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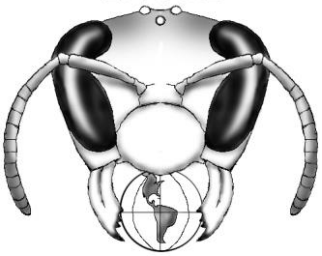

NORTH AMERICAN SECTION

2014 Nutting Research Grant Announcement

The winner of the 2014 William L. and Ruth D. Nutting Research Grant for basic termite biology is **Karl Glastad**. Karl was chosen from among four applicants, and will receive a $2,500 grant to support his proposed research project. Karl is a member of the NAS-IUSSI and graduated with a B.S. degree from Abilene Christian University in 2008. He is currently pursuing a Ph.D. in biology under the direction of Dr. Michael Goodisman at the Georgia Institute of Technology.

In his proposed project “DNA Methylation and Alternative Splicing in Termites,” Karl is attempting to elucidate the molecular mechanisms that underlie phenotypic plasticity. Caste differentiation in social insects, occurring in response to environmental stimuli, provides and opportune system in which to study these widely applicable questions. Karl is employing comparative genomic and high-throughput sequencing approaches in his research, and seeks to determine how eusociality may have evolved through modification of the insect epigenome. He intends to assess differences in DNA methylation between castes, and determine how those differences are associated with changes in the splicing of the associated mRNA transcript between those castes. He will also investigate how exon-level directional changes in DNA methylation between castes relate to splicing variation at the same or nearby regions of the gene.

Although the other candidates for the grant had very strong proposals, Karl’s well-organized research plan was regarded as the most compelling and has the broadest importance in our understanding of the mechanisms and evolution of caste differentiation, and was the top choice of the student awards committee of IUSSI-NAS.