

Summary of Curriculum Vitae: James D. Ellis (Jamie)

Education:

- 2000, BS degree in Biology, University of Georgia, Athens, Georgia, USA
- 2004, PhD in Entomology, Rhodes University, Grahamstown, South Africa

Research Experience:

- honey bee pathology, ecology, toxicology and behavior, pollination ecology, honey bee chemical ecology, bumble bee ecology, honey bee nutrition, native pollinator biology and conservation, sociobiology, African honey bees

Professional Employment:

- August 2006 – Present, Assistant Professor of Entomology, University of Florida, Department of Entomology and Nematology
- March 2004 – July 2006, Post Doctoral Research Fellow, University of Georgia, Department of Entomology

Publications (199 publications):

- Refereed Research Articles (37), Abstracts and Proceedings (29), Extension Publications (133)

Student supervision:

- Currently supervise 4 masters (3 chair and 1 committee member) and 2 PhD students (2 chair)
- Past masters student supervision – 3 students (2 chair and 1 committee member)
- Supervise undergraduate independent research projects (8 students to date)

Presentations at professional meetings (349 presentations):

- Research (39), Extension (310)

Extension Evaluations:

- On average, my lectures/workshops average a 4.8/5.0 rating. Mean scores include >1000 evaluations each for lectures and workshops given over a 14 year period.

International collaborations:

- Collaborated with over 50 international scientists on various research projects

Total Grants, Contracts, and Unrestricted Free Gifts:

- Total – \$1,109,287 (\$1,105,247 while at UF on a 20% research appointment)

Notable Awards:

- 2010 - Entomologist of the Year (Florida Entomological Society)
- 2007, 2009 - Researcher of the Year (Florida State Beekeepers Association)
- 2007 - Roger Hoopingarner Award (American Beekeeping Federation)
- 2005, 2006 - Oliver I. Snapp Award (Georgia Entomological Society)

CURRICULUM VITAE: JAMIE ELLIS

I. ACADEMIC/EMPLOYMENT HISTORY

Name: James D. Ellis, Jr. (Jamie)
Department: Entomology and Nematology, University of Florida
Rank: Assistant Professor of Entomology
Academic Appointment: Extension - 70%
Research - 20%
Instruction - 10%

A. PERSONAL DETAILS

Citizenship: United States of America
Current Work: Department of Entomology and Nematology
Address: University of Florida
Bldg. 970 Natural Area Dr.
P.O. Box 110620
Gainesville, FL 32611-0620
Email: jdellis@ufl.edu
Phone: 352 273 3924 work
Fax: 352 392 0190 work

B. EDUCATION

PhD - April 2004: Graduated with a PhD in Entomology from Rhodes University, Grahamstown, South Africa

Thesis: The Ecology and Control of Small Hive Beetles (*Aethina tumida* Murray)

Major Professor: Professor Randall Hepburn

B.S. - May 2000: Graduated, with honors in the Department of Biology, with a Bachelor of Science degree in Biology from the University of Georgia, Athens, Georgia, USA

High School - June 1996: Graduated Salutatorian with a College Preparatory degree from Glascock County Consolidated High School, Glascock County, Georgia, USA

C. PROFESSIONAL EMPLOYMENT

1. Assistant Professor of Entomology – Department of Entomology and Nematology, University of Florida, August 2006 – Present

Job Description: My current appointment at the University of Florida includes a 3-way academic split between extension (70%), research (20%) and instruction (10%) responsibilities. EXTENSION: I serve as Florida's apiculture extension specialist both for the general public and for beekeepers specifically. Second, I am the outreach coordinator for the Department of Entomology and Nematology. Regarding the former,

Florida is home to over 1750 beekeepers who manage ~250,000 bee colonies. Beekeeping is the backbone of Florida and global agriculture due to crop reliance on the pollination services provided by honey bees. Furthermore, Florida is home to Africanized (“killer”) honey bees that interact regularly with members of the general public. I maintain 3 primary extension programs to address these issues: (1) Partnering with Beekeepers to Improve the Sustainability of Beekeeping, (2) The University of Florida AFBEE Program (African Bee Extension and Education Program) and (3) Insects and Youth: the Department of Entomology and Nematology Outreach Program. RESEARCH: My research efforts focus primarily on honey bee pathology, ecology, behavior, and management/husbandry. To that end, I conduct both basic and applied research in these disciplines with an ever-present goal of linking my research to real world situations through my extension programs. INSTRUCTION: I oversee graduate student education, serving either as primary supervisor or additional committee member for masters and doctoral students. The research interests of my graduate students vary but focus primarily on apiculture and associated topics. Finally, I regularly supervise undergraduates who pursue independent research credits in my laboratory. Collectively, my duties represent an integrated attempt at addressing apiculture-related problems via research and instruction efforts that are highlighted through targeted extension programs.

2. Post Doctoral Research Fellow – The University of Georgia, March 2004 – June 2006

Job Description: Conducted research projects on the behavior, ecology, and control of small hive beetles and varroa mites. Also participated in UGA Bee Lab extension efforts, including presenting lectures on honey bees and conducting various workshops at numerous beekeeping programs.

3. Laboratory Technician and Research Assistant - The University of Georgia, Department of Entomology, August 1996 – December 2000

Job Description: Assisted in honey bee research projects conducted by Dr. Keith Delaplane. Jobs included experimental set-up, maintenance, data collection, and project design suggestions. Also presented lectures on honey bees and conducted various workshops at many beekeeping programs.

4. Visiting Graduate Research Student – The University of Georgia, May 2002 – September 2002 and January 2002 – June 2002

Job Description: Conducted research projects concerning small hive beetles as a visiting graduate student at The University of Georgia. These experiments were compliments of similar experiments conducted at Rhodes University in South Africa. Experiments were on small hive beetle biology, behavior, and control.

5. Laboratory Technician – The Medical College of Georgia, Department of Biochemistry and Molecular Biology, June-August of 1996 and 1997

Job Description: Responsibilities included research mice dissection, lab upkeep and maintenance, and auditing data sets.

6. Laboratory Technician – The Medical College of Georgia, Department of Endocrinology, summer (June-August) 1995

Job Description: Worked with computer molecular modeling programs with which models of known hormones (in particular, ecdysones and juvenile hormones) and their binding affinities to various substrates were studied. How these steroid/hormones dock with DNA and the resulting steroid/nucleic acid complexes were identified.

II. RESEARCH EXPERIENCE

A. RESEARCH PUBLICATIONS (Refereed – 37, Abstracts/Proceedings - 29)

1. Refereed Journal Articles (37, 4 in review)

1. Atkinson, E., Ellis, J.D. 2011. The behavior of European honey bee (*Apis mellifera* L.) guards at the nest entrance toward beetle invaders exhibiting various levels of colony integration. *Physiological Entomology*, in press.
2. Gregorc, A., Ellis, J.D. 2011. Cell death localization *in situ* in laboratory reared honey bee (*Apis mellifera* L.) larvae treated with pesticides. *Pesticide Biochemistry and Physiology*, in press.
3. Graham, J.R., Ellis, J.D., Carroll, M.J., Teal, P.A. 2011. *Aethina tumida* Murray (Coleoptera: Nitidulidae) attraction to volatiles produced by *Apis mellifera* L. (Hymenoptera: Apidae) and *Bombus impatiens* Cresson (Hymenoptera: Apidae) colonies. *Apidologie*, in press.
4. Hunter, W., Ellis, J.D., vanEngelsdorp, D., Hayes, J., Westervelt, D., Glick, E., Williams, M., Sela, I., Maori, E., Pettis, J., Cox-Foster, D., Paldi, N. 2011. RNA interference (RNAi) technology to prevent Israeli Acute Paralysis Virus disease in honey bees (*Apis mellifera*, Hymenoptera: Apidae). *PLoS Pathogens*, in press.
5. Delaplane, K.S., Ellis, J.D., Hood, W.M. 2010. A test for interactions between *Varroa destructor* (Acari: Varroidae) and *Aethina tumida* (Coleoptera: Nitidulidae) in colonies of honey bees (Hymenoptera: Apidae). *Annals of the Entomological Society of America*, 103(5): 711-715.
6. Ellis, J.D., Evans, J.D., Pettis, J. 2010. Colony losses, managed colony population decline, and Colony Collapse Disorder in the United States. *Journal of Apicultural Research* 49(1): 134-136. *Invited Review Article*.
7. Ellis, J.D., Spiewok, S., Delaplane, K.S., Buchholz, S., Neumann, P., Tedders, L. 2010. Susceptibility of *Aethina tumida* (Coleoptera: Nitidulidae) larvae and pupae to entomopathogenic nematodes. *Journal of Economic Entomology* 103(1): 1-9.
8. Ellis, A.M., Hayes, G.W., Ellis, J.D. 2009. The efficacy of dusting honey bee colonies with powdered sugar to reduce varroa mite populations. *Journal of Apicultural Research and Bee World*, 48(1): 72-76.

9. Ellis, A.M., Hayes, J., Ellis, J.D. 2009. The efficacy of small cell foundation as a varroa mite control. *Experimental and Applied Acarology* 47: 311-316.
10. Ellis, J.D., Delaplane, K.S. 2008. Small hive beetle (*Aethina tumida*) oviposition behavior in sealed brood cells with notes on the removal of the cell contents by European honey bees (*Apis mellifera*). *Journal of Apicultural Research* 47(3): 210-215.
11. Ellis, J.D., Delaplane, K.S., Cline, A., McHugh, J.V. 2008. The association of multiple sap beetle species (Coleoptera: Nitidulidae) with western honeybee (*Apis mellifera*) colonies in North America. *Journal of Apicultural Research* 47(3): 188-189.
12. Neumann, P., Ellis, J.D. 2008. The small hive beetle (*Aethina tumida* Murray, Coleoptera: Nitidulidae): distribution, biology and control of an invasive species. *Journal of Apicultural Research* 47(3): 181-183.
13. Ellis, J.D., Delaplane, K.S. 2007. The effects of three acaricides on the developmental biology of small hive beetles (*Aethina tumida*). *Journal of Apicultural Research* 46(4): 256-259.
14. Ellis, J.D., Delaplane, K.S. 2006. The effects of habitat type, ApilifeVAR™, and screened bottom boards on small hive beetle (*Aethina tumida*) entry into honey bee (*Apis mellifera*) colonies. *American Bee Journal* 146(5): 537-539.
15. Ellis, J.D., Hepburn, H.R. 2006. An ecological digest of the small hive beetle (*Aethina tumida*), a symbiont in honey bee colonies (*Apis mellifera*). *Insectes Sociaux* 53: 8-19. *Review Article*.
16. Ellis, J.D. 2005. Reviewing the confinement of small hive beetles (*Aethina tumida*) by western honey bees (*Apis mellifera*). *Bee World* 86(3): 56-62. *Review Article*.
17. Ellis, J.D., Munn, P.A. 2005. The worldwide health status of honey bees. *Bee World* 86(4): 88-101. *Invited Review Article*.
18. Ellis, J.D., Rong, I.H., Hill, M.P., Hepburn, H.R., Elzen, P.J. 2004. The susceptibility of small hive beetle (*Aethina tumida* Murray) pupae to fungal pathogens. *American Bee Journal* 144(6): 486-488.
19. Ellis, J.D., Hepburn, H.R., Elzen, P.J. 2004. Confinement of small hive beetles (*Aethina tumida*) by Cape honeybees (*Apis mellifera capensis*). *Apidologie* 35(4): 389-396.
20. Ellis, J.D., Richards, C.S., Hepburn, H.R., Elzen, P.J. 2004. Hygienic behavior of Cape and European *Apis mellifera* (Hymenoptera: Apidae) toward *Aethina tumida* (Coleoptera: Nitidulidae) eggs oviposited in sealed bee brood. *Annals of the Entomological Society of America* 97(4): 860-864.
21. Ellis, J.D., Hepburn, H.R., Luckmann, B., Elzen, P.J. 2004. The effects of soil type, moisture, and density on pupation success of *Aethina tumida* (Coleoptera: Nitidulidae). *Environmental Entomology* 33(4): 794-798.
22. Ellis, J.D., Hepburn, H.R., Elzen, P.J. 2004. Confinement behavior of cape honey bees (*Apis mellifera capensis* Esch.) in relation to population densities of small hive beetles (*Aethina tumida* Murray). *Journal of Insect Behavior* 17(6): 835-842.
23. Ellis, J.D., Hepburn, H.R., Delaplane, K.S., Neumann, P., Elzen, P.J. 2003. The effects of adult small hive beetles, *Aethina tumida* (Coleoptera: Nitidulidae), on nests and flight activity of Cape and European honey bees (*Apis mellifera*). *Apidologie* 34: 399-408.

24. Ellis, J.D., Holland, A.J., Hepburn, H.R., Neumann, P., Elzen, P.J. 2003. Cape (*Apis mellifera capensis*) and European (*Apis mellifera*) honey bee guard age and duration of guarding small hive beetles (*Aethina tumida*). *Journal of Apicultural Research* 42(3): 32-34.
25. Ellis, J.D., Hepburn, H.R., Ellis, A.M., Elzen, P.J. 2003. Social encapsulation of the small hive beetle (*Aethina tumida* Murray) by European honeybees (*Apis mellifera* L.). *Insectes Sociaux* 50: 286-291.
26. Ellis, J.D., Hepburn, H.R., Ellis, A.M., Elzen, P.J. 2003. Prison construction and guarding behaviour by European honeybees is dependent on inmate small hive beetle density. *Naturwissenschaften* 90: 382-384.
27. Ellis, J.D., Richards, C.S., Hepburn, H.R., Elzen, P.J. 2003. Oviposition by small hive beetles elicits hygienic responses from Cape honeybees. *Naturwissenschaften* 90(11): 532-535.
28. Ellis, J.D., Delaplane, K.S., Hepburn, H.R., Elzen, P.J. 2003. Efficacy of modified hive entrances and a bottom screen device for controlling *Aethina tumida* (Coleoptera: Nitidulidae) infestations in *Apis mellifera* (Hymenoptera: Apidae) colonies. *Journal of Economic Entomology* 96(6): 1647-1652.
29. Ellis, J.D., Hepburn, H.R. 2003. A note on mapping propolis deposits in Cape honey bee (*Apis mellifera capensis*) colonies. *African Entomology* 11(1): 122-124.
30. Ellis, J.D., Hepburn, H.R., Delaplane, K.S., Elzen, P.J. 2003. A scientific note on small hive beetle (*Aethina tumida*) oviposition and behaviour during European (*Apis mellifera*) honey bee clustering and absconding events. *Journal of Apicultural Research* 42(1-2): 47-48.
31. Ellis, J.D., Delaplane, K.S., Hepburn, H.R., Elzen, P.J. 2002. Controlling small hive beetles (*Aethina tumida* Murray) in honey bee (*Apis mellifera*) colonies using a modified hive entrance. *American Bee Journal* 142(4): 288-290.
32. Ellis, J.D., Pirk, C.W.W., Hepburn, H.R., Kastberger, G., Elzen, P.J. 2002. Small hive beetles survive in honeybee prisons by behavioural mimicry. *Naturwissenschaften* 89: 326-328.
33. Ellis, J.D., Neumann, P., Hepburn, H.R., Elzen, P.J. 2002. Longevity and reproductive success of *Aethina tumida* (Coleoptera: Nitidulidae) fed different natural diets. *Journal of Economic Entomology* 95(5): 902-907.
34. Ellis, J.D., Delaplane, K.S., Hood, W.M. 2002. Small hive beetle (*Aethina tumida* Murray) weight, gross biometry, and sex proportion at three locations in the southeastern United States. *American Bee Journal* 142(7): 520-522.
35. Elzen, P.J., Westervelt, D., Causey, D., Ellis, J.D., Hepburn, R., Neumann, P. 2002. Method of application of Tylosin, an antibiotic for American foulbrood control, with effects on small hive beetle (Coleoptera: Nitidulidae) populations. *Journal of Economic Entomology* 95(6): 1119-1122.
36. Ellis, J.D., Delaplane, K.S., Hood, W.M. 2001. Efficacy of a bottom screen device, Apistan™, and ApilifeVAR™ in controlling *Varroa destructor*. *American Bee Journal* 141(11): 813-816.
37. Ellis, J.D., Delaplane, K.S. 2001. A scientific note on *Apis mellifera* brood attractiveness to *Varroa destructor* as affected by the chemotherapeutic history of the brood. *Apidologie* 32: 449-450.

