planning Workshops have been offered to share resources, review lessons learned in the field and promote safe work practices. For future dates or to request training, visit the UCOP [Field Research Safety Center of Excellence](#) website.

Questions? Please email sarasouza@berkeley.edu. Thanks for your interest and support! Sara Souza – Health & Safety Advisor, UC Field Research Safety Center of Excellence

Boating Safely for Science

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They provide National Association of State Boating Laws (NASBLA) approved courses and teach the SBSA recognized Motorboat Operator Training Course, (MOTC) along with additional skill based specialty boating modules. Through these cooperative training standards that were established in partnership with Federal agencies such as National Oceanic Atmospheric Agency and the US Fish & Wildlife Service, our scientists receive formal training with operational field standards that afford reciprocity when working on collaborative research projects.

Watercraft safety training has historically been challenging for universities, state and federal agencies to obtain for their research personnel. Throughout the UC and SBSA, they are working together to increase training access and availability for our research teams to help with operational field planning, risk assessment, hazard mitigation efforts and providing rescue and emergency care and response training. They host several training opportunities each year, and also export training to other remote research field sites. Formal courses and small group training is available for paddle craft, motorized boats and emergency care skills.

Our goal is to ensure all of our scientists that rely on boats for their research have access to the essential tools, knowledge and performance based skills that help them perform their field work in a safe, legal and efficient manner. The most important asset the University has is its' people, with safe and effective boating techniques we have highly capable scientist that are able to obtain more consistent data with stronger results.

For more information contact your UC Campus Boating Safety Officer:

UC Davis: James Fitzgerald, 707-875-1933, boating@ucdavis.edu

UC Santa Barbara: Eric Hessell, 805-893-4559, eric.hessell@ehs.ucsb.edu

UC Berkeley: Jim Hayward, 510-642-1298, ucbdiver@berkeley.edu

UC Merced: Jim Hayward, 510-642-1298, ucbdiver@berkeley.edu

UC Santa Cruz: Steve Clabuesch, 831-459-4286, srclabue@ucsc.edu

UC San Diego Scripps: Brett Pickering, 858-337-4261, brett@ucsd.edu

Inspect Testimonial

By Enrique (Rick) Alvarado, Safety Specialist EH&S UCSB

In August 2016, UCSB EH&S Director John Sterritt tasked me with looking into the INSPECT APP being created by UC Risk and Safety Solutions. At first I was reluctant to do so since I already had a successful, functional app. I met with Joan Burg and Moira Heilmann from the development team about a month later to talk about the Inspect App and its possible capabilities. I showed them what I had to work with currently and they were impressed, but told me they could create a similar tool that would eventually do even more. I spoke with my Supervisor, John Seaman and we both agreed to jump in feet first. We realized we had nothing to lose and a lot to gain. Our initial goals were to develop a tool that increased productivity, provided a system to track data and metrics, and have the ability to store information in the cloud.

This was not our first foray into using or helping create a mobile based tool with the above attributes. Four years ago we were shown an up and coming company using a similar type of technology. John Seaman and I immediately jumped at the chance to use it and became very knowledgeable with the first version, as BETA testers for this company. Over the first year I worked on helping create a usable application that could help our unit do several different types of inspections. These included shop safety, AED, Fall Protection Equipment, and Field Checks. I personally learned a lot from this experience and our unit became more productive and pro-active at UCSB. After a while it became apparent the tool we were using had some limitations. There were also limitations on how many users had access to the tool and sharing data.

A few months into this project Joan Burg became my primary point of contact. From our side of the project I knew what mistakes had been made with our prior tool and what I wanted to avoid. Joan was masterful in the way she navigated me through functions always under promising and over delivering time after time.

How is this tool effective for my unit? It's paperless for one, with all information stored in the cloud. Most smart phones and tablet devices are compatible. Production has increased by saving time and energy when in the field. Other UCSB staff will be granted user access to the APP and eventually be able to conduct their own equipment and/or facility self- inspections. Finally, the App gives us the ability to track and crunch data, showing up to date information on all completed inspections. This includes drafts, pending, and completed inspections. Inspections can be saved in a draft format for either editing or supervisor review from a computer.

All this can be done from the dash board, which allows administrators to track all the inspections the team has completed. Another feature shows me what issues have been identified, their priority level, and required corrective action. The completed report is emailed to the reporting party and they are given simple directions on how to view the inspection, identify what needs to be corrected or it lets them know they are in compliance. I could go on and on about the Inspect APP and how it is revolutionizing our units productivity and efficiency.

I would like to thank Joan, Moira, and the Risk and Safety Solutions staff for their patience and open minds while working with the UCSB EH&S/General Safety team.



CONNECT

Know where to turn on your UC campus for the information you need to keep yourself, your workplace and your environment safe and secure. Click on the campus links below to connect to local program, educational and informational resources.

[UC Berkeley](#) • [UC Davis](#) • [UC Irvine](#)
[UCLA](#) • [UC Merced](#) • [UC Riverside](#)
[UC San Diego](#) • [UC San Francisco](#)
[UC Santa Barbara](#) • [UC Santa Cruz](#)
[UCOP](#) • [UC ANR](#)

RESOURCES

- [It Takes A River: A 135-Mile Journey Down The Colorado](#)
- [Grand Canyon Journey](#)



FEEDBACK PLEASE

Send an email to safetyspotlight@ucdavis.edu to submit your comments on the February issue or to suggest content ideas for future issues. We look forward to hearing from you!

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