

# Pi Chi Omega News



Summer - 2012

## Message from the President

Greetings Members of Pi Chi Omega!

I hope that you are enjoying a great pest season. It's crazy! It's difficult to say what's going to happen next when you've never seen winter and spring weather like this, and summer just came in with a bang in most areas of the country. Not to mention the regulatory climate lately. It's kind of crazy too.



**Dr. James E. Sargent**  
*President*

In my last letter, I had three requests of members:

1. Pay your dues. By now you should all have the 2012/13 dues invoice. Place it on top of your "to do" pile; it will make Vern happy!

2. Contact a delinquent member. A list of members that are in arrears with their dues is included

with this newsletter. This is important since these members are subject to losing their membership for non-payment of dues when we meet in Boston at PestWorld 2012.

3. Nominate a deserving person for membership. There are many well qualified professionals in our industry that just have never been asked to join the fraternity. The membership nomination form can be downloaded from our web site ([www.pichiomega.org](http://www.pichiomega.org)).

***These three requests should be perennially on your mind!***

I also ask that you give some thought to potentially good service projects for our fraternity - projects that would be worthwhile and exciting for our members. Many companies and universities are receiving requests from various government agencies to donate a bed bug treatment to shelters or low income housing. Maybe we could develop a goal, such as a number of donated treatments, including customer education and training to supplement the actual treatments. The results of these treatments could then be published in our newsletter and the local news

media, to get some public recognition of our efforts to create a healthier environment for the occupants of the treated premises. Special recognition should also go to individuals and companies for donated time, efforts and materials. Please let me know your thoughts on the above. Should you have any other suggestions for a potential project, also please let me know. I am looking forward to hearing from you.

My second request is an easy one. As mentioned above, take a minute every now and again to check our website for information and up-dates on fraternity affairs.

(<http://www.pichiomega.org>)

In addition to the membership nomination forms, you will find other documents.

Gerry Wegner's guideline document on providing free pest management services in the community could be very useful if we decide to go forward with the aforementioned bed bug control services.

The deadline for scholarship applications was March 31, 2012. The scholarship committee had difficulties choosing four recipients from the many well qualified applicants. The committee, under the guidance of Terry Whitworth, deserves a vote of thanks and appreciation for their dedication to this project every year. The four recipients are featured on page three of this newsletter along with a brief summary of their current research projects. I think it would be very exciting if there was a way to make the formal presentation of the scholarship checks in front of the fraternity's membership. Any ideas as to how that could be organized will be greatly appreciated. This might be a way to attract more donations from both companies and/or individual potential donors.

In closing, I hope that you all have a productive and profitable season.

Sincerely,  
Jim

### 2011-2012 Board Members

**Dr. James E. Sargent**  
*President*

**Kim Kelly-Tunis**  
*President Elect*

**Dr. Cisse Spragins**  
*Past President*

**Dr. Stuart E. Mitchell**  
*Director/Secretary*

**Dale A. Baker**  
*Director*

**Roland L. Rhodes, BCE**  
*Director*

**Dr. Eric Smith**  
*Director*

**Dr. Nicola J. Gallagher**  
*Director*

**Vern E. Toblan**  
*Executive Director  
& Treasurer*

**Daniel Moreland**  
*Advisory Member  
At Large*

### 2011-2012 Committee Chairs

**Dr. Terry L. Whitworth**  
*Scholarship*

**Dr. Clay W. Scherer**  
*Membership*

**Dale A. Baker**  
*Web Page*

**Dr. Gerald S. Wegner**  
*Awards*

**Dr. Cisse Spragins**  
*Nominating/Marketing*

**Dr. Stuart Mitchell**  
*Archives*

**David W. Fincannon**  
*Scholarship Fund Raising*

**Dr. Eric Smith**  
*By-Laws*

## ***This & That From Your Executive Director***

First, please accept my apology for the tardiness of this newsletter. The phrase that "time flies by when you're having fun" has never been more appropriate. Our fiscal year ended June 30. This means that now I have to prepare the financial report for our membership and, of course, the IRS. Arrangements have been finalized for our presence at PestWorld 2012 in Boston. (See last page!)

The year 2012 started out quite busy for Pi Chi Omega. The membership dinner meeting was well attended. As you may remember, the fraternity authorized a \$1,000 donation to Purdue University in support of the soon to be finished Entomology-Alumni Centennial Room. Dr. Steve Janinek, head of the department, gave an up-date of the progress and showed some of the decorative materials that will be used. This room will be available for meetings and, in fact, our 2013 Board of Directors meeting will be held there next January.



**Dr. Steve Janinek.**



**Site of future Centennial Room**

In March, I represented Pi Chi Omega at the NPMA Legislative Day in Washington DC. As in previous years, Copesan announced a record contribution of \$15,992 for two nationally recognized organizations providing scholarship funds and research support to the Pest Management Industry. In Syngenta, for 11 years, this Annual Charity more than \$75,000.00 for Pi Chi Omega and Management Foundation. Pi Chi Omega donated \$850 raised in an auction of a unique "Hour" clock. This clock was created and donated by Dr. Gerry Wegner. Pi Chi Omega received a scholarship fund. *Thank you Copesan!*



**Dr. Jim Fredericks**



**Left to right: Russ Ives, Jim Sargent, Vern Toblan, Arie Schroeder, Bryan Cooksey**

association with Raffle has raised the NPMA Pest received an additional "Arthropod of the year" award donated by Dr. Gerry Wegner. Pi Chi Omega received a total \$8,381 for

Unfortunately there is also some sad news. Each year some members - for whatever reason - fail to pay their dues. I need your help! If we don't get these dues collected by Sept 30, 2012, the delinquent members will forfeit their membership. Their names will be presented to the board of directors and subsequently to the membership at the Oct. 19th meeting for a vote on the revocation of their membership. Please check the list of names enclosed with your newsletter and contact anyone that you know to remind them of this action. The dues invoice for the 2012/13 was mailed in June with a special reminder for members in arrears.. Thank you for your assistance with this unpleasant task.



