2010 Newsletter

UNIVERSITY OF MINNESOTA
Driven to Discover℠

Department of Entomology

Everyone's buzzing about Professor Marla Spivak!

College of Food, Agricultural and Natural Resource Sciences

UNIVERSITY OF MINNESOTA

What's inside:

Department Head's Letter

As many of you know, **Dr. David Ragsdale** left us this past fall to accept the Dept. Head position at Texas A&M University. We did our best 'arm twisting' job possible to retain Dave and wife Margie, to continue to build upon their Minnesota roots. However, they seem intrigued by the new challenge and warmer winter temperatures! I had a chance to visit the Ragsdales in their new home in November and they seemed quite pleased to be back in the south. Dave received his Ph.D. from Louisiana State University in 1981 and since then, provided 29+ years of exemplary service to our department, in research, teaching, extension – and most recently – in administration. He will be missed, but many of us will stay in touch as Dave still has two graduate students finishing their Ph.D. degrees.

At the time of Dave's departure, the faculty chose to elect me to serve as the next Department Head. Our department has a stellar tradition of excellence in many areas, and it is therefore a great honor to accept the position. Building on this tradition of excellence, I am pleased to report that the National Research Council's 2010 national review of Entomology Departments ranked Minnesota #4 for overall quality, Faculty achievement and Graduate Student placement. Our program was also rated as one of the top graduate programs at the University of Minnesota.

We continue to have a strong faculty and excellent support staff. I also appreciate the experience that **Felicia Horan** now brings to the position of Associate Administrator, and that **Janet Moe** brings to the front office. Our college also provides key support for many activities including Graduate Student administration and Alumni Relations. Given our budget challenges, I will continue to maintain my research/extension program in vegetable and grape IPM, as much as possible. In the near term we have some critical faculty needs to fill in Invasive Insect Species Ecology, Insect Population Genetics and Field and Specialty Crop IPM, to name a few.

This past year has been noteworthy in many respects. Hands down, the most pleasant surprise of the year, was the announcement of the MacArthur Fellowship, a "Genius Award" to **Dr. Marla Spivak** for her innovative, and world renowned work on all aspects of Honey Bee biology. The award ($500,000) is unique in that all candidates are secretly nominated, and only about 23 fellows are selected, worldwide each year, in all fields in the arts and sciences. Marla is the first faculty member in 20 years at the University of Minnesota to receive this honor (see feature article in this issue). We were also pleased in May, to honor **Dr. 'Subi' Bh. Subramanyam**, Kansas State University, as this year's Hodson Alumni Award winner. Subi received his Ph.D. in 1988 (**Dr. Phil Harein**) and has had a very productive career as a researcher in Stored Product Entomology, as an international consultant, and as a mentor to 11 graduate students who have completed M.S. or Ph.D. degrees. He gave an outstanding seminar! Please see the announcement seeking nominees for the 2011 Award.

Another highlight this year was the influx of 13 new graduate students who visited our department last March and chose to begin their graduate careers here this fall. Our new students hail from all over the U.S., Canada and China. They are all off to a good start. Please join me in welcoming this bright new cohort at upcoming meetings, and during your visits to Hodson Hall! In addition to some existing Ph.D. Fellowships for first-year students, a new Ph.D. Fellowship in IPM was generously provided this year by **McLaughlin Gormley King Company (MGK®)**, a family-owned Minneapolis company established in 1902. MGK® is one of the world's largest manufacturers of Pyganic™, the organic-certified formulation of pyrethrum derived from chrysanthemums; in the process MGK® annually supports thousands of small-holder farmers in Tanzania and Uganda. We are very appreciative of **Mr. Steve Gullickson**, CEO, for taking the initiative to establish this fellowship for the next 5 years, and congratulations to **Mr. Corey McQueen**, the first MGK® Fellow, now working on bed bug behavior.