- Graham, J., Ellis, J.D., Benda, N.D., Kurtzman, C.P., Boucias, D. 2010. The occurrence of *Kodamaea ohmeri* (Ascomycota: Saccharomycotina) in commercial *Bombus impatiens* Cresson and feral *Bombus pennsylvanicus* DeGeer (Hymenoptera: Apidae) colonies. *Journal of Apicultural Research*, in review.
- Atkinson, E., Ellis, J.D. 2010. Attraction of multiple beetle species to *Apis mellifera* L. hive odors. *Apidologie*, in review.
- Atkinson, E., Ellis, J.D. 2010. Temporal-spatial distribution of multiple beetle species introduced into colonies of *Apis mellifera* L. *Insectes Sociaux*, in review.
- Fakhimzadeh, K., Ellis, J.D., Hayes, G.W. 2010. Physical control of varroa mites (*Varroa destructor*): the effects of various dust materials on varroa mite fall from adult honey bees (*Apis mellifera*) in vitro. *Journal of Apicultural Research*, in review.

2. Abstracts and Proceedings (29)

1. Gregorc, A., Ellis, J.D. 2010. The effects of pesticides on honeybee (*Apis mellifera*) larvae. Proceedings of 6th COLOSS Conference, Ankara, Turkey, 5-6 September.
2. Gregorc, A., Evans, J.D., Ellis, J.D. 2010. Do varroa mites and pesticides synergize to affect bee larvae? Eurbee Conference – 4th European Conference on Apidology, Ankara, Turkey, 7-9 September.
3. Ellis, J.D., Toth, T., Scharf, M. 2009. The effects of imidacloprid and amitraz on immature honeybees (*Apis mellifera*). Proceedings of the 41st Apimondia Congress, Montpellier, France, 16-20 September, p 107.
4. Graham, J.R., Ellis, J.D. 2009. Small hive beetle (*Aethina tumida*) attraction to commercial bumble bee (*Bombus impatiens*) colonies. 41st Apimondia Congress, Montpellier, France, 16-20 September.
5. Ellis, J.D., Evans, J., Hayes, J., Pettis, J., Sammataro, D., vanEngelsdorp, D. 2009. Les pertes de colonies aux États-Unis d'Amérique. *Bulletin Technique Apicole* 36(2): 86-87.
6. Ellis, J.D. 2009. CCD Research in the United States. Proceedings of the 5th COLOSS Conference, Montpellier, France, September 14-15: 18.
7. Ellis, J.D., Hunter, W., Hayes, J., Sela, I., Maori, E., Yarden, G., Paldi, N., Glick, E., Ben-Chanoch, E. 2009. Preventing bee mortality using RNA interference. Proceedings of the Plant & Animal Genomes XVII Conference, San Diego, CA, January 10-14: W047.
8. Ellis, J.D. 2009. Plight of the honey bee: CCD in the U.S. Proceedings of the 4th COLOSS Conference, Zagreb, Croatia, March 3-4: 6.
9. Ellis, J.D., Evans, J., Hayes, J., Pettis, J., Sammataro, D., vanEngelsdorp, D. 2009. Colony losses in the United States of America. Proceedings of the 4th COLOSS Conference, University of Zagreb, Croatia, March 3-4: 45.
10. Ellis, J.D. 2008. Colony losses in the U.S. Proceedings of the 3rd COLOSS Conference, Queens University, Belfast, UK, September 6-7.
11. Neal, A.S., Skvarch, E.A., Ellis, J.D. 2007. Integrated pest management of *Apis mellifera scutellata* (Africanized honey bee): Bee-proofing a home and school. Proceedings of the Florida State Horticulture Society 120: 370-371.

12. Delaplane, K.S., Ellis, J.D., Berry, J.A. 2007. Profitability of a Varroa IPM system. Proceedings of American Bee Research Conference, Phoenix, Arizona. American Bee Journal 147(5): 438.
13. Delaplane, K.S., Ellis, J.D. 2006. Varroa IPM: Does it work? Does it pay? Proceedings of American Bee Research Conference, Baton Rouge, Louisiana. American Bee Journal 146(5): 446.
14. Ellis, J.D., Delaplane, K.S. 2006. How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and subsequent removal of brood by European honey bees (*Apis mellifera*). Georgia Entomological Society Book of Abstracts, pg. 10.
15. Ellis, J.D., Delaplane, K.S. 2006. The importance of confinement behavior in limiting the number of would-be symbionts in honey bee colonies. Georgia Entomological Society Book of Abstracts, pg. 10.
16. Ellis, J.D., Delaplane, K.S., Hood, W.M. 2005. Progress toward an economic threshold for the SHB/Varroa complex. Proceedings of the American Bee Research Conference, 12-14 January, Reno, Nevada, USA, American Bee Journal 145(5): 430.
17. Ellis, J.D., Delaplane, K.S. 2005. How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and the removal of brood by honey bees (*Apis mellifera*). Abstract for the Georgia Entomological Society.
18. Ellis, J.D. 2005. Trophallactic interactions between honey bees (*Apis mellifera*) and small hive beetles (*Aethina tumida*). Abstract for the Georgia Entomological Society.
19. Ellis, J.D. 2005. Reviewing the confinement of small hive beetles (*Aethina tumida*) by western honey bees (*Apis mellifera*): Life in the penitentiary. Proceedings of the 39th International Apiculture Congress, Apimondia, 21-26 August 2005, Dublin, Ireland.
20. Ellis, J.D. 2005. An ecological examination of the small hive beetles (Coleoptera: Nitidulidae, *Aethina tumida*). Proceedings of the 39th International Apiculture Congress, Apimondia, 21-26 August 2005, Dublin, Ireland.
21. Ellis, J.D., Delaplane, K.S., Hood, W.M. 2005. Determining an economic threshold for the small hive beetle (*Aethina tumida*)/varroa (*Varroa destructor*) pest complex in honey bee colonies of the southeastern United States. Proceedings of the 39th International Apiculture Congress, Apimondia, 21-26 August 2005, Dublin, Ireland.
22. Ellis, J.D., Delaplane, K.S. 2005. How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and subsequent removal of brood by European honey bees (*Apis mellifera*). Proceedings of the 39th International Apiculture Congress, Apimondia, 21-26 August 2005, Dublin, Ireland.
23. Ellis, J.D. 2005. Will small hive beetles (*Aethina tumida*) be a global catastrophe or a regional menace? Proceedings of the 39th International Apiculture Congress, Apimondia, 21-26 August 2005, OIE Symposium on Diagnosis of Bee Diseases, 19-20 August 2005, Dublin, Ireland.
24. Delaplane, K.S., Ellis, J.D. 2002. The small hive beetle (*Aethina tumida*) in the United States: reduced hive entrances are a promising IPM strategy. Proceedings of 6th European Bee Conference, International Bee Research Association, Cardiff, United Kingdom.

25. Ellis, J.D., Pirk, C.W.W., Hepburn, H.R., Elzen, P.J. 2001. African honeybees are duped into feeding their prisoners. #416 Abstracts of the 37th International Apicultural Congress, 28 Oct – 1 November 2001, Durban, South Africa.
26. Ellis, J.D., Neumann, P., Hepburn, H.R., Elzen, P.J. 2001. Reproductive success of small hive beetles (*Aethina tumida* Murray, Coleoptera, Nitidulidae) reared on different diets. #426 Abstracts of the 37th International Apicultural Congress, 28 Oct – 1 November 2001, Durban, South Africa.
27. Ellis, J.D., Delaplane, K.S., Hood, W.M. 2000. The efficacy of a bottom screen device, ApilifeVAR, and Apistan, in controlling parasitic mites in honey bee colonies. in CURO Symposium 2000 Book of Abstracts, The University of Georgia, Athens, Georgia, USA. pg. 34.
28. Ellis, J.D. 1996. The effects of methoprene on *Apis mellifera* (Italian honey bee) larvae: Phase II. in Abstracts of the 47th International Science and Engineering Fair, Tucson, Arizona, USA. pg. 380.
29. Ellis, J.D. 1995. The effects of methoprene on *Apis mellifera* (Italian honey bee) larvae. in Abstracts of the 46th International Science and Engineering Fair, Ontario, Canada. pg. 387.

B. RESEARCH PRESENTATIONS (39 Total) – presenting author underlined when multiple authors listed

1. International Presentations (21)

a. Lectures (16)

1. Ellis, J.D. 2009. The effects of imidacloprid and amitraz on immature honeybees. 41st Apimondia Congress, Montpellier, France, 16-20 September. (invited, *Plenary Session*).
2. Ellis, J.D. 2009. CCD Research in the United States. 5th COLOSS Conference, Montpellier, France, 14-15 September. (invited, *Plenary Session*).
3. Ellis, J.D., Hunter, W., Hayes, J., Sela, I., Maori, E., Yarden, G., Paldi, N., Glick, E., Ben-Chanoch, E. Preventing bee mortality using RNA interference. Plant and Animal Genomes XVII Conference, San Diego, CA, January 10-14, 2009.
4. Ellis, J.D. 2009. CCD in the U.S. 4th COLOSS meeting, Zagreb, Croatia, 3 March. (invited, *Plenary Session*).
5. Ellis, J.D. 2008. The status of CCD in the U.S. COLOSS meeting, Belfast, Northern Ireland, 6 September (invited, *Plenary Session*).
6. Ellis, J.D., Hunter, W., Hayes, J., Sela, I., Maori, E., Yarden, G., Paldi, N., Glick, E., Ben-Chanoch, E. Preventing bee mortality using RNA interference. Eur-Bee Conference, Belfast, Northern Ireland. September 8-12, 2008.
7. Delaplane, K.S., Ellis, J.D., Berry, J.A. 2007. Profitability of a varroa IPM system. European Honey Bee Health Conference, IBRA, Finland.
8. Ellis, J.D. 2005. Will small hive beetles (*Aethina tumida*) be a global catastrophe or a regional menace? OIE Conference on Diagnosis of Bee Diseases, Dublin, Ireland, 20 August.

9. Ellis, J.D. 2005. Reviewing the confinement of small hive beetles (*Aethina tumida*) by western honey bees (*Apis mellifera*): Life in the Penitentiary. Standing Commission on Bee Pathology at 39th International Apimondia Congress, Dublin, Ireland, 25 August.
10. Ellis, J.D. 2005. An ecological examination of the small hive beetles (Coleoptera: Nitidulidae, *Aethina tumida*). Standing Commission on Bee Pathology at 39th International Apimondia Congress, Dublin, Ireland, 22 August.
11. Ellis, J.D. 2001. The trick honeybees use to stay alive while in prison, Standing Commission on Biology of Honeybees at 37th International Apimondia Congress, Durban, South Africa, 31 October.

b. Posters (5)

1. Graham, J.R., Ellis, J.D. 2009. Small hive beetle (*Aethina tumida*) attraction to commercial bumble bee (*Bombus impatiens*) colonies. 41st Apimondia Congress, Montpellier, France, 16-20 September.
2. Ellis, J.D., Hunter, W., Hayes, J., Sela, I., Maori, E., Yarden, G., Paldi, N., Glick, E., Ben-Chanoch, E. 2008. Preventing bee mortality using RNA interference. Eur-Bee Conference, Belfast, Northern Ireland, September 8-12
3. Ellis, J.D., Delaplane, K.S., Hood, W.M. September 21- 26, 2005. Determining an economic threshold for the small hive beetle (*Aethina tumida*)/varroa (*Varroa destructor*) pest complex in honey bee colonies of the Southeastern United States. Standing Commission on Bee Pathology at 39th International Apimondia Congress, Dublin, Ireland.
4. Ellis, J.D., Delaplane, K.S. September 21-26, 2005. How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and subsequent removal of brood by European honey bees (*Apis mellifera*). Standing Commission on Bee Pathology at 39th International Apimondia Congress, Dublin, Ireland.
5. Ellis, J.D., Neumann, P., Hepburn, H.R., Elzen, P.J. October 30, 2001 – Reproductive success of small hive beetles (*Aethina tumida* Murray, Coleoptera, Nitidulidae) reared on different diets, Standing Commission on Biology of Honeybees at 37th International Apimondia Congress, Durban, South Africa.

2. National Presentations (4)

1. Ellis, J.D. Pesticide effects on developing honey bees. Apiary Inspectors of America, Gainesville, FL, 4 February 2009. (invited)
2. Ellis, J.D., Delaplane, K.S.D., Hood, W.M. January 14, 2005 – Progress toward and economic threshold for the SHB/Varroa Complex. American Association of Professional Apiculturists, Reno, Nevada, USA
3. Delaplane, K.S., Ellis, J.D. January 10, 2005 – Varroa IPM: Does it work? Does it pay? American Bee Research Conference, Baton Rouge, Louisiana, USA
4. Ellis, J.D. March 26 – April 2, 2003 – Dance communication in honey bees. Sci-Fest, Grahamstown, South Africa.

