

Hungry Bears

UC Berkeley, Urban Pest Management Center

Visit us online at: <http://nature.berkeley.edu/upmc>



SilverRock Resort, La Quinta, CA

The 2009 Golf Tournament is Only Two Months Away!

Date: Thursday, December 10th, 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



Forging Ahead in a Difficult Time

As we all know the State's budget woes have severely affected the University. That includes my laboratory and the Urban Pest Management Center. The good news is that we are still in business, thanks to all your support. A recent feature that has been added to the center web page to make gift giving easier is a blue button called "donate." Upon pressing this button, you will be directed to another University web site where you can give to the Lewis lab and center simply using a credit card. Yes, you will receive a receipt as a tax record from a non-profit organization and a very appreciative thank you note.

This is our third center newsletter. This issue contains much new and exciting information on bed bugs and drywood termite detection.

Please don't forget, now is the time to sign up to participate in the December 10, 2009 golf tournament at the Silver Rock Resort in La Quinta, CA. Funds raised at the tournament 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

October 2009
Volume 2, Issue 2

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"As we all know the State's budget woes have severely affected the University. The good news is that we are still in business, thanks to all your support."



Vernard Lewis ready to present at the "evening with Entomologists" talk in Hollywood, CA (Sept. 2009)

Update: Financial Outlook and Federal Bed Bug Bill

Your UCB Urban Pest Management Center continues to remain focused on the goals of providing new and innovative research and support to industry and the public in these difficult economic times. We thank all of you that continue to offer support not only in donations, but in calls and emails inquiring about the health of the lab and the people dedicated to its success. The upcoming 2010 year is gearing up for major financial hurdles, however we have forged ahead each year and through your support managed to do what we love most; maintain a strong bridge between the University of California, scientists, research, industry and the public.

We want to thank those of you that have inquired about making on-line donations via credit cards and we are happy to announce that with a click of a button on your UPMC website: <http://nature.berkeley.edu/upmc> this service is now available. Dr. Lewis recently commented that Public television's (KQED) strongest financial base is their listener's donations which tend to be under \$50. How remarkable! These donations represent "unrestricted" funds, a beautiful word in research.

HR 2248, the Federal Bed Bug Bill remains in Committee. Please take the time to be heard on this important topic via the link to your Representative at: <https://writerep.house.gov/writerep/welcome.shtml> and let them know that the University of California, Berkeley and specifically the laboratory of Dr. Vernard Lewis continues to be a leader in bed bug research.

Gail M. Getty
Director, UPMC



Gail Getty presenting at NPMA's Bed Bug Symposium in Seattle, WA (August 2009)

SPCB Research Contracts: One Completed and One More to Go!

The final reports for the State funded evaluations of drywood termite local treatments has been completed and submitted to the SPCB. At a recent PCOC San Gabriel meeting held in Hollywood, both Drs. Lewis and Rust gave new information on field and laboratory findings on the effectiveness of six products for locally treating drywood termites. The meeting was well attended, over 200 people, some in attendance coming as far as Georgia and Florida. The presentations were well received and generated many questions from the audience. Both UC Berkeley and Riverside reports can now be found on the SPCB web site (Berkeley - http://www.pestboard.ca.gov/howdoi/research/2009_field_rpt.pdf and Riverside - http://www.pestboard.ca.gov/howdoi/research/2009_drywood_rpt.pdf).

The second Board funded research contract entitled "Assessment of Devices and Techniques for Improving Inspection and Treatments for Inaccessible Drywood Termite Infestations" is nearing completion. I have promised the Board that I will send the final report to them before the January 2010 meeting. This report will contain a number of new and exciting discoveries and observations on drywood termite biology, behavior, and effectiveness of detection devices. Some of the high lights that will be featured in this final report will include the effectiveness of infrared, microwave, and borascope devices. Other new information to the science of drywood termites also included in the report are biological definition for a drywood termite colony and possible number contained within infested boards, and what hour of day and month of the year drywood termites feed the most. So make your plans early for attending the Board meeting and check the UPMC web page for featured result updates for both Board contracts in the coming months.



Robin and Sara taking AE readings at a drywood site (Mike Red is in the window!)



Testing the x-ray's ability to take an image through the Villa roof

Project Update: Drywood Termite Detection Devices



Testing the microwave device and its ability to detect drywood termites

A Refresher Note: This project is aimed at assessing the detection capabilities of five different devices: a TermiteTracker™, a TermaTrac™, an x-ray device, a borascope, and infrared camera. After all devices have been assessed, termites will be dissected from boards.

Project Status: Data collection for this project has taken longer than expected, but is nearly 100% complete, and requires only for board dissections. So far, none of the data collected has been looked at in a formal way. However, formal data is only one bank of important information. Another bank of information comes from the act of data collection, since this process pseudo-mimicked field conditions.

What the process of using the detection devices has taught me is that detecting drywood termites is *hard*. Even with helpful technologies, I still feel as if I am probing in the *dark*. It is clear that no one device can suffice alone. There must be a *combination* of detection devices used.

