

*Texas A&M University Department of Entomology  
Fifth Annual Graduate Student Forum*



**Dr. Patricia Pietrantonio**  
Assistant Professor  
Chair, Graduate Student Forum

## *Reflections from the Chair*

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**METAMORPHOSIS...** [*Greek, morphe=form. Meaning: trans-form, change*]

*Cambia, todo cambia; cambia, todo cambia!*

*Cambia el mas fino brillante, de mano en mano, su brillo*

*Cambia rumbo el pajarillo, cambia el sentir de un amante...*

(Latin American song)

*(Changes, everything changes, the finest diamond changes its shine from hand to hand, the little bird changes path, the lover changes his feelings...)*

At a recent scientific meeting a young Chinese-American professor told us about her interest for the genetic control of metamorphosis. She started by saying that a *Chinese legend tells that long, long, long ago men underwent metamorphosis. However, the process was so incredibly painful that men made a deal with the Gods and that in order not to endure metamorphosis any longer this process would be passed to the first creature that men saw when going out to walk in the gardens. And so it was that men saw a caterpillar and the painful metamorphosis was forever given to insects...*

I thought that it is comforting to know that such an old civilization would have produced such an appropriate description on how painful experiencing change is for humans in general.... The false sense of security that we feel in the anticipation on how things are going to be just because that is the way they have always been...

As our Department is taking possibly a new direction under a new Department Head and as we review our Undergraduate Curriculum many colleagues are experiencing the uncertainty that these changes may represent for them: "*Let's do not change it. Again, who said we needed to change? Why change so much? Everything is fine just as it is*". Let's face it: There is no caterpillar out there for us to transfer the painful process to. We need to do it and who knows, we may end up with the most evolved, strong, amazing, colorful, balanced and glittering wings any Department of Entomology has ever had! Only...if as entomologists we accept *metamorphosis...*



*Thursday, August 29, 2002*

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**Michael R. Strand**  
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University of Georgia

***Keynote Speaker***

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Dr. Michael R. Strand attended Texas A&M University where he received a B.S. degree in 1980 and a PhD. degree in 1985.

Upon completing his PhD, Dr. Strand moved to Imperial College, University of London as a postdoctoral fellow. He then spent a short period at Clemson University as an Assistant Professor before moving to the University of Wisconsin-Madison in 1987 where he was promoted to the rank of Professor in 1995. He left Wisconsin this year to accept a position as Research Professor at the University of Georgia where he is affiliated with the Departments of Entomology, Cellular Biology, and the Center for Tropical and Emerging Global Diseases.

Dr. Strand's professional area of interest is parasitology with emphasis on understanding immunological and developmental processes that regulate survival of parasites in their insect hosts. Dr. Strand was awarded a Doctoral Distinguished Achievement Award for Research from the Association of Former Students at Texas A&M University, a NATO-NSF Postdoctoral Fellowship, the Pound Research Award from the College of Agricultural and Life Sciences at the University of Wisconsin, and a Romnes Professorship from the University of Wisconsin Graduate School. In addition to serving on various editorial boards, Dr. Strand has served as program manager for the USDA NRI competitive grants program in Entomology-Nematology and currently chairs the Tropical Medicine and Parasitology Study Section at the National Institutes of Health. He is author or coauthor of approximately 120 publications in refereed journals as well as several reviews and book chapters.



*Thursday, August 29, 2002*

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Dr. Kevin M. Heinz  
Associate Professor,  
Acting Head

**Kevin M. Heinz**

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Welcome to this year's Entomology Graduate Forum. The Forum provides an opportunity for the graduate students to exchange ideas, data, and scientific interpretations with colleagues, faculty, staff, and guests in a semi-formal setting. Each participant has spent at least a year in preparation for this event in terms of planning, conducting, analyzing, and interpreting experiments; as well as developing their own style of presentation. The Department and its guests, greatly appreciate your efforts in making this the best Forum ever. Enjoy your day of interaction before you are swept away by the demands of the semester. The environment for the day is dynamic, exciting, and discovery-driven as your accomplishments and queries are showcased.

One value of science resides in the fact that it provides knowledge that is unassailable. The results of experiments are communicated in such a manner that anyone can reproduce the experiment to see if the same results occur. While communication of results is an essential component to science, it is also the component that most often puts students on nerves. During such times, it might be useful to consider several observations. The scientific story woven by a speaker frequently generates discussion, animated discussion, and discussion that bubbles over into questions to the speaker. Success! You have stimulated your audience to think more deeply on your subject than they had ten minutes previously. Also recall that curiosity and inquiry are necessary components to science, and most likely components you have practiced yourself. It is that curiosity that carries a research program through hours, days, months, or years of replication. Finally, there is a bit of scientific reality. Our confidence in experimental results is directly related to how often an experiment is verified by an independent worker (or how likely we feel it is that the experiment may be reproduced). For example, few have a great deal of confidence in long-term landscape level experiments because very few people have the means to reproduce those results, and among those who do, funding constraints prevent them from doing work that is already established. This is simply a result of the economics of doing science and does not undermine the value of science at all. As a result, those who do science may often be skeptical.

To close, a note of gratitude to Dr. Pietrantonio, EGSO, and the Department Support Staff for making this event a success. Their hours of hard work are often masked by the smoothness of the proceedings.



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**Dr. Jim Woolley**  
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Assistant Department  
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**James B. Woolley**  
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The graduate program in Entomology at Texas A&M University offers the M.S. and Ph.D. degrees in Entomology and Master of Agriculture degrees in Economic Entomology and Plant Protection. We enjoy one of the world's largest graduate programs in Entomology, and by any measure it is one of the world's most prestigious.

Texas A&M faculty and students led the way in the development of the Integrated Pest Management approach to controlling arthropod pests, which has become the dominant paradigm for applied entomology worldwide. In the last twenty years the biological control program in the department has emerged as a world leader, as have the research programs in insect systematics, physiology, genetics, molecular biology and toxicology.

The Biological Control Laboratory, the Insect Collection, the Center for Advanced Invertebrate Molecular Sciences, the Knowledge Engineering Laboratory and many other programs in the department offer outstanding opportunities for research and training to our graduate students. In addition, many of our students work with research and extension faculty at numerous agricultural production areas throughout Texas. Currently, our graduate students number about 55-60, evenly divided between M.S. and Ph.D. programs. At any one time, about a quarter of our graduate students are international, representing numerous countries throughout the world, with emphasis on Africa, China, India and Latin America.



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