3. State Presentations (6)

1. Ellis, J.D. 2007. African honey bee biology and behavior. Annual Meeting of the Florida Entomological Society, 7 July, Sarasota, FL, USA.
2. Ellis, J.D., Delaplane, K.S. 2006. The importance of confinement behavior in limiting the number of would-be symbionts in honey bee colonies. Georgia Entomological Society, Jekyll Island, Georgia, USA.
3. Ellis, J.D., Delaplane, K.S. 2006. How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and subsequent removal of brood by European honey bees (*Apis mellifera*). Georgia Entomological Society, Jekyll Island, Georgia, USA.
4. Ellis, J.D. 2005. Trophallactic interactions between honey bees (*Apis mellifera*) and small hive beetles (*Aethina tumida*). Georgia Entomological Society, Athens, Georgia, USA.
5. Ellis, A.M., Ellis, J.D. March 31-April 1 2005 – The confinement of small hive beetles (*Aethina tumida*) by honey bees (*Apis mellifera*). Georgia Entomological Society, Athens, Georgia, USA.
6. Ellis, J.D., Delaplane, K.S. April 1 2005 – How small hive beetle (*Aethina tumida*) density affects beetle oviposition in bee brood and the removal of brood by honey bees (*Apis mellifera*). Georgia Entomological Society, Athens, Georgia, USA.

4. Departmental Seminars (8)

1. Ellis, J.D. 2008. Colony collapse disorder in honey bees. 18 September, University of Florida, Departmental Seminar, Department of Entomology and Nematology, Gainesville, FL, USA.
2. Ellis, J.D. 2008. What's killing our honey bees? 4 April, University of Florida, Departmental Seminar, Belle Glade Research and Education Center, Belle Glade, FL, USA.
3. Ellis, J.D. 2006. Closing in on an international most wanted: Incarceration (and other short stories) of the world's most notorious melittophile. Department of Entomology, Clemson University, Clemson, South Carolina, USA.
4. Ellis, J.D. 2006. Ex Africa Semper Aliquid Novi: Out of Africa, always something new. Department of Entomology and Nematology, University of Florida, Gainesville, Florida, USA.
5. Ellis, J.D. 2006. What you need to know about Africanized honey bees. Department of Entomology and Nematology, University of Florida, Gainesville, Florida, USA.
6. Ellis, J.D. 2005. Closing in on an international most wanted: Incarceration (and other short stories) of the world's most notorious melittophile. Marucci Center for Blueberry and Cranberry Research, Rutgers University, Chatsworth, New Jersey, USA.
7. Ellis, J.D. 2004. Closing in on an international most wanted: Incarceration (and other short stories) of the world's most notorious melittophile. Entomology Departmental Seminar Series, University of Georgia, Athens, Georgia, USA.
8. Ellis, J.D. 2003. Insect Prisons: life in the big house, social confinement of small hive beetles by Cape and European honeybees. Rhodes University, Grahamstown, South Africa

**C. GRANTS, CONTRACTS, UNRESTRICTED FREE GIFTS RECEIVED
(TOTAL = \$1,109,287)**

Year(s) funded	Funding Source	Funding Type	Amount Awarded to Ellis (total grant amount)	Project Title
2010- 2011	Project Apis m.	Grant	\$23,169	Varroa mite (<i>Varroa destructor</i>) control using contemporary RNAi technology
2010	Wachovia/Wells Fargo	unrestricted free gift	\$10,940	Supporting honey bee research and extension
2010- 2011	Florida Department of Agriculture and Consumer Services	Grant	\$105,000	RNAi control of <i>Varroa destructor</i> in honey bee colonies
2009	NOD Apiary Products	Grant	\$28,646	Determining the efficacy of a new formic acid formulation as a warm weather control for varroa mites (<i>Varroa destructor</i>) in honey bee (<i>Apis mellifera</i>) colonies
2009- 2010	Florida Department of Agriculture and Consumer Services	Grant	\$99,045	Holistic varroa mite control
2009- 2012	AFRI CAP	Grant	\$42,000 (\$3,100,000 – Univ of GA is lead)	Sustainable solutions to problems affecting the health of managed bees
2009- 2011	National Fish and Wildlife Foundation	Grant	\$159,887	Operation Pollinator
2009	UF 4-H Foundation	Grant	\$3,460	Revitalizing the <i>4-H Bug Club</i> , Florida 4-H's link to the insect world

2009	National Honey Board	Grant	\$48,106	Determining if varroa mites (<i>Varroa destructor</i>) and pesticides interact synergistically to harm developing honey bees (<i>Apis mellifera</i>)
2009	North American Pollinator Protection Campaign	Grant	\$10,000	The effects of pesticides on immature honey bee (<i>Apis mellifera</i>) development
2008-2009	AFRI CAP	Grant	\$14,000 (\$1,000,000 – Univ of GA is lead)	Sustainable solutions to problems affecting the health of managed bees
2008	Koppert Biological Systems	unrestricted free gift	\$2,143	The influence of nest size on bumble bee foraging activity
2008-2009	Florida Department of Agriculture and Consumer Services	Grant	\$120,000	Investigations into varroa mite control
2008-2009	Florida Department of Agriculture and Consumer Services	Grant	\$29,996	<u>African Honey Bee Extension and Education</u> program (AFBEE program) Phase III: Educating the public about the threat of African bees
2008	Exosect	unrestricted free gift	\$5,403	The efficacy of Exomite Pro as a varroa mite control
2008	IR-4 Biopesticide Agency	grant	\$5,000	Controlling Israeli Acute Paralysis Virus using RNAi
2008	Southeastern Insectaries	grant	\$5,000	The susceptibility of small hive beetles to entomopathogenic nematodes

2007-2009	Straughn Farms, Inc.	unrestricted free gift	\$48,240	The effects of pollen supplements on honey bee (<i>Apis mellifera</i>) colony productivity, strength parameters, and pollination efficiency in commercial blueberry orchards in Florida
2007-2008	Florida IPM	grant	\$5,800	IPM Education for Beekeepers: Battling the Chemocentric Mindset
2007-2008	University of Florida program enhancement grant	grant	\$10,000	<u>African Honey Bee Extension and Education (AFBEE) Program</u> – Educating Floridians about the threat of African bees
2007-2008	Florida Department of Agriculture and Consumer Services	grant	\$63,000	The sublethal effects of imidacloprid and Amitraz on honey bee (<i>Apis mellifera</i>) susceptibility to varroa mites (<i>Varroa destructor</i>)
2007-2008	Florida Department of Agriculture and Consumer Services	grant	\$28,293	Increasing African honey bee awareness via the <u>African Honey Bee Extension and Education program (AFBEE program)</u>
2007-2009	Southern Region IPM Center	grant	\$62,678	Building a comprehensive IPM program against small hive beetles
2007-2008	Florida State Beekeepers Association	unrestricted free gift	\$4,000	Determining efficacy of small cell foundation as a control for varroa mites
2006-2008	Florida State Beekeepers Association	unrestricted free gift	\$3,000	Determining an economic threshold for varroa mites in Florida
2006-2007	Florida IPM	grant	\$5,300	Protecting Florida's schools and homes from Africanized honey bees

2006-2008	Florida Department of Agriculture and Consumer Services	grant	\$23,577	Developing a comprehensive Africanized honey Bee Extension and Education program (AFBEE program)
2006-2007	Florida Department of Agriculture and Consumer Services	grant	\$50,000	Developing a beekeeping curriculum useful for both Master Beekeeper Programs and for beekeepers needing an outline of best management practices for all levels of beekeeping
2004-2006	EPA Strategic Agricultural Initiative Grant (grant coauthor)	grant	\$89,564	Implementing proven varroa IPM practices to reduce pesticide use in beekeeping
2004-2006	Georgia Beekeepers Association	unrestricted free gift	\$2540	Biological control of small hive beetles
2002	Georgia Beekeepers Association	unrestricted free gift	\$500	Biology and control of small hive beetles
2001	Georgia Beekeepers Association	unrestricted free gift	\$500	Biology and control of small hive beetles
2000	Georgia Beekeepers Association	unrestricted free gift	\$500	Biology and control of small hive beetles

D. FEATURED RESEARCH

The following are select media that have featured some of my research. I do not include all media that featured my research and/or extension programs though such a list would include *The New York Times*, *CNN*, *Good Morning America*, etc.

- 1) Fooled bees feed beetle prisoners. May 2002, *Nature science update*, the news arm of the internationally recognized science journal *Nature*. (written by Tom Clarke)
- 2) *National Geographic Deutschland*. Germany's National Geographic. I have not seen this article and therefore am unable to reference it in full.
- 3) Begging Beetles. May 2002. *Science now*, the headline science section of the California Academy of Sciences online publication.

- 4) Bees tickled to feed their captives. May 2002. *This Week in Wild*, the weekly science news publication of the California Academy of Science.
- 5) Beetles ‘tickle’ to trick food out of bee enemy. May 2002. *Ananova Science and Discovery*. Online newspaper.
- 6) Pasozyt na darmowym wikcie. May 2002. *Gazeta*, Polish national newspaper. (written by Pap Miko) pg. 16.
- 7) Imprisoned beetles beg for food. May 2002. *Mission Impossible III*. A Korean science journal. (written in Korean) pg. 89
- 8) Trick and treat, how imprisoned hive beetles fool their gaolers. September 2002. *BBC Wildlife Magazine* 20(9). (written by Mark Steer) pg. 21.
- 9) Hive Hubbub. March/April 2003. *Wild* 7(2). (Written by Jan-John Rivera) pg. 35.
- 10) Fuelling the enemy. Winter 2003. *Canadian Wildlife*. (written by Sarah Irvine) pg. 45.

E. CONTRIBUTIONS TO OTHER RESEARCH

* Research in which J. Ellis was not study coauthor but in which he assisted in other ways (statistical analysis, field work, data collection, experimental maintenance, student supervision, etc.)

Year	Project
2010-present	Pollination ecology of moths in Florida scrub habitat – University of Florida
2007-2008	Research into location of <i>Kodamaea ohmeri</i> on/in small hive beetles – University of Florida
2007-2008	Evaluated importance of <i>Kodamaea ohmeri</i> to small hive beetle life cycle – University of Florida
2005-2007	Tested effects of nest invaders on honey bee pollination efficacy – University of Georgia
2005-2007	Tested if varying loads of varroa at the colony level affect foraging profits at the individual level in honey bees – University of Georgia
2005-2007	Evaluated Fruit-Boost as an aid for honey bee pollination under conditions of competing bloom – University of Georgia
2002-2003	Assessed methods used to determine population densities of kudu, bushbuck, blue duiker and common duiker in South Africa – University of Georgia
2002	Tested the use of scent stations to attract mammal predators in fenced and unfenced areas of the Southeastern United States – University of Georgia
2002	Tested bat foraging behavior in various forested situations in the Southeastern United States – University of Georgia
2001-2002	Tested interactions of honey bees and carpenter bees in rabbiteye blueberry – University of Georgia
2001-2002	Tested three IPM strategies for slowing economic threshold in varroa mites – University of Georgia

2001	Tested interactions of South African cape honeybees and small hive beetles – Rhodes University, South Africa
2001	General physiological investigations of the small hive beetle – Rhodes University, South Africa
2000-2002	Tested efficacy of honey bees as pollinators of rabbiteye blueberry – University of Georgia
2000	Tested effects of hygienic queens, comb age, and colony microclimate on expression of chalkbrood symptoms – University of Georgia
2000	Tested management practices that limit chalkbrood disease in honey bees – University of Georgia
1999	Tested effects of two methods of configuring bee colonies for honey production – University of Georgia
1997-1999	Tested effects of old comb verses new comb on colony growth and development – University of Georgia
1997	Tested efficacy of the slatted rack in promoting brood production in bee colonies – University of Georgia
1996-1998	Developed treatment thresholds for IPM-oriented control of Varroa mites – University of Georgia
1996-1997	Measured species frequency and pollinating behavior of bees in rabbiteye blueberry – University of Georgia
1996	Tested a proprietary antibiotic and its effects on honey bee longevity – University of Georgia

III. EXTENSION EXPERIENCE

A. EXTENSION PUBLICATIONS (133)

1. Chapters in Books - Encyclopedia Entries (5)

1. Ellis, J.D., Ellis, A.M. 2008. African honey bee, Africanized honey bee, or killer bee, *Apis mellifera scutellata* Lepeletier (Hymenoptera: Apidae). in J.L. Capinera (ed) Encyclopedia of Entomology Vol 1, Kluwer Academic Publishers, Dordrecht, The Netherlands. pp 59-66.
2. Ellis, J.D., Ellis, A.M. 2008. Small hive beetle, *Aethina tumida* Murray (Nitidulidae: Coleoptera). in J.L. Capinera (ed) Encyclopedia of Entomology Vol 4, Kluwer Academic Publishers, Dordrecht, The Netherlands. pp 3415-3418.
3. Ellis, J.D. 2008. Bee louse, bee fly, or braulid, *Braula coeca* Nitzsch (Diptera: Braulidae). in J.L. Capinera (ed) Encyclopedia of Entomology Vol 1, Kluwer Academic Publishers, Dordrecht, The Netherlands. pp 417-419.
4. Ellis, J.D. 2008. Cape honey bees, *Apis mellifera capensis* Escholtz. in J.L. Capinera (ed) Encyclopedia of Entomology Vol 1, Kluwer Academic Publishers, Dordrecht, The Netherlands. pp. 715-719.

5. Ellis, J.D. 2008. *Varroa mite, Varroa destructor* Anderson and Truemann (Acari: Varroidae). in J.L. Capinera (ed) Encyclopedia of Entomology Vol 4, Kluwer Academic Publishers, Dordrecht, The Netherlands. pp 4041-4048.

2. Curriculum Guides and Handbooks (2)

1. Neumann, P., Ritter, W., Ellis, J.D. 2008. Small hive beetle infestation (*Aethina tumida*). Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2008, World Organization for Animal Health, Volume 1: 415-418.
http://www.oie.int/Eng/Normes/Mmanual/2008/pdf/2.02.05_SMALL_HIVE_BEETLE.pdf
2. Neeley, A., Jordan, J., Frye, A., Monroe, M., Ellis, J. D. 2007. The ABC's of Entomology. Gainesville, FL: University of Florida Cooperative Extension Service

3. Non-refereed Trade Journals (27)

1. Ellis, J.D. 2010. Where do I begin? Bee Craft September, pp: 9-11.
2. Zettel Nalen, C.M., Ellis, J.D. 2009. – Africanized Honey Bees: The Sting for ACOs. *FACA TRAX* Official Quarterly Publication of the Florida Animal Control Association, 4th Quarter 2009.
http://floridaanimalcontrol.org/file_download/18/TRAX_2009_4th+QU.pdf.
3. Ellis, J.D. 2008. The advantages of using nucs. British Beekeepers Association Newsletter April, 170: 9-11.
4. Ellis, J.D. 2008. The effects of genetically modified crops on honey bees. British Beekeepers Association Newsletter October, 174: 4-5.
5. Ellis, J.D. 2007. The advantages of using nucs. Bee Culture March, 30-32.
6. Ellis, J.D. 2007. Colony collapse disorder: An update on the status in the USA. British Beekeepers Association Newsletter August, 166: 7-8.
7. Ellis, J.D. 2007. Plight of the honey bee. Small Town Living, A simpler life in small town America October/November, 41-44.
8. Oi, F.M., Ellis, J.D. 2006. Africanized honey bees. School IPM Pest Press July/August
9. Ellis, J.D. 2006. Just what are those chemicals doing anyway? British Beekeepers Association Newsletter February, 157: 9.
10. Ellis, J.D. 2006. Chemical use in bee colonies: What's the alternative? British Beekeepers Association Newsletter December, 162: 10-11.
11. Ellis, J.D. 2006. African bees and urban trees. The Council Quarterly, journal of the Florida Urban Forestry Council.
12. Ellis, J.D. 2005. Progress towards controlling small hive beetles with IPM: Knowing Our Options. American Bee Journal 145(2): 115-119.
13. Ellis, J.D. 2005. Progress towards controlling small hive beetles with IPM: Knowing Our Options. Indiana State Beekeepers Association Journal 125(4): 6-7, 10-11.
14. Ellis, J.D. 2005. Progress towards controlling small hive beetles with IPM: Integrating Current Treatments. American Bee Journal 145(3): 207-210.
15. Ellis, J.D. 2005. Negotiating the press: a must-read for anyone who talks too much when interviewed (like I do). American Bee Journal 145(4): 329-332.