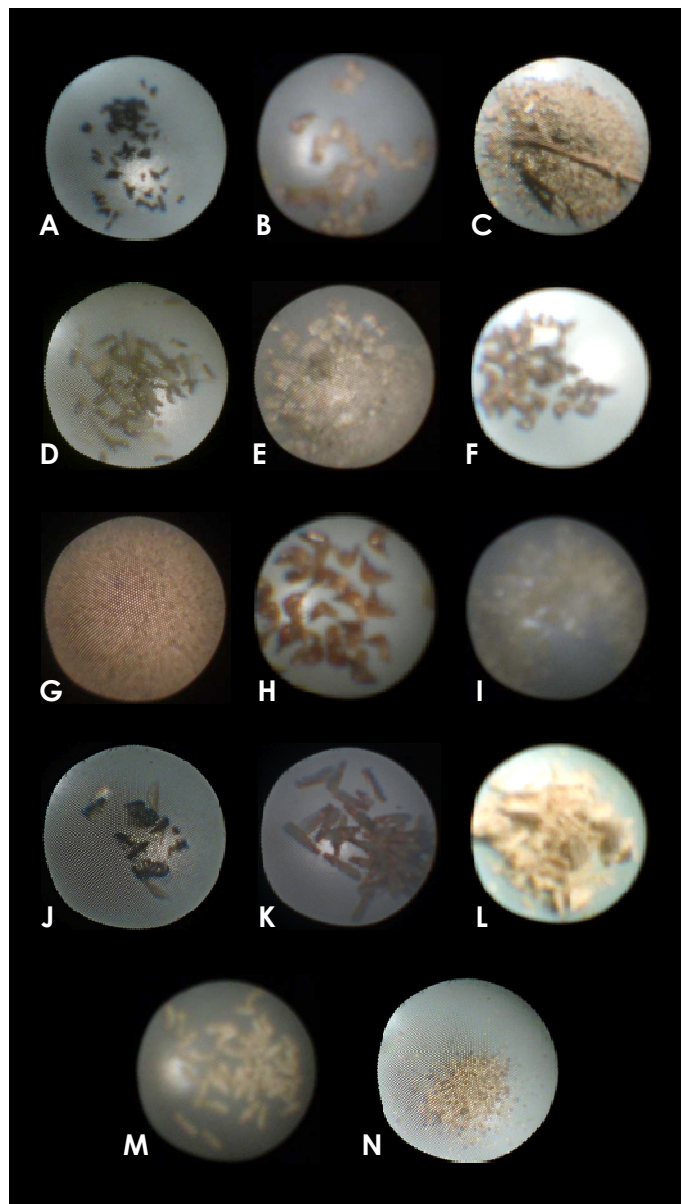
Boroscope Identification Challenge: To assess the capabilities of the borascope we designed two experiments - a bench top exercise and a field exercise. The bench top exercise was meant to familiarize test participants with the borascope. Item possibilities ranged from common arthropod species in walls, to debris and other superfluous items commonly found in kitchens. Each participant tried to accurately identify 42 items (items were redundant). Participants said that the field exercise was considerably more difficult than the bench top exercise. The field exercise consisted of 28 wall voids treated with one of seven treatments (E.g. 0.5g pellets or debris without pellets).

The following pictures are examples of items in the test and were taken with a digital camera through the borascope lens. Can you identify these items? (Answers on pg. 4)

Sara Moore
Staff Member, UPMC



Boroscope set-up for the bench top exercise



University of California, Berkeley
Richmond Field Station

1301 South 46th St.

Building 478

Richmond, CA 94804

Phone:

Robin Tabuchi

(510) 665-3661

Fax:

(510) 665-3427

E-Mails:

ggetty@berkeley.edu

rtabuchi@berkeley.edu

Web Site:

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

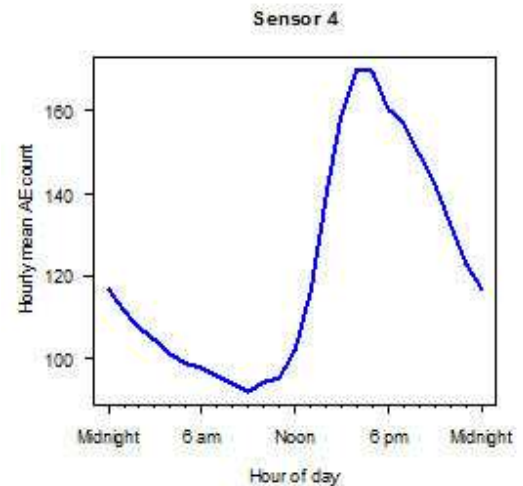
**If you would like to make a
tax deductible donation to
the UCB UPMC, please print
the form below, follow the
instructions, and mail it back
to us (Or donate online!).**

Determining Drywood Termite Feeding Patterns

In our last newsletter, Dr. Lewis briefly discussed a project we were working on involving the use of computerized feeding devices to determine drywood termite feeding activities and patterns. Before looking at the graph below, try and guess the time of day when drywood termites feed. After making your guess, look at the graph. Were you close? This graph shows a correlation between drywood termite feeding and the time of day. In future newsletters, we will present more results from our drywood termite feeding behavior trial.



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



Boroscope Challenge Answers:

A - Argentine ants **B** - Drywood termite workers **C** - Debris with pellets
D - Subterranean termite alates **E** - Sand **F** - Drywood termite soldiers (4cm)
G - Pellets (4cm) **H** - Drywood termite soldiers (2cm) **I** - Sugar (2cm)
J - Carpenter ants **K** - Drywood termite alates (4cm) **L** - Wood shavings (2cm)
M - Subterranean termite workers **N** - Pellets (4cm)

Dr. Vernard Lewis
Executive Director

Mike Haverly
Visiting Scientist

Gail Getty
Director

Urban Center Staff

Robin Tabuchi
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

\$ _____

e-mail: _____

Mail to:

Dr. Vernard R. Lewis

c/o Robin L. Tabuchi

University of California, Berkeley

1301 South 46th Street, Bldg. 478

Richmond, CA 94804-4698