We are very excited to welcome our newest faculty member, **Dr. Brian Aukema** as our Forest Entomologist, who arrived in August! Brian fills a major gap in our teaching program and is well positioned to provide a key leadership role in research and outreach for the forest ecosystem management. The timing of his arrival could not have been more strategic as the Emerald Ash Borer (EAB) was first confirmed in Minnesota in 2009. Brian is already off to a great start with a recently funded collaborative grant with the U.S. Forest Service and the Minnesota Dept. of Agriculture, focusing on EAB.

Another new member of the department is **Dr. Paul Tinerella**, who has taken over curation duties in the Insect Museum from **Dr. Phil Clausen**, who retired in August. Thank you, Phil for your 40+ years of service!

Despite the many positives, our department faces major challenges in the coming months and year ahead. The current state budget deficit of ~$6.2 billion forces more than a "trickle down" impact on our university, college and departmental budget process. It will be increasingly difficult to hire new faculty and provide support to our faculty, students and staff. Despite these obstacles, however, our faculty continue to be successful in landing major competitive grants. We have also benefited from several generous gifts. Both sources of income help to accelerate productivity and provide quality educational experiences for our students. If you have supported one or more of our M.S. or Ph.D. Awards, or Ph.D. Fellowships in the past, please accept a hearty THANK YOU! For those who have not contributed in the past, but would like to learn more about specific initiatives, or a variety of strategies to contribute to our program, see page 11 of the newsletter or contact us directly.

On this note, we also hope to see you during the coming year, at an upcoming ESA Meeting (National in San Diego, or North Central Branch in Minneapolis, 2011), the Annual Hodson Alumni & Graduate Student Award celebration on campus (May 2011), or just stop by the office! Either way, we do hope you have a great holiday season and wish you all the best for a productive and safe new year! Thanks again for your support of our department!

Cheers,
Bill Hutchison
Professor, Head

MacArthur Fellow Marla Spivak

On September 28, 2010, University of Minnesota Entomology Professor Marla Spivak was named one of 23 recipients of this year's "genius grants" from the John D. and Catherine T. MacArthur Foundation.

Marla—a nationally and internationally respected expert on honeybee health—and her lab are developing practical applications to protect honeybee populations from decimation by disease while making fundamental contributions to the understanding of bee biology.

Marla and the other fellows all were selected for their creativity, originality, and potential to make important contributions in the future. As a new MacArthur Fellow for 2010, she will receive a $500,000 "no strings attached" grant. The work of MacArthur Fellows knows neither boundaries nor the constraints of age, place, and endeavor, according to the foundation.

"This group of Fellows, along with the more than 800 who have come before, reflects the tremendous breadth of creativity among us," said MacArthur President Robert Gallucci. "They are explorers and risk takers, contributing to their fields and to society in innovative, impactful ways. They provide us all with inspiration and hope for the future."

Marla, who has been a member of the Department of Entomology since 1993, has been honored numerous times for her teaching work as well. In 2009 she was named a Distinguished McKnight Professor, an honor the University of Minnesota reserves for its highest-achieving faculty who recently have attained full professor status.

The Bee Lab's research

Essential to healthy ecosystems and to the agricultural industry as pollinators of a third of the United States' food supply, honeybees have been disappearing at alarming rates in recent years due to the accumulated effects of parasitic mites, viral and bacterial diseases and exposure to pesticides.

To mitigate these threats, the Bee Lab focuses on genetically influenced behaviors that give disease resistance to entire colonies through the social interactions of thousands of workers. Their studies of hygienic behavior — the ability of certain strains of bees to detect and remove infected pupae from their hive — have enabled the Bee Lab to breed more disease-resistant strains of bees for use throughout the beekeeping industry.

The "Minnesota Hygienic" line of bees offers an effective and more sustainable alternative to chemical pesticides in fighting a range of pests and pathogens, including the *Varroa* mite, a highly destructive parasite that spreads rapidly through Western honeybee colonies. By translating scientific findings into accessible presentations, publications, and workshops, Marla and the Bee Lab are helping beekeepers throughout the United States establish local breeding programs that increase the frequency of hygienic traits in the general bee population. With additional investigations into the antimicrobial effects of bee-collected plant resins under way, the Bee Lab continues to explore additional methods for limiting disease transmission and improving the health of one of the world's most important pollinators.