16. Ellis, J.D. 2003. Incarceration of small hive beetles. *Bee Culture* February, 24-26.
17. Ellis, J.D. 2003. Hard to guard. *Bee Culture* March, 43-44.
18. Ellis, J.D. 2003. What's new with small hive beetles? Part I. *South African Bee Journal* 75(2): 45-47.
19. Ellis, J.D. 2003. What's new with small hive beetles? Part II. *South African Bee Journal* 75(4): 108-111.
20. Ellis, J.D. 2003. The problematic small hive beetle. *Bee Craft* 85(4): 8-11.
21. Ellis, J.D. 2002. Life behind bars: Why honey bees feed small hive beetles. *American Bee Journal* 142(4): 267-269.
22. Ellis, J.D. 2002. Freundliche Wärterinnen: honigbienen sperren Kleine Beutenkäfer ein und füttern sie anschlieBend. *Deutsches Bienen Journal* September, 20-21.
23. Ellis, J.D. 2002. Food for thought: How diet affects small hive beetles. *American Bee Journal* 142(7): 515-518.
24. Ellis, J.D. 2001. The future of varroa control: integrating current treatments with the latest advancements. *American Bee Journal* 141(2): 127-131.
25. Ellis, J.D. 2001. IPM and varroa control. *Bee Culture* April, 29-31.
26. Westervelt, D., Causey, D., Neumann, P., Ellis, J., Hepburn, R. 2001. Grease patties worsen small hive beetle infestations. *American Bee Journal* 141(11): 775.
27. Ellis, J.D. 1996. How honeybees ensure our food supply. *American Bee Journal* 136(7): 501-502.

4. Peer Reviewed Extension Publications (31)

UF/IFAS: EDIS document – Electronic Data Information Source

1. Zettel Nalen, C., Ellis, J.D. 2010. Theft, vandalism and other related crime in the beekeeping industry: a guide for beekeepers. ENY-157: 2 pp. <http://edis.ifas.ufl.edu/in872>
2. O'Malley, M.K., Ellis, J.D., Hayes, G.W.Jr. 2010. Explaining the best management practices for maintaining European honey bee colonies. ENY-158: 4 pp. <http://edis.ifas.ufl.edu/in874>
3. Ellis, J.D., Zettel Nalen, C. 2010. The advantages of using nucs in beekeeping operations. ENY-153: 6 pp. <http://edis.ifas.ufl.edu/in869>
4. Hall, H.G., Zettel Nalen, C., Ellis, J.D. 2010. African honey bee: What you need to know. ENY-114: 7 pp. <http://edis.ifas.ufl.edu/mg113>.
5. O'Malley, M.K., Ellis, J.D., Herrera, P., Neal, A.S. 2010. Cómo lidiar con abejas Africanas: una guía práctica. ENY-141S/IN-864: 4 pp. <http://edis.ifas.ufl.edu/in864>
6. O'Malley, M.K., Ellis, J.D., Herrera, P., Neal, A.S. 2010. Preguntas frecuentes acerca de la abeja Africanizada en Florida. ENY-140S/IN-862: 3 pp. <http://edis.ifas.ufl.edu/in862>
7. O'Malley, M.K., Ellis, J.D., Zettel Nalen, C.M., Herrera, P. 2010. Diferencias entre abejas melíferas Europeas y Africanas. ENY-147S/IN 863: 3 pp. <http://edis.ifas.ufl.edu/in868>
8. Ellis, A.M., Ellis, J.D., O'Malley, M., Zettel Nalen, C.M. 2010. Benefits of pollen to honey bees. ENY-152/IN-868: 4 pp. <http://edis.ifas.ufl.edu/in868>

9. Ellis, J.D., Zettel Nalen, C.M. 2010. Varroa mite, *Varroa destructor* Anderson and Trueman (Arachnida: Acari: Varroidae). EENY-473/IN-855: 8 pp.
<http://edis.ifas.ufl.edu/in855>
10. Ellis, J.D., Ellis, A.M. 2010. Small hive beetle, *Aethina tumida* Murray (Insecta: Coleoptera: Nitidulidae). EENY-474/IN-854: 5 pp. <http://edis.ifas.ufl.edu/in854>
11. Sanford, M., Ellis, J.D. 2010. Beekeeping: watermelon pollination. ENY-154/AA-091: 5 pp. <http://edis.ifas.ufl.edu/aa091>
12. Ellis, J.D., Zettel Nalen, C.M. 2010. Florida beekeeping management calendar. ENY-156/IN 848: 7 pp. <http://edis.ifas.ufl.edu/in848>
13. Ellis, J.D., Hayes, J., Zettel Nalen, C.M., Kern, W.H., Zerba, R., Burbaugh, B. 2010. Florida Master Beekeeper Program Requirements. Eny-155/IN-847: 9 pp.
<http://edis.ifas.ufl.edu/in847>
14. Ellis, J.D., Zettel Nalen, C.M. 2010. Bee louse, bee fly, braulid, *Braula coeca* Nitzsch (Insecta: Diptera: Braulidae). ENY-472/IN-845: 3 pp. <http://edis.ifas.ufl.edu/in845>
15. Ellis, J.D., Ellis, A.M. 2009. African honey bee, Africanized honey bee, killer bee, *Apis mellifera scutellata* Lepeletier (Insecta: Hymenoptera: Apidae). ENY 429: 7 pp.
http://edis.ifas.ufl.edu/document_in790
16. Sanford, M.T., Atkinson, E., Ellis, J.D. 2009. Infant botulism and honey. ENY-128: 2 pp. <http://edis.ifas.ufl.edu/aa142>
17. O'Malley, M.K., Ellis, J.D., Zettel Nalen, C.M. 2009. Differences between European and African honey bees. ENY 147: 3 pp. <http://edis.ifas.ufl.edu/in784>
18. O'Malley, M.K., Ellis, J.D., Zettel Nalen, C.M. 2009. Swarm trapping for pest control operators. ENY 148: 6 pp. <http://edis.ifas.ufl.edu/in785>
19. Ellis, J.D., Hayes, J. 2008. Mosquito control and beekeepers. ENY-149: 3 pp.
<http://edis.ifas.ufl.edu/in813>
20. O'Malley, M.K., Ellis, J.D. 2008. Living with African bees in Florida's outdoor workplaces. ENY 146: 5 pp. http://edis.ifas.ufl.edu/document_in783
21. O'Malley, M.K., Ellis, J.D., Koehler, P.G. 2008. Removal of swarms and colonies for pest control operators. ENY-145: 12 pp. http://edis.ifas.ufl.edu/document_in778
22. O'Malley, M.K., Ellis, J.D. 2008. Choosing the right pest control operator for honey bee removal: a consumer guide. ENY-144: 6 pp.
http://edis.ifas.ufl.edu/document_in771
23. McCann, S., Ellis, J.D., O'Malley, M. 2008. Antlion rearing. ENY 1002: 3 pp.
<http://edis.ifas.ufl.edu/IN760>
24. McCann, S., Ellis, J.D., O'Malley, M. 2008. Guide to collecting and maintaining live arthropods for classroom display in Florida. ENY 1001: 6 pp.
http://edis.ifas.ufl.edu/document_in759
25. McCann, S., Ellis, J.D., O'Malley, M. 2008. Insect Oh Yes! ENY 1000: 10 pp.
<http://edis.ifas.ufl.edu/IN758>
26. Ellis, J.D. 2007. Colony collapse disorder in honey bees. ENY 150: 6 pp.
<http://edis.ifas.ufl.edu/IN720>
27. O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. African honey bee information for school administrators. ENY 142: 2 pp. <http://edis.ifas.ufl.edu/IN740>
28. O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. Frequently asked questions about the Africanized honey bee in Florida. ENY 140: 3 pp. <http://edis.ifas.ufl.edu/IN738>

29. O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. What to do about African honey bees: A consumer guide. ENY 141: 3 pp. <http://edis.ifas.ufl.edu/IN739>
30. O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. Bee-proofing for Florida citizens. ENY 143: 5 pp. http://edis.ifas.ufl.edu/document_in741
31. Sanford, M.T., Ellis, J.D. 2006. Florida bears and beekeeping. ENY 105: 3 pp. <http://edis.ifas.ufl.edu/AA133>

5. Instructional Multimedia Presentations (6)

1. O'Malley, M. K., Ellis, J. D., Neal, A. S. 2007. Bee proofing for Florida residents. UF/IFAS Presentations Web site: <http://entomology.ifas.ufl.edu/fasulo/presentations/>
2. O'Malley, M. K., Ellis, J. D., Neal, A. S. 2007. Living with Africanized bees. UF/IFAS Presentations Web site: <http://entomology.ifas.ufl.edu/fasulo/presentations/>
3. Koehler, P. G., Ellis, J. D., O'Malley, M. K. 2007. Africanized bee services. UF/IFAS Presentations Web site: <http://entomology.ifas.ufl.edu/fasulo/presentations/>
4. McCann, S. M., Ellis, J. D., O'Malley, M. K. 2007. Oh yes, insects! UF/IFAS Presentations Web site: UF/IFAS. (<http://presentations.ifas.ufl.edu/>). <http://entomology.ifas.ufl.edu/fasulo/presentations/>
5. Ellis, A.M., Ellis, J.D., Hodges A.C. 2006. Africanized honey bees *Apis mellifera scutellata*. National Plant Diagnostic Network. 24 slides. <http://www.npdn.org/Library/ViewDocument.ppt?filetype=ppt&DocumentId=5382>
6. Ellis, A.M., Ellis, J.D., Hodges A.C. 2006. Small hive beetle *Aethina tumida*. National Plant Diagnostic Network. 24 slides. <http://www.npdn.org/Library/ViewDocument.ppt?filetype=ppt&DocumentId=5393>

6. University of Florida: Featured Creatures (4)

1. Ellis, J.D., Zettel Nalen, C.M. 2010. Bee louse, bee fly, braulid, *Braula coeca* Nitzsch (Insecta: Diptera: Braulidae). http://entnemdept.ufl.edu/creatures/misc/bees/bee_louse.htm
2. Ellis, J.D., Zettel Nalen, C.M. 2010. Varroa mite, *Varroa destructor* Anderson and Trueman (Arachnida: Acari: Varroidae). http://entnemdept.ufl.edu/creatures/misc/bees/varroa_mite.htm
3. Ellis, J.D., Ellis, A. 2010. Small hive beetle, *Aethina tumida* Murray (Insecta: Coleoptera: Nitidulidae). http://entnemdept.ufl.edu/creatures/misc/bees/small_hive_beetle.htm
4. Ellis, J.D. 2008. African honey bees. <http://entomology.ifas.ufl.edu/creatures/misc/bees/ahb.htm>

7. University of Florida Pest Alert (1)

1. Ellis, J.D. 2007. Colony collapse disorder in honey bees. http://entomology.ifas.ufl.edu/pestalert/Colony_Collapse_Disorder.htm

8. Website publications (3)

1. Thomas, D., Baldwin, R., Fasulo, T., Daniels, J., Ellis, J.D. 2009. Florida 4-H BugClub. http://entnemdept.ifas.ufl.edu/bug_club/
2. Ellis, J.D. 2007. Colony collapse disorder, why are honey bees disappearing? Solutions for Your Life. http://solutionsforyourlife.ufl.edu/hot_topics/agriculture/colony_collapse_disorder.html
3. Ellis, J.D., Oi, F.M. 2006. Africanized honey bees, what's the buzz? Solutions for Your Life. http://solutionsforyourlife.ufl.edu/hot_topics/environment/africanized_honey_bees.html

9. Websites (3)

1. Thomas, D., Baldwin, R., Fasulo, T., Daniels, J., Ellis, J.D. 2009. Florida 4-H BugClub. http://entnemdept.ifas.ufl.edu/bug_club/
2. O'Malley, M.K., Ellis, J.D. 2008. Honey Bee Research and Extension Laboratory Homepage: <http://entnemdept.ifas.ufl.edu/honeybee/>
3. O'Malley, M.K., Ellis, J.D. 2008. African Bee Extension and Education Program Homepage: <http://afbee.ifas.ufl.edu/>

10. Bulletins, Circulars, and Fact Sheets (2)

1. Ellis, A. M., Ellis, J. D., Hodges, A. C. 2006. Africanized Honeybees, *Apis mellifera scutellata* Handout. <http://www.npdn.org/Library/ViewDocument.doc?filetype=doc&DocumentId=5383>
2. Ellis, A. M., Ellis, J. D. & Hodges, A. C. 2006. Small hive beetle, *Aethina tumida* Murray. <http://www.npdn.org/Library/ViewDocument.pdf?filetype=pdf&DocumentId=5392>

11. Newsletters Edited (1)

1. Ellis, J. D., Hayes, J., O'Malley, M. K. 2007-2010. The Melitto Files: Bees News for Bee Lovers. Gainesville, FL: UF/IFAS and FDACS-DPI. (Quarterly)

12. Videos (13)

1. Ellis, J.D., O'Malley, M.K. 2010. American and European Foulbrood Diseases. A Video Field Guide to Beekeeping. UF/IFAS, Honey Bee Research and Extension Laboratory.
2. Ellis, J.D., O'Malley, M.K. 2009. Nosema disease. A Video Field Guide to Beekeeping. UF/IFAS, Honey Bee Research and Extension Laboratory.
3. Ellis, J.D., O'Malley, M.K. 2009. Small hive beetles. A Video Field Guide to Beekeeping. UF/IFAS, Honey Bee Research and Extension Laboratory.
4. Ellis, J.D., O'Malley, M.K. 2009. Tracheal mites. A Video Field Guide to Beekeeping. UF/IFAS, Honey Bee Research and Extension Laboratory.

