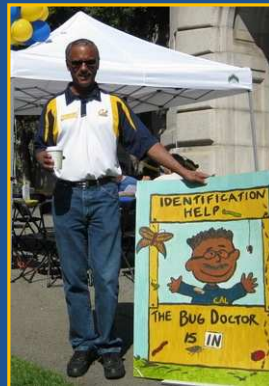


# Hungry Bears

UC Berkeley, Urban Pest Management Center



Left: Kids at Cal Day try to identify termites while wearing balloon bug hats handmade by our team members.



Right: Vernard Lewis was available all day to identify insects for Cal Day participants.

**May 2009**

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"As we continue our efforts we will bring exciting research findings and outreach to the State's PMPs, industry, and consumers."

## A Note from Our Fearless Leader

The Urban Pest Management Center (UPMC) is in its second year of research and outreach to pest management professionals (PMPs) and consumers. Much has been accomplished since our initial launch of the May 2008 newsletter. The sections that follow feature bed bugs, drywood termite research, and 2008 and planned 2009 fund-raising golf tournaments. Please read the section written by one of the 2007 PCOC scholarship award winners who has recently graduated from UC Berkeley and has won an internship with Dow AgroSciences (<http://www.dowagro.com>). As we continue our efforts we will bring exciting research findings and outreach to the State's PMPs, industry, and consumers. In 2008 we enjoyed successful fund raising; however, the fiscal year starting July 1, 2009 looks especially challenging in retaining UPMC staff and continuing our outreach effort. Some of the articles in this newsletter list ways to participate in the fund raising efforts. Your participation especially in the December 10, 2009 golf fund raising event at the Silver Rock Resort in La Quinta, CA (<http://www.silverrock.org>) will go a long way in keeping UPMC alive and actively addressing structural pest control needs in the State. See you in La Quinta!

Vernard Lewis  
Executive director, UPMC



## Everyone is Invited! Don't Miss the 2009 Golf Tournament

**Date:** Thursday, December 10<sup>th</sup>, 2009      **Time:** 11:30 AM Shot Gun Start

**Location:** Silver Rock Resort (<http://www.silverrock.org>) in La Quinta, CA  
We are fortunate to have this beautiful course reserved for another year!

Sign up soon because space is limited! For registration forms and prices please see our website (<http://nature.berkeley.edu/upmc/golf.php>) or contact:

Curtis Good, Newport Exterminating  
(949) 261-0700 Ext. 210  
CURTISG@NewportExterminating.com



## Thank You, Your Support Helps Keep Us Going

As we prepare for the next golf tournament, we need to remember those who supported us in the past. Please visit our website ([http://nature.berkeley.edu/upmc/golf\\_2008.php](http://nature.berkeley.edu/upmc/golf_2008.php)) for a list of the sponsors and players who made the 2008 tournament a great success. Not listed on this site are those who worked hard behind the scenes. We are extremely grateful for PCOC, our colleagues, and our friends and family who endured the planning of this wonderful event.



Keith Gilliss, Dean of CNR at UC Berkeley, and Vernard Lewis at the 2008 UPMC golf tournament.



Todd Shelton and Jeff Harmon from Newport Exterminating having fun at the tournament.



Dean Wiley helping us set-up the day before the tournament.