In addition to research, the Bee Lab provides research and education to professional and amateur beekeepers. The university's bee research and outreach program, which has been operating since 1918, is the only one of its kind in the Upper Midwest, the top honey-producing region in the United States.

For more information about the Bee Lab, and ways you can help their fund-raising efforts for a new facility, please visit http://www.extension.umn.edu/honeybees/

About the cover:

Surrounding an artist's rendition of the proposed "Bee Research and Discovery Center" are photos of Marla (taken by Dan Marshall), Gary Reuter , the lab at work, and, of course, bees.

Sleep Tight

by Sara Specht

Don't let the bedbugs bite!

Steve Kells is getting bedbugs back out of the bedroom

Think that's just a myth? You wouldn't be alone ten years ago. Long-lasting residual insecticides like DDT nearly wiped bedbugs out of society altogether in the 1960s, but then something happened in 1999. They came back.

Possibly aided by the worldwide convergence at the 2000 Australian Summer Olympics, bedbugs began reappearing around the globe. Infestations appeared in hotels, but owners didn't believe it. Emergency room doctors called the pests a myth and looked for other explanations for reoccurring rashes. Meanwhile the insects continued to travel through societal systems, hitchhiking on bags and clothing to spread to new places and throughout buildings.

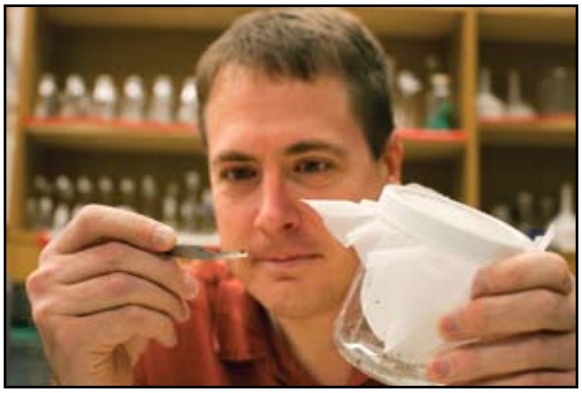
When entomology assistant professor Stephen Kells came across his sixth bedbug infestation that year, he captured some of the bugs and dipped them directly into a container of insecticide spray. They not only survived for days, they laid eggs with viable young. That's when Kells knew the pest control industry was in major trouble, and he started researching bedbugs' behavior to find a better solution.

"We went through a whole generation of entomologists with no training or experience with bedbugs," Kells says. "At that point we were having to relearn the insect and its behavior. It's incredible. The research materials go back to the '50s and '60s, then nothing until 2004."

Today's insecticides, while safer, are very limited in their ability to control bedbugs, both because the insects have proven to be extremely resistant and because the insecticide must be sprayed directly into their hard-to-find, mobile gathering places. Instead, Kells is experimenting with non-chemical measures like heat and steam to control infestation.

In cooperation with TempAir, a Burnsville-based company that manufactures mobile heating units, Kells is trying to determine both the most effective methods of heat treatment and the insects' reaction to the measures. While he's found that a controlled application of heat can be very effective to clear a room of the bugs, any populations already gathered in walls or behind fixtures will retreat to a safe distance and return. So spray insecticides still seem to play a vital role in containment.

Public health and social service providers no longer need convincing that the bedbug problem is real. Kells regularly talks to safety and service groups both about safely moving into areas with a higher risk of infestation and debunking bedbug myths. While bedbugs don't spread any disease to humans and don't remain on or in a person's skin, their bites can cause rashes or hives, and often victims require treatment for sleep deprivation and anxiety.



"We're talking about a bug that waits on a bed for a person to go to sleep, creeps out to feed, and then creeps back," Kells says. "You get sleeplessness and paranoia. People talk about them like they're superbugs, but they're not. We just need to understand their behavior before we can clean them out."