5. Ellis, J.D., O'Malley, M.K. 2009. Varroa mites. *A Video Field Guide to Beekeeping*. UF/IFAS, Honey Bee Research and Extension Laboratory.
6. Lurding, R., Hayes, J., Kern, W., Ellis, J. D. 2007. Africanized Bees in Florida: Coping with the challenge. Tallahassee, FL: Florida Department of Agriculture and Consumer Services, Bureau of Education and Communication. http://www.florida-agriculture.com/videos/flash/africanized_bees_in_florida.htm
7. Hightower, L. S., Ellis, J. D. 2007. African Bees: Public enemy # 1. Gainesville, FL: UF STEP, UF Genetics Department. http://www.youtube.com/watch?v=Zpg_6tV6xmM
8. Hightower, L. S., Ellis, J. D. 2007. I Heart Honey Bees. Gainesville, FL: UF STEP, UF Genetics Department. http://www.youtube.com/watch?v=_GwoJchIImY
9. Hightower, L. S., Ellis, J. D. 2007. Show Me the Honey. Gainesville, FL: UF STEP, UF Genetics Department. <http://www.youtube.com/watch?v=fjuIvRXqQHM>
10. Hightower, L. S., Ellis, J. D. 2007. Where are the Bees. Gainesville, FL: UF STEP, UF Genetics Department. <http://www.youtube.com/watch?v=rzMnL5yFrvo>
11. Hightower, L. S., Ellis, J. D. 2007. Bee Love. Gainesville, FL: UF STEP, UF Genetics Department. <http://www.youtube.com/watch?v=DW9tmsw--3s&feature=related>
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13. Newsletter Articles (34)

1. Ellis, J.D., Nalen, C. 2010. What's all the buzz about? *The Neighborhood Gardener*, April, http://gardeningsolutions.ifas.ufl.edu/mastergardener/newsletter/2010/more/spring_swarms.shtml
2. Ellis, J.D. 2010. Fall Management Calendar. *Melitto Files: Bee News for Bee Lovers*. 4(4): 4-5.
3. Ellis, J.D. 2010. Conducting bee research: Part 2. *Melitto Files: Bee News for Bee Lovers*. 4(4): 7.
4. Ellis, J.D. 2010. Summer Management Calendar. *Melitto Files: Bee News for Bee Lovers*. 4(3): 4-5.
5. Ellis, J.D. 2010. Conducting bee research: Part 1. *Melitto Files: Bee News for Bee Lovers*. 4(3): 7.
6. Ellis, J.D. 2010. Spring Management Calendar. *Melitto Files: Bee News for Bee Lovers*. 4(2): 4-5.
7. Ellis, J.D. 2010. Video Field Guide to Beekeeping. *Melitto Files: Bee News for Bee Lovers*. 4(2): 7.
8. Ellis, J.D. 2010. Winter Management Calendar. *Melitto Files: Bee News for Bee Lovers*. 4(1): 4-5.
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11. Ellis, J.D. 2009. News from the UF Honey Bee Research and Extension Laboratory. Melitto Files: Bee News for Bee Lovers. 3(4): 7.
12. Ellis, J.D., Hayes, J. 2009. Mosquito control and beekeepers. Melitto Files: Bee News for Bee Lovers. 3(3): 1, 7-8.
13. Ellis, J.D. 2009. Summer Management Calendar. Melitto Files: Bee News for Bee Lovers. 3(3): 4-5.
14. Ellis, J.D. 2009. Spring Management Calendar. Melitto Files: Bee News for Bee Lovers. 3(2): 4-5.
15. Ellis, J.D. 2009. Summary of the 2009 UF Bee College. Melitto Files: Bee News for Bee Lovers. 3(2): 7.
16. Ellis, J.D. 2009. Winter Management Calendar. Melitto Files: Bee News for Bee Lovers. 3(1): 4-5.
17. Ellis, J.D. 2009. The 2009 UF Bee College is here. Melitto Files: Bee News for Bee Lovers. 3(1): 7.
18. Ellis, J.D. 2008. Fall Management Calendar. Melitto Files: Bee News for Bee Lovers. 2(4): 4-5.
19. Ellis, J.D. 2008. Update on research projects at the UF Honey Bee Research and Extension Laboratory. Melitto Files: Bee News for Bee Lovers. 2(4): 7.
20. Ellis, J.D. 2008. Summer Management Calendar. Melitto Files: Bee News for Bee Lovers. 2(3): 4-5.
21. Ellis, J.D. 2008. Resources for Florida Beekeepers. Melitto Files: Bee News for Bee Lovers. 2(3): 7.
22. Ellis, J.D. 2008. Spring Management Calendar. Melitto Files: Bee News for Bee Lovers. 2(2): 4-5.
23. Ellis, J.D. 2008. State of the Florida Beekeeping Industry. Melitto Files: Bee News for Bee Lovers. 2(2): 7.
24. Ellis, J.D. 2008. Winter Management Calendar. Melitto Files: Bee News for Bee Lovers. 2(1): 4-5.
25. Ellis, J.D. 2008. The UF Bee College. Melitto Files: Bee News for Bee Lovers. 2(1): 7.
26. Ellis, J.D. 2007. Fall Management Calendar. Melitto Files: Bee News for Bee Lovers. 1(3): 4-5.
27. Ellis, J.D. 2007. The UF Master Beekeeper Program. Melitto Files: Bee News for Bee Lovers. 1(3): 7.
28. Ellis, J.D. 2007. Summer Management Calendar. Melitto Files: Bee News for Bee Lovers. 1(2): 4-5.
29. Ellis, J.D. 2007. Honey Bee Research and Extension Laboratory Update. Melitto Files: Bee News for Bee Lovers. 1(2): 7.
30. Ellis, J.D. 2007. Spring Management Calendar. Melitto Files: Bee News for Bee Lovers. 1(1): 4-5.
31. Ellis, J.D. 2007. The case of the disappearing bees. Melitto Files: Bee News for Bee Lovers. 1(1): 1.
32. Ellis, J.D. 2007. Introduction to the Melitto Files. Melitto Files: Bee News for Bee Lovers. 1(1): 7.

33. O'Malley, M. K., Ellis, J. D. 2007. "Bee"ing prepared for summer. The Clover Voice. Volume 2(6): 1 & 3. http://florida4h.org/news/files/Clover_Voice_2007_06.pdf
34. O'Malley, M. K., Ellis, J. D. 2007. Bee-ing prepared for summer. Safety News and Notes. 8(5). <http://www.flagsafe.ufl.edu/snn/snn-07-07.html>.

14. Book Reviews (1)

1. Ellis, J.D. 2010. Review of G. Waldbauer, Fireflies, Honey, and Silk. Florida Entomologist 93(2): 138.

B. EXTENSION PRESENTATIONS (310 total presentations)

*location and number of lectures/workshops in parentheses; state (or equivalent if in another country), regional, national, and international level presentations are in bold font

2010 (36 Total): Jacksonville Beekeepers Association (FL, 2), Cherokee County Beekeepers Association (GA, 1), Metro Atlanta Beekeepers Association (GA, 4), **FL 4-H Training Day** (FL, 2), **Alberta Beekeepers Association** (Edmonton, Canada, 3), **New Jersey Beekeepers Association** (NJ, 2), **Florida Master Beekeeper Program** (FL, 3), **University of Florida Bee College** (FL, 1), **British Beekeepers Association** (Stoneleigh, England, 3), Hampshire Beekeepers Association (England, 2), Devon Beekeepers Association (England, 1), Sommerset Beekeepers Association (England, 1), Yorkshire Beekeepers Association (England, 2), Northeast Florida Beekeepers Association (FL, 1), **Florida Agricultural Response Training** (FL, 1), **Brazilian Bee Conference** (Ribeiro Preto, Brazil, 2), Alachua County Beekeepers Association (FL, 1), Orange Blossom Beekeepers Association (FL, 1), **Florida State Beekeepers Association** (FL, 2), Western North Carolina Beekeepers Research School (NC, 1)

2009 (56 Total): West Palm beach Beekeepers Association (FL, 1), UF Ento/Nema Graduate Student Outreach training (FL, 1), Cherokee County Beekeepers Association (GA, 1), Metro Atlanta Beekeepers Association (GA, 3), **Apiary Inspectors of America** (FL, 1), **COLOSS Team** (Zagreb, Croatia, 1), Gulf County Extension (FL, 2), Walton County Master Gardeners (FL, 1), **University of Florida Bee College** (FL, 6), **University of Florida Master Beekeeper Program** (FL, 5), **Florida Strategic Agricultural Response Team** (FL, 1), Bell Middle School Career Day (FL, 6), Collier County Audubon Society (FL, 1), Orange Blossom Beekeepers Association (FL, 1), Putnam County Beekeepers Association (FL, 1), **South Carolina Beekeepers Association** (SC, 4), Escambia County Extension AFBEE Training (FL, 3), **Association of Structural Pesticide Control Officials** (CO, 1), **COLOSS Action** (Montpellier, France, 1), **Apimonia** (Montpellier, France, 1), **Georgia Beekeepers Association** (GA, 3), Live Oak Rotary Club (FL, 1), Panhandle Beekeeping Short Course (FL, 4), Alachua County Beekeepers Association (FL, 1), **North American Pollinator Protection Campaign** (Washington D.C., 1), Collier County Extension AFBEE Training (FL, 3), **Florida State Beekeepers Association** (FL, 1)

2008 (33 Total): Metro Atlanta Beekeepers Association Annual Short Course (GA, 3), Dadant and Sons, Inc. Field Day (FL, 1), **Honey Bee Technical Council** (FL, 2), **Auburn Beekeeping Short Course** (AL, 2), Walton County Master Gardener Training (FL, 2), Escambia Beekeepers Short Course (FL, 1), **Association of American Pesticide Control Officials** (MD, 1), Apalachee Beekeepers Association (FL, 1), Marion County Extension Honey Bee Short Course (FL, 7), **Roe Valley Beekeepers Association** (N. Ireland, UK, 1), Whitney Public Lecture (FL, 1), **Tennessee Beekeepers Association** (TN, 2), Duval County Green Team Agents (FL, 1), **Florida State Beekeepers Association** (FL, 2), Tampa Bay Beekeepers Association (FL, 1), UF/IFAS CALS Tailgator (FL, 1), **Florida Tree and Landscape Short Course** (FL, 1), **UF Bee College** (FL, 1), Jacksonville Chapter of the Florida Pest Management Association (FL, 1), UF Extension Symposium (FL, 1)

2007 (80 Total): **American Beekeeping Federation** (TX, 3), Metro Atlanta Beekeepers Association Annual Short Course (GA, 3), Florida Master Gardeners Training (FL, 1), **Mid-Ulster Beekeepers Association** (Northern Ireland, UK, 1), **Northern Ireland Bee Club** (Northern Ireland, UK, 2), **Mid-Attrim/Randalstown Beekeepers Associations** (Northern Ireland, UK, 1), **Sommerset Beekeepers Association** (England, 1), **Yeovil Beekeepers Association** (England, 1), **Tri County Beekeepers Association** (OH, 2), Green Cove Springs Honey Bee Short Course (FL, 4), North East Florida Beekeepers Association (FL, 1), Prison Beekeepers (FL, 1), Dadant and Sons, Inc. Field Day (FL, 1), West Palm Beach Beekeepers Association (FL, 1), Michiana Beekeepers Association (IN, 4), **Florida Pesticide Review Council** (FL, 1), **Honey Bee Technical Council** (FL, 2), **Florida State Beekeepers Association** (FL, 1), Alachua County Agriculture Tour (FL, 1), **Minnesota Honey Producers Association** (MN, 2), Homestead Beekeeping Short Course (FL, 5), North East Florida Beekeepers Association (FL, 1), Escarasosa Beekeeping Short Course (FL, 3), **Arkansas State Beekeepers Association** (AR, 4), **Florida State Beekeepers Association** (FL, 7), Tampa Bay Beekeepers Association (FL, 1), **California State Beekeepers Association** (CA, 2), **Illinois State Beekeepers Association** (IL, 2), **Georgia Farm Bureau Association** (GA, 1), Florida Pest Management Association Tallahassee Chapter (FL, 1), Capeloutos Pest Control (FL, 3), **Florida School IPM** (FL, 1), Jacksonville Chapter of the Florida Pest Management Association (FL, 1), **Florida Public Educators Conference** (FL, 1), **Florida Environmental Health Association** (FL, 1), **Southern Plant Diagnostic Network** (FL, 1), Santa Rose County Extension (FL, 2), Walton County Extension (FL, 1), Jackson County Extension (FL, 2), Leon County Extension (FL, 2), Jefferson County Extension (FL, 2), **Florida School Plant Management Association** (FL, 1), **UF Extension Symposium** (FL, 1)

2006 (46 Total): Northeast Florida Beekeepers Association (FL, 3), Tampa Bay Beekeepers Association (FL, 1), **Florida State Beekeepers Association Short Course** (FL, 3), **Florida State Beekeepers Association** (FL, 1), **Mississippi State Beekeepers Association** (MS, 2), **California State Beekeepers Association** (CA, 1), **Iowa State Honey Producers** (IA, 3), FDACS-DPI Apiary Inspectors Training (FL, 1), Alachua County Master Gardener Training (FL, 1), Santa Fe Community College (FL, 1) Alachua County Master Naturalist Program (FL, 1), **Heartland Apicultural Society** (IN, 5),

Eastern Apicultural Society (GA, 2), **California Queen Breeders Association** (CA, 1), **Georgia Beekeepers Association** (GA, 2), **Virginia Beekeepers Association** (VA, 2), **Kentucky State Beekeepers Association** (KY, 3), Appalachian Technical College Beekeeping Short Course (GA, 1), Coweta County Beekeepers Association Short Course (GA, 2), Eastern Piedmont Beekeepers Association (GA, 1), Mountain Beekeepers Association (GA, 1), Tara Beekeepers Association (GA, 1), Cherokee County Beekeepers Association Short Course (GA, 1), Metro Atlanta Beekeepers Association Short Course (GA, 2), North Georgia Beekeepers Association (GA, 1), Piedmont Beekeepers Association (SC, 1), Foothill Georgia Beekeepers Association (GA, 1), Forsyth County Beekeepers Association (GA, 1)

2005 (14 Total): **Georgia Beekeepers Association** (GA, 4), **Indiana State Beekeepers Association** (IN, 2), Appalachian Technical College Beekeeping Shortcourse (GA, 1), Foothill Georgia Beekeepers Association (GA, 1), Northwest Georgia Beekeepers Association (GA, 1), Lakeland Beekeepers Association (SC, 1), Metro Atlanta Beekeepers Association (GA, 1), Tara Beekeepers Association (GA, 1), Cherokee Beekeepers Association (GA, 1), East Georgia Beekeepers Association (GA, 1)

2004 (15 Total): **American Association of Honey Producers** (TX, 1), **Georgia Beekeepers Association** (GA, 2), **South Carolina Beekeepers Association** (SC, 2), **Alabama Beekeepers Association** (AL, 4), North Georgia Beekeepers Association (GA, 1), Eastern Piedmont Beekeepers Association (GA, 1), Metro Atlanta Beekeepers Association (GA, 1), Foothill Georgia Beekeepers Association (GA, 1), Lakeland Beekeepers Association (SC, 1), East Georgia Beekeepers Association (GA, 1)