## SPCB Funded Contracts Update: We're in the Home Stretch!

For several years, the UPMC has conducted research on two Structural Pest Control Board (SPCB) funded contracts that will benefit PMPs and consumers. The first contract involves five research objectives: evaluating devices for enhancing drywood termite detection (lab and field), use of molecular techniques to identify drywood termite colony dynamics, use of chemicals contained in drywood termite pellets to determine active infestations, and the use of computerized feeding devices to determine drywood termite feeding activities and patterns. A second contract will report results from a field study to determine the efficacy of six commonly used pesticides to locally treat for drywood termites. In total, there are six research objectives for both contracts. Work has been completed on two of the objectives (pellets and feeding activity) and the results and preparations for the final report to be submitted to the SPCB are in progress. Work continues on the four remaining objectives (laboratory and field comparisons of detection devices, molecular genetics, and field studies comparing localized treatment products). However, this work will be completed by the June 30, 2009 contract ending date. I anticipate three additional months will be needed to complete the final report for submission to the SPCB. Preliminary laboratory results from UC Riverside and UPMC on the efficacy of six chemical products to locally treat for drywood termites have already been reported and are available in the PCOC Voice Spring 2009 issue or on our web site (<http://nature.berkeley.edu/upmc>). The next issue of our newsletter should be released later this year and will have additional research updates. So make sure to check the UPMC website from time to time to view some of these exciting discoveries. Sneak previews on what will appear in a future newsletter include new molecular methods to determine drywood termite colonies, seasonal preferences in feeding, chemicals associated with drywood termite pellets, and more!



Left: A computerized Acoustic Emission Device (AED) monitoring drywood termite feeding patterns.

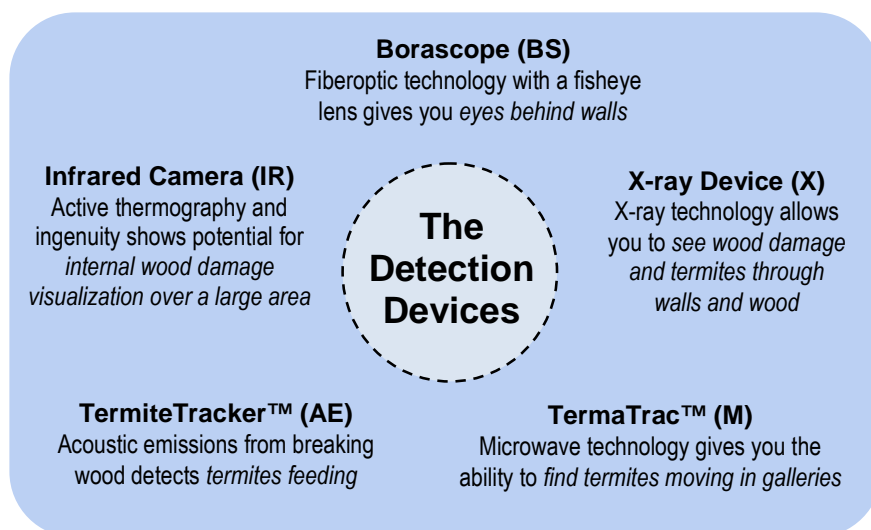


Right: Evaluating an X-ray device for drywood termite detection.



## Drywood Termite Detection Devices: How Do They Compare?

In 2007 we were awarded a State contract to evaluate five non-destructive detection devices for drywood termites in a laboratory setting. We have devices that detect termite feeding and movement in wood, and others that can show internal wood damage. The devices are being tested in the Villa Termiti, a building at the Richmond Field Station (RFS) that was built for urban entomological research in 1993. The experimental design is simple: there are three groups of structural boards and each group consists of one non-damaged board without termite activity, one damaged board without termite activity, and one damaged board with termite activity. Each detection device will be used on all boards and will then be compared.

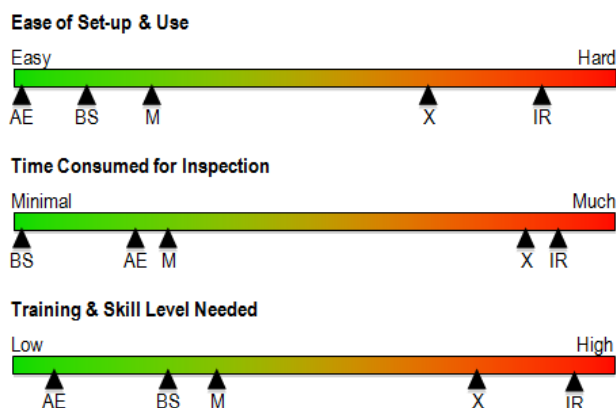


### Why is detection important?

The success of any treatment is dependent upon accurate detection. From a broad area of drywood termite activity, a PMP using these detection technologies has the ability to assess how active an infestation is, how expansive it is and can determine specific areas, like galleries and chambers, to target during treatment. There will be fewer holes drilled, less pesticide wasted and a decent idea of what is going on in the wood before and after treatment. Fine tuned detection takes the guesswork out of local treatments.