Article originally published in Solutions *Magazine, Spring 2010. Used with permission.*

Hellos and Good-Byes

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Welcome

Dr. Brian Aukema

Brian comes to us from the Canadian Forest Service, with a wealth of knowledge about insect population theory, ecology and management, spatial statistics and climate change. He received his Ph.D. in Entomology, from the University of Wisconsin-Madison in 2003, along with an M.S. in Biometry (2003). He also served as an Adjunct Faculty member at the Univ. of Northern British Columbia. He brought one student with him (Fraser McKee), and is actively mentoring 3 additional students who are finishing their dissertations in B.C. We are excited to have a young scientist of Brian's caliber join our program, and anticipate great things from the Aukema Lab!

Dr. Paul Tinerella

Paul joined the Department on Decenber 6th to assume the role of Curator of the Insect Collection. Paul is an expert insect systematist with over 13 years of experience in curation and the taxonomy of aquatic bugs and beetles. He also has in-depth experience with collection databases and has developed an innovative approach to digital imaging and databasing of specimens and associated label data. In addition to his curatorial duties, Paul will also be teaching an honors course in environmental science. We are very pleased and happy that Paul will be continuing the great legacy of curation established at the Insect Collection and we wish him the very best.

New Staff Members:

Jared Goos (Ostlie Lab)
Elise Rosengren (Andow Lab)
Sainath Suryanarayanan (Post-doc, Spivak)
Stefanie Wolf (Heimpel Lab)

New Graduate Students:

Megan Carter, M.S., Advisor George Heimpel
Heather Cummins, M.S., Advisors Susan Weller and Ralph Holzenthal
Alexander Egan, M.S., Advisor Len Ferrington
Elaine Evans, Ph.D., Advisor Marla Spivak (her M.S. advisor)
Trisha Franz, M.S., Advisor Ken Ostlie
Tony Hanson, M.S., Advisors Rob Venette and Bill Hutchison
Chan Heu, Ph.D., Advisors Tim Kurtti and Uli Munderloh
Joe Kaser, Ph.D., Advisor George Heimpel
Geoff Lynn, Ph.D., Advisors Tim Kurtti and Uli Munderloh
Fraser McKee, Ph.D., Advisor Brian Aukema
Corey McQueen, Ph.D., Advisor Stephen Kells
Amy Morey, Ph.D., Advisor Bill Hutchison
Matthew Smart, Ph.D., Advisor Marla Spivak
Judy Wu, Ph.D., Advisor Vera Krischik

Farewell

Dr. David Ragsdale

In October, Dr. David Ragsdale saddled up and moved to Texas. Dave was a faculty member in the department over 29 years, and along the way he advised or co-advised more than 25 graduate students, led a highly productive soybean aphid, multi-state IPM program (among other achievements), and was a key visionary and leader in seeing the new Biosafety Level 3 (BSL3) Plant Pathology Research Facility, completed in 2007 (See our 2007 newsletter for details).

In mid-September, Dave's career at Minnesota culminated with a fun Goodbye Party and "roast" of Dave by many faculty and friends, from Entomology, Agronomy and Applied Economics. Felicia Horan topped off the event by showing an entertaining "Riding off Into the Texas Sunset" video of Dave's life and times in Minnesota! A good time was had by all.

Dr. Philip Clausen

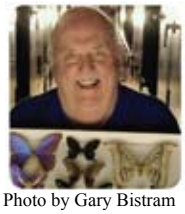

Photo by Gary Bistram

After more than 40 years of exemplary service as Curator of the University of Minnesota Insect Collection, Dr. Phil Clausen retired on August 8th, 2010. Under Phil's dedicated service the collection grew to become one of the most outstanding insect collections in North America with more than 3.75 million specimens. Phil was also a great ambassador for the collection and his tours and events at the State Fair were legendary. He also provided expert taxonomic advice and identification services to 1000s of individuals over his years as curator. Phil has many hobbies and interests and will be very busy during retirement. We thank him heartily and wish him the best.