**Adam Salyer—2011  
Scholarship Recipient**

Dear Vern and Pi Chi Omega members,

I wanted to formally thank you and Pi Chi Omega for your kindness and immense contribution through the scholarship I received this past year. I confess I was surprised and much honored to receive it. I have heard nothing but the best things about Pi Chi Omega and, as a result, figured that your organization was out of reach for the likes of a lowly graduate student.

Upon being awarded your scholarship, I realized that Pi Chi Omega also is a very supportive group that helps

foster students in their career goals. Your scholarship has greatly helped me throughout my Masters degree in Entomology at Purdue University. My work would not have been possible (and my wife would have been far more financially stressed!) without your financial support.

I want you and all the other Pi Chi Omega members to know that I am forever grateful for your contribution to my education. Hopefully some day I can join you as a professor and repay you through helping new grad students as you have helped me!

Sincerely,  
Adam Salyer

## 2012 Scholarship Recipients



**T. Chris Keefer, Ph.D. Student -**  
Texas A&M University  
(This scholarship honors Faye and Terry  
Whitworth)

Little is known about *Brachymyrmex* ants, thus his research will focus on the

following areas:

1. Experiments will be done to examine the general biology of this ant and determine its reproductive potential. This will help develop IPM practices for season long control of this ant.
2. Experiments will be done to determine the foraging range and movements of populations, so bait placement can be used more effectively.
3. These ants are a major pest in urban environments and have the same characteristics of other small ants that are known as vectors of human pathogens. Examinations of the vector competence of human pathogens by this ant are planned.
4. *B. patagonicus* are found throughout the southern United States They are difficult to control due to the lack of information about the basic biology and preference in diet. Diet preferences will be examined to help in the production of commercial baits that will be effective to control this ant as it continues to spread throughout the United States.

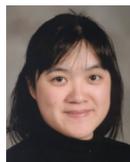


**Margaret P. Lehnert, Ph.D. Student -**  
Clemson University

Assessed the current bed bug (*Cimex lectularius L.*) conditions in South Carolina as viewed by PMPs. Results revealed the challenges PMPs are facing (such as customer cooperation with pre-treatment needs and resistance to prices). PMPs requested more knowledge about the biology and management of bed bugs. Margaret is concentrating her efforts on studying their reproductive biology, as well as the efficacy of bed bug labeled residuals.

In addition, she is assessing the effect of high temperatures ( 57°C for 8 hours ) on bed bug labeled insecticides. Five products are applied to different surface panels (carpet, un finished wood, and metal). The panels are then heated to 135°F for eight hours. Susceptible and resistant bed bugs are exposed to these surfaces and the mortality is measured over time.

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**Reina Koganemaru, Ph.D. Student—**  
Virginia Technical Institute  
Research Title: Reduced cuticular penetration as a contributor to insecticide resistance in the common bed bug (*Cimex lectularius L.*)

Since the 1990's bed bugs have been on the increase because they became highly resistant to pyrethroid insecticides over the past 15 years. While some resistance factors have been reported, (Yoon et al. 2008) and (Adelman et al. 2011) reduced cuticular penetration has not been investigated. LD50 assays have suggested that the bed bug cuticle might play a role in insecticide resistance. Ten Field collected strains are compared to a few pyrethroid-susceptible lab strains.

First, the LD50 of pyrethroid insecticide necessary to kill resistant strains is determined. Second, determine the levels of gene transcription specific to the development of the cuticle in resistant field strain bed bugs. Third, compare the cuticular hydrocarbon profiles of the resistant and susceptible strains. Lastly, compare the thickness of cuticles between resistant and susceptible strains. This research will contribute to the better understanding of resistance and lead to better bed bug control methods.

**Tamra Reall, Ph.D. Student -**  
University of Missouri  
(This scholarship honors  
Dr. Austin Frishman)



Tamra's research objectives are focusing on understanding the ecological and behavioral interactions of entomopathogenic fungi with subterranean termites. She is examining the behavioral, physiological and ecological aspects of this interaction to determine how termites are able to overcome the potentially lethal effects of infection.

Her studies have three objectives. The first will identify differences in the presence-absence and relative abundance of two species of entomopathogenic fungi between soils in forested and urban landscapes. The second objective will identify the presence-absence, gland of origin, and relative effectiveness of fungostatic compounds from *Reticulitermes flavipes* and *Reticulitermes hageni* against *M. anisopliae* and *B. bassiana*. The third objective will examine differences in the behavioral and electrophysiological responses of *R. flavipes* and *R. hageni* to fungal volatiles from *M. anisopliae* and *B. bassiana*.

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***PestWorld – 2012***  
**Sheraton Boston Hotel—Boston, MA**  
**October 17 – 20, 2012**



***Pi Chi Omega Board of Directors Meeting, Wed. October 17, 2012***  
**Sheraton Hotel Boston**  
**Fairfax Room, 8:00 to 11:00 A.M.— Open to all interested members**

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***Pi Chi Omega Membership Breakfast Meeting, Fri. October 19, 2012***  
**Fairfax Room, 7:00 to 8:15 A.M.—Cost \$35.00 per person**

Payment in advance please, by Sept. 30, 2012. We have to give the hotel a guarantee of the number of attendees. At these prices, we can't afford to be wrong. For your convenience, you may combine the \$35.00 with your dues payment.

**Pi Chi Omega Web Page: <http://www.pichiomega.org>**