Sara Moore  
Staff Member, UPMC

### Detection Device Stack-up



## Don't Let the Bed Bugs Bite Act of 2009

As many of you know, a grant program to assist states in developing bed bug educational programs for the public and hotel industry is being considered by several congressional committees with H.R. 2248 "Don't Let the Bed Bugs Bite Act of 2009". This bill has been sent to the House Committee on Energy and Commerce and the House committee on Financial Services. UC Berkeley and the UPMC are already in a position to address some of the requirements this bill is proposing, namely, educating the hotel industry and the pest management industry as well as researching control measures for bed bugs. Dr. Lewis has committed to two new individuals joining the lab this summer to study various aspects of bed bug biology and control. The lab has already conducted research on heat treatment, mattress encasements, and currently we are conducting a trial on various control measures and feeding behaviors of bed bugs. We continue to lead the State in providing expert witness testimony on the biology and control of bed bugs as well as consulting with the hotel industry, multi-unit housing, nursing homes, day care centers, etc. on issues pertaining to this insect.

We are asking you to contact your congressional representative letting them know of the services we have provided to the industry in regards to bed bug education, research and hotel consulting and education. You can find your representative's contact information at: <http://www.congress.org>



You can also contact the committees for H.R. 2248 directly at: <http://www.govtrack.us/congress/bill.xpd?bill=h111-2248&tab=committees>  
Click on "House Energy and Commerce" and "House Financial Services" at the bottom of page to see the California committee members determining whether the bill will move forward to the Senate committees. Thank you everyone for your continued support of our efforts.

Gail M. Getty  
Director, UPMC

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<http://nature.berkeley.edu/upmc/>

**If you would like to make a  
tax deductible donation to  
the UC Berkeley UPMC,  
please print the form below,  
follow the instructions, and  
mail it back to us.**

## One of Our Team Members Graduated From UCB

Lynette Yang, a UCB student who has been working as a lab assistant in Dr. Lewis's lab since 2006, graduated from UCB this May. Lynette has worked on multiple research projects, has helped organize and plan the UPMC golf tournaments, and has been a dear friend to all UPMC staff members.

### An Update from Lynette:

- I completed my senior thesis, which was about the strategies for termite IPM in developing countries as prescribed by committees in the United Nations. The **PCOC Scholarship** allowed me the time to conduct independent research and write about a topic that I care deeply about. **Thank you again, PCOC!**
- I am a Cal alumna as of May 2009! I received degrees in Conservation & Resource Studies (B.S.) and Society & Environment (B.S.), with honors.
- I have a three month internship with **Dow AgroSciences** from July through October. I will be doing field research on herbicides and trying to define "green." I look forward to possible employment opportunities where I can apply my research and policy background.



Vernard Lewis and Lynette Yang at the graduation reception

Dr. Vernard Lewis  
Executive Director

Mike Haverty  
Visiting Scientist

Gail Getty  
Director

#### Urban Center Staff

Robin Taylor  
Assistant Director

Shawn Leighton  
Sara Moore  
Lynette Yang

I would like to support UC Berkeley's Urban Pest Management Center. Please accept my tax deductible donation for the laboratory of Dr. Vernard R. Lewis, made payable to **UC Regents**, in the amount of:

\$100

\$250

\$500

\$1,000

\$ \_\_\_\_\_

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e-mail: \_\_\_\_\_

Mail to:

Dr. Vernard R. Lewis

c/o Robin L. Taylor

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