Also farewell to:

Ian Burns	**Betsy Ranum**
Nadilia Gomez Raboteaux	**Desi Robertson-Thompson**
Miranda Kersten	**Abby Walter**
Shannon McCrindle	**Jen Zaspel**
Steffen Pauls	**Aaron Zimmel**

Selected Publications

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Hodson Graduate Alumni Award

Call for Nominations

2011

The Department of Entomology, College of Food, Agricultural and Natural Resource Sciences at the University of Minnesota is proud to announce a call for nominations for the 2011 Hodson Graduate Alumni Award. The Award, named in honor of Dr. Alexander Hodson, Department Head from 1960-1974, is intended to annually recognize and honor an outstanding alumna or alumnus of the Department of Entomology. The Award will be presented during the Department's Honors Day which also pays tribute to the achievements of students in the Entomology Graduate Program.

Nominations are invited based on the following:

- One awardee will be chosen annually in February and invited to participate in the Department's Honors Day. The award includes travel to St. Paul and related expenses.
- Nominees must have received a graduate degree in an entomological program from the University of Minnesota. The degree must have been granted at least five years before nomination.
- Nominees must have demonstrated distinguished accomplishment and leadership in entomology through research, writing, teaching, extension or administration, and related career activities.
- Nominations consist of a letter highlighting the nominee's accomplishments, a current curriculum vitae, and three letters of support. Only one nomination from the same source will be accepted in a given year.
- The awardee must be willing to present a seminar during the Department's Honors Day in May, 2011.
- The award will not be bestowed on the same person more than once in ten years.

Nominations will be accepted at anytime, but must be received by 31 January to be considered for the current year's award. The awardee will be selected by the Awards Committee of the Department of Entomology.

To be eligible for the 2011 Award, nominations must be received by 31 January, 2011. The Award will be presented at a Department Honors Day in May 2011.

Nominations should be sent to:

William D. Hutchison, Professor and Head
Dept. of Entomology
219 Hodson Hall
University of Minnesota
1980 Folwell Ave
St. Paul, MN 55108

Frenatae Update 2010

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Frenatae, the Entomology Graduate Student Organization, continued as an active group within the department during the past 2009/2010 year. In the 2010 spring semester, Frenatae invited renowned low temperature biologist Dr. Richard Lee, from Miami University in Ohio, to speak on insect cold hardiness as part of the departmental seminar series. Frenatae also awarded Dr. Ralph Holzenthal with their 2010 FAME award (Faculty Award for Mentorship in Entomology). Congrats Ralph!

As the frenulum brings together the hind wings, so did Frenatae continue to bring together the graduate study body and broader department through numerous social events. The annual graduate student vs. faculty softball game was held in May, but with faculty attendance near absent, the grad students won by default—faculty, stay tuned for the date of next year's match and don't let history repeat itself! Frenatae also sponsored a fall boat cruise on Lake Minnetonka for the entire department. Complete with excellent October weather, a near full moon, and a great turnout from the whole department, the event was a huge success. Other activities during the year included a camping trip to Wisconsin, a pumpkin-carving contest, dodgeball games (entomology vs. ecology grad students), and, of course, many Pig's Eye socials.

To fund their myriad activities, Frenatae held their annual Honey & Candle Sale, and enjoyed another year of sweet success and glowing reviews. For their 2009 sale, Frenatae added a new item, the Frenatae Calendar. This calendar featured beautiful insect artwork created by Dr. Ralph Holzenthal's Scientific Illustration of Insects class, and was a very popular item.

A 2011 calendar, complete with new artwork, will be available during the 2010 sale.

To check out the new calendar and other sale items, visit Frenatae's website at:
http://sites.google.com/site/frenataeumn/.

Current Frenatae Officers for 2010-11

President: Thelma Heidel
Vice President: Amy Morey
Co-Secretaries: John Beckmann and Chan Heu
Treasurer: Judy Wu
COGS Representatives: Jessica Starcevich and Corey McQueen
Faculty Meeting Representative: Megan Carter

Graduate Degrees Awarded

Jeremy Chacón, Ph.D. (Advisor: George Heimpel) Intraguild predator interference of a classical biological control agent of the soybean aphid.

Amy Morey, M.S. (Advisor: William Hutchison) Corn earworm (*Helicoverpa zea* Boddie), cold hardiness, and climate change: Implications for future distributions and IPM.