2003 (4 Total): **South Africa Sci-Fest** (Grahamstown, South Africa, 1), **Queensland Beekeepers Association** (Chinchilla, Australia, 3)

2002 (7 Total): **Georgia Beekeepers Association** (GA, 1), East Georgia Beekeepers Association (GA, 1), North Georgia Beekeepers Association (GA, 1), Coastal Empire Beekeepers Association (GA, 1), Tara Beekeepers Association (GA, 1), Metro Atlanta Beekeepers Association (GA, 1), Cherokee Beekeepers Association (GA, 1)

2001 (3 Total): Tara Beekeepers Association (GA, 1), North Georgia Beekeepers Association (GA, 1), Cherokee County Beekeepers Association (GA, 1)

2000 (5 Total): **Georgia Beekeepers Association** (GA, 2), Warren County Kiwanis Club (GA, 1), Warren County Soil and Water Conservation District (GA, 1), Honey Bee Short Course (GA, 1)

1999 (3 Total): **Georgia Beekeepers Association** (GA, 2), Eastern Piedmont Beekeepers Association (GA, 1)

1998 (2 Total): **Georgia Beekeepers Association** (GA, 2)

1997 (4 Total): Georgia Beekeepers Association (GA, 2), Eastern Piedmont Beekeepers Association (GA, 1), Metro-Atlanta Beekeepers Association (GA, 1)

1996 (2 Total): Warren County Kiwanis Club (GA, 1), Warrenton Garden Club (GA, 1)

C. CURRENT EXTENSION PROGRAMS

I have a 70% extension appointment at the University of Florida. Consistent with my job description, I have 2 major areas of extension responsibilities. First, I am the state specialist for honey bees and second, I am the Department of Entomology and Nematology Outreach Coordinator. I have created 3 extension programs to satisfy my responsibilities in these two major extension areas. With % time spent on each in parentheses, totaling a 70% appointment, they are:

- 1) Partnering with Beekeepers to Improve the Sustainability of Beekeeping (40%)
- 2) The University of Florida AFBEE Program (African Bee Extension and Education Program, 20%)
- 3) Insects and Youth: the Department of Entomology and Nematology Outreach Program (10%)

I discuss each program in detail below. However, I present here summary statistics for all programs collectively.

Contacts made with extension clientele while at the University of Florida – data are August 2006 through December 2009 only.

How Contacted	# Contacted*	# People Who Benefited**
Email	>6,000	>165,000
Phone	>1,000	>62,000
personal contact	>2,000	>20,000
TOTAL	>9,000	>247,000

*From my initial employment at the University of Florida in 2006 through December 2009, I recorded the number of contacts I made through my extension programs. **The results above do not include 2010.**

**At each contact, I estimate the number of people who will be affected by the information I provide. For example, if a homeowner contacts me concerning a problem bee colony they have on their property and they have a family of 5, then I made 1 contact and 5 people benefitted.

Website statistics – These are cumulative statistics for the 3 extension websites I maintain.

Total Web Pages Viewed	# Downloads From Websites*	Distinct Sessions**
>600,000	>60,000	>200,000

*This statistic represents the number of documents, presentations, etc., that clientele have downloaded from my websites.

**A distinct session is an individual visitor to a website, regardless of the number of web pages they viewed during their session. I was unable to collect information on distinct sessions for one of my websites so the number I report here is low. I estimate over 200,000 distinct sessions based on web trends.

Presentations delivered to extension audiences

# Presentations	# People in Attendance
310	>15,000

Document, video, and presentation views/downloads

Document Type	# Times Viewed/Downloaded
EDIS documents*	>20,000
Featured Creature and Pest Alert Documents	> 15,000
Youtube educational videos	> 30,000
Educational presentations	310
Newspaper/TV/Magazine/Radio Interviews**	> 20 million

*EDIS = Electronic Data Information Source – UF/IFAS peer reviewed extension publications.

**As part of newspaper/TV/Magazine/Radio interviews I have given, I have appeared on *Good Morning America*, in the *New York Times*, *CNN*, *National Public Radio* and other national news outlets. I have given 75+ newspaper/magazine interviews on many honey bee topics ranging from African honey bees to colony collapse disorder. Millions of people have been reached through my newspaper/magazine interviews. Sample articles which report my interviews are available upon request.

Teaching evaluations by extension audiences, on a scale of 5 (excellent) to 1 (poor). On average, my lectures/workshops average a 4.8 rating. Mean scores include >1000 evaluations each for lectures and workshops given over a 14 year period. Specific scores and a list of lectures/workshops given are available upon request.

1. Extension Program 1: Partnering With Beekeepers to Improve the Sustainability of Beekeeping

a. Situation - Honey bees contribute over 14 billion USD to the U.S. agriculture industry. Furthermore, honey bees pollinate the nation’s crops, being directly responsible for as much as 1/3 of the world’s food production through their pollination efforts. There are over 1800 registered beekeepers in the state of Florida and they manage ~270,000 honey bee colonies, roughly 10% of the nation’s total number of colonies. Florida honey bee colonies are shipped all over the U.S. to provide pollination services for the nation’s

crops. In Florida alone, the blueberry, strawberry, melon and other fruit/vegetable industries rely heavily on the pollination services provided by honey bee colonies managed in the state. Florida and U.S. agriculture is built on the back of these tiny pollinators, pollinators that face a number of serious problems and whose populations are declining steadily.

Globally and locally, the beekeeping industry is threatened by honey bee pests and pathogens, dismal profit margins, outdated management techniques, widespread chemical dependency, and poor genetic variability in managed colonies. To make matters worse, some beekeepers in the U.S. reported losing 30-90% of their colonies in fall 2006 and the symptoms associated with the dead colonies did not match those produced by known bee pests/pathogens. Although annual losses above 30% are not uncommon for beekeepers in the U.S., the number of beekeepers reporting elevated losses appeared alarming as did the unique symptoms associated with the colony losses. Consequently, the apiculture community in the U.S. called the new phenomenon of elevated colony losses “Colony Collapse Disorder” or CCD and *it was first reported in Florida*. Bee health has never been in such a state of peril.

North America in general and Florida specifically are especially hard-hit as the number of managed honey bee colonies dwindles yearly while bee-dependent crop acreage increases steadily. To illustrate this point, experts suggest that at the current rate, there will not be enough honey bee colonies in North America to pollinate the California almond crop by 2012. Beekeeper response to this dilemma has been alarming: many have abandoned beekeeping altogether, much to the detriment of a national agriculture industry reliant on pollinating honey bees. More than ever, beekeepers (the target audience of this program) need relevant research and effective educational programs so that beekeeping can become sustainable. Without question, Florida and U.S. agriculture depends on the health of honey bees.

b. Objectives - Through this extension program, I seek to help beekeepers improve the sustainability of beekeeping by:

- 1) conducting basic and applied research that address major issues affecting the sustainability of beekeeping,
- 2) recruiting and training new beekeepers, and
- 3) providing cutting-edge training for and improving the retention rate of “seasoned” beekeepers.

I address these objectives by investigating ways of effectively managing bee pests/pathogens, offering workshops and other training symposia for beekeepers, developing slides/videos/other publications for beekeeper use, and serving as a conduit of information for beekeepers of all expertise.

c. Educational Methods

i. Applied Research Addressing the Sustainability of Beekeeping

I believe that research is important to any extension or instruction effort.

Furthermore, I believe that research ultimately should benefit an end user. Despite the many avenues of applied research that can be undertaken with honey bees, one cannot divorce himself from basic questions surrounding the bee. With that said, members of my lab and I address both basic and applied research topics associated with honey bees in an attempt to address clientele concerns and work toward long-term solutions for sustainable bee management.

ii. UF Master Beekeeper Program

The UF Master Beekeeping program is a program whereby beekeepers are taught (via lectures and workshops), tested, and certified according to various levels of achievement. In this program a beekeeper begins at the Apprentice level where he/she is expected to know the basic biology of a honey bee colony and the equipment beekeepers use to manage a colony. The next level is the Advanced level where the beekeeper is educated in honey bee morphology, caste, life history, honey production, disease control, etc. The Advanced Beekeeper also is expected to accumulate social service credits (where he/she may write an article for a national honey bee journal, participate in university research projects, teach a school class about honey bees, etc.) before they can become a Master Beekeeper (the third level). Once a participant becomes a Master Beekeeper, he/she is expected to know advanced honey bee biology, life history, etc. The fourth and highest level (the Master Craftsman level) is attainable to those Master Beekeepers who pass a written exam and accumulate more social service credits. Details can be found at: <http://entnemdept.ifas.ufl.edu/honeybee/>.

iii. Welsh Honey Judge Program

In 2008, I partnered with Robert Brewer (Extension Agent in Towns County, GA) and Michael Young (Senior Welsh Honey Judge, Northern Ireland) to create the Florida Welsh Honey Judge Program. Welsh Honey Judge training is the most stringent training for would-be honey judges in the world. Training to be a Welsh Honey Judge requires participants to: (a) attend a training session with a Welsh Honey Judge, (b) help a senior Welsh Honey Judge steward (or judge) a honey show, (c) judge a honey show on their own, and (d) complete an oral exam administered by a senior Welsh Honey Judge. Through this program, beekeepers are taught how to add value to their hive products and judge the quality of such products.

iv. UF Bee College

The University of Florida Bee College opened its doors in March 2008 with 200 beekeepers attending. It is Florida's (and perhaps the southeast's) premier regional beekeeping education program at which lectures and workshops are conducted by some of the top honey bee researchers in the U.S. This program is useful for beekeepers (regardless of expertise), pest control operators, master gardeners, county agents, etc. The UF Bee College is designed to help beginner and experienced beekeepers. It is designed in such a way to teach people with limited/no bee knowledge how to keep bees. Beginner classes include: bee biology, yearly colony management, bee pests/diseases, rules for

keeping bees in Florida, clipping/marking queens, honey extraction, etc. For the more experienced, we include classes on the latest information on colony collapse disorder, fundamentals of pollination ecology, how to diagnosis bee diseases in one's own colonies (using microscopes), bee nutrition, etc. Also included in the Bee College is the annual UF Bee College Honey Show as well as training for Welsh Honey Judging Certification (the most comprehensive program in the world). Details about the UF Bee College can be found at: UFhoneybee.com.

v. *Melitto Files*

I supervise, edit, and fund the *Melitto Files: bee news for bee lovers*, a beekeeping newsletter for Florida Beekeepers. The *Melitto Files* is a joint publication between UF Extension and the Florida Department of Agriculture and Consumer Services (FDACS). It is published quarterly and includes articles on current topics in beekeeping. To date, Volume 1 (2007) issues 1-3, Volume 2 (2008) issues 1-4, Volume 3 (2009) issues 1-4, and Volume 4 (2010) issues 1-4 have been published. The newsletter is sent to all Florida beekeepers registered with FDACS and most U.S. bee scientists and apiary inspectors.

vi. Source of Information for Florida, U.S., and Global Beekeepers (presentations, publications, websites, videos, etc.)

I serve as a source of information for state, national, and international beekeepers. Not only do I answer phone calls/emails regularly from my clientele as well as make site visits, I also produce educational documents, websites, training videos, presentations, etc. to facilitate knowledge transfer.

2. Extension Program 2: The University of Florida AFBEE Program (African Bee Extension and Education Program)

a. Situation - With the warm and humid climate found throughout much of Florida, a wide range of insects can and have become pests to residents. These include African honey bees (AHBs). African honeybees were introduced into Brazil in 1957 in an attempt to produce a honey bee that would be better-suited to the tropical climate found in Brazil. It was expected that through selective mating efforts, the African bees would lose their more defensive behavior and provide a boost to the ailing Brazilian honey market. However, this was not the case and in 1957 African bees were accidentally released from research apiaries. Following this, the bee became established in Brazil, expanding its range through South and Central America and into North America. In 1990 they were found in Texas followed closely by other southwestern states. In 2001, they were found in Florida. Since their introduction into Florida, over 80% of sampled wild bee colonies in southern Florida have been shown to be Africanized.

African bees, also known as “killer” bees, defend their colonies viciously, attacking anything that provokes the nest. They are the same species, although a different subspecies, as the honey bees that Florida and U.S. beekeepers manage. This has led to misidentification of the bee, with managed bees bearing much of the negative publicity. Consequently, the presence of African bees in Florida is a threat to the Florida

beekeeping industry.

The general public typically does not recognize the threat of African bees to the beekeeping industry but rather to public safety. This is a warranted fear since African bees have attacked and killed horses, dogs, cats, sheep goats, chickens, etc. in Florida. They also have attacked numerous Florida citizens, with 1 human fatality recorded. As such, it is imperative that Florida citizens be made aware of the danger of African honey bees, while fostering a respect for managed European honey bees.

b. Objectives - Through this extension program, I seek to:

- 1) educate Florida citizens about the spread and threat of African bees,
- 2) provide Africanized honey bee-related material and training to Florida clientele groups,
- 3) train Pest Control Operators how to eradicate and safely remove nesting honey bee colonies, and
- 4) help protect the lives of Florida citizens.

c. Educational Methods

My primary attempt to address the presence of African honey bees in Florida has been my creation of the AFBEE (AfriBee Extension and Education) Program. Recognizing the need for an effective, targeted educational program, I collaborated with Jerry Hayes (Florida Department of Agriculture and Consumer Services) and Dr. William Kern (UF/IFAS) to create the AFBEE program. Together, we identified fourteen Florida clientele groups as target audiences needing to hear an AHB message catered specifically to their needs. These groups include: 1) pest control operators, 2) tourists, 3) first responders (emergency medical technicians, firefighters, etc.), 4) schools (children, teachers, and administrators), 5) county agents, 6) veterinarians, 7) medical personnel (doctors, nurses), 8) individuals participating in outdoor recreational activities (including boaters, hunters, fishers, etc.), 9) outdoor workers (right-of-way, construction, etc.), 10) rangers and people visiting parks and campgrounds, 11) individuals from the marketing bureau, 12) 4-H (youth and leaders), 13) beekeepers, and 14) those speaking minority languages. Members of AFBEE are creating a standard set of training curricula catered uniquely to each group's specific needs. These curricula include (1) PowerPoint presentations highlighting AHB information specific to a given group, (2) computer-based training modules teaching what one must do to protect themselves and others from AHB attacks, and (3) reproducible training/education materials (fliers, pamphlets, EDIS documents, magnets, etc.) that can be given to each group. The clearing house for all AFBEE program related material is our website: <http://afbee.ifas.ufl.edu/>.

i. Development of the AFBEE Website

In general, the AFBEE program is about creating educational materials and using those materials to reach the 14 target clientele groups. My colleagues and I decided that we needed to create a website that would serve as the clearing house for all information generated through this program. In response, we created <http://afbee.ifas.ufl.edu/> and

purchased the domain name “AFBEE.com” to assist consumer memory of the site address. On this site, my colleagues and I have loaded information on what to do if you find honey bees nesting on your property, a list of Pest Control Operators who are trained to deal specifically with stinging insects (courtesy of the Florida Department of Agriculture and Consumer Services), training videos, presentations, EDIS documents, etc., all created specifically for the 14 clientele groups.