Desireé Robertson-Thompson, Ph.D. (Advisor: Ralph Holzenthal) Systematic studies of the caddisfly subfamily Protoptilinae (Trichoptera: Glossosomatidae).

Alumni Updates

Hodson Graduate Alumni Award Recipient Dr. Bhadriraju Subramanyam

Dr. Bhadriraju Subramanyam (Subi) is currently a professor in the Department of Grain Science and Industry at Kansas State University in Manhattan, Kansas. He received both his M.S. (1984) and Ph.D. (1988) degrees in the Department of Entomology; for his M.S. he was advised by Dr. Laurence K. Cutkomp and his thesis was titled "Susceptibility of Larval Instars of the Indian Meal Moth, *Plodia interpunctella* (Pyralidae : Lepidoptera) to *Bacillus thuringiensis* - Insecticide Combinations." His Ph.D. advisor was Philip K. Harein and his Ph.D. thesis was titled "Insect Species Infesting Stored Barley in Minnesota: Their Detection, Distribution, Estimation, and Resistance to Organophosphates."

From 1989-1996 Subi was an Assistant Extension Professor and from 1996-1999 an Associate Extension Professor in the Department of Entomology at the University of Minnesota. In 1999 he accepted a position as Associate Professor in the Department of Grain Science and Industry at Kansas State University, where he has established an internationally renowned stored-product entomology laboratory.

His research program "…straddles the research continuum, from the fundamental to the adaptive to the disseminative." His current research emphasizes the sampling/trapping of stored-product insects, the management of those same insects with pesticide alternatives or reduced-risk pesticides and the development and evaluation of Integrated Pest Management (IPM) programs for insects associated with stored grain and processed food products.

In addition to his research, Subi teaches undergraduate and graduate courses as well as giving guest lectures in other courses at Kansas State University. He organizes and participates in workshops and panels on various control methods for stored-product insects. He advises students in the Department of Entomology as well as the Department of Grain Science and Industry. He is the author/editor of several books on stored-product insects; the latest, Stored Product Insect Resource, was written with David W. Hagstrum and published in 2009.

We congratulate Dr. Subramanyam on his distinguished career and accomplishments and are pleased to present him with this year's Hodson Graduate Alumni Award.

For photos of the award ceremony and reception, please visit our web site.

Lee French (M.S. 1978, Huai Chiang)

Suntava, a company that uses purple corn developed by Lee and Joann French (they are also on the board of directors) received an Ag Innovator Award from AURI. The full story can be found at http://www.agrinews.com/suntava/earns/ag/innovator/award/for/helping/reach/new/markets/story-2892.html. We had a story about the French's corn in our 2008 Newsletter, pp25-6.

Andy Graves (Ph.D.2007, Steve Seybold Mark Ascerno)

Andy e-mailed the department to let us know he finished his post-doc and is now working for the USDA Forest Service as a Forest Entomologist in New Mexico.

Robert Suranyi (M.S., 1997; Ph.D. 2000, Ted Radcliffe & Dave Ragsdale)

Robert was featured in the November 2010 CFANS Alumni & Friends eNews Alumni spotlight. Go to http://www.cfans.umn.edu/AlumniFriends/AlumniConnections/AlumniSpotlight/RSuranyi/index.htm to read about what he's been doing. You can subscribe to eNews at http://www.cfans.umn.edu/AlumniFriends/AlumniConnections/alumnienews/index.htm, as well as finding back issues of CFANS eNews or filling out the Alumni Spotlight form for a chance to be featured in an upcoming issue.

University of Minnesota
Department of Entomology

Alumni Reception

Spread the word!

Reno ESA Meeting, 2011

Support the Next Generation of Entomologists!

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Guarantee the successful future of the Department of Entomology by including us in your estate plans.

The Department of Entomology provides world-leading research and education that inspires society to value the environmental contributions of insects and their relatives, and to use best management practices to protect our food, health, and environment. Our students and faculty are well positioned to provide practical and creative solutions to everyday problems not only in Minnesota but throughout the world. We believe in the need to build on this history.

You can help guarantee our future success by including the Department of Entomology in your estate plans. A gift in your estate leaves a legacy and at the same time may provide* tax savings. You may direct your gift to a specific area of research, students or to the Department's greatest needs.

Many alumni and friends of the Department of Entomology have received great satisfaction from including the department in their charitable gift plans. We hope you will join them by including us in your future plans as well.

Thanks to the insight and generosity of alumni and friends current fellowships and scholarships include:

MGK Fellowship in Pest Management

Morris and Elaine Soffer Rockstein Graduate Fellowship (Fund #7616)

Sping & Ying-ngoh Lin Graduate Fellowship (Fund #5257)

Allan Peterson Graduate Fellowship

Granovsky Pest Management Scholarship

Marion Brooks-Wallace Graduate Fellowship. (Fund #8543)

Fellowships and scholarships that anyone can contribute to are indicated by a Fund #. Please specify the Fellowship and Fund# with your check/gift. If you want to contribute to a Fellowship or Scholarship without a fund letter, please contact Dr. Bill Hutchison.

For confidential inquiries concerning cash gifts, gifts of securities or planning an estate gift for the Department of Entomology, contact:

Cynthia Cashman
Director of Development
CFANS External Relations
235 Skok Hall
2003 Upper Buford Circle
St. Paul, MN 55108
Ph: 612-624-7489
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Email: cashman@umn.edu

*Please consult with your own tax advisor or attorney.

Beginning this year, we invite you to also consider gifts to generate momentum for the proposed "Bee Research and Discovery Center." For information on this see www.BeeCenter.umn.edu or contact **Dr. Marla Spivak** (spiva001@umn.edu).

Visit our giving page at http://www.entomology.umn.edu/Giving/index.htm for more information.

A group of our graduate students at the 2010 Grad Student Recognition Day & Hodson Alumni Award Lecture

Graduate Student Awards, 2009-2010

Alyssa Anderson – 2010: GAPSA Scholarly Travel Award; Graduate School Block Grant Award (Summer Fellowship), University of Minnesota; **2010 - 2011:** Fulbright Exchange Fellowship to NTNU, Trondheim, Norway

Christine Dieckhoff – 2010 - 2011: Doctoral Dissertation Fellowship, Graduate School, University of Minnesota

Michael Goblirsch – 2010: Marion Brooks-Wallace and Graduate School Block Grant Fellowship, for excellence at the Ph.D. Level, University of Minnesota

Chan Heu – 2010 - 2011: Diversity of Views and Experiences (DOVE) Fellowship, University of Minnesota

Karrie Koch – 2010 - 2011: Doctoral Dissertation Fellowship, Graduate School, University of Minnesota; **2010:** Morris and Elaine Soffer Rockstein and Graduate School Block Grant Fellowship, University of Minnesota

Petra Kranzfelder – 2010: GAPSA Scholarly Travel Award

Cory McQueen – 2010 - 2011: MGK® Fellowship, University of Minnesota

Amy Morey – 2010: 2nd Place: M.S. Student Paper Competition: "Cold Hardiness of the Corn Earworm: Implications for Adaptation to Climate Change and Sweet Corn IPM in Minnesota", NCB-ESA meeting, Louisville, KY; Allan Peterson and Graduate School Block Grant Fellowship, for excellence at the M.S. level, University of Minnesota; **2010 - 2012:** IGERT Fellowship, University of Minnesota

Matthew Smart – 2010 - 2011: The Sping and Ying-ngoh T. Lin and Graduate School Block Grant Fellowship, University of Minnesota

Robin Thomson – 2010: Graduate School Block Grant Award (Summer Fellowship), University of Minnesota

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ENTOMOLOGY NEWSLETTER
FALL 2010

Produced for Alumni & Friends of the Department of Entomology, University of Minnesota.

The Entomology Newsletter is an annual publication of the Department of Entomology, University of Minnesota. The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

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Aerial shot of St. Paul Campus showing Hodson Hall in the upper left.

NCB-ESA 2011 annual meeting web site:
http://www.ncb2011.umn.edu/