ii. Training Pest Control Operators (PCOs) how to Safely Eradicate and Remove Wild Honey Bee Colonies

Early in the development of the AFBEE program, my colleagues and I decided that PCOs and First/Emergency Responders were the first clientele groups who needed to be trained how to safely and effectively deal with African honey bees (and other stinging insects). Consequently, we have a formal PCO training program. PCOs who complete the training that we offer through the AFBEE program are added to a master list of PCOs trained to deal with stinging insects. The list is maintained by the Florida Department of Agriculture and Consumer Services. When Florida citizens call county offices, state offices, etc., to report a nesting honey bee colony, those receiving the calls now have a resource they can use to address the situation appropriately. The State of Florida has a policy with which they recommend any nesting bee colony found in close proximity to humans be eradicated. Because of this, PCOs provide the quickest, safest way to accomplish colony eradication and removal. They are the state’s second line of defense against African bee attacks (beekeepers are the first line). Through this educational method, colleagues and I try to prepare Florida PCOs for this responsibility.

iii. First Responder Training

Similar to Florida’s need to have trained PCOs is its need to have trained first/emergency responders. No educational effort can reach all of the intended clientele. As such, it is not possible to tell every Florida citizen about the spread and threat of African bees. Therefore, it is crucial that first/emergency responders know how to handle a stinging incident appropriately. This is true not only if a person is stung by hundreds or thousands of bees (toxic exposure) but also if the person is allergic to bee stings (allergic response). To that end, training first responders is a priority of our program.

iv. Educate the General Public how to Respond to Bee Attacks

Through the AFBEE program, we train the general public about African bees, how to respond to an attack, how to prevent an attack, what to do if they find a nesting colony of bees, how to bee proof their property, etc.

v. Beekeeper Education

Beekeepers are the first line of defense against African bees. They manage docile races of bees that, through bee mating behavior, can minimize the spread and impact of African bees. Despite this, honey bees kept by beekeepers can be blamed for the stinging

events, often resulting in city zoning ordinances banning beekeeping. Furthermore, colleagues from the Florida Department of Agriculture and Consumer Services have drafted a series of Best Management Practices for managing European honey bee colonies in Florida. Collectively, beekeeper training plays an important role in the success of the AFBEE program.

vi. Source of African Honey Bee Information for Florida Citizens

Because of the AFBEE program, I am contacted regularly by county faculty, the general public, Pest Control Operators, etc., regarding African bee-related issues. Not only do I answer phone calls/emails regularly from my clientele as well as make site visits, I also produce educational documents, websites, training videos, presentations, etc., to facilitate knowledge transfer.

3. Extension Program 3: Insects and Youth: the Department of Entomology and Nematology Outreach Program

a. Situation - The need to promote interest and achievement in science is critical for Florida students. Science recently has been added to the list of subjects being tested annually by the Florida Department of Education's Florida Comprehensive Achievement Test (FCAT), and it is newly mandated that science be taught in grades K-8. Inquiry-based science learning opportunities for adolescents are needed to facilitate environmental engagement as well as complement and address Florida (Florida Department of Education) and national (National Research Council) science education standards. Insects are particularly popular with youth, and therefore can act as a catalyst to help promote adolescents' interest, knowledge, and understanding of science, mathematics, technology, and the methods of science by providing hands-on, collaborative learning and research experiences.

Insects are among the most abundant organisms on the planet yet few people see more in insects than the “tiny ants, disgusting cockroaches, and stinging wasps” so often encountered around the home. As Florida's population grows and becomes increasingly urban, citizens (especially youth) are in danger of neglecting the fascinating world of insects altogether. This is surprising considering the importance of insects to life in general and the fact that insects can be used to introduce youth, particularly 4-Hers, to a suite of environmental, agricultural, social, and scientific topics in a holistic and interdisciplinary manner. The Entomology and Nematology Department at the University of Florida leads the charge in introducing Florida youth to our state's insect inhabitants. Through this extension program, we serve as the state's primary generator of various entomologically based outreach materials and programs. The materials and programs can be used by a variety of Florida educators to introduce Florida youth to various insects and insect topics.

b. Objectives - The central purpose of this program is to:

1) educate Florida youth about the behavior, biology, diversity, and importance of insects and

2) provide youth educators with insect-related teaching curricula.

Ultimately, the goal of this program is to increase youth participation/interest in general entomology, connection to nature, environmental stewardship, and agricultural education.

c. Educational Methods

Within the auspices of this program, our department engages in outreach activities such as state fair displays, creation of entomologically based educational curricula, school demonstrations, etc. Our primary target audience is youth. However, we also target school teachers, county faculty and youth volunteers.

i. Department of Entomology and Nematology Outreach Committee

In 2008, I initiated the creation of the Department of Entomology and Nematology Outreach Committee. The committee determines the direction of the outreach program based on clientele need. Furthermore, the committee coordinates the development of youth-based curricula, identifies new educational events in which the outreach program can participate, and leads a publicity/advertisement campaign that serves to promote the activities of the outreach program. Another benefit of the committee is that we provide training to more diverse audiences as well as apply for extramural support for the program.

ii. 4-H Bug Club Website

In 1998, the UF Department of Entomology and Nematology initiated the *Florida 4-H Bug Club* (<http://bugclub.ifas.ufl.edu/>). Upon its creation, the website quickly galvanized Florida 4-Hers and county faculty, culminating in an increased interest in entomology. Initially, Florida youth could visit the website and become a bug club member, allowing them to “meet” (virtually) other junior entomologists across the state, participate in an insect collection contest, and have their insect questions answered by UF experts. Furthermore, interested 4-Hers could browse insect facts, play insect-related games, receive newsletters, participate in insect activities and schedule “bug tours” to UF’s Entomology and Nematology Department. However, the website and its many offerings had become obsolete and unmaintained through the attrition of those managing the site. This has been an unfortunate problem for two reasons: (1) the website and its content are in high demand from county faculty, school teachers, and youth and (2) a wealth of insect-related educational material has been created in recent years and this material needs to get into the hands of the end users!

In 2008, the outreach committee, based on feedback from county faculty, determined that a substantial revision of the website was necessary. With funding from the Florida 4-H foundation, the committee overhauled the website. Through the website, we are now able to (1) offer interactive educational tools for youth, (2) provide curricula for teachers, 4-H leaders, parents, etc., (3) inform youth and youth workers of upcoming entomology events, and (4) promote entomology among Florida youth in general.

iii. Delivery of Entomology-themed Presentations, Workshops, Fair Exhibits, etc.

In addition to creating entomology curricula and vehicles, like the 4-H Bug Club website, through which we can channel information, my colleagues and I also directly deliver entomology-themed presentations, workshops, fair exhibits, etc., to youth and youth workers. The largest education efforts come primarily from the following two avenues:

- 1) Florida State Fair – The Department of Entomology and Nematology creates and maintains a booth at the Florida State Fair. The topic changes yearly but some recent themes have included “Bug Bites”, “Forensic Entomology”, and “Antlion Safari”. We engage UF Entomology and Nematology faculty and graduate students in this event.
- 2) UF Entomology and Nematology Graduate Student Outreach Coordinator – The Department of Entomology and Nematology provides a graduate assistantship for a student outreach coordinator. This graduate student organizes many of the departmental tours, presentations, etc., that we offer to the general public. The student, if unable to fulfill a presentation request himself, solicits and trains other student volunteers who will deliver the extension program.

iv. Production of Youth Entomology Curricula

Through the Department of Entomology and Nematology Outreach Program, members of the committee and I create educational materials, curricula, interactive games, etc., for youth and youth workers. The program has at its disposal first-class entomology curricula including *Project Butterfly Wings* (print and web-based curricula), *The ABCs of Entomology* (print and CD curricula), and national 4-H entomology project guides (print curricula). We also are in the process of creating additional curricula that can be used by youth or youth workers based on needs assessments. For example, to our knowledge home school teachers do not have entomology curricula available to them to fit their specific need. As a result, our committee plans to develop the curricula. We think that by having a committee in charge of the outreach program, we will more effectively be able to identify curricula deficiencies and respond by developing the needed curricula.

IV. INSTRUCTIONAL ACTIVITIES

A. TEACHING EXPERIENCE

Year and Quarter/Semester	Course	Enrollment
¹ Fall 2009	• Graduate survey of Apiculture	1

² Fall 2008-present	• Supervise undergraduate independent studies in Apiculture	1
³ Fall 2007-present	• Supervise undergraduate research projects	3
⁴ Spring 2007 – present	• Graduate research problems in entomology	5
⁵ Fall 2006, - present	• Apiculture lab, guest lecturer for Principles of Entomology, University of Florida	300
⁶ Summer 2003	• Social Insect Behavior	17
⁶ Winter 2002	• 2 nd Year Entomology- Apiculture, Rhodes University, South Africa	10
⁷ Springs 1997, 1999	• Entomology 2500 Laboratory Assistant, Honey bees and beekeeping, The University of Georgia, USA	27

¹University of Florida: Beginning fall semester 2009 and planned for miscellaneous semesters thereafter. Supervised graduate student seminar in Graduate Survey of Apiculture. The purpose of this course is to learn about and discuss current topics in apiculture. During the semester, students write a short review paper on a current topic in apiculture and present a 30 minute presentation on the topic. They review current topics in apiculture by attending weekly meetings with me and spending time with members of the Honey Bee Research and Extension Laboratory.

²University of Florida: Beginning fall semester 2008 and planned for miscellaneous semesters thereafter. Supervised undergraduate student independent studies in apiculture. This course is designed to introduce individual students to honey bees and beekeeping. Students taking this course are taught the biology of honey bees, the history and theory of beekeeping, the importance of pollinators in general, and are introduced to apicultural research. Further, students are given the opportunity through hands on laboratories to construct and populate their own bee colony and manage that colony through the semester. While doing the latter, students learn how to manage honey bee colonies and are introduced to the world of production beekeeping.

³University of Florida: Beginning fall semester 2007 and miscellaneous semesters thereafter. Supervised undergraduate student research projects. In this course, I introduce undergraduate (and occasionally graduate) students to the scientific method and cultivate their critical thinking skills. For 2-3 weeks, students are introduced to a variety of research topics related to honey bees by spending time with graduate students in my laboratory and colleagues at the Florida Department of Agriculture and Consumer Services and the USDA-ARS Center for Medical and Veterinary Entomology. Following this experience, the student identifies a gap in knowledge (researchable topic), does a literature review of the topic, develops testable hypotheses, designs and conducts an

experiment to test the hypotheses, collects and analyzes data, and writes a research manuscript that may be submitted later for publication in a peer-reviewed scientific journal.

⁴University of Florida: Beginning spring semester 2007 and miscellaneous semesters thereafter. Supervised graduate student “Problems in Entomology” course. Taught graduate students research principles, how to conduct independent research, and the art of publishing scientific manuscripts.

⁵University of Florida: Beginning fall semester 2006 and every semester thereafter. Taught ‘Principles of Entomology’ Apiculture lab.

⁶Rhodes University, South Africa:

2002 - Taught honey bee classes to 2nd year entomology students. Class subjects included honey bee biology, honey bee subspecies, management for honey production, honey bee diseases, and pollination. Also conducted on-site labs where students were taken into honey bee apiaries and colonies.

2003 – Taught a course on Insect Behavior for 2nd year Entomology students. The course focused on social insect behavior, with a special emphasis on honey bees, and concluded with a focus on applied apiculture.

⁷The University of Georgia: Laboratory assistant to the undergraduate course Bees and Beekeeping. Helped with weekly lab sessions. Assisted students, set up experiments, and organized colonies and other materials to be used during the lab.

B. TEACHING EVALUATIONS

Teaching evaluations by undergraduate students at Rhodes University. These evaluations were given after teaching the course “Insect Behavior” in 2003. The reported averages are from 17 students taking the course. 5 = excellent (or high or strongly agree); 4 = Very Good (or agree); 3 = Good (or moderate or no opinion); 2 = Poor (or disagree); 1 = Very Poor (or easy or strongly disagree).

Criteria	Mean Score Received
The Lecturer gives audible lectures	4.8
The Lectures gives structured, organized lectures	4.8
The Lecturer is clear and comprehensible in lectures	4.6
The Lecturer is enthusiastic for the subject	5.0
The Lecturer gives lectures at the right pace	4.5
The Lecturer is able to reach student level	4.9
The Lecturer has a good rapport with class	4.7
The Lecturer encourages student participation	4.3
The Lecturer allows for, and answers, questions	4.6
The Lecturer is approachable and friendly	4.9
The Lecturer maintains student interest during lectures	4.8
The Lecturer gives varied, lively lectures	4.8

The Lecturer makes good use of visual aids 4.8
Overall rating of Lecturer by students 4.8

C. GRADUATE STUDENT SUPERVISION

Role	Student	Research Topic	Completion Date
Chair, 2 Ph.D. Committees	Eddie Atkinson	Investigating the integration of small hive beetles (<i>Aethina tumida</i> Murray, Coleoptera: Nitidulidae) into western honey bee (<i>Apis mellifera</i> L., Hymenoptera: Apidae) colonies	May 2011
	Jason Graham	Attracting native bees with nesting habitat and resources	Dec 2012
Chair, 5 Masters Committees	Anthony Vaudo	The effects of land management practices on Cape honey bee (<i>Apis mellifera capensis</i> Esch.) nesting dynamics	Dec 2010
	Jason Graham	The attraction of bumble bee (Hymenoptera: Apidae, <i>Bombus impatiens</i> Cresson) colonies to small hive beetles (Coleoptera: Nitidulidae, <i>Aethina tumida</i> Murray)	Dec 2008
	Tricia Toth	Lethal and sublethal effects of imidacloprid and amitraz on <i>Apis mellifera</i> L. (Hymenoptera: Apidae) larvae and pupae	Dec 2008
	Katie Buckley	Florida native wildflowers as nectar and pollen sources for native pollinators	May 2011
	Pablo Herrera	Comparing crop pollination efficiency of native bees and honey bees in north central Florida	Aug 2011
Member, 2 Masters Committees	Josephine Ratikan	**Masters without thesis**	Aug 2008

Montana Pollination ecology of moths in Florida Aug 2011
Atwater scrub habitat

D. UNDERGRADUATE STUDENT SUPERVISION

Role	Student	Research Topic/Course	Duration
Supervisor, Honors Thesis	Julian Aris	Entomology and Nematology, University of Florida)	Spring 2010 – Spring 2011
Supervisor, Undergraduate Research	Christopher Mooney	Moisture effects on small hive beetle (<i>Aethina tumida</i> Murray, Coleoptera: Nitidulidae) pupation success in clay soils (Entomology and Nematology, University of Florida)	Fall 2009
Supervisor, Independent Study Course in Apiculture	Kayla Brownell	Introduction to Apiculture (Entomology and Nematology, University of Florida)	Fall 2008
Supervisor, Research Internship	Sparky Vilsaint	The effects of wood preservatives on honey bee mortality (Entomology and Nematology, University of Florida)	Summer 2008
Supervisor, Undergraduate Research	Scott Knepper	Disease transmission between honey bee colonies (Entomology and Nematology, University of Florida)	Spring 2008
Supervisor, Undergraduate Research	Megan Magee	Fungal effects on small hive beetle pupation success (Entomology and Nematology, University of Florida)	Fall 2007
Supervisor, Honors Thesis	Cameron Richards	The hygienic removal of sealed bee brood that has been oviposited in by small hive beetles (Rhodes University, Grahamstown, South Africa)	Spring 2004
Supervisor, Honors Thesis	Mark Doolan	The susceptibility of small hive beetles to various soil fungi (Rhodes University, Grahamstown, South Africa)	Spring 2004

E. LETTERS OF RECOMMENDATION WRITTEN (while at UF)

Letters of recommendation written since my employment at UF

Year	Type and Role	Number	Description
2010	Scholarship/Employment	13	Graduate schools, employment
2009	Scholarship/Employment	16	Graduate schools, employment
2008	Scholarship/ Employment	17	Graduate schools, employment
2007	Scholarship/ Employment	2	Graduate schools, employment

F. COURSES DEVELOPED

In 2010, I began to design a course titled *Introduction to Apiculture*. I intend for this course to be used in our department's distance education program. In fall of 2008, I taught 1 student in a special topics course of the same name. I am using my experiences in the special topics course to determine how I want to shape the distance course. Already, I have devised an outline of the course and begun creating the miscellaneous educational tools (presentations, training videos, etc.) that I will use in the course. The development of this course will span 2010/early 2011 as I continue to create needed material for the course.

IV. MISCELLANEOUS SERVICE/WORK/INFORMATION

A. INVITED REFEREE

1. Co-editor of Journal Special Issue

In 2008, a colleague (Dr. Peter Neumann – Swiss National Bee Research Unit) and I were guest co-editors of a special issue for the *Journal of Apicultural Research*. The issue was entitled: "The Small Hive Beetle (*Aethina tumida* Murray, Coleoptera: Nitidulidae): Distribution, Biology and Control of an Invasive Species". In this issue, Dr. Neumann and I co-edited 11 manuscripts that were submitted for publication. I handled the editorship for 7 of the manuscripts. To my knowledge, this was the first ever special issue published by the *Journal of Apicultural Research*.

2. Scientific Journal Articles Reviewed

Journal	Number of Articles Reviewed
African Entomology	1
American Bee Journal	4
Apidologie	14

Bee World	1
Biological Invasions	1
Bulletin of Insectology	1
Entomological Research	1
Environmental Entomology	1
Environmental Management	1
Letters in Applied Microbiology	2
Naturwissenschaften	1
Journal of Apicultural Research	8
Journal of Economic Entomology	5
Journal of Insect Behavior	1
Journal of Pest Science	5

Total number of journal articles reviewed since employment at UF	47
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3. Miscellaneous Reviews

Type of Review	Number of Items Reviewed
USDA - Peer Reviews (manuscript pre-submittal reviews)	7
Promotional Packet Reviewed (professor promotional packet)	1
FDACS-DPI internal reviews (manuscript pre-submittal reviews)	3
Pesticide Label Expansions (Provado (twice), Spinosad, Agri-MEK, Intrepid)	5
BBSRC Grant (UK)	1
Radio program scripts (<i>Gardening in a Minute</i>)	2

B. INTERNATIONAL COLLABORATIONS

* The following is a list of colleagues with whom I have collaborated or am collaborating on published (or soon-to-be) research projects.

1. Dr. Kate Aronstein, USDA-ARS Kika de la Garza Subtropical Agricultural Research Center, Weslaco, TX, USA
2. Dr. Nicole Benda, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
3. Professor Drion Boucias, Department of Entomology and Nematology, University of Florida, Gainesville, FL, USA
4. Dr. Garth Cambray, Makana Meadery, Grahamstown, South Africa
5. Dr. Mark Carrol, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
6. Dr. Andrew Cline, California Department of Food and Agriculture, California, USA
7. Dr. Jaret Daniels, Department of Entomology and Nematology, University of Florida, Gainesville, FL, USA
8. Dr. David de Jong, Genetics Department, University of Sao Paulo, Riberto Preto, Brazil

9. Professor Keith S. Delaplane, Department of Entomology, University of Georgia, Athens, Georgia, USA
10. Professor Frank Drummond, University of Maine, ME, USA
11. Dr. Brian Eitzer, Department of Analytical Chemistry, The Connecticut Agricultural Experimental Station
12. Dr. Amanda Ellis, Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
13. Dr. Patti J. Elzen, USDA-ARS Kika de la Garza Subtropical Research Station, Weslaco, Texas, USA
14. Dr. Jay Evans, USDA-ARS Bee Research Laboratory, Beltsville, MD, USA
15. Dr. Kamran Fakhimzadeh, University of Helsinki, Helsinki, Finland
16. Dr. Ales Gregorc, Agriculture Institute of Slovenia, Ljubljana, Slovenia
17. Professor H. Randall Hepburn, Professor of Entomology, Rhodes University, Grahamstown, South Africa
18. Mr. Jerry Hayes, Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
19. Dr. Martin Hill, Department of Zoology and Entomology, Rhodes University, Grahamstown, South Africa
20. Professor W. Michael Hood, Professor of Entomology, Clemson University, Clemson, South Carolina, USA
21. Dr. Wanye Hunter, USDA-ARS Horticulture Research Lab, Ft. Pierce, FL, USA
22. Professor Rufus Isaacs, Department of Entomology, Michigan State University, East Lansing, MI
23. Anna Flügge, MSc, Freie Universität Berlin, Berlin, Germany
24. Professor Gerald Kastberger, Institute of Zoology, Department of Neurobiology, University of Graz, Graz, Austria
25. Dr. Cletus Kurtzman, USDA-ARS Bacterial Foodborne Pathogens and Mycology Research Unit, Peoria, IL, USA
26. Mr. Barry R.M. Luckman, Chicory South Africa Ltd., Alexandria, South Africa
27. Mr. Eyal Maori, Agriculture, Food Quality, and Environmental Sciences, The Hebrew University of Jerusalem, Rehovot, Israel
28. Dr. Joseph McHugh, Department of Entomology, University of Georgia, Athens, Georgia, USA
29. Professor Nancy Moran, Department of Ecology and Evolutionary Biology, Yale, New Haven, CT, USA
30. Dr. Pamela Munn, International Bee Research Association, Cardiff, UK.
31. Dr. Peter Neumann, Research Scientist, Swiss Bee Research Institute, Bern, Switzerland
32. Mr. Nitzan Paldi, Beeologics, Israel
33. Dr. Akers Pence, Department of Entomology and Nematology, University of Florida, Gainesville, FL, USA
34. Dr. Jeff Pettis, USDA-ARS Bee Research Laboratory, Beltsville, MD, USA
35. Dr. Christian W. W. Pirk, Post-doctoral fellow, University of Pretoria, Pretoria, South Africa
36. Dr. Nancy Ostiguy, Department of Entomology, Pennsylvania State University, University Park, PA, USA

37. Professor Sarah Radloff, Professor of Statistics, Rhodes University, Grahamstown, South Africa
38. Dr. Isabel H. Rong, ARC: Plant Protection Research Institute, Biosystematics Division: Mycology, Queenswood, South Africa
39. Dr. Michael Scharf, Department of Entomology, Purdue University, West Lafayette, IN, USA
40. Professor Ilan Sella, Agriculture, Food Quality, and Environmental Sciences, The Hebrew University of Jerusalem, Rehovot, Israel
41. Professor Steve Sheppard, Department of Entomology, Washington State University, Pullman, WA, USA
42. Alexandra Solbrig, MSc, Freie Universität Berlin, Berlin, Germany
43. Professor Marla Spivak, Department of Entomology, University of Minnesota, Twin Cities, MN, USA
44. Dr. Peter Teal, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
45. Mr. Louis Tedders, Southeastern Insectaries, Perry, Georgia, USA.
46. Mr. Dennis vanEngelsdorp, Department of Entomology, Pennsylvania State University, University Park, PA, USA
47. Dr. Kirk Visscher, Department of Entomology, University of California, Riverside, CA, USA
48. Professor Tom Webster, Department of Entomology, Kentucky State University, Frankfort, KY, USA
49. Dr. Neal Williams, Department of Entomology, University of California, Davis, CA, USA
50. Dr. Gal Yarden, Beeologics, Israel

C. FOREIGN TRAVEL EXPERIENCE

Countries to which I have traveled:

Australia, Bangladesh, Bermuda, Brazil, Canada, Croatia, England, France, Ghana, Haiti, Ireland, Italy, Mexico, Northern Ireland, South Africa, Switzerland

D. MEMBERSHIP AND ACTIVITIES IN THE PROFESSION

1. UF Entomology and Nematology Department

- Member, Entomology and Nematology Outreach Committee, 2008 – present, Chair 2008 - 2010
- Member, Entomology and Nematology “Best of Bugs” Committee, 2009 - present
- Member, Entomology and Nematology Advisory Committee, 2009 – present
- Member, Entomology and Nematology Instruction Faculty Search Committee - 2010

2. UF Institute of Food and Agricultural Sciences

- Member, IFAS 4-H Program Development Committee

- Member, Plant Science Research and Education Unit Advisory Committee, 2009 - present

3. State, National, and International Organizations

Member of the Following Organizations

- International Union for the Study of Social Insects (2006-present)
- Florida Honey Bee Technical Council (2006-present)
- Florida Africanized Honey Bee Advisory Committee (2006-present)
- Florida Farm Bureau Honey Bee Advisory Committee (2007-present)
- Florida Master Beekeeper Program Board (2007-present)
- Florida Entomological Society (2010-present)
- Entomological Society of America (2007-present)
- Georgia Beekeepers Association (2004-2005)
- Georgia Entomological Society (2005-2007)
- Eastern Apicultural Society (2006-2007)
- International Bee Research Association (2008-present): member of the IBRA Council
- European COLOSS (colony loss) COST action (2008-present): member of the Executive committee
- SETAC Pellston Conference Committee (2009 – present)

E. PROFESSIONAL DEVELOPMENT

- 2010 – Audited the Ento/Nema course *Insect Molecular Genetics*
- 2010 – Audited the Ento/Nema course *Insect Toxicology*
- 2009 – IFAS Statistics Experimental Design Short Course
- 2009 - Attended IFAS International Programs workshop
- 2008 – Acquired Florida restricted use pesticide license (core, ag animal, and R&D)
- 2007 and 2008 - Attended grant writing seminar “Write Winning Grants”
- 2007 - Attended UF/IFAS Extension Symposium “Launching a state specialist extension program: don’t get left behind”
- 2007 - Attended UF/IFAS Extension Symposium “Demonstrating the impacts of your extension program”
- 2007 – participated in IFAS State/County experience

F. FOREIGN VOLUNTEER/SERVICE/ACTIVITIES

*noteworthy international contributions:

1. I am one of 4 North American board members on the council of the International Bee Research Association (IBRA). From the IBRA website, the IBRA:
“ is a not for profit organisation. It is funded from the generosity of our members and supporters, and by donations and legacies. The IBRA is run by a small team of dedicated staff and an international board of Trustees. In summary we collect, collate

and disseminate information on all species of bees. We are a publishing house, producing a varied and extensive selection of bee publications:

Journal of Apicultural Research - Award winning and scientifically acclaimed
Bee World - the international link between beekeeping science and practice
Journal of ApiProduct and ApiMedical Science - the latest research on hive products
Books - covering all aspects of bee science, history, and beekeeping
Leaflets and cards - providing information in a practical format.”

2. I am a member of an international CCD (colony collapse disorder) working group. Known as COLOSS (Colony Losses), this group is a member of the European Union COST structure. The group is composed of over 200 bee scientists from over 35 member countries (mostly European countries). I was elected by the membership to be a member of the COLOSS Executive Committee in 2008. As an Executive Committee Member, I am charged with linking the COLOSS research and knowledge network to that of the various U.S. CCD working groups. I travel, expenses paid by the network, yearly to Europe to work directly with other members of the network. Twice, I have been invited to deliver the keynote address to the group. For more information on COLOSS, visit: <http://www.coloss.org/>
3. In 2009, I initiated a partnership with the Department of Zoology and Entomology, Rhodes University, South Africa. In short, I send one graduate student per year to South Africa to conduct field research on African honey bees, Cape honey bees, or other similar topics. I am in negotiations currently with the Chair of Entomology with regard to funding and other logistical matters. I envision this partnership as an opportunity to study honey bees in their native habitat, foster a long term relationship with an international institution, and provide graduate students in my laboratory with the opportunity to gain international experiences. I sent a graduate student to Rhodes in August 2009. While there, he studied the nesting habits of Cape honey bees and their importance to the ecoregion.
4. Since 2007, I have served as a host for visiting international graduate students, post doctoral research fellows, research scientists and professors.
5. April/May 2006 – served as a volunteer apiculture consultant in Haiti under the Farmer-to-Farmer program administered by Partners of the Americas. Conducted site visits and lectures for Haitian beekeepers around Cap Haitien, Haiti. Advised beekeepers on general colony management, and disease control for optimum honey production. I placed a particular emphasis on varroa control.
6. October/November 2004 – served as a volunteer apiculture consultant in Bangladesh under the Farmer-to-Farmer program administered by Winrock International. Conducted site visits and lectures for the Center for Mass Education in Science, Dhaka, Bangladesh. Advised its members on honey bee breeding, general management, and disease control for optimum honey production.

G. JUDGING EVENTS

1. 4-H Judging Opportunities:

- 1998 - 2006: judged Junior and Senior Entomology 4-H DPA projects

2. Honey Show Judging:

- 1999, head judge, Georgia Beekeepers Association State Honey Show

3. High School Competitions:

- 2002, judged Georgia (USA) high school extemporaneous speech competition

- 2005, judged Georgia State Science and Engineering Fair exhibits. Judged Zoology category

V. RECOGNITION, OUTSTANDING ACHEIVEMENTS

PROFESSIONAL AWARDS

1. 2010, Entomologist of the Year, Florida Entomological Society.
2. 2009, Researcher of the Year, Florida State Beekeepers Association.
3. 2007, Roger Hoopingarner Award for Most Outstanding Research Presentation at Annual Meeting, American Beekeeping Federation.
4. 2007, Researcher of the Year, Florida State Beekeepers Association.
5. 2006, Oliver I. Snapp Award for Outstanding Research Presentation, Georgia Entomological Society.
6. 2005, Oliver I. Snapp Award for Outstanding Research Presentation, Georgia Entomological Society.
7. 2003, Selected for "Who's Who in Science and Engineering" by Marquis Who